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C O N T E N T S

The Internet and Adolescent Safety: Peer Influence and Gender Difference as Potential Risk-Factors of Cyberbullying among Nigerian Secondary School Adolescents

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Abstract

While adolescents in many nations across the world are getting exposed to various forms of cyberbullying and online harms, little attention has been devoted to examining the implications of gender and peer influence in secondary school adolescents' involvement in cyberbullying in Nigeria. Addressing this void in the literature, the present study investigated the internet use pattern and peer victimisation among 992 secondary school adolescents in the fourth to sixth (senior) grades (age ranging from 15 to 17 years; males = 55.9 %). The data were collected using a questionnaire with a very high alpha coefficient of $\alpha = .92$ and analysed using SPSS (v. 22). The findings revealed an alarmingly high incidence level (76 %) and that more male adolescents were involved in cyber victimisation and more female adolescents in cyber predation, a quite surprising phenomenon as far as the Nigerian school context is concerned. The results of the study highlight the importance of gender difference, peer influence and the degree of internet use as potential risk factors of cyberbullying among Nigerian in-school adolescents.

Keywords: adolescent internet behaviour, cyberbullying, Nigeria, gendered cyberbullying, parental, peer influence.

1. Introduction

The speedy diffusion of mobile and smartphones has tremendously paved the way for children and adolescents to gain access to a vast array of inappropriate and hurtful digital content online such as brainstorming acts of violence, hard-core pornography and other extremely obnoxious material (Livingstone et al., 2011; Okorie, Ekeanyanwu, 2014). Despite the skyrocketing incidence of cyber risks in countries across the globe and the rising wave of research interest the phenomenon arouses, there is an observed dearth of research in the incidence of cyberbullying in Nigerian secondary schools. Most of the available literature focused on cybercrimes (internet fraud) and cyber immorality and delinquent behaviours such as the use of pornographic sites and sexting among the youth (older adolescents and young people).

To close the research void, this study was deemed imperative. Hinged on the principles of the Social Cognitive Learning Theory (SCLT) (refer to Section 3), this study primarily sought to provide empirical evidence on the level of cyberbullying incidence and gendered involvement in the phenomenon among Nigerian secondary school adolescents. Specifically, the researchers chose to conduct this study with a sample of older adolescents, i.e., students in senior secondary school (SSS) grades for pragmatic reasons: access and the use of the internet, as well as the higher

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likelihood of involvement in cyberbullying and reporting same, are most observed phenomena among my sample, ensuring a larger sample and high power. The literature has established that the time a child spends online is one of the yardsticks for the measurement of children's internet use level, which research correlates to the likelihood of kids' involvement in cyberbullying. A popularly investigated cyberbullying factor, peer influence (peer approval or disapproval) (Okanlawon et al., 2015) was also examined in this study.

Statistics have shown that the internet penetration rate in Nigeria in 2016 was 40 %, implying that about 70 % of the country's projected 180 million population access the internet, a large percentage of whom are children and adolescents (which is nearly the entire population of the United Kingdom). The country's National Communications Commission (NCC) projects that the country will achieve by 2020 a 76 % broadband penetration. In 2014, Nigeria ranked second among countries with the most enthusiastic internet users (Plumptre, 2016). These statistics have important policy and social wellbeing implications; policy in the sense that the internet is expected to impact tremendously toward the country's socio-economic development, while social wellbeing in the sense that the internet is envisaged to impact the social wellbeing of the country's population of users.

Therefore, to provide a further understanding of cyberbullying and related child's online-risky behaviours among Nigerian school adolescents, this paper aimed to determine (i) the level of cyberbullying incidence; (ii) the gendered involvement (gender difference) of the adolescents in cyberbullying; (iii) the adolescents' average time spent using the internet and (iv) the likelihood of peer influence as a risk-factor of cyberbullying. This paper continues in the next section with a discussion on the methods of the study. Then the main findings are presented and discussed. The concluding notes are discussed at the end.

From the global perspective, the literature demonstrates that parental control could influence adolescents' involvement in cyberbullying especially through education and interaction with them (Festl et al., 2013). However, influence from peers has been found to influence adolescents' involvement the more (Nikken, de Graaf, 2013). According to the findings of a research study conducted by Hinduja and Patchin (Hinduja, Patchin, 2013) adolescents are more likely to report peers involved in cyberbullying behaviour. Hence, the behaviour of a peer can influence adolescent in various ways. Similar findings in a study of German high school teenagers and cyberbullying carried out by Festl and colleagues (Festl et al., 2013) found that the number of cyberbullies in a class (i.e., the school class environment) influences students to perpetrate cyberbullying acts. This demonstrates that close peers can influence teenagers' involvement in cyberbullying.

Further, the literature has identified various types of the peer, which include members of the same social groups (such as classmates, relatives and neighbors), peers linked to other people with whom they have something in common (e.g., they are fans of the same football club) and peers associated to the individual through friendship or professional relationship (Alum, 2016; Festl et al., 2013). Peer behaviour is shown to influence the likelihood of cyberbullying just like adults' behaviour does in children's life (Baldry et al., 2018). A study on peer-group dynamics performed by Vanned Abele and colleagues (Vanned Abele et al., 2013) discovered that adolescents who felt greater peer pressure and a need for fame were more likely to be involved in cyberbullying incidents as bullies, e.g., by creating and posting hurtful videos and images of others. Peer norms and behaviour are shown to influence the adolescents and impact in the relationship between them and their parents. For example, the findings of an exploratory study performed by Sassoon and Mensch (Sassoon, Mensch, 2014) on the association between peer and parental relationships and risky online behaviour among Israeli youth stressed that restrictive parental control can increase the prospect of teenagers' perpetrating risky behaviour online. Most importantly, that effect coupled with peers' approval could lead to the understanding that approval from peers reduces the effect of restrictive parental control (Alum, 2016).

From the Nigerian context, a research study performed by Okoye and colleagues (Okoye et al., 2015) on the effect of cyberbullying among schoolchildren in Nigeria revealed that there is a significant relationship between schoolchildren's self-esteem, self-concept, self-efficacy and cyberbullying. Cyberbullying reduces children's confidence and leads to low self-esteem. This finding supports the 2010 report of the National Crime Prevention Council (NCPC) which describes cyberbullying as a modern method of victimisation that affects the psychological wellbeing of over 40 % of adolescents in the past years. Furthermore, the study shows that cyberbullying has a significant negative impact on the psychological wellbeing of school-going adolescents. However,

the study did not investigate gender differences in adolescents' involvement in cyberbullying nor determine the level of cyberbullying incidence in the nation's secondary schools.

Furthermore, a research study involving a sample of 653 adolescents which was performed by Louie and colleagues (Louie et al., 2015) reported similar findings. The study which aimed to determine the prevalence and correlates of cyberbullying among school-going adolescents in the Nigerian state of Oyo ran a three-month survey during which data on the respondents' information on the history of online harassment was investigated. The average respondents' age was between 11.5 and 16.5 years old, and 51.5 % of them were female. The findings revealed that a vast number (39.8 %) of the respondents had been cyberbullied, while only 23.9 % and 21 % of them had bullied someone and were both cyberbullies and victims respectively. Furthermore, all the respondents had internet-enabled mobile phones, about half of them could access the internet and 40 % of them accessed the internet daily. The most interesting findings of the study are that students who had been the victims of cyberbullying and heavy internet users (those with daily access) were significantly unlikely to become cyberbullies (perpetrators). Both those studies confirmed the incidence of cyberbullying in the country and its increasing devastation in the youngsters. However, the studies did not specifically report the actual level of the incidence nor any gender implications of cyberbullying in the country's secondary schools.

Regarding porn-related cyberbullying, an online analytical survey conducted by a prominent social media strategist and brand consultant, Plumptre showed that Nigerians visit pornographic websites tremendously. The survey indicated that in 2015, Nigeria's Google search for pornographic-related material ranked above 80 % on a scale of 0 to 100 % and that the volume of the country's average monthly searches for porn online via Google was 135,000. The survey further shows that the popularity of pornographic content searches online in the country had risen above Google's rating of 70 % since 2009, and that surprisingly, in December 2014 and 2015, i.e., for two consecutive years, Nigeria exceeded the United States (US) in the popularity of online searches for pornographic materials. Remember, the US is more than twice Nigeria's size and has one of the highest internet penetration rates in the world (Plumptre, 2016).

Additionally, gaming, social media and virtual reality are recently shown to have an influence on the types of pornographic content young people consume in Nigeria - the population of young people in the country constitutes 70 %. Among the country's states with the popularity for pornographic content searches online Enugu, Oyo, Ogun, Rivers, Lagos, Abiah and Cross River ranked the highest from high to low respectively. Lagos state ranked highest in rape pornographic videos online (some parts of the data of the present research were collected in a secondary school in Lagos state). In fact, among the top 50 websites visited by Nigerians, a popular pornographic site ranked more popular than even the most prominent jobs and news websites (Plumptre, 2016).

Theoretical Framework: This study adopted Albert Bandura's (Bandura, 1999) Social Cognitive Learning Theory (SCLT) to explain the implications of the findings of this study. Like home, the school environment and the virtual environment online are learning environments. The literature defines learning as "A persisting change in human performance or performance potential as a result of the learner's interaction with the environment" (Driscoll, 1994: 8-9). On their part, Weinstein and Mayer define learning as "The relatively permanent change in a person's knowledge or behaviour due to experience" (Weinstein, Mayer, 1986: 1040). While, Shell sees learning as "An enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience" (Shell, 1986: 412).

SCLT proffers a "framework" through which human behaviour can be understood, predicted and changed (Green, Pail, 2009). It heavily focuses on "cognitive concepts" – "how children and adults operate cognitively on their social experiences and how these cognitions then influence behavior and development" (Nibali, 2011-2012: 11). The main assumptions of SCLT are rooted in the notions that by watching what other people do, people learn to do things and that the processes of human thoughts are pivotal to understanding personality. According to Green and Pail (Green, Pail, 2009) cited in Nibali, SCLT seeks to explain socialization comprehensively, including the myriads of processes involved when individuals acquire the norm and thoughts of their society and that SCLT consists of four types of learning effects as follows (Nibali, 2011-2012: 13):

1. Observational Learning Effect: Acquiring new behaviour from a model
2. Response Facilitation Effect: According to the literature increased frequency of learned behaviour after a model is reinforced for the same behaviour.

3.   Response Inhibition Effect: Decreased frequency of learned behaviour after observing punished model.

4.   Response disinhibition Effect: Return of inhibited response after observing model behave that adverse consequences.

SCLT further argues that people are affected by their environments in such a way that they are "partial products of their environments" and that people's choices are influenced by their beliefs and capabilities. SCLT proffers an internal principle comprising of three interacting elements (personal factors, behaviour and environment) termed the "triadic reciprocity." A keener observation reveals that these three fundamental elements "work in a reciprocal nature" (Nibali, 2011-2012: 14) as shown in Figure 1.
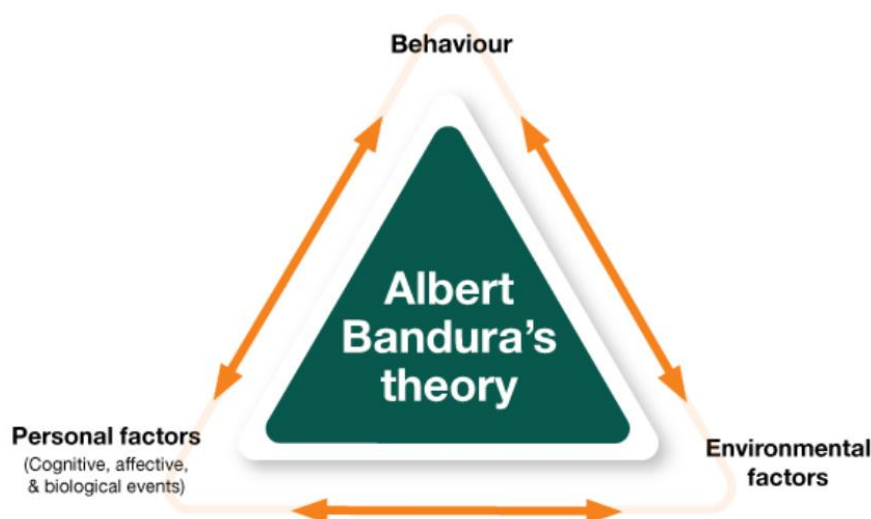
Fig. 1. The single internal principle of SCLT proposed by Bandura (Bandura, 1997)
Source: (Nibali, 2011-2012: 15)

2. Materials and methods

Participants: Participants of this study were 1,087 secondary school (secondary school) adolescents in the 3rd to 6th senior grades selected from the Nigerian states of Kano, Lagos and the Federal Capital Territory (FCT) public unity colleges using stratified random sampling (male: n = 615, 56.6 %; female: n = 472, 43.4 %). Senior grades students were selected as a sample because they were older adolescents among whom internet access and use (factors which Oyewusi, Orolade, 2014) correlated to children's involvement in risky online behaviour) is remarkably prevalent. The findings of a study conducted by Barlett and Coyne (Barlett, Coyne 2014) emphasised that boys perpetrate more cyberbullying during older adolescence supports my decision.

According to the UNESCO Institute for Statistics (UIS), the population of secondary school students in the country is 25,346,640 (UIS, 2018) while, according to the information made available to the research team by the schools' management the actual population of students in the three selected schools is 12,939,131. Because they represent one of the groups of heavy internet users in the country (Freedom House, 2017) and are highly vulnerable to cyberbullying (Rashid et al., 2017), the population of interest is senior secondary school students. The age of the respondents ranged from 15 to 17 years old (M = 16.29 years, SD = 1.528).

Procedures: Stratified random sampling was employed to determine the study's population while Taro Yamane's sampling technique was used to determine the sample sizes from each selected school's sampling frame. There are 104 federal unity schools in the country (Students.com, 2018), 63 of which are co-educational colleges while the remaining are girls-only schools except for a few, e.g., King's College Lagos. Given that previous studies have found a correlation between adolescents and online risks (see Hinduja, Patchin, 2014; Okoye et al., 2015; Simon, 2017).

This study's participants were selected from three co-ed unity colleges one in each of the country's three major geopolitical regions, namely the North, the North-Central and the South. The co-ed colleges were divided into three clusters based on the country's three main regions. One unity college was randomly selected from each of the clusters, which resulted in the selection of

Federal Government College (FGC) Kano at Kano State, in the Northern region; Federal Government College (FGC) Ruboshi at FCT, in the North-Central region; and Federal Science and Technical College (FSTC) Yaba at Lagos State, in the Southern region. However, the adolescents' region of the study was not computed in this study.

After data gathering was completed, a total of 1,043 questionnaires were successfully retrieved out of which 51 unusable questionnaires were discarded during data screening and cleansing, leaving behind only 992 (male: n = 555, 55.9 %: female: n = 437, 44.1 %) usable measures. For the data analysis, SPSS version 22 was employed. Exploratory data analysis (EDA) was run to determine the most critical items on the scale. The scale's validity and reliability were tested based on Brown's (Brown, 2006) recommendation that factor loading with >.50 is good. Items that did not meet this cut-off value were eliminated from further analysis.

Measures: The measures were adopted with modifications from the works of Yusuf and colleagues (Yusuf et al., 2018b), Wright (Wright, 2015) and Jung and colleagues (Jung et al., 2014). One variable (construct) was associated with this questionnaire, which is, peer influence in cyberbullying. It was divided into two sub-constructs: (i) Peer influence on cyber victimisatio (α = .98) and (ii) Peer influence on sex-related cyber victimisation (α = .85). With an overall alpha coefficient of .92 (see Table 1), this questionnaire presents an acceptable Cronbach alpha coefficient in terms of reliability (see Medrano, Aierbe, 2008). Five-point Likert-type scales were adopted throughout the measures (see Brown, 2006; Wright et al., 2014), with 1 (never) to 5 (very often).

Table 1. The Peer Influence Cyberbullying Scale

S/No	The Peer Influence Scale's Items	Cronbach alpha
	Peer influence on cyber victimisation	.98
1	Someone sent me a nasty message online or electronically.	
2	Someone called me insulting names online or electronically.	
3	Someone gossiped about me online or electronically.	
4	Someone posted pictures of me which I didn't want to share with others online or electronically.	
	Peer influence on sex-related cyber victimisation	.85
5	Someone sent me pictures of others engaged in sexual intercourse.	
6	Someone sent me videos of others doing a sex-related activity.	
7	Someone asked me to upload pictures of me nude.	
8	Someone asked me to upload pictures of my private parts.	
9	Someone asked me whether I've ever had sex.	
10	Someone asked me to upload videos of my private parts.	
11	Someone deliberately tuned in to a satellite television channel while I was sitting in a room with them on which I saw nude adults.	
12	Someone played a video of others engaged in sexual intercourse and showed it to me on their mobile phone.	
Overall Cronbach alpha		.92

3. Discussion

The result shows a very high prevalence of the children's online-risky behaviour as shown in Table 2, the prevalence level paints a disturbing picture of the dark webs of risks, uncertainties, threats and dangers looming in the encrypted walls of the online world which our kids frequent. In effect, this implies that among every 10 Nigerian secondary school adolescents, eight of them (add/subtract two adolescents) have been involved in a cyberbullying incident whether as victims, offenders or both. If the standard deviation percentage of 16.4 (which is approximately equivalent to a ratio of two persons) is added to the average percentage (75.6 + 16.4), the incidence rate shoots up to 92 %, meaning a clear majority (92 %) of them have been involved in cyberbullying, which is very alarming. However, if the standard deviation percentage is subtracted from the average percentage, the incidence rate drops down to 59.2 %, suggesting that more than a half of them have been involved in cyberbullying, which is rather moderate. The incidence mean percentage is obtained as follows:

som/m (100)

where 3.78/5 x 100

Where: som = the scale's overall mean M = the highest mean value that can be scored based on the five-point Likert scale used

Adolescents' Gendered Involvement in Cyberbullying: A clear majority of the male adolescents (M = 4.09, SD = .78), which is equivalent to 82 % used the internet as opposed to their female counterparts' 61 % users (M = 3.06, SD = 1.05) (refer to Table 1). The wider variation in female adolescents' mean value suggests relatively inconsistent responses. Given that online use (e.g., social media use, instant messaging apps use and surfing the Web) is associated with the internet, this result suggests a male-dominated internet use in Nigerian the secondary school context. Past research (Adesina, 2017; Camerini et al., 2020; Cortoni, 2017; Killer et al., 2019; Wright, 2017) has supported this finding.

Drawing on the literature that suggests a correlation between individuals' internet use level and the likelihood of being involved in risky cyber behaviour (e.g., Balakrishnan, 2015; Lazuras et al., 2019; Okorie, Ekeanyanwu, 2014;), Nigerian male adolescents are more likely to fall prey to online predators, target others or both. Past studies (e.g., Oyewusi, Orolade, 2014; Vandebosch, Cleemput, 2009; Wright, 2017) have all reported similar findings. However, in many other parts of the world, e.g., in South-East Asian countries like Malaysia, female users often outstrip male users (Yusuf et al., 2018a).

Tambawal and Umar (Tambawal, Umar, 2017) suggested that under normal circumstances boys tend to be bullies than girls and that bullying is reported from both boys' and girls' dormitories on the school campus. However, this notion does not exempt girls from the likelihood of being bullies as well, as argued in the preceding paragraph. This supports Bandura's SCLT internal principle's triadic reciprocity regarding the reciprocal interactions among environmental factors, personality factors and behavioural factors that shape an individual's learning process in an online social environment that is full of child-risky behaviours. For instance, in Nigerian secondary schools, senior students openly bully adolescents in junior grades, a sub-culture which is widely known as 'seniority'. Even though several past studies may not have supported the notion that youth who are physically bully have tendencies of becoming cyberbullies (e.g., Van Cleemput et al., 2014; Wong et al., 2018), the vicarious urge for taking revenge (which is psychological, see Kowalski et al., 2014) could, however, be hidden for years until the victim is grown enough (become senior) to avenge themselves on others through the 'transfer of aggression.' These incidents are widely reported among school adolescents, a phenomenon that is likely to metamorphose seniority into 'cyber seniority'.

In this Nigerian context, in real life, male teenagers are ordinarily more associated with covert, aggressive behaviour than female teenagers (Okorie, Ekeanyanwu, 2014; Umeogu, Ojiakor, 2014) unlike in the contexts of other parts of the world (e.g., Bergmann, Baier, 2018; Cho, Galehan, 2019; Cho, Rutsu, 2020; Englander et al., 2017). This finding is rather strange. Given that the sample of the study was selected from formal education institutions, which are characteristically rather closed environment whose members tend to share certain social and behavioural norms and sub-cultures and where peer influence is very high (Camerini et al., 2020; Festl et al., 2013; Umeogu, Ojiakor, 2014), the incidence of peer influence in the youngsters' involvement in cyberbullying as predators might have been impacting the occurrence and counter-occurrence of the cyber behaviour virtually among the same individuals and groups; hence, the unvaried results.

Adolescents' Average Time Spent Online: The results showed the presence of a moderately significant mean gender differences in the time spent using the internet by both male and female adolescents. Older teenagers used the Web the most. This result supports the research that correlates internet use to age (Barlett, Coyne, 2014; Camerini et al., 2020; Cortoni, 2017) (refer to Table 2). Male adolescents spent more time surfing the Web than their female counterparts. This result loosely confirms the claim that in the Nigerian society, technology access and use is gendered. This could be due to variations in the lifestyles of secondary school adolescents in contrast with those of other, non-student teenagers. Past research (Njoh, 2018) has shown that in Africa (including Nigeria), access to modern information and communication technology (ICT) is correlated to individuals' socio-economic status, literacy and/or educational levels.

Nowadays, it is becoming customary in many countries across the world children's access to the internet is often restricted and controlled by parents, teachers and other concerned adults for the safety and well-being of the kids following the increasing rates of online risks (Barlett, Helmstetter, 2017; Camerini et al., 2020; Cortoni, 2017; DQ, 2017). Nonetheless, more and more

teenagers nowadays get access to ubiquitous technology, which is increasingly becoming more affordable. Online chatting, taking selfies, recording videos and posting the same on their social networking sites' profiles are some of the activities they spend a lot of their leisure times doing. These online behaviours increase the adolescents' levels of human-computer interaction, which as the literature shows, is likely to expose them to cyber predators, which undermines the safety of the online environment. Past research has suggested children's internet use intensity is a correlate of the likelihood of their involvement in cyberbullying whether as actors, victims or both (Alim, 2016; Cortoni, 2017; Englander et al., 2017; Oyewusi, Orolade, 2014; Okoye et al., 2015). Moreover, the present make of new information technology has not been created with locating children and adolescents at its centre.

Peer Influence as a Potential Risk-Factor of Cyberbullying: The likelihood of the impact of peer groups' influence on the online behaviour of teenagers has been empirically confirmed. Festl and colleagues (Festl et al., 2013), Hinduja and Patchin (Hinduja, Patchin, 2012) and Kowalski and colleagues (Kowalski et al., 2018) emphasised that as well as the behaviour of parents and other adults in the teenagers' sphere, peer groups' behaviour can influence cyberbullying. The third aim of this study was to determine the peer groups' influence in cyber victimisation involving sex-related behaviour as a risk-factor of cyberbullying among Nigerian secondary school adolescents. The researchers had explored peer groups' influence on unspecified cyber victimisation to gain an insight into the level of that problem among the adolescents earlier.

The level of cyber victimisation among the adolescents was generally high, for both genders, especially for girls even though the mean differences were negligible. Nonetheless, this finding may be providing some hints about the kinds of results to expect in future studies — more girls could be susceptible to falling prey to online predators more than boys, especially in a Nigerian context. The high scores of the peer influence on sex-related cyber victimisation construct were exceptionally disturbing. Parents, teachers and authorities could not imagine young boys and girls, who are regarded as future leaders getting involved in this kind of immoral act online, a behaviour capable of corrupting the kids' moral upbringing. Equally, of tremendous concern is the repercussion of the children's ruined morality on the larger society. Before this finding, the researchers expected the scores of the peer groups' influence construct to be higher than that of the influence of sex-related cyber victimisation among female adolescents. Ordinarily, girls appear physically and socially weaker than boys while boys appear bolder and more likely to initiate sexually seductive behaviour. Like in most other countries (Holfeld, Leadbeater, 2017; John et al., 2018), in Nigeria male users dominate social media platforms (Oyewusi, Orolade, 2014). Hence, the argument that female adolescents would be more susceptible to sex-related cyber victimisation especially arising from their male peers.

This unexpected finding is revealing some strange phenomena occurring in the dynamic socio-academic environment of the male and female teenagers which hitherto might have remained hidden to the outside world. Nowadays, many young boys and girls are falling prey to unsuspecting online bullies, who often expose their victims to immoral sexual content or harass them sexually via online, which impact negatively on their psychosocial wellbeing and academic performance (DeSmet et al., 2018; John et al., 2018; Kowalski et al., 2018; Longe et al., 2007).

The most intriguing part of this finding is the discovery that the male adolescents had been impacted by peer influence more rather than the female adolescents had been by sex-related cyber victimisation. This may be suggesting that more of male-to-male online sex-related victimisation occurs behind the encrypted walls of the country's cyberspace given that more males are on the internet than females. Furthermore, this finding may be supporting some media reports that many secondary school male teenagers were sexually abused by men on campuses in the city of Kano in the North-Western Nigerian state of Kano in 2017. In a related development, the Nigerian Police and government officials uncovered rampant rape incidences mostly involving girls and young women in the city (Omoniyi, 2012). Furthermore, in recent years there have been media reports on same-sex marriage, or gay marriage mostly involving young males in several parts of the country.

The internet is a double-edged sword - it has provided both the bullies and victims with a robust alternative. In Nigeria, pre-marital or extra-wedlock are culturally, religiously and legislatively prohibited whether between male and female or same-sex persons (Umeogu, Ojiakor, 2014). More research needs to be conducted to determine the degree and effects of this cyber immoral behaviour among Nigeria's younger generations.

4. Results

The respondents' demographics that were measured are gender and age (see Table 2). The results show that most of the respondents were male 55.9 % (n = 555). The age range of the adolescents was 15 to 17 years old (M = 16.29, SD = 1.528). Many of the adolescents were 15-year-old (38.21 %, n = 379), that is, those in senior secondary school (SSS) 1 level. Similarly, the sixteen-year-old adolescents (those in SSS 2 level) constituted a large number (30.65 %, n = 304) but fewer than the 15-year-olds slightly (by only 7.6 %). The 17-year-old teenagers (who are in SSS 3 level) constituted the least number of respondents (27.52 %, n = 273).

Given that, in Nigeria, not all students in the same grades always belong in the same age groups as obtained in most advanced countries (UIS, 2018), a negligible percentage of under-15-year-old and over-17-year-old adolescents (1.51 % and 2.11 % respectively) were surveyed but not focused on because of the insignificance of the differences (Brown, 2006). Furthermore, because the adolescents' ages of concern ranged from 15 to 17 years old (as shown in Table 2), with a negligible percentage of over-17-year-olds (2.11 %) and under-15-year-olds (1.51 %). The age distribution is virtually uniform (M = 16.29, SD = 1.528), hence not focused on. With this low variance (1.528, or 1.53), the oldest adolescent was 17.83, or 18 years old while the youngest adolescent was 14.76, or 15 years old.

Table 2. The Adolescents' Demographics (n = 992)

Gender	Category	ƒ	%	Mean	SD
	Male	555	55.9		
	Female	437	44.1		
	Total	992	100		
Age	<15	15	1.51	16.29	1.528
	15	379	38.21		
	16	304	30.65		
	17	273	27.52		
	>17	21	2.11		

Note: ƒ = Frequency; % = Percentage; SD = Standard deviation

To determine the cyberbullying incidence among Nigerian secondary school adolescents was investigated as Objective 1. The result in Table 3 shows a very high prevalence of the child's online-risky behaviour. With an incidence average of M = 3.78 (SD = .82), which is equivalent to 75.6 % (± 16.4) as shown in Table 3.

Also, to determine the likelihood of peer influence as a risk-factor of cyberbullying was investigated as Objective 4 of this study. In addition to showing the level of the incidence of cyberbullying which is Objective 1), Table 3 also shows the level of the likelihood of peer influence becoming a risk-factor of cyberbullying in this context. The peer influence scale was divided into two sub-scales namely (i) peer influence on cyber victimisation (which was used to measure the adolescents' likelihood of getting involved in cyber victimisation because of peer influence) and (ii) peer influence on sex-related cyber victimisation (which, as the name suggests, was used to gauge the adolescents' likelihood of getting involved in sex-related online victimisation because of peer influence). Further, as shown in Table 3, peer influence on cyber victimisation was less gendered with the scores for both the male (M = 4.10, SD = .88) and female (M = 4.23, SD = .87) adolescents having an insignificant difference of the mean value (M = .13). However, peer influence on sex-related cyber victimisation was gendered with the scores for both the male (M = 3.89, SD = .92) and female (M = 2.63, SD = .89) adolescents recording a significant mean value difference (M = 1.26).

Gender involvement in cyberbullying was investigated as Objective 2 while the time spent online by the adolescents was investigated as Objective 3 and the results showed the presence of a moderately significant mean gender differences in the time spent using the internet by both male and female adolescents as shown in Table 2 and Table 3. While regarding the use level, the results show that on average, the male adolescents used the internet for 14.33 (SD = 2.45) hours per week while the female adolescents used it for 11.74 (SD = 3.01) hours per week (see Table 4). Older teenagers used the Web the most. On average, as boys went online for between 12 and 17 weekly hours (approximately 1.7 to 2.4 daily hours), their female counterparts went online for 9 to 15 weekly hours (approximately 1.3 to 2.1 daily hours). The variation was statistically insignificant.

The overall average internet surfing weekly hours for both boys and girls was 13.04 (SD = 2.73), i.e., between 10.31 and 12.61 hours online weekly (or, 1.50 to 1.80. hours daily) as shown in Table 4.

Table 3. The Peer Influence Scale's Scores based on Gender (n = 992)

S/No	Measures	Gender			
		Male		Female	
		M	SD	M	SD
	The Peer Influence Scale				
(i)	Peer influence on cyber victimisation	4.10	.88	4.23	.87
(ii)	Peer influence on sex-related cyber victimisation	3.89	.92	2.63	.89
	Constructs' overall mean	3.74	.84	3.39	.85
	Scale's overall mean			3.78	.82
	Incidence mean percentage	75.6 ± 16.4			

The results for the exploration of unspecified cyber victimisation showed that the impact of peer groups' influence in female adolescents' cyber victimisation recorded the highest mean value (M = 4.23, SD = .87) in the construct, only M = .13, SD = .01 lower than that for male adolescents (M = 4.10, SD = .88), which was also very high. The construct had a very high overall mean value of M = 4.17, SD = .88 (see Table 4). As the results for parental influence construct, these results also showed slightly higher peer groups' impact on female adolescents than on their male counterparts. Next is peer influence in sex-related in cyber victimisation construct. It recorded a tremendously high mean value (M = 3.89, SD = .92) for boys, significantly higher than that for girls (M = 2.63, SD = .89), which was so low. Nonetheless, the construct recorded a high overall mean value (M = 3.26, SD = .55). We need to understand this problem further if it must be successfully curbed among the young lads.

Table 4. The Adolescents' Internet Use based on Gender (n = 992)

Internet use based on gender			
Male		Female	
Mean	SD	Mean	SD
4.09	.78	3.06	1.05
Overall mean		3.58	.92
Average time spent using the internet per week			
Male		Female	
Mean	SD	Mean	SD
14.33	2.45	11.74	3.01
Overall mean		13.04	2.73

5. Conclusion

This study found that with an incidence percentage average of 76 %, the level of cyberbullying prevalence among Nigerian secondary school adolescents was very high. This finding is strange, it was unexpected. The finding rather suggests an alarming rate of the cyberbullying among the country's school adolescents, a phenomenon suggesting the possible implications of cyberbullying on the adolescents' social and psychological wellbeing. Furthermore, this study found that peer groups' influence highly impacted teenagers' likelihood to get involved in any form of cyberbullying incident as victims with the higher impact of peer influence on the female teenagers as compared to the males. Peer approval or disapproval has been shown to impact teenagers' online behaviour involving cyberbullying.

This finding validates many past research studies discussed in the reviewed literature. The findings also showed that peer influence impacted highly on the male adolescents' far more than it did on the female adolescents' involvement in online risky behaviour surrounding sex-related cyber victimisation. The mean difference was highly significant, suggesting that peer groups' behaviour approving or disapproving the behaviour of others partaking in sex-related behaviour on the internet is more likely to impact very highly in male teens' partaking in porn-

related behaviour online. More female adolescents self-reported involvement in cyberbullying incidents as victims in comparison to male adolescents. Typically, girls are more likely to fear involvement in danger than boys. Many previous studies validated this finding. Similarly, more female adolescents by far reported having identified by gender the identity of others who cyberbullied them than male adolescents did. This finding is strange in the Nigerian context.

Ordinarily, girls are more pliable, meek and shy to retaliate threats, and would be more likely to seek help with victimisation than would boys regardless of the medium or milieu. Boys are more fearless, confident, and have higher tendencies of becoming aggressive; hence, they would not bother about reporting victimisation. Nowadays, more young males possess safety awareness skills, use the internet and surf the Web for longer hours on average than young females do. Therefore, ordinarily, more male teenagers are expected to be more likely to recognise the identities of others who bullied them online.

Despite this study providing further understanding to the literature about problems and issues surrounding cyberbullying among Nigerian school teenagers, it is not clear whether many of the cyberbullies preferred to reveal their identity to female victims only or possessed lower levels of technology use skills, so they could not conceal their online identity or the female respondents over-reported the incidents to create the impression of being active, male-like and tech-savvy. Other limitations are the sample was drawn from a population of senior secondary school students only, from three public secondary schools and three main geopolitical regions of the country.

Future research should focus on determining the effects of cyberbullying on adolescents' social and psychological wellbeing. The intimidations and dangers of the cyber world as discussed earlier emphasise that the roles and responsibilities of parents, teachers and other adults in educating their teenage children while online is enormously vital. With a suitable approach, internet risks among teenage children such as cyberbullying can be decreased. Without control and supervision from their parents, teachers and concerned adults in the society teenage children may confront and mismanage the bullying experience; and it is feared that that may cause other undesirable consequences including leading to depression and other psychological ill-health conditions. Apart from parents, important others that play a crucial role in the safety of children are teachers and schools. To curb the menace of cyberbullying and related children's online risks, safety awareness, especially children's cyber risks literacy should be incorporated into Nigerian schools' curricula.

6. Acknowledgements

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A Comparative Analysis of the Reportage of Covid-19 During the First and Second Wave: A Case of the Egyptian and Jordanian Newspapers

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Abstract

This study investigated online newspaper coverage of COVID-19 in Egypt and Jordan, with particular attention to the depth of coverage. The main objective of the study was to examine the content of news covering COVID-19 posted online concerning Egyptian and Jordanian newspapers, to know which countries were more interested and committed to covering health crises. A content analysis of 4202 news articles by four news media organizations: *Al-Ahram, youm7, Al-Rai,* and *Addustour* was done. The findings of the study indicated that the *Al-Ahram, youm7* in wave one was in-depth coverage, as compared to *Al-Rai and Addustour* coverage. In addition, *Al-Rai* and *Addustour* used a negative panic tone in presenting COVID-19 pandemic-related stories, in contrast to the *Al-Ahram, youm7.* Finally, *Al-Rai* and *Addustour* focused on reporting stories and raising awareness in waves one and two more than *Al-Ahram* and *youm7.* Based on these findings: the following recommendations were made: the media should focus more on sensitising the public on the necessary steps to take in curbing the virus. They should refrain from over usage of a negative tone to panic the public in presenting the stories of the COVID-19 pandemic in both countries.

Keywords: COVID-19, pandemic, online news media, outbreak, prevention, public health.

1. Introduction

The COVID-19 pandemic began in Wuhan, Hubei Provence, China, in December of 2019. In March 2020, Egypt and Jordan had their first fatality cases of the coronavirus outbreak that affected the People's in the Middle East, with initial reports indicating that the virus had originated from tourism or travellers who passed through the airports. The rapid spread of the disease was further confirmed in Egypt and Jordan, with 151,723 and 309,846 confirmed cases of COVID-19 respectively (Worldometers, 2021).

Accordingly, the media rushed to report the disease outbreak, highlighting the different aspects of the pandemic (Tejedor et al., 2020). During the period of the pandemic, online journalism platforms became the main sources of information since they present a wealth of information and also have a large impact on the public (Mansour, 2016). In the past, online newspapers in Jordan and Egypt used information as a tool to instill panic and chaos within society, but during the pandemic, the media houses played an important role to return the credibility from disinformation (Bennett, Livingston, 2018), with trust towards legacy media and politics without polarization, and the configuration of a high-choice media environment (Van-Aelst et al., 2017).

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Providing information to the public on emergent, complex and rapidly changing health threats is no easy task, even for public health experts. Previous studies found that the coverage of health topics is very complicated, especially in the Middle East because the governments did not provide information sources that enriched public awareness of the pandemic (Aalberg et al.,2013; Ahmadi, Amp, 2018). In this context, in both countries, the political information played a key role but after the pandemic, they focused on public health and not negligible, as online journalism functioned as a social link that united communities in the Middle East (Fletcher and Nielsen, 2017).

The coverage focuses on two aspects the first about Egyptian newspaper coverage pandemic, since the announcement of the first case in March 2020, the government started multidisciplinary national coordination between different ministries; they decided to stop close airport travels, schools, or universities. Moreover, Egypt started to examine all tourists coming to Egypt, and they discovered cases of COVID-19 in a cruise ship in Luxor, after that, on March 8, Egypt announced that a 60 year-old German tourist died in the touristic town Hurghada, and this was the first German fatality from the virus (Medhat, El Kassas, 2020).

The escalation in the number of cases by the first wave to be 24.985 cases, accordingly the government take more strict arrangements imposed a curfew from 7 pm until 6 am, all means of public and private transportation are suspended during curfew hours, and all sports and many social activities were also banned to prevent the spread of COVID-19 (Abdelhafiz et al., 2020).

Then the situation changed in the second wave in November 2020, the government took lighter protective measures compared with the first wave which is more widespread and dangerous, the government opened airports and hotels for domestic tourism and transferred to the citizens the responsibility for their own safety by taking their own precautionary measures. In addition, schools and universities remained the priority for education (Elemerey, 2020).

The Egyptian media have remained an essential agent in the last event of a health epidemic during the Ebola, SARS, MERS, they did not play an important role in disseminating information whenever an outbreak occurs, but now with COVID-19 pandemic, the government and media houses changed their strategy and worked on the challenges that arose from the crises, while other independent media houses created a crisis when they published high mortality during the pandemic (Marzouq, 2020).

During covid-19 outbreaks, the Egyptian media houses played a pivotal role in the documentation of the number of cases and death, and also created an avenue for political and public debate on the handling of the health crises (Elemerey, 2020). Similarly, R. Marzouq (Marzouq, 2020) noted that the sooner the media coverage of a pandemic begins, the less the public would ultimately be infected, as the media provide information about pandemic infections and deaths.

The newspapers have a vital role in getting the data to the public during emergency situations than transfer it as a news story, after that delivering the appropriate message to make the issue more prominent (Borek, 2020). In Egypt, online newspapers began reporting the Egyptian policy measures and covering topics that respond to the emergency of the situation and taking safety measurements (Hart et al, 2020).

The news coverage generally focuses predominantly on the impact of the diseases by highlighting certain features such as victims and economic impact in the country (Leask et al, 2010; Lusk, 2020). In the past, the health media coverage in June 2013, about the joint mission of the Kingdom of Saudi Arabia (KSA) and the World Health Organization (WHO) met in Riyadh to assess the situation due to a new coronavirus in the Kingdom during the beginning of the pandemic, reporters wrote uncertainties about the pandemic and compared it with another Spanish flu of 1918-19 and Middle East respiratory syndrome coronavirus (MERS-CoV)the coverage and they focusing on dramatic health stories about the number of deaths 40 have occurred in KSA rather than analysing the content (Abu Senna, 2015).

The differences in the coverage of the COVID-19 may be due in part, to the differences in newspapers' ideology messaging on the issue by using government's newspaper-like Al-Ahram to representation a vital role in following specific strategies in order to make audiences read the news and interact to make awareness about the pandemic (Hart et al, 2020). Elemerey's (Elemerey, 2020) argue the coverage in independent media houses realised frequently to COVID-19 as a "hoax" came from China and has been dismissive of the risks posed by the virus.

In addition, the media houses party media in Egypt were more likely to spread misinformation about COVID-19 during the first wave outbreak using amplified voices of political actors in the coverage (Marzouq, 2020).

The second aspect about Jordanian newspaper coverage pandemic, the first case of COVID-19 infection in Jordan was confirmed on March 2, 2020. On March 14, the government followed WHO recommendations with a series of preventive and control strategies in the country, the government implemented total lockdown measures relating to" travel, education, religious and social events"(Altamimi, 2020; Altammemi, 2020), national emergency law was declared with strict rules and extreme fines for violations in order to limit the spread of the virus, started to implement periodically revised strict rules.

After that, on June 6, the Jordanian government announced that the level of severity in the number of local infection cases decreased by 10 cases per day, which led the country to open most of the service sectors, activities and facilities. Then on the first of November Jordan confirmed the second wave, the country witnessed an unprecedented increase in the number of case – 75,866 and deaths 866. The officials in Jordan warned of the collapse of the health sector due to the huge numbers of injured people. While a member of the country's epidemiology committee warned of the possibility that Jordan would enter an epidemic crisis and which recorded 8,000 cases per day (Eysenbach, 2020; Worldometers, January 13, 2021)

Accordingly, the government used *Al-Rai and Addustour* online newspapers during the crisis to alert citizens of the seriousness of the virus and its rapid spread. In addition, using news as a message to educate the public about how to protect themselves and measures to reduce its spread as many individuals (Habes et al., 2020).

Jordan received positive recognition internationally for the way they handled the ongoing pandemic in wave one and two, the government used media coverage to keep the public adequately informed with local, regional, state, and country's health. In addition, government success relies on mitigation measures related to drastic lockdown and cooperation with the public (Dardas et al., 2020).

Jordanian government relied heavily on promoting public awareness through collaboration with the Ministry of Health and Ministry of Information and the Crisis Center and they designed effective strategies to enhance public awareness. Information was delivered daily in televised press conferences to update the people about the ongoing pandemic. This gave updates on the latest figures (number of confirmed cases, tests, recovered patients), as well as for instructions that people should follow to reduce the exposure to COVID-19 (BalaEddy, 2020). Furthermore, the government tightened up efforts in the second wave with public attention, which could portend long-term transformations in Jordanian media habits and mark a turning point in transparency, by providing more information (Lynch, 2020).

An adequate public response to the pandemic depends on an informed community. Newspapers such as Al-Rai and Addustour are committed to investigating the regional responses to this crisis and the related public health issues and provides additional reporting about practical day-to-day tips and techniques for handling this quickly changing landscape includes school closures, social distancing, curfews, and working from home (Basch et al, 2020).

At the same time, the government imposed harsher limitations on journalism and the public, as a way to combat the spread of potentially false information online. In this view, government several online newspapers were blocked for spreading rumours about the virus, and the government statement carried across national newspapers raised troubling implications using cybercrime laws of those publishing any information regarding the virus's outbreak in Irbid, to combat rumours that can weaken the effectiveness of government response (Hussein, Aljamili, 2020).

For the first time in Jordan, unprecedented attention to government statements and policy also insisted the governments' visible efforts to share credible information, by effectively updating more successful policies while publishing information in the newspapers, the government has been able to overcome these early crises while retaining a high degree of citizen compliance with and support for stringent regulations (Management, 2020). The government announced that print newspapers would no longer be printed, and they implemented another alternative whereby the newspapers would be delivered electronically to subscribers, in order to minimise the transmission of infection (Abdelhafz, 2020).

The current study investigates the most popular and read Egyptian newspapers (*Al-Ahram and youm7*) and Jordanian (*Al-Rai, and Addustour*) newspapers to establish the depth of coverage of the COVID-19 pandemic during the first and second wave and which country from the sample

media coverage did more awareness with accurate information to inform public about the pandemic.

This study seeks to answer the following questions comparing between wave one and two, COVID-19 in Egyptian and Jordanian newspapers.

RQ1: What is the story format applied in the coverage?

RQ2: What is the depth of coverage?

RQ3: What are the dominant news and Journalist sources?

RQ4: What is the tone used in the coverage (positive, negative, or neutral)?

RQ5: What are the most notable themes in Egyptian and Jordanian in the sampled newspapers?

2. Materials and methods

Research design. The study employed a quantitative content analysis to assess online newspaper reportage of the COVID-19 scourge in Egypt and Jordan. A. Bryman defined content analysis as "an approach to the analysis of documents and texts, that seeks to quantify content in terms of predetermined categories and in a systematic and replicable manner" (Bryman, 2004: 177). The emphasis in most definitions has been on the systematic character of the analysis, meaning that coding is applied in a consistent manner to minimize any possible bias and to promote transparency.

B. Berelson adds the technique implies 'the objective of the quantitative description and the manifest content of communication' (Berelson, 1971: 18). Quantitative content analysis (CA) was applied to study online newspaper of the COVID-19 scourge. Four widely daily read two Egyptian and two Jordanian newspapers available online were selected for the study (see Table 1).

Newspaper sample. The Egyptian newspapers are *Al-Ahram*, founded on 5 August 1875, which is the most widely circulating; it is owned by the Egyptian government. The second newspaper is *Youm7* meaning (The Seventh Day), founded on May 2011 as independent newspaper selected to be the Forbes Middle East as having the most effective news website in the Middle East. Third, *Al-Rai* meaning "The Opinion" founded in 1971, it is an independent newspaper. Fourth, *Addustour*, meaning the "Constitution" founded in 1967 and owned by Jordan Press and Publishing Company.

The study encompassed the first wave from 15 March 2020 to 31 May 2020 and the second wave from 1 November to 3 January (see Table 1).

Table 1. Newspapers' sample

Type of newspapers		First wave from 15 March to 31 May	Second wave from 1 November to 3 January
Egyptian newspapers	Al-ahram http://gate.ahram.org.eg/	598	694
	youm7 https://www.youm7.com/	594	619
Jourdan newspaper	Al- Rai www.alrai.com	205	233
	Addustour www.addustour.com	597	662

Techniques for selecting the stories. An online search using social bakers to download the news by keywords including 'COVID-19', 'Pandemic', 'Coronavirus in Egypt', 'Coronavirus in Jordan', 'death rates of Coronavirus', 'intervention on Coronavirus', 'policy measures in Egypt and Jordan'.

Unit of analysis. This study examined a total 4.202 newspaper articles (see Table 2).

Table 2. Types

Journalistic	'news with video', 'editorials', 'feature', 'opinion' 'interview', 'report', and 'investigative'.
Headline	Informative, expressive, or appellative
photos/ videos	Archive image/ image, Videos, info Graphic, and Logo
Source Newspaper Sources	Agencies, Reporters, Reps Arab media outlets, and Foreign media
Journalist sources	Government, Local county agencies and local public health Departments, International Health Organizations, and Internal media platform or source
Newspaper tone	Positive, Negative, and Neutral
The main major frames around the content	Cases in Egypt and Jordan (who is contracted COVID-19 or those who treated, and Death rates)
	• Government measures using the Ministry of Interior to apply the precautionary measures (lockdown schools and university / sectors of the institutional)
	• Public enlightenment through online newspapers messages about the (risk, wearing face mask, social distancing, washing of hands, and using hand sanitizer)
	• The abuses that occur by the people towards the precautionary measures
	• Healthcare risk (inadequate isolation and treatment hospital / the cost in the hospital)

Data analysis. Data were further analyzed using SPSS Statistics for Windows, to descriptive statistics involving frequencies and percentages, to represent the sampled article characteristics. Assuredly, the data were collected subjected to T-Test and Chisquare, set at 0.05 significance level. Conclusively, all data were presented in the form of tables.

Table 3. Coverage of COVID-19

Newspaper	Waves		Total	Z test	
	wave 1	wave 2			
Al-Ahram	598	694	1292	Z value	-1.101
	30.00	31.40	30.70	p- value	0.312
youm7	594	619	1213	Z value	1.25
	29.80	28.00	28.90	p- value	0.21
Al Rai	205	233	438	Z value	-0.29
	10.30	10.60	10.40	p- value	0.773
Addustour	597	662	1259	Z value	-0.03
	29.90	30.00	30.00	p- value	0.976
Total	1994	2208	4202		
	100.00	100.00	100.00		

3. Discussion
This study examined the Egyptian and Jordanian newspaper coverage of Covid-19 during the first and second waves. The findings of the study indicated that the media reported 4202 news articles the first wave (1994) and second wave (2208) stories.

With regards to the story format used in the coverage, we found that more than a third of the total news with video was used in the coverage and it was the first time all of the newspapers

incorporated video in order to attract the public. This finding is consistent with the study by A. Elemerey (Elemerey, 2020). Consequently, the Egyptian newspapers used video news more than interviews to report the news about COVID-19 with percentage (88 %).

During the coverage, *Al-Ahram and youm7* used informative headlines to report the information about the pandemic in waves one and two. During the coverage, the newspapers play an important role to deliver the stories about COVID-19, for example Egypt has witnessed increased cases but the original data were not published for fear of creating panic, unlike in Jordan's newspapers which worked to create terror among the citizens by using headlines bearing the meanings of financial fines, curfews, breaching the curfew and imprisonment for those who violated the curfew. The regular strategy adopted in the newspaper has been to make fine-grained descriptive distinctions using diff erent types of news headlines to interact with the public. This result concurs with D. Dor (Dor, 2003) who noted that newspaper headlines help readers to get the maximum out of this informational flood—for the minimal cognitive investment, as *Al-Rai and Addustour* provide the readers with an optimally relevant presentation of their stories, they guide readers to those specific stories about COVID-19, which would be worth reading.

The newspapers from both countries used photos and videos in the coverage of the COVID-19. In addition, we found that more than half of the total percentage used infographics to support their stories for the first-time infographics witnessed a boom in the newsroom's use of infographics to describe visualizations that use various graphics to display data and ideas about pandemic especially in youm7 adding graphics along with the text, which brings in perspectives and depth to the news story. This result concurs with by A. Elemerey (Elemerey, 2020). during an outbreak of a pandemic infographics play an important role in shaping public opinion more than news text.

Researchers indicate that the public understands risks and crosses better when the media houses presented the news with visuals (AbuSenna, 2015; Hart et al., 2020; Marzouq, 2020), as they fear that they have limited threat about the pandemic, as well as the fear of being hazardous to the family (Zidan, 2020). Also, other research affirmed that the public can change their attitude and behaviour when they see visuals news shape about COVID-19 (Mahmoud, 2020; Abdelhafz, 2020).

With regards to newspaper coverage, most of the stories used 500 words and above (long articles), especially in wave two, which reflects in-depth writing to explain the details and cover different aspects of the pandemic. This is consistent with research by C. Rachul and T. Caulfield (Rachul, Caulfield, 2015) that analysed Canadian newspaper coverage of health policy decisions and found that the news articles covered diseases (22.6 %) with long articles to explain the discussion of a range of conditions and issues relevant to diseases, conditions, or access.

Prior research has shown that news and journalist sources play an important role in the coverage. In this study, we found that in the news sources coverage, newspapers depend on foreign media in the first wave, then they shifted the depth to agencies during the second wave. We observed that the least sources were newspaper reporters during wave one and Reps Arab media outlets articles in the second wave. Moreover, about the journalist sources, most of the newspapers sourced from the government, and then the percentage was almost the same at Local county agencies and local public health, departments, International Health Organizations, and internal media platform.

This result is slightly different from A. Zidan (Zidan, 2020) who found that Reps Arab media outlets are the most generally cited sources in the media coverage. We reason that youm7 in wave one reported "Egyptian channels have provided comprehensive coverage and a responsible message between directing and mobilizing in the face of danger" by using Reps Arab media outlets (Saeed, 2020). In addition, the most telling part of analysis concerns the tone, given the immense focus on "Neutral tone" to support increasing access to healthcare, *Addustou* in wave two used "Negative tone". This is represented in Jordanian government which implemented the curfew, and whoever violates this ban would be punished by imprisonment.

Regarding the most notable themes used in the coverage, the study observed that most of the stories induced panic among the public, while others raised awareness among the people.

4. Results
The story format applied in the coverage in Egyptian and Jordanian newspapers (comparing between wave one and two, COVID-19)

Tables 4 and 5 are presentations of the story format of online newspaper coverage of the COVID-19, comparing between wave one and two. Coronavirus-related information occupies wave one (38.4 %; 37.3 %; 36.5 %; 36.0 %) and wave two (31.1 %; 35.3 %; 24.0 %; 20.0) of the news with video. Precisely, editorials (25.9 %) in the wave one in *Al-Ahram*, more than wave two (17.0 %). On the other hand the percentage was the same with *Al-Rai* in the wave one and *youm7; Al-Rai; Addustour* (10.7 %). In addition, *Al-Rai, and Addudtour* did not focus on the investigative except, while *Al-Ahram* in wave two focused on the pandemic spared in Egypt more than wave one (1.4 %) also youm7 did not release that in wave one(2.5 %).

To compare the Egyptian and Jordanian newspapers coverage first and second wave, in the *Al-Ahram and youm7* newspaper (N= 2465; M=2.95; SD; 2.127) and *Al-Rai and Addustour* (N= 1651; M= 3.55; SD; 2.301), the differences significant for *Al-Rai* and *Addustour* (T=-8.571; DF= 4114; p< 0.000). To realize the depth of coverage between Al-Ahram and youm7, first wave (N=1192; M=2.60; SD= 1.865) in the second wave (N=1273; M=3.28; SD=2.299), we pointed out that most of the journalists for the second wave T=-7.994; DF=2463, p< 0.000.

To point the depth of coverage between *Al-Rai and Addustour* in the first wave (N= 802; M=3.36; SD= 2.324), in the second wave (N=849; M=3.73; SD=2.265) & (T= -3.339; DF=1649, p< 0.000), so the differences for the second wave. Furthermore, to recognize the coverage on the first wave, *Al-Ahram and youm7* (N=1192; M=2.60; SD=1.865) than *Al Rai and Addustour* (N=802; M=3.36; SD=2.324) the differences for the second wave (T=-8.014; DF=1992, p< 0.000). In the second wave, *Al-Ahram and youm7* (N=1313; M=3.28; SD= 2.299) than, *Al-Rai and Addustour* (N=849; M=3.73; SD=2.265) the differences significant to *Al-Rai and Addustour* (T=-4.496; DF=2120, p< 0.000) .We can observe that the most common of the newspapers used video to interact public, then editorials have high profound insight and context about the pandemic. On the other hand, most of the newspaper did not focus on feature especially *Al-Ahram* in wave one *youm7; Al Rai and Addustour* in wave two.

Table 4. Story format (first wave coverage)

Newspaper	news with video		editorials		Feature		opinion		interview		investigative		report		Total
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
Al-Ahram	230	38.4	155	25.9	25	4.1	63	10.5	32	5.3	43	7.1	50	8.3	598
youm7	222	37.3	143	24.0	122	20.5	33	5.5	22	3.7	15	2.5	37	6.2	594
Al Rai	75	36.5	22	10.7	14	6.8	15	7.3	16	7.8	18	8.7	45	21.9	205
Addustour	215	36.0	66	11.5	74	12.3	55	9.2	45	7.5	41	6.8	101	16.9	597
Chi2= 21 1.621 & DF= 18 & p- value= 0.000 & Pearson's R= 0.139 & p- value= 0.023															

Table 5. Story format (second wave coverage)

Alahram	216	31.1	118	17.0	126	18.1	33	7.4	36	5.1	10	1.4	115	16.5	694
youm7	219	35.3	68	10.9	56	9.0	55	8.8	35	5.6	55	8.8	131	21.1	619
Al Rai	56	24.0	25	10.7	22	9.4	31	13.3	15	6.4	16	6.8	67	28.7	233
Addustour	133	20.0	134	20.2	45	6.7	122	18.4	20	3.0	32	4.8	131	19.7	662
Chi2= 215.14 & DF = 18 & p- value= 0.000 & Pearson's R= 0.1 & p- value= 0.021															

Headlines are very important for the readers, their location on the online page colour, type and size of the title contributes to underlining the topic that includes a lot of information. In relation to these Tables 6 and 7, most of the headlines were informative especially in *Al-Ahram and youm7* (65.5 % & 67.8 %) in the second wave (65.5 %) but in the first wave, *youm7* got (52.1 %) *Al-Ahram* (34.2 %) compared with Jordanian newspapers *Addustour* (46.8 %) *Al-Rai* (130 %) in the second wave; half of the percentage decreased with *Al-Rai* (31.7 %) in the first wave. This means that *Al-Rai* newspaper found disease risk to have increased in the second wave, and the rates of warnings with fear-topped the headlines. Both the Egyptian and Jordanian newspapers used headlines of an appellative nature to raise awareness about the pandemic, in wave one more than wave two.

The expressive headlines are one of the most important elements of the newspaper; as attention is paid in order to make them more colourful, intriguing and catching (Oden, 2019). The percentage was almost the same with expressive in *Al-Ahram* and *Addustour* in wave one (24.2 %; 23.9 %) than the percentage change in wave two *Al-Ahram* dropdown with 100 points, and the percentage was almost the same with *youm7 and Al-Rai* (21.0 %; 22.7 %). This reduced number emphasizes that the newspapers in both countries did not draw more attention to the public because this might fear emotions. To compare the Egyptian and Jordanian newspapers coverage of the first and second wave, in the Al-Ahram and youm7 newspaper (N=2585; M = 1.72; SD= 0.851) and *Al-Rai and Addustour* (N=1651; M=1.76; SD= 0.818), (T=-1.5073; DF=4234; p< 0.1318|), signifying no significant difference in the nationality of the newspapers of the headlines. To realize the depth of coverage between Al-Ahram and youm7, first wave (N=1192; M=1.91; SD=0.877) in the second wave (N=1393; M=1.56; SD=0.794) T=-10.572; DF=2583, p< 0.000 so that the different for the first wave.

The depth of coverage between *Al-Rai and Addustour* in the first wave (N= 802; M=1.87; SD=0.859) in the second wave (N=849; M=1.66; SD=0.765) & (T= 5.2743; DF=1649, p< 0.000), so the differences for the first wave. Furthermore, the coverage on the first wave: Al-Ahram and youm7 (N=1192; M=1.91; SD=0.877) than *Al Rai and Addustour* (N=802; M=1.87; SD=0.859) There are no significant differences (T=9842; F=1992, p<0.3251). In the second wave, *Al-Ahram and youm7* (N=1313; M=1.56; SD=0.794) than *Al-Rai and Addustour* (N=849; M=1.66; SD=0.765) the differences significant to *Al-Rai and Addustour*.

The main characters that appear infographic on the coverage Table 8 and Table 9 show important differences between the Egyptian and Jordanian newspapers, for the first time all of the newspapers depend on the infographic to describe the story about COVID-19 with an overwhelming number of facts, figures, statistics, scientific data and medical advice sprawled across the newspapers.

Table 6. Headline (first wave coverage)

Newspaper	Informative		Expressive		Appellative		Total
	#	%	#	%	#	%	
Al-Ahram	205	34.2	145	4.2	248	41.4	598
youm7	310	52.1	122	0.5	162	27.2	594
Al Rai	65	31.7	55	6.8	85	41.4	205
Addustour	288	48.2	143	3.9	166	27.8	597

Chi2= 63.084 & DF= 6 & p-value= 0.000 & Pearson's R= 0.175 & p-value= 0.000

Table 7. Headline (second wave coverage)

Al-Ahram	455	65.5	120	7.2	199	26	694
youm7	420	67.8	130	1.0	69	11.1	619
Al Rai	130	55.7	53	2.7	50	214	233
Addustour	310	46.8	203	0.6	103	155	662

Chi2= 105.062 & DF= 6 & p-value= 0.000 & Pearson's R= 0.212 & p-value= 0.000

The highest percentage with *youm7* (54.3 %) *Addustour* (55.4 %) in wave one, they used different types of visuals proving successful message data visualizations, charts, maps, and cartoons. Then the percentage change in wave two with *Al-Rai* (30.0 %) which used important content to the public with infographics, animations, and illustrations.

The newspapers also used video in the fight against COVID-19 in second place, in wave two more that wave one (46.1 %; 53.7 %; 51.5 %). *Addustour* realized that in the second wave, the image is very important and absorbs the most attention they used celebrities with public figures (25.6 %) and *Al-Ahram* used logo in the second wave (17.2%) this aspect emphasizes the importance type to give information and awareness of the pandemic.

To compare between Egyptian and Jordanian newspaper, Al-Ahram and youm7 are (N=2557; M=2.71; SD=1.053) and *Al Rai* and *Addustour* (N=1695; M=2.69; SD=1.089) T=0.555; DF=4250, and p< 0.579, significance, there are no significant level between Egyptian and Jordanian coverage. In addition, about *Al-Ahram and youm7* coverage in the first wave (N=1244; M=3.05; SD=1.006) and in the second wave (N=1313; M =2.39; SD; 0.997) So T=16.478; DF=2555, p< 0.000 significance level. But *Al-Rai and Addustour coverage* in the first wave (N=802; M=3.01; SD=1.010) second wave (N=893; M= 2.40; SD= 1.076) So T=11.957; DF=1693, and p<0.000 significance level, to observe the difference for first wave.

In considering all the newspaper coverage during the first wave, *Al-Ahram and youm7* coverage (N=1244; M=3.05; SD; 1.006) and *Al-Rai and Addustour* coverage (N=802; M=3.01; SD; 1.010) So (T=0.7307; DF=2044) and p<00.465 significance, there are no significant differences. Moreover, the coverage in the second wave *Al-Ahram and youm7* coverage (N=1313; M=2.39; SD; 2.39) and *Al-Rai and Addustour* coverage (N=893; M=2.40; SD; 1.076) So T= 0.252; DF=2204 and p<0.801, there are no significant differences were found.

Table 8. Photos and videos (first wave coverage)

Newspaper	Image		Videos		Logo		Info graphic		Total
	#	%	#	%	#	%	#	%	
Al-Ahram	33	.5	20	6.7	5	.19	90	8.4	98
youm7	13	.1	244	1.0	6	1.1	23	4.3	94
Al Rai	11	.3	02	9.7	3	6.0	9	8.7	05
Addustour	13	.1	30	38.5	3	.8	31	5.4	97

Chi2= 76.91 & DF= 9 & p- value= 0.000 & Pearson's R= 0.19 & p- value= 0.000

Table 9. Photos and videos (second wave coverage)

Al-Ahram	153	2.0	20	6.1	20	7.2	01	4.5	94
youm7	60	.9	33	3.7	5	.2	81	9.2	19
Al Rai	22	.4	20	1.5	9	.20	0	0.0	33
Addustour	170	5.6	45	7.0	00	5.1	47	2.2	62

Chi2= 151.214 &DF = 9 & p- value= 0.000 & Pearson's R= 0.253 & p- value= 0.000

The depth of coverage in Egyptian and Jordanian in the sampled newspapers (comparing between wave one and two, COVID-19)

Tables 10 and 11 examined the percentage words per article. Words per article was analysed and categorized as long, medium and short, in order to know what information includes COVID-19. We observed that most of the stories described using 500 words and above (long articles), as well as 300-499 (medium articles*). Al-ahram; youm7*; and *Addustour* got the same percentage in wave one (35.1 %; 35.8 %and 41. 8 %) but the percentage increased in wave two, with 100 points (44.6 %; 53.3 %; 70.8 %; and 50 %) with long words. The lowest percentage *Al- Rai* described using 1-299 (short) 199 words (9.8 %) had shorter stories in the second wave.

To compare between the Egyptian and Jordanian coverage, *Al-Ahram and youm7* coverage (N=2505; M=2.18; SD=0.797) and *Al-Rai and Addustour* coverage (N=1737; M=2.27; SD=0.789) & T= 3.673012; DF=4240, and p<0.000 significance, and yet the difference between the one group Jordanian coverage. Then, to compare between *Al-Ahram and youm7* coverage in the first wave (N=1192; M=2.08; SD=0.787) and second wave (N=1313; M=2.27; SD=0.796) T=-5.838; DF=2503, and p<0.000 significance. Then *Al-Rai and Addustour* coverage, in the first wave (N=802; M=2.13; SD=0.846) second wave (N=935; M=2.39; SD=0.715) T=-7.107; DF=1735, and p<0.000 significance. There is a no statistically significant difference between the newspapers during the second wave.

Moreover, about Egyptian, and Jordanian coverage during the first wave, *Al-Ahram and youm7* coverage (N=1192; M=2.08; SD=0.787) and *Al-Rai and Addustour* coverage (N=802; M=2.13; SD=0.846) T=-1.202; DF=1992, and p<0.2296 significance, there is a no statistically significant difference between the newspapers. During the second wave (N=1313; M=2.27; SD=0.796) *Al-Rai and Addustour* coverage (N=935; M=2.39; SD=0.715) T=-3.85; DF=2246, p<0, set at 0.0001 significance, yet the difference between the Jordanian newspaper is not statistically significant.

Table 10. Words in the articles (first wave coverage)

Newspaper	500 words above (long articles)		300-499 (medium articles)		1-299 (short articles)		*Total*
	#	%	#	%	#	%	
Al-Ahram	10	35.1	215	35.9	73	28.9	598
youm7	13	35.8	231	38.8	50	25.2	594
Al- Rai	5	46.3	60	29.2	0	24.3	205
Addustour	50	41.8	155	25.9	92	32.1	597

Chi2= 31.721 & DF= 6 & p- value= 0.000 & Pearson's R= 0.125 & p- value= 0.000

Table 11. Words in the articles (second wave coverage)

Al-Ahram	10	4.6	01	8.9	83	6.3	694
youm7	30	3.3	85	9.8	04	6.8	619
Al- Rai	65	0.8	6	9.7	2	.8	233
Addustour	31	50	66	40.1	05	5.8	662

Chi2= 87.106 & DF= 6 & p- value= 0.000 & Pearson's R= 0.193 & p- value= 0.000

The dominant news and Journalist sources in Egyptian and Jordanian in the sampled newspapers (comparing between wave one and two, COVID-19)

By analyzing the newspaper sources' reports pandemic, Tables 12 and 13 examined, *Addustour* and *youm7* depend on foreign media 30.1 % & 29.1 %) in wave one. Then *youm7, and Addustour* used agencies, (22.7 % & 22.3 %) in wave one , but in wave two the percentage increased with youm7 (40.3 %). *Al-Ahram* depend on reporters during wave two with, followed by Republic of Arab media outlets with Al-Ahram and youm7 (25.9 % & 25.7 %) during wave one, while *Addustour* got (24.0 %) in wave two.

To compare between Egyptian and Jordanian newspapers coverage, *Al-Ahram and youm7* (N= 2487; M=2.47; SD; 1.141) and *Al-Rai and Addustour* (N= 1697; M=2.55; SD; 1.141) T=-2.298; DF=4182, and p< 0.0216) so the difference between Jordanian coverage is not statistically significant. To realize the depth of coverage between *Al-Ahram and youm7*, during the first wave (N=1174; M=2.67; SD=1.131) and second wave (N=1313; M=2.29; SD=1.120).

To understand the depth of coverage between *Al-Rai and Addustour*, in the first wave (N=802; M=2.63; SD=1.124) and second wave (N=895; M=2.47; SD=1.076), (T=3.0508; DF=1695, p< 0.0023), there is not statistically significant.

With regards to the coverage of the first wave, *Al-ahram and youm7* (N=1174; M=2.67; SD=1.131) than *Al Rai and Addustour* (N=802; M=2.63; SD =1.124) there no significant differences were found. (T=0.6488; DF=1974, p< 0.5166), second wave, *Al-ahram and youm7* (N=1313; M=2.29; SD=1.120) than *Al Rai and Addustour* (N=895; M=2.47; SD=1.076) the differences for the *Al Rai and Addustour* (T=-3.852; DF=2206, p< 0.0001).

Table 12. News sources (first wave coverage)

Newspaper Sources	Agencies		Reporters		Reps' Arab media outlets		foreign media		Total
	#	%	#	%	#	%	#	%	
Al-Ahram	22	0.4	35	2.5	55	5.9	86	1.1	598
youm7	33	2.3	11	8.6	153	25.7	79	0.1	594
Al Rai	0	9.5	7	7.8	45	21.9	3	0.7	205
Addustour	36	2.7	22	0.4	165	27.6	74	9.1	597

Chi2= 9.912 & DF= 9 & p- value= 0.358 & Pearson's R= 0.071 & p- value= 0.358

Table 13. News sources (second wave coverage)

Al-ahram	55	2.3	10	4.6	20	7.2	09	5.7	694
youm7	50	0.3	00	6.1	5	15.3	74	8.1	619
Al Rai	5	9.3	5	3.6	5	27.8	8	9.1	233
Addustour	60	4.1	10	1.7	59	24.0	33	0.0	662

Chi2= 195.032 & DF= 9 & p- value= 0.000 & Pearson's R= 0.285 & p- value= 0.000

Tables 14 and 15 indicate the journalists' sources of reports. The intention was to realize the most important sources government with *Al-Ahram and Addustour* (30.7 %; 31.4 %) the common percentage in wave two *Al-Ahram, youm7, and Addustou* (289 %, 252 %, and 215 %). However, Al-Ahram got the same percentage (International Health Organizations) (20.5 %). Most of the *Al-Ahram and Addustour* depend on internal media platform (28.8 % & 26.5 %) in wave two.

In comparing the Egyptian and Jordanian newspapers coverage, *Al-Ahram and youm7* coverage (N= 2505; M=2.26; SD; 1.160) and *Al-Rai and Addustour* coverage (N= 1697; M=2.42; SD; 1.178), there is not statistically significant (T= 4.507; DF=4200; p< 0.000). To realize the depth of coverage between *Al-Ahram and youm7*, first wave (N=1192; M=2.36; SD=1.111) second wave (N=1313; M=2.17; SD=1.196), we pointed that the difference for the first wave was not statistically significant (T=4.178; DF=2503, p< 0.000). The depth of coverage between *Al-Rai and Addustour*, in the first wave (N=802; M=2.42; SD=1.152) and second wave (N=895; M=2.43; SD=1.202) & (T=-0.154; DF=1695, p< 0.877) indicates no significant differences.

Furthermore, the coverage during the first wave, *Al-Ahram and youm7* (N=1192; M=2.36; SD=1.111) than *Al Rai and Addustour* (N=802; M=2.42; SD=1.152) indicates no significant differences (T=-1.155; DF=1992, p< 0.248),while during the second wave, *Al-Ahram and youm7* (N=1313; M=2.17; SD=1.196) than, *Al-Rai and Addustour* (N=895; M=2.3; SD=1.202), the differences for the *Al Rai and Addustour* (T=-5.035; DF=2206, p< 0.000).

The tone used in the coverage by the Egyptian and Jordanian newspapers

The main tone used in the coverage, as displayed in Tables 16 and 17 show important differences between the newspapers in both countries. The negative tone is the one that gets the most attention, with *Addustour* (119.3 %) wave one but the percentage increased in wave two (35.1 %).

To explain the negative tone in the first wave with both countries, for example, with the stakes are from the King of Jordan and the Egyptian President using army to intervene.

Al-Ahram focused on "The Prime Minister: The plan to coexist with the" COVID-19 includes penalties for those who are not compliant." (Hassan, 2020, May 14). , General Mohamed Farid reviews the measures of the armed forces to confront the effects of the spread COVID-19" (Salem, 2020, April 7). And "Security campaigns to control those who violate the deadlines for closing shops and commercial centers to reduce" COVID-19" (Attia, 2020, April 1). But *Youm7* online newspaper focused on injury and death rates "Health: 54 positive cases of COVID-19, 5 deaths" (Abdel Salam, 2020, March 31) and "Health: 33 new positive cases of COVID-19, 4 deaths" (Abdel Salam, 2020, March 29). On the other hand, *Al- Rai* newspaper used "An important security statement regarding compliance with the orders and instructions issued for violating the curfew" (Alrai, 2020, March 31).

Table 14. Journalist sources (first wave coverage)

Newspaper Sources	government		Local county agencies and local public health departments		International Health Organizations		Internal media platform		Total
	#	%	#	%	#	%	#	%	
Al-Ahram	184	30.7	166	27.7	123	20.5	125	20.9	598
youm7	165	27.7	146	24.5	160	26.9	123	20.7	594
Al Rai	40	19.5	90	43.9	30	14.6	45	21.9	205
Addustour	188	31.4	125	20.9	123	20.6	161	26.9	597

Chi2= 59.76 & DF= 9 & p- value= 0.000 & Pearson's R= 0.171 & p- value= 0.000

Table 15. Journalist sources (second wave coverage)

Newspaper Sources	government		Local county agencies and local public health departments		International Health Organizations		Internal media platform		Total
Al-Ahram	289	41.6	155	22.3	50	7.2	200	28.8	694
youm7	252	40.7	161	26.0	101	16.3	105	16.9	619
Al Rai	45	19.3	22	9.4	66	28.3	100	42.9	233
Addustour	215	32.2	245	37.0	26	3.9	176	26.5	662

Chi2= 253.238 & DF= 9 & p- value= 0.000 & Pearson's R= 0.321 & p- value= 0.000

About the Positive tone, youm7 and Addustour has got the same percentage (24.2 %) in wave one, then growing up to (46.8 %) in wave two, with Addustour and youm7. For example, the positive tone in the first and second wave reassuring related to COVID-19 to downscale the risk. For example, 'How did Egypt prepare for the second wave of the COVID-19 crisis?' (Hassan, 2020, December 12). 'Health: Manufacturing COVID-19 vaccines locally as part of the state's plan to confront the virus '(Abdel Salam, 2020, November 26), and in Jordanian newspapers, "Experts: Jordan needs a comprehensive economic plan that overcomes the consequences of the COVID-19".

Then, the neutral tone the highest percentage with *youm7* (43.0 %) wave one, then *Al-Ahram* (37.1 %) in wave two. For example, *Addustour* newspaper focused on "Governmental measures to confront COVID-19, suspending educational institutions" (Addustour, 2020, March 15).

In the second wave the tone changes with Jordan more than Egypt *Addustour* newspaper focused on "Warning sirens sounded at 12 o'clock and once, before the start of the comprehensive curfew at 1 pm for a period of 48 hours (Addustour, 2020, October 15). About the neutral tone, the tow counter used the same way for example, "Lectures by 350 citizens who violated the instructions for wearing the muzzle" (AlBassel, 2020, April 1). And "Experts: The effect of wearing a "muzzle" is equivalent to the vaccine" (Elsaid, 2020, November 26).

In comparing Egyptian and Jordanian newspapers coverage, *Al-Ahram and youm7* (N= 2387; M=1.93; SD; 0.845) and *Al-Rai and Addustour* (N= 1573; M=1.89; SD; 0.799), there are no significant differences (T=-1.756; DF=3958; p< 0.079). The depth of coverage with *Al-Ahram and youm7*, first wave (N=1074; M=2.12; SD=0.813) second wave (N=1313; M=2.17; SD=1.196) & (T=4.178; DF=2503, p< 0.000).

Then, the depth of coverage between *Al-Rai and Addustour*, in the first wave (N= 678; M=2.04; SD=0.775), second wave (N=895; M=1.77; SD=0.798), (T=-6.793; DF=1571, p< 0.000), we noted that the there are no statistically significant.

Furthermore, the coverage on the first wave by the *Al-Ahram and youm7* (N=1074; M=2.12; SD=0.813) than *Al Rai and Addustour* (N=678; M=2.04; SD=0.775) indicate no significant differences (T=-1.893; DF=1750, p< 0.059), while during the second wave, *Al-Ahram and youm7* (N=1313; M=1.78; SD=0.842) than, *Al-Rai and Addustour* (N=895; M=1.77; SD=0.798) also indicates no significant differences. (T= 0.441; DF=2206, p< 0.659).

Table 16. Tone used in the coverage (first wave coverage)

Newspaper tone	Positive		Negative		Neutral		*Total*
	#	%	#	%	#	%	
Al-Ahram	55	5.9	65	7.5	68	8.0	598
youm7	45	4.4	85	1.1	56	3.0	594
Al Rai	5	1.9	5	1.7	5	6.3	205
Addustour	45	4.2	205	119.3	23	0.6	597

Chi2= 49.018 & DF= 6 & p- value= 0.000 & Pearson's R= 0.165 & p- value= 0.000

Table 17. Tone used in the coverage (second wave coverage)

Al-Ahram	15	5.3	21	6.8	58	7.1	694
youm7	22	2.0	01	2.4	6	5.5	619
Al Rai	02	3.7	5	9.3	6	6.9	233
Addustour	10	6.8	33	5.1	19	7.9	662

Chi2= 144.179 & DF = 6 & p- value= 0.000 & Pearson's R= 0.248 & p- value= 0.000

The most notable themes in the Egyptian and Jordanian newspapers
This part of the study aimed to establish the main topics related to COVID-19 in both countries. Table 18 and Table 19 shows, Cases (who is contracted COVID-19 or those who treated, and Death rates) *Alahram and Addustour* got (36.0 % & 35.1 %) in wave one, then the proportion decreases with *Addustour* (18.5 %).

Moreover, the (Government measures using the Ministry of Interior to apply the precautionary measures (lockdown schools and university / sectors of the institutional), the percentage the same *Al-Ahram* (17.5 %) in wave one and two.

About the abuses that occur by the people towards the precautionary measures the percentage is the same *youm7 and Addustour* (22.2 %) during wave one. In addition, Public enlightenment through online newspapers messages about the (risk, wearing face mask, social distancing, washing of hands, and using hand sanitizer) were the most common topics, with *Al-Ahram and Addustour* having (10.5 %) during wave one, then increased in wave two with *Addustour* (26.4 %).

Regarding healthcare risk (inadequate isolation and treatment hospital/the cost in the hospital), the percentage was the same for *Alahram and youm7* (8.5 %) then increased in wave two *Addustour* (14.1 %).

The Egyptian and Jordanian newspapers' coverage of the first and second waves, as indicated in the *Al-Ahram and youm7* (N= 2505; M=2.52; SD; 1.293) and *Al-Rai and Addustour* (N= 1697; M=2.73; SD; 1.425) showed some differences significant for *Al-Rai and Addustour* (T=-4.907; DF=4200; p< 0.000).

To realize the depth of coverage between *Al-Ahram and youm7*, first wave (N=1192; M=2.12; SD=0.813) second wave (N=1313; M=2.17; SD=1.196), we observe the difference for the first wave statistically significant (T=4.178; DF=2503, p< 0.000).

In terms of the depth of coverage between *Al-Rai and Addustour* during the first wave (N= 802; M=2.45; SD=1.386), as well as the second wave (N=895; M=2.98; SD=1.414) & (T= -7.763; DF=1695, p< 0.000), so that the differences of significant for the second wave.

Furthermore, the coverage on the first wave: *Al-Ahram and youm7* (N=1192; M=2.38; SD=1.245) than *Al Rai and Addustour* (N=802; M=2.45; SD=1.386) indicates no statistically significant difference between the newspapers (T=--1.178; DF=1992, p< 0. 0.239), second wave, *Al-Ahram and youm7* (N=1313; M=2.65; SD=1.324) than *Al-Rai and Addustour* (N=895; M=2.98; SD=1.414) the differences significant to *Al-Rai and Addustour* (T=-5.592; DF=2206, p< 0.000).

Table 18. The most notable themes (first wave coverage)

Content	Cases (who is contracted COVID-19 or those who treated, and Death rates)		Government measures using the Ministry of Interior to apply the precautionary measures (lockdown schools and university / sectors of the institutional)		The abuses that occur by the people towards the precautionary measures		Public enlightenment through online newspapers messages about the (risk, wearing face mask, social distancing, washing of hands, and using hand sanitizer)		Healthcare risk (inadequate isolation and treatment hospital / the cost in the hospital		Total
	#	%	#	%	#	%	#	%	#	%	
Al-Ahram	210	35.1	122	20.4	152	25.4	63	10.5	51	8.5	598
youm7	152	25.5	210	35.3	132	22.2	48	8.0	52	8.7	594
Al Rai	65	31.7	55	26.8	22	10.7	30	14.6	33	16.0	205
Addustour	215	36.0	118	19.7	133	22.2	66	11.5	65	10.8	597

Chi2= 81.256 & DF = 12 & p- value= 0.000 & Pearson's R= 0.198 & p- value= 0.000

Table 19. The most notable themes (second wave coverage)

Al-Ahram	215	0.9	22	17.5	36	9.5	145	20.8	6	10.9	694
youm7	142	2.9	56	25.2	23	9.8	162	26.7	6	5.8	619
Al Rai	65	7.8	2	13.7	3	4.1	35	15.0	8	29.1	233
Addustour	123	8.5	45	21.9	25	8.8	175	26.4	4	14.1	662

Chi2= 132.344 & DF= 12 & p- value= 0.000 & Pearson's R= 0.238 & p- value= 0.000

5. Conclusion

We conclude that the Egyptian and Jordanian newspapers paid attention to coverage COVID-19 at the expense of other stories. However, the coverage during wave two was more in-depth than during wave one and most of the stories were long, had news infused with video to interact with the public. In addition, the stories focused on death and cases of COVID-19 and how governments find solutions.

This research, which is one of the first to examine newspaper coverage of COVID-19 between the said countries, contributes to the body of knowledge. Second, a comparison of media coverage in many countries in the Middle East with governmental healthcare coverage may provide further insights into whether there are any similarities between policymakers in the Middle East. Finally, the time frame analysis only covered the first and second wave, thus, it is possible that there will be a change in health issues, especially in the face of vaccinations which are taking place the world over.

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Social Media Use and Political Polarization: the Mediating Role of Political Engagement and Political Loyalty

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Abstract

This study examines how usage of social media influence political polarization. Using data from the students of different public and private universities of Lahore, this study investigates the association between usage of social media and political polarization and proposes that political engagement and political loyalty can be potential mediators between the relationship of social media usage and political polarization (issue based, leadership based, and party based). Correlation research design was used to collect the data. A sample of 350 students were taken through purposive sampling technique. Smart Partial least square 3.2.7 has been used to analyze and test the conceptual model. Findings show that usage of social media has significant direct effect on political engagement and political loyalty. In addition to this, social media usage is a significant predictor of political polarization. Results further show that indirect effect of social media usage on polarization was mediated by political engagement and party loyalty. We observed that more usage of social media helps the participants to engage in politics and identify themselves with a certain political party. This study has highlighted the role of social media in motivating the users towards political participation. This high-level users' participation on social networking sites is creating ideological divergence. The implications of these findings have been discussed in detail.

Keywords: social media, political loyalty, political engagement, political polarization, Smart partial least square.

1. Introduction

The potential of social media for promotion of political information and ideology have received popularity and scholarly attention at international level. It was expected that social media usage could play a role in strengthening the democracy by providing a public sphere where individuals have free and equal access to political debates and discourses (Coleman, 2003; Mitra, 2001; Stromer-Galley, Muhlberger, 2009). On the other hand, critics believe that uncivil discussion and anonymity leading the social media users towards acrimonious debates (Dahlberg, 2001). These online discussions increasing political disagreement, intergroup hostility, and political polarization (Davis, 2009, Mutz, 2006). According to the scholars, recent political debates going beyond the exchange of ideas and information (Brooks, Geer, 2007; Sobieraj, Berry, 2011). This incivility of online discussions, heated debates, and showing disrespect to opposing views and political party is an extreme form of political polarization.

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Political polarization due to its negative consequences is becoming a cause of academic debate. People draw boundaries when they have strong associations and affiliation with a certain political party or group (Iyengar et al., 2012). Such an association creates conflicts with outgroup people and produce empathy for in-group people. People who have extreme political ideology avoid those people who support opposite viewpoint and prevent themselves having routine discussion. As a result, these extreme viewpoints on politics raising the concerns regarding political polarization among scholars.

Advancement of technology and changing media environment has also contributed towards political polarization. This rapid rise of technology gave birth to new media which provided the citizens an opportunity to connect and share information with millions of people, that were not possible in previous governments which established before 2010 in Pakistan. According to C.R. Sunstein (Sunstein, 2017) social networking sites and partisan news media are major drivers which are making people less tolerant and more political biased. The foundation of this argument is that social networking sites are providing selective exposure to people because people are following those pages, celebrities and sources which are in line with their existing political thoughts and avoid those messages who have different arguments. Some scholars argue that excessive exposure to those messages which supports someone's own views and beliefs increase the person confidence in those views and this attitude also take that person away from the balanced point (Prior, 2013; Stroud, 2010).

Previous studies were specifically more concerned about social media space division on the basis of party lines, and they were less focused on causal effects on social media (Boxell et al., 2017). These studies show the mixed results regarding the effects of social media on political polarization. Several studies found that social media is polarized, and it has very thin line of platforms division (Bakshy et al., 2015, Conover et al., 2011; Hong, Kim, 2016; Kim, 2011; Lee et al., 2014; Shin, Thorson, 2017; Yardi, Boyd, 2010).

Political conversations and comments on social media are significantly affecting the user political knowledge, participation, and behavior (McLeod et al., 1999). People's political attitude, opinion and behavior are the results of a dynamic process of media use where social media discussions are as important as we give importance to offline discussion.

The current study explores the relationship between social media use and political polarization by taking a sample of university students from different universities of Lahore collected between March 2019 and April 2019. In past few years, major changes in technology and Pakistan government political leadership have shifted offline discussions of youngsters to online discussions. In this study, we assessed the role of political engagement and party loyalty as a mediator between the relationship of social media usage and political polarization. Previous studies have investigated that social media usage has direct links with political engagement, but it was not considered as potential mediator. In addition to this, the role of political loyalty as a pathway to political polarization has not been explored before. The results of this study provide a reason that how social media is affecting the political mindset and ideology of present generation. Moreover, this study provides an insight into the concept of political polarization (based on issues, party, and leadership). As the study is using non-US centric data, therefore the study broadens the scope and discussion of political participation in local context.

Considering the recent concern over online discussions and mass ideological polarization, this empirical paper argued that social media usage is indirectly affecting the political polarization through the political engagement and party loyalty. Previously, most of the studies has worked on political polarization in terms of political positions that weather participants are politically neutral or moderate partisans. In this study, we operationalized the political polarization in terms of party, issues, and leadership. Because now the younger generation is divided on the basis of issues and leadership (Slater, 2007; Stroud, 2010).

Social Media and Political Polarization. Social media adoption has become an unequivocal trend which has been increased every year (Pousher, 2016). If we talk about other countries in Asia, it was explored that the adoption of social media has been increasing significantly in Asian countries (Mak et al., 2014). S. Choi and H. Park (Choi, Park, 2014) gave a reason behind this adoption and discussed that this increase in using Social Networking sites (SNSs) was credited to the abundance of free Wifi spots and fast internet speed in the country. In the previous literature, it was largely assumed that selective exposure is a major contributor of political polarization among media users (Stroud, 2010; Kim, 2015; Arceneaux et al., 2012). But these studies were more

focused on the amount of information filtering (selective exposure) rather than a complete exposure of social media. C.R. Sunstein (Susntein, 2009) argued that the disagreements on politics can exacerbate polarization because it can create a divide in the members' opinion who participates in the political discussion.

Social Media, Political Engagement, and Party Loyalty. Political engagement is defined as an individual attitude, interest or feeling towards political matters or issues (Barrett, Brunton-Smith, 2014). Party loyalty is defined as the strength of association or identification of an individual with a political party or partisan group (Westfall et al., 2015).

Since its inception, the social media has been credited to provide a platform where the users can share and discuss their political ideas despite of not having the election environment in their community. A study found a strong correlation between the use of social media and the increase in the political awareness among the users that further cultivated into the offline participation (Ahmad et al., 2019). Moreover, the political parties use social media to market their manifesto and activities to aware the new voters as well as to keep the loyalty of their supporters (Dabula, 2016).

A Case of Pakistan Politics. The current Pakistan political landscape has been divided into pro Pakistan Tehreek-e-Insaf (PTI) and anti PTI ideological spectrum. It also points to ponder that the political parties in Pakistani are usually referred to as one man or one family. Nowadays, there is an ideological rift between the pro government and anti-government supporters. Pro-government supporters believe that there is only a solution to the current poor economic condition of Pakistan and that is to eradicate corruption and they found sending the political leaders behind the bars who allegedly involved in corruption scandals in their previous tenures. These supporters even ignore warnings of the international bodies to do something magical to get the economy of the country on track. The recent wave of inflation in Pakistan is also being associated with the wrongdoings of the previous governments by the pro-governmental supports. On the other side, the anti-government supporters allegedly blame the establishment and (sometimes even) judiciary to support the present prime minister of Pakistan named Imran Khan comes into power. The latter also criticized the government's policy of sending almost every politician of Pakistan behind the bar on the name of accountability against corruption. The rift has become worse and worse day by day between these kinds of people having different ideologies.

The theoretical framework of this study is based on political identity theory and self-categorization theory. The theory argued that intergroup conflict increases the differences among the perceptions of different categories. These perceptions accentuate the importance of group identity (Tajfel, Turner, 1979; Turner, 1985). This group identity can create the positive attitude towards in-group and negative attitude towards out-group member. When people use social media, they discuss their opinion and thoughts with online community which engages them socially and politically. This political engagement on social media become a cause of positive and negative attitude towards those people who have different opinion. Similarly, social media provide a chance to interact with people who have similar identity with a party. By reading the posts, comments of their party leaders and major influential, people offline political loyalty converted into online loyalty. This loyalty makes those people polarized because they only align themselves with those people who have similar opinion. Based on these theories, the mediating role of political engagement and political loyalty is being examined between social media use and polarized political view.

H1: Social media use will be a significant predictor of political polarization.

H2: Social media use will be a significant predictor of Political engagement.

H3: Social media use will be a significant predictor of Political loyalty.

H4: Political engagement will mediate the association between social media use and political polarization (issue based, leadership-based and party-based).

H5: Political loyalty is a mediating factor in the association between social media use and political polarization (issue based, leadership based, and party based).

2. Material and methods

Research Design. The current study used the correlation model because this design is useful when we study the behavior pattern and causes of those behavior (Cohen et al., 2007; McMillan, Schumacher, 2006). Keeping in mind the nature of correlation research, the purpose of the present is to measure the effect of Independent variable (social media usage) on dependent variable (political polarization) in the presence of mediation variables (political engagement and party loyalty).

Data and Analytic Sample. We collected the date from the students at different universities of Lahore (University of Education, University of the Punjab, Lahore College for Women University, Beacon House National University, University of Lahore, University of Central Punjab). The researcher employed the purposive sampling technique to collect the data from 400 respondents. We removed the 30 questionnaire who have missing values or were not properly filled. Moreover, 20 questions were removed because student filled them inattentively. In remaining, 350 university respondents 170 were females (48.57 %) and 180 (51.42 %) were male students. The age of these respondents falls between the range of 20 to 28 years with a mean value of 23.05 years (SD=2.33). All of participants were a regular user of smartphone and social networking sites. Participants daily use of internet was measured in the descriptive part of the study and the results showed that 25 participants spent 2 hours a day on the internet (7.14 %), 160 participants spent 2-3 hours a day on the internet (45.71 %), 85 participants spent 4-5 hours a day on the internet (24.29 %), while 80 participants spent more than 5 hours a day on the internet (22.86 %). In addition to this, participants purpose of using social media was measured in descriptive part. The results showed that primary purpose of using social media among university students was communication (n=140, 40 %), information and news (n=80, 22.86 %), educational (n=60, 17.14 %), and entertainment purposes (n=70, 20 %).

Data collection procedure. Data was collected from the respondents after taking their content. Consent forms were signed by the students before filling the questionnaire. In addition to this, the researcher took the special permission from different university teachers and questionnaire were filled by mass communication students during their lectures. Students pay more attention when the questionnaires had assigned them during their class. Only those participants were taken in the class who were voluntarily willing to fill the survey. Participants were briefed that their data remained confidential and anonymous.

Measures. The five-item social media use scale was developed with the help of an existing study (Lee, 2016) to assess the political communication through social media. Respondents were asked to tell the frequency of their social media use by utilizing the 5-point Likert-scale ranging from 1=not at all to 5= very frequently. The researcher asked the following questions from the respondents: (1) how frequently they get public affairs or political information via social media, 5) whether they follow news about people from political parties, movement activists, or public affairs commentators through social media. The original scale reliability was α = .70. For present study, social media use scale reliability was α = .79.

Perceived Political Polarization. Perceived Political Polarization is defined as the extent to which an individual differentiate himself from other individuals or social groups based on ideology and political issue (Levendusky, Malhotra, 2015). The perceived political polarization scale was adapted from E. Matsuno (Matsuno, 2013) study. The perceived political polarization was measured on the basis of leadership, party and the basis of issues. To measure the political polarization on the basis of leadership, the political leaders of three major political parties were considered which includes Imran Khan, Shahbaz Sharif, Bilawal Bhutto and Asif Ali Zardari. The name of Nawaz Sharif was excluded because after the decision of Supreme court, he was holding no party position. Political polarization on the basis of political party was measured by asking the respondents about their opinion about three major political parties. Six issues were selected which were related to government spending on education and health, defense spending, economic crises, job's insecurities, helping minorities, and corruption issue. Leadership and party polarization subscale was measured on the five-point Likert scale ranging from 1= Extremely Conservative to 5= Extremely Liberal. On the other hand, issue based political polarization was measured on the five-point Likert scale ranging from 1= strongly disagree to 5= strongly agree. For the current study, the reliabilities of perceived political polarization subscales were good ($\alpha_{Leadership=}.84$, $\alpha_{Party=}.83$, $\alpha_{Issue=}.81$).

Political Engagement. Political engagement is defined as an individual attitude, interest or feeling towards political matters or issues (Barrett, Brunton-Smith, 2014). The political engagement scale was developed by C. Lee, J. Shin, A. Hong study (Lee et al., 2018) to measure the civic participation. The respondents were asked to indicate their agreement and disagreement with the item of scale. The scale consists of seven items which includes (1) I regularly read news about politics, (7) I vote. The scale was measured on 5-point liker scale and responses were ranged between 1= strongly disagree to 5= strongly agree. One item in the scale was reverse coded.

The original scale showed Cronbach value of the seven items was .79. For the current study, political engagement scale displayed adequate reliability α = .85.

Party Loyalty. Party loyalty is defined as the strength of association or identification of an individual with a political party or partisan group (Westfall et al., 2015). Party loyalty was measured through the Identification with Psychological Group (IDPG) scale developed by a previous study (Mael, Tetrick, 1992). The original scale consists of 10-items while we used the modified version of this scale which was used in the previous studies (Bankert et al., 2016) study. They adapted the scale and created the three new items and used the five-items of the original scale. Moreover, they reworded the scale items from "this group" to "this party". Respondents were asked to indicate their agreement or disagreement with the statements regarding loyalty to their favorite political party to whom they support. The scale was based on 8-items and all the questions were arranged on five-point Likert scale. The present study scale reliability was α = .87.

3. Discussion

The current study explored the association of social media usage with political polarization among the university students of Lahore. Previous studies were more concerned about the status of political polarization on social media (Levendusky, Malhotra, 2016; Prior, 2013; Yang et al., 2016) but this study deals with the effects of social media usage on perceived political polarization occurring at party, leadership, and issue level. In addition to this, previous studies found that social media use was negatively related with a person political view (Song et al., 2020; van Erkel, Van Aelst, 2020; Weeks et al., 2017). In other words, social media use can change a person views from being neutral to liberal and conservative.

In direct effects, we found that social media usage was a significant predictor of political engagement and indirectly effecting perceived political polarization through this mediator. These findings are also inconsistent with previous findings that user of social media use this platform for sharing political content, news, engage in discussion with their friends and family member, share videos and pictures of their voting and political participation in rallies (Boulianne, 2015; Johnson et al., 2020; Koiranen et al., 2020; Moore-Berg et al., 2020; Urman, 2020; Valenzuela, Somma, 2016; Valenzuela et al., 2019). This kind of political engagement leads the users towards extreme political views when they discuss their views in online and offline platforms.

It is considered that high political engagement warrants a health democracy because people participate in political discussion, come out to vote, enhance their political knowledge through debates, and discuss political issues with other people which ultimately helps the people to understand the system, institutions, and society. Our study results show that increased political awareness and knowledge moves the people away from each other when those people have different opinion, and these findings are similar to other studies (Bennett, Iyengar, 2008; Sunstein, 2009).

Party loyalty affects an individual processing and behavioral attitude towards a political party. Results shows that social media is a strong predictor of political loyalty and political loyalty is a strong predictor of political polarization. These results are complementary to previous studies that high party identification or people with greater partisan strength are more likely to participate in rallies, donating money and influencing others to vote for their party (Ardèvol-Abreu et al., 2020; Dalton, 2016; Koiranen et al., 2020; Lee et al., 2020).

Moreover, our study found that social media is directly and indirectly effecting the political polarization, this may be because a number of younger people are joining the social media who are less political tolerant than their elders (Arshad, Khurram, 2020; Davis, 2009; Hahn et al., 2015; Nguyen et al., 2020; Sobieraj, Berry, 2011; Van Bavel et al., 2021). Furthermore, in Pakistan, social media is a platform where anyone can express his opinion and there is no strict control regarding the criticism on political parties and leaders. One group troll the other group if their political leaders or political party do something or say something bizarre. When interpersonal political talk in general has become polarized, so it is possible that social media political talk also become political polarizing.

There are three suggested directions for future research. First, we need to understand the political engagement through social media. This political engagement is a result of deliberate and open-minded discussions or it is because that social media is providing different view to their users. Second, findings related to party loyalty may provide an opportunity to think from different perspectives. People are choosing a party which are in line with their political thoughts because

they are exposing themselves with their favorite political parties manifestoes, actions and messages through social media platform. Political polarization in a society has a positive side because gap in political ideologies helps the society in political choices (Abramowitz, Saunders, 2008). Third, the future can take control of those variables which are particularly are associated with political polarization. Political interest, political tolerance and gender are strong predictor of political polarization. Future studies should consider these variables as a set of control variables.

This study has few limitations. First, we took the social media use in terms of political messages and this measure may not differentiate between low and heavy user of social media. Moreover, use of different social media platform is also not take into account. As the sample has been obtained from different universities undergraduate and graduate students, so the findings of this study are not generalizable to whole population.

4. Results

Structural equation model (SEM) using Partial least squares (PLS), especially Smart PLS v. 3.2.7 (Ringle et al., 2015), was employed to estimate the measurement (outer model) and the structural model (inner model) for the parallel mediating role of political engagement and political loyalty between social media use and political polarization. PLS has numerous strengths that made it more appropriate for the current study, including its less stringent statistical assumptions, and its ability to estimate complex models such as parallel mediating effects (Astrachan et al., 2014). A 5000 bootstrapped sample was generated for standard errors and t-statistics to estimate the statistical significance of structural model for path coefficients.

Evaluation of Measurement (outer) Model. To determine the psychometric properties of the measurement tools, confirmatory factor analysis (CFA) was employed to assess reliability, convergent validity, and discriminant validity of the measures. As shown in table 1, all the alpha coefficients, composite reliability (CR) estimates and average variance extracted (AVE) values were greater than the criteria of 0.7, 0.7 and 0.50 respectively (Henseler et al., 2016).

To assess convergent validity, factor loadings of scales items on their respective constructs were examined. All items' loadings were above the minimum threshold value of 0.7 (Hair et al., 2010). The percentage of variance explained of factors social media use, political engagement, leadership-based polarization, party-based polarization, and issue-based polarization were 55, 53, 53, 52, 50 and 52, respectively. Whereas both reliability coefficients i.e., Cronbach's alpha and composite reliability were ranging from 79 to 90.

Table 1. Psychometric Properties of Social Media Use, Political Engagement, Leadership Based Polarization, Party Based Polarization, and Issue Based Polarization

Variables	K	λ Range	α	CR	AVE
Social Media Use	5	0.70-0.80	0.79	0.86	0.55
Political Engagement	7	0.56-0.82	0.85	0.89	0.53
Political Loyalty	8	0.67-0.78	0.87	0.90	0.53
Leadership Based Polarization	7	0.58-0.79	0.84	0.88	0.52
Party Based Polarization	7	0.61-0.78	0.83	0.88	0.50
Issue Based Polarization	6	0.56-0.82	0.81	0.87	0.52

Note. k = number of items, CR = composite reliability, AVE = Average variance extracted, λ (lambda) = standardized factor loading α = Cronbach's alpha

Discriminant validity was tested in two different ways (Henseler et al., 2016; Voorhees et al., 2016). First, the square root of average variance extracted AVE values for each scale was greater than the construct's respective correlation (maximum shared variance MSV) with all other factors (Fornell, Larcker, 1981) (see Table 2). Third, we used the heterotrait-monotrait ratio of correlations (Henseler et al., 2015). In this vein, all values were below the more conservative threshold value of 0.85 (Clark, Watson 1995; Kline, 2011) (see Table 3). Together, the above results provided evidence for convergent and discriminant validity.

Table 2. Mean, Standard Deviation and Correlation among Factors

Variables	M	SD	1	2	3	4	5	6
1. Social Media Use	13.92	4.67	0.74	0.47	0.25	0.01	0.16	0.08
2. Political Engagement	21.06	6.00		0.73	0.48	0.28	0.57	0.35
3. Political Loyalty	24.40	7.19			0.73	0.35	0.50	0.34
4. Leadership Based Polarization	20.25	5.61				0.72	0.57	0.66
5. Party Based Polarization	20.95	5.44					0.71	0.48
6. Issue Based Polarization	16.11	3.73						0.72

Note. M = mean, SD = standard deviation

Table 3. Heterotrait-Monotrait Ratio HTMT Matrix

Variables	1	2	3	4	5	6
1. Social Media Use		0.55	0.29	0.12	0.2	0.17
2. Political Engagement			0.55	0.32	0.67	0.41
3. Political Loyalty				0.4	0.58	0.4
4. Leadership Based Polarization					0.69	0.78
5. Party Based Polarization						0.57
6. Issue Based Polarization						

Evaluation of Structural (inner) Model. For the evaluation of the structural model, direct and indirect effect i.e., mediation, of the paths were calculated, see Table 4 and Table 5 respectively.

Table 4. Direct Effects of Social Media Use, Political Engagement, Political Loyalty and Political Polarization

Direct effects	Coeff.	Standard Deviation	T-Statistics	P-Values
Social Media Use ➔ Political Engagement	0.47	0.05	10.49	0.000
Social Media Use ➔ Political Loyalty	0.25	0.05	4.64	0.000
Social Media Use ➔ Issue Based Polarization	-0.12	0.06	2.02	0.044
Social Media Use ➔ Leadership based Polarization	-0.17	0.06	2.78	0.006
Social Media Use ➔ Party Based Polarization	-0.15	0.06	2.49	0.013
Political Engagement ➔ Issue Based Polarization	0.22	0.06	3.84	0.000
Political Engagement ➔ Leadership based Polarization	0.29	0.06	5.02	0.000
Political Engagement ➔ Party Based Polarization	0.30	0.06	5.06	0.000
Political Loyalty ➔ Issue Based Polarization	0.30	0.06	4.85	0.000
Political Loyalty ➔ Leadership based Polarization	0.21	0.06	3.33	0.001
Political Loyalty ➔ Party Based Polarization	0.50	0.06	8.48	0.000

Note. Coeff. = standardized regression coefficient

The results of direct effect showed that social media use was found to be a significant positive predictor of political engagement and political loyalty. While it was found to be a significant negative predictor of and political polarization (issue based, leadership based, and party based). Whereas political engagement and political loyalty were found to be significant positive predictors of political polarization (issue based, leadership based, and party based). Thus, H1, H2 and H3 were supported.

Table 5. Indirect Effects of Political Engagement and Loyalty between Social Media Use and Political Polarization

Mediators	Issue Based Polarization		Leadership based Polarization		Party Based Polarization	
	Coeff.	SE	Coeff.	SE	Coeff.	SE
Political Engagement	0.14***	0.03	0.10***	0.03	0.23***	0.03
Political Loyalty	0.05**	0.02	0.07***	0.02	0.07***	0.02

Note. Coeff. = standardized regression coefficient

The results of the indirect effect showed that political engagement and political loyalty was found to be significant mediators between social media use and political polarization (issue based, leadership based, and party based). Thus H4 and H5 were supported.
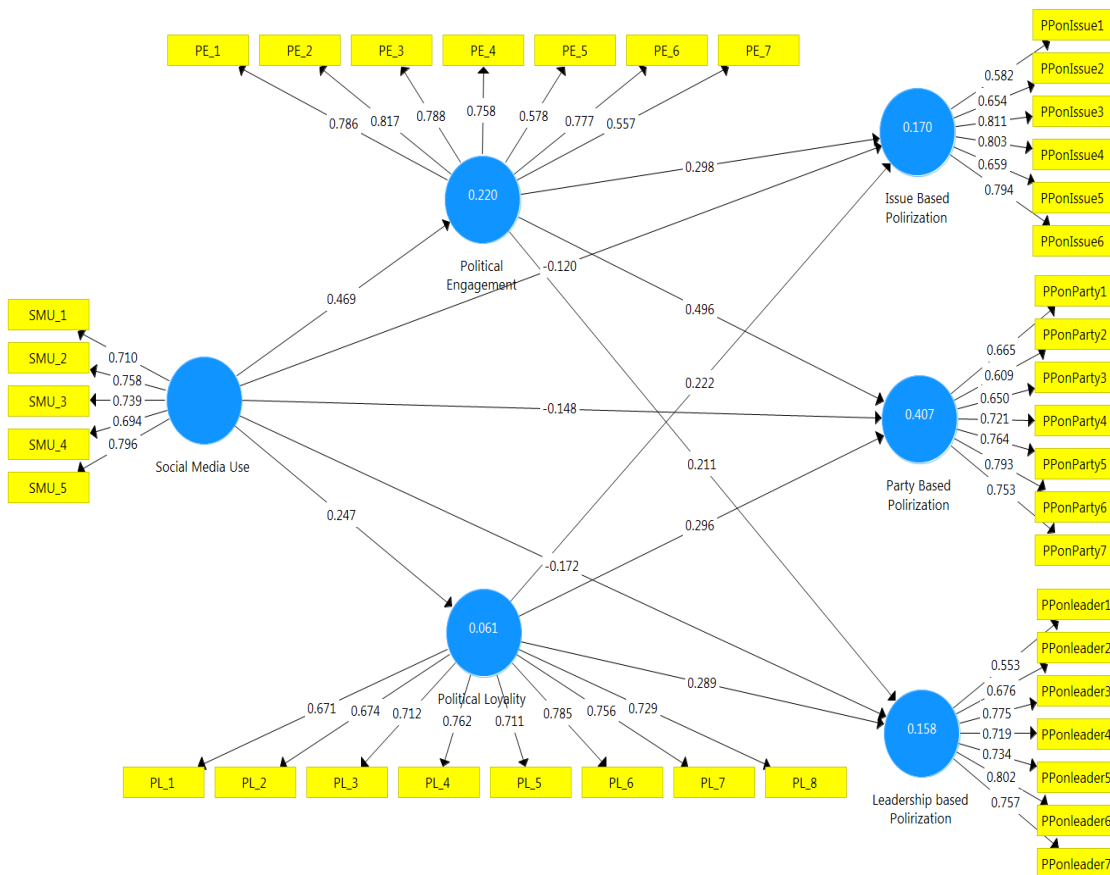

Fig. 1. Structural Model

5. Conclusion

With the emergence of new media, political attitude and behavior of an individual has become a new debated topic among the scholars. From many years, scholars are trying to understand the new changing that caused a change in political behavior. The focus of the researcher has been shifted from internet to social media websites. Number of scholars often points out the social media as a reason for changing nature of political attitude and political polarization among youngster due to their selective exposure to different messages. However, there is a limited research is available that tells how different mediating variables (political engagement and party loyalty) is affecting the political polarization. Therefore, we conducted a study to empirically test the association between social media use and political polarization by taking a sample of undergraduate and graduate students from different universities of Lahore. In this study, we tested the direct and indirect effect of social media use on political polarization.

The finding of the current study suggest that social media plays a significant role in engaging citizens and leading them towards political polarization. We also found that social media is also increasing the party loyalty of its users thereby indirectly creating political bias towards out-group. Thus, these results are an evidence that political engagement and party loyalty produced by social media is a significant factor which is leading the users towards political polarization. As new media has different platforms through which people consumes news and discuss political issues, so it would be difficult to treat this platform uniformly. It is possible that Facebook and Twitter are more related to political engagement than other social media types currently available to youngsters (Lee, Myer, 2016). Therefore, more research is required to understand that how social media is increasing political polarization through party loyalty and political engagement.

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A Study of the Reflection of Current Russian-Cuban Relationship in the Content on the Online News of the Cuban News Agency Prensa Latina

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Abstract

This study is developed on the basis of a current scenario in which Russian-Cuban relationship continues to strengthen. In this context, the official digital media of both countries play an important role in shaping the image of both states in current geopolitical conditions. This research analyzes the reflection of Russian-Cuban relationship in the current stage, taking into account the content of the news on the website of the Cuban news agency Prensa Latina. For this, a sample of intentional type (N = 453) was systematically analyzed (from July to August 2020), corresponding to the news published from January to July 2020 by Prensa Latina on its website in which Russia is mentioned. The methodology used allowed and helped the analysis of thematic content and the analysis of semantic content on the texts of Prensa Latina, combining qualitative and quantitative techniques, which showed that in the media agenda of Prensa Latina, during 2020, a higher priority was given to political issues, related to Russia, than to economy issues and society issues. Also, it was observed that in the content of Prensa Latina presents the political, economic and social news on Russia, in a way to make and create a positive image about Russia as a strong state on the readers. Thus, the political discourse reflects the current diplomatic relationship between the two governments at a high level.

Keywords: Russian-Cuban relationship, content analysis, digital media, media text, Prensa Latina news agency, political discourse, image of states.

1. Introduction

Technological changes have led to the migration of traditional media into digital media (hereinafter DM). In addition to their functional duality – carriers and disseminators of information – DMs, like traditional media, also contribute to raising the educational and cultural level of the population as part of the growing process of informing society.

At the same time, the DMs have become instruments of manipulation of the social conscience. Today, the manipulation of people's minds, feelings and behavior is becoming more sophisticated thanks to scientific and technological development (Grabelnikov, Gegelova, 2019: 6), visible also in journalistic practice.

And it is, precisely, the growing development of technologies that has generated mass digital journalism, where consumers themselves have become, at the same time, producers of all kinds of content available to the masses (Barcelay Ramírez, Gegelova, 2021: 111). The free practice of digital content production is one of the media risks that occupies and worries researchers in spheres such as Sociology, Journalism and Mass Communication.

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Thus, the role of the media in media education are considered important. Given the imperative of Internet consumption, the use of digital media and social networks, media literacy is also essential. Nowadays, people need to be aware of the disadvantages that the virtual community has brought us, they need to be competent in the use of DMs, or they will become an easy victim of numerous media manipulations (Fedorov, Mikhaleva, 2020: 155).

In this context, official and / or state media play an important role, taking into account the social commitment that they must play towards audiences. State media available on the Internet and of international recognition are the most common tool for shaping the image of States.

This study analyzes the reflection of Russian-Cuban relationship in the current stage (from 2000 to the present, taking into account that starting this year and with the official visit of Russian President Vladimir Putin to Havana the relationship and negotiations between the two states are reestablished with more growth), taking as a reference the content of the news on the website of the Cuban news agency Prensa Latina: Cuban official media recognized not only in Latin America, but also in Western countries, like Russia.

2. Materials and methods

Content analysis is the main method on which the following work is based. This research technique allows to describe with objectivity, precision and generality what is said on a given topic, in a given place, at a given time (Lasswell, 1938). Thus, content analysis helps to formulate inferences by systematically and objectively identifying certain specific characteristics within a text (Hostil, 1969: 5). However, studying the texts of the media is not an easy task, but it is necessary to know the influence and the effect they cause on people (Fedotova, 2017: 95).

An empirical research model is used to analyze and interpret the content approach of the Prensa Latina agency online messages, published during 2020 and to reach conclusions about the reflection of the relationship between Cuba and the Russian Federation under current conditions, framed in the qualitative paradigm (Andréu Abela, 2001; Berelson, 1952; Fedotova, 2017; Hostil, 1969; Lasswell, 1938; Macnamara, 2005; McQuail, 1994; Shoemaker, Reese, 1996) and focused on descriptive aspects, specifically through of thematic content analysis and semantic content analysis. At the same time, the research is supported by the quantitative method, using statistical techniques to count the variables defined by the analysis of the texts.

The thematic content analysis made it possible to identify and classify the list of topics studied and the search for words in context. For its part, semantic content analysis helped to study the internal structure of the text: *the theme* (the central idea of the news), *the argument* (development of the theme and the presentation of secondary ideas) and *the structure* (description of the ideas that are developed in each of the parts).

For the thematic content analysis, an intentional sample was selected. Researchers carry out theoretical sampling to analyze and code the data and use their knowledge of the subject to select the evaluation criteria. The coding was carried out on a body of N = 453 news items, systematically analyzed during July to August 2020.

The authors determine their own analysis process and rely on the content analysis procedure of Andréu Abela (Andréu Abela, 2001): (1) determine the object or topic of analysis; (2) determine the encoding rules; (3) determine the category system; (4) check the reliability of the coding-categorization system; (5) inferences.

To carry out the study of the reflection of current Russian-Cuban relationship in the content of Prensa Latina news agency, an explanatory model is built based on the theory of H. Cantril (Cantril, 1965) and we rely on the value of orientation for the search for dimensions selected for content analysis (Yadov, 1995). Aspirations are measured on the continuum: "*strong*", "*medium*", "*weak*", where the topics with the highest percentage of publication are "strong" and those with the lowest percentage "weak".

Variables and analysis category system

The variables analysis are *the news topics about Russia*. In the thematic content analysis, the following news classification scheme is taken into account: (1) the number of headlines per month on each given topic; (2) the repetition of the same headline in the month; (3) length of the news and; (4) the enhancement of the letter or the text within the content of the news (see Barcelay Ramírez, Gegelova, 2021: 113).

The analysis category system was defined to perform the content analysis in our research (see Barcelay Ramírez, Gegelova, 2021: 113-114). Some dimensions were chosen from the categorization system proposed by Andréu Abela (Andréu Abela, 2001).

Category 1. Politics: a. International relations; b. Institutional functioning; c. International political conflict; d. National conflicts; e. Political debate; f. Political corruption; g. Terrorism and espionage; h. International news.

Category 2. Economy: a. Economic policy; b. Economic bonanza; c. Economic crisis; d. Economic conflict; e. Collaboration.

Category 3. Society: a. Social events; b. Science and technology; c. Culture; d. History and heritage; e. Sport; f. Tourism; g. Social problems.

Coding system: a numeral encoder (1, 2, and 3) is assigned to each variable and an alphabetic encoder (a, b, c, d ...) to each semantic unit (see Barcelay Ramírez, Gegelova, 2021: 114).

- *The presence or absence* of certain topics in Prensa Latina news agency. For example, we code the dimension "political debate" as *strong* (more than 15 headlines), *medium* (from 8 to 14 headlines) or *weak* (from 1 to 7 headlines) according to the presence or absence of headlines per month in Prensa Latina news agency on this thematic.

- *The frequency of appearance* of a registration unit determines the ranking of the most relevant topic to be publish. In this case, the sum of the news published about Russia in 2020, each of the three categories gives us the ranking of the most relevant variable, taking into account the following measurement scale: strong (≥50 headlines), medium (from 20 to 49 starters) and weak (from 1 to 19 starters).

- *The intensity* of the content where the opinion of a certain topic is shown. The degree of intensity of the reflection of the current Russian-Cuban relationship in Prensa Latina news agency content is cataloged, where 1 is intense (from 5 to 14 repetitions) and 5 (≥15 repetitions) is very intense.

- *The extension* of the news is measured according to its structure. The authors determined their own measurement parameters: 1 to 4 texts – normal, 5 to 7 texts – *not very extensive*, 8 to 10 texts – *extensive*, and ≥11 texts – *very extensive*.

Results or inferences: the quantitative data are interpreted by the researchers, and from the analysis of the symbolic material (the subject, the content, and the texts) the scientific data are obtained as a result of the research.

3. Discussion

The function of the official digital media [ODM hereinafter and, also understood as ODM in this research to state digital media (SDM hereinafter)] in the last decade goes beyond informing society. ODMs play an important role in shaping the image of States and their international political authority, as well as in strengthening mutual diplomatic relations between governments in the era of globalization.

Consequently, research is increasing (Capriotti, 2013; Echeverri et al., 2012; Fedotova, 2014; Gegelova et al., 2019; Pocheptsov, 2001; Shvecova, 2012) linking studies of country image, state image and the DM as the main instrument in the construction of this image.

Both the image of a country and the image of a state are formed intentionally. Governments manage their image through the statements of influential national personalities and political and public leaders, for which they use the discourse of the SDMs. Taking into account their presence in political events, the SDMs are builders / spokespersons of public opinion and at the same time they are used by politicians to shape their agendas and make decisions (Carey, 1997: 241).

Here, the analysis of the political discourse of DMs acquires relevance in social research (Barabash, Chekunova, 2017; Baranov, Kazakevich, 1991; Kultysheva, Fisenko, 2019). Political discourse can be highlighted as an outstanding way of "doing politics" (Van Dijk, Mendizábal, 1999: 17) and in turn is a determining factor in the reputation that a State gains in the consciousness of the world community (Barcelay Ramírez, Gegelova, 2021: 115).

However, the discourse of the DMs is also analyzed for its influence on society, for their ways of manipulating, controlling political consciousness and people's behavior. Research on these issues continues to be the object of study in the international scientific community (Castells, 2009; Kentikelenis, Seabrooke, 2017; Lee, Tandoc, 2017; Lehmann et al., 2017; Reunanen, Kunelius, 2020; Shen et al., 2019; Stubbs et al., 2020).

The well-known terms "disinformation" and "fake news" are increasingly being addressed in the research of scientists from different countries (Bakir, McStay, 2018; Chung, Kim, 2020; Jang, Kim, 2018; Kaur et al., 2018; Malik et al., 2020; Saurwein, Spencer-Smith, 2020; Shu et al., 2017; Wardle, Derakhshan, 2017) and it is not precisely because of its novelty, but because media manipulation in the current digital age has become a trend, without mercy and without limits, in the international arena.

Misinformation and fake news "virus" causes emotional distress and intentionally influences people's opinions, attitudes and actions, and its dangers have never been more severe before (Shen et al., 2019: 460).

And this is where the ODMs play their role, although they are also vulnerable on this trend. Each mean focuses its content depending on its purpose, however, the observation of the social environment (taking into account the use and abuse of power, political corruption or crisis situations) (Lasswell, 1938: 221), responsibility with society and accountability to the public (Garton Ash, 2016: 89; Helberger, 2020: 845) remain some of its main functions.

ODMs, also adapted to change in virtual communication, today more than ever must be professional, ethical, trustworthy for the audience, assuming the responsibility of distributing "true, verifiable" news that counteracts the flow of "false" news that circulates freely on the Internet through different opinion groups (Barcelay Ramírez, Gegelova, 2021: 116). At the same time, governments are challenged to avoid sociopolitical media manipulation, and to make society literate based on the consumption of information in virtual space (McDougall et al., 2018: 6; Levitskaya, Fedorov, 2020: 431) so that media culture is gained. It is precisely in this digital age that MOUs must earn a reputation.

In addition to their political interest, the SDMs of both countries must publish updated content on various topics that interpret and build social reality. In the current geopolitical conditions, both Moscow and Havana, and taking into account the level of importance of current diplomatic relationship between Cuba and Russia, it is convenient to show a diversified media agency, with homogeneous content, different approaches and styles that represent, with transparency, the political, economic, social, cultural reality, etc. of Russia and Cuba.

In relation to the antecedents addressed, the hypothesis that will guide the investigation is formulated:

In the content of Prensa Latina media agenda, political issues related to Russia are given higher priority than economic and social issues.

4. Results

During the analysis of the thematic content, two sections of the official Prensa Latina website were studied (see URL of the official website), which include the following topics: News (Europe, Sports, Culture, Science, Economy) and Specials (Politics, Economy, Sport, Culture, Science, Chronicles). 453 headlines about Russia were identified, published from January to July 2020, organized in this research into three thematic categories: Politics, Economy, and Society (Table 1).

Microsoft Excel is used for data processing. The total of the news about Russia published in 2020 is equal to the sum of the total of the news published per month of each of the established categories ($TNR = \sum Tn * M$). Thus, the result of the analyzed sample was obtained: TNR (453) =∑TnP (227) +TnE (17) +TnS (208).

Thus, out of the total news (453) analyzed about Russia, published in 2020, 50 % (227 news) is from Politics, 46 % (208) from Society and 4 % (17) from Economy. Obviously, on Prensa Latina agenda they broadly reflect of the Russian political current affairs. However, the content of Economics is scarce. Thus, in the current year, topics on Society were prioritized given the international situation of the Covid-19 pandemic.

Table 1. Total news by category, published on Russia in 2020.

CATEGORIES	TOTAL NEWS ON RUSSIA IN 2020
C1-POLITICS	50 % (227)
C2- ECONOMY	4 % (17)
C3- SOCIETY	46 % (208)
TOTAL	100 % (453)

Classification of the news. Political Category (Figure 1)
Correlation of the classification criteria: a) number of news per year and b) repetition of the same holder per month.
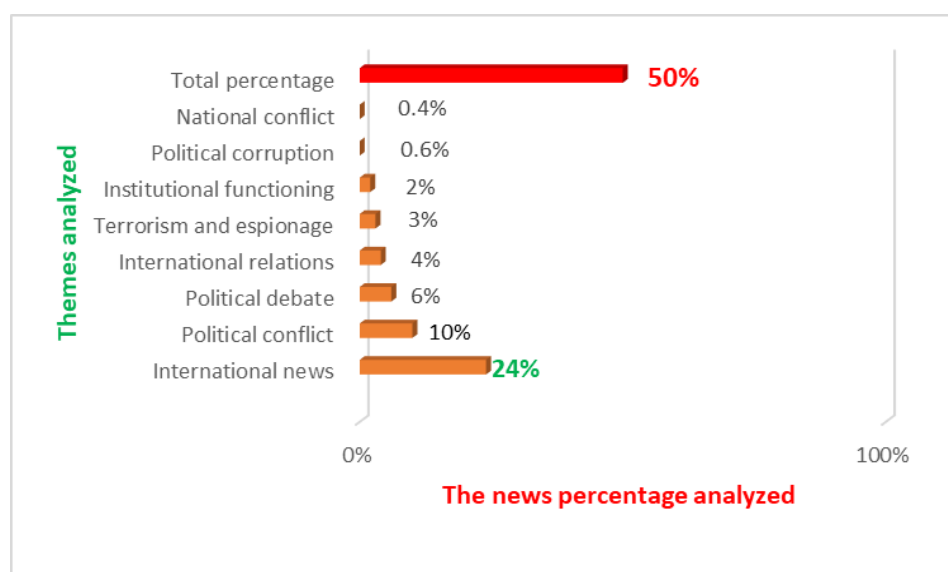
Fig. 1. Total "Politics" news published on Russia in Prensa Latina in 2020

50 % (227) on Politics news published about Russia during 2020, 24 % (111) is international news, 10 % (47) is of international political conflict, 6 % (23) on political debate, 4 % (16) on international relationship, 3 % (14) on terrorism and espionage, 2 % (12) on institutional operations, 0.6 % (3) on political corruption and 0.4 % (2) on national conflict. Taking into account the criterion of the number of headlines per year, the variables with the greatest publication relevance are: international political news and international political conflicts, both *highly* evaluated.

It is considered relevant that in all dimensions there is a headline about Russia, always positive. Obviously, the subject of foreign policy is given higher priority, but they also reflect the internal political situation in Russia.

Given the political repercussion of Russia in the international arena, the repetition of headlines of current international politics and international political conflict is remarkable. Thus, the international news variable was evaluated as strong in the months of May (4.4 % of the total – 50 %), June (10.3 % of the total – 50 %) and July (9.2 % of the total – 50 %) according to the criteria of repeat headlines per month.

During the first semester, 2020, the international situation of the Covid-19 pandemic, took place a media confrontation among different countries, especially between the western media and the Russian state media, where Moscow is constantly accused, and even Beijing, had manipulated data on the epidemic. In this context, the messages of international political conflict in the months of May (3.9 %) and July (4.2 %) stand out, so the degree of intensity reflected on this issue is "very intense".

It is evident that Prensa Latina work and attention are first targeted to current international political issues on Russia; and secondly, to the constant political conflict between Moscow and Washington/Western countries. Some of the headlines analyzed are the following:

Russia: US seizes pandemic to instigate confrontation, 05.13.2020; Russia, Covid-19 and the options of the West, 05.16.2020; La Jornada: China, Russia and EU support WHO against US attacks, 05.20.2020; Russia denounces US dismantling of global security system, 05.22.2020; Russia denounces Western campaign to damage Putin's image, 05.24.2020; Russian Embassy in Germany rejects accusations of cyber-attack, 05.27.2020.

Obviously, the degree of intensity of the reflection of political conflict between Russia and the United States/Western countries is classified as "very intense" during the months of May, June and July.

At the same time, the content of political debate is also classified as very intense in the month of July (3.1 %) given the internal political context of Russia, marked by the announcement and approval of a new constitutional reform in July 2020.

It should be noted that the international relationship variable was evaluated as *weak* according to the measured criteria. In February, seven headlines were identified on this subject, which address the topic of the Russian Foreign Minister's visit to the island Sergei Lavrov on this month.

Naturally, in the first half of 2020, greater attention is given to social issues and international political conflicts due to the international epidemiological situation. The political agenda and diplomatic interaction between the two countries did not stop, but they were somehow limited.

Correlation of the classification criteria: c) body of the news (length) and d) enhancement of the text of the news content.

The content of the news on Prensa Latina official website, its objectives and current, in most cases, opinion notes also prevail, where the event is analyzed in more details, causes are identified and the importance of certain phenomena is evaluated. , mainly the events related to the political conflicts between Russia and the US / Western countries. On the main page of the website, the headline of the news is shown in Arial 20, in blue and highlighted in bold. The content of the text in Arial 13. The textual citations within the text are highlighted in quotation marks.

Quantitative analysis shows that in the Political category of 227 headlines published about Russia, 120 were classified as extensive, 57 as *not very extensive*, 40 as *very extensive* and 10 as *normal.* Obviously, "extensive" texts prevail in Prensa Latina content. 120 headlines cataloged as "extensive", 46 are of international news, and 33 are of international political conflict, 15 on political debate and 11 on terrorism and espionage. Structured 10-paragraph headlines predominate.

There is a balance in the writing style of the content. In all cases, they exhibit a similar structure: the headline followed by a short heading introducing the topic of the event, then some paraphrased quotation corroborating the fact, later they present short paragraphs where they add brief information on the topic, with citations or paraphrased information from different sources of information: president, minister, spokesperson, document or official site. Quotes are shown in quotation marks, paraphrased ones are not. The notes are organized by sections and at the end of each note the metadata that classifies the content according to the country (North America, Central America, Europe, Asia, Africa, etc.), the theme (science, politics, culture, sport, etc.) and the type of note (exclusive, main, opinion). In the "Politics" section, it was noted that the majority of *opinion* headlines address issues of political conflict, specifically between Russia and the United States.

Classification of the news. Category Economy (Figure 2)

Correlation of the classification criteria: a) number of news per year and b) repetition of the same holder per month.

The 4 % (17) on Economy news, published on Russia in the first half of 2020, 1.5 % (6 headlines) is on economic policy, 0.9 % (4) on economic crisis, 0.9 % (4) on economic collaboration between Cuba and Russia and 0.7 % (3) on external economic conflict. No economic bonanza headline was found. Obviously, this category was evaluated as weak according to the measured criteria.
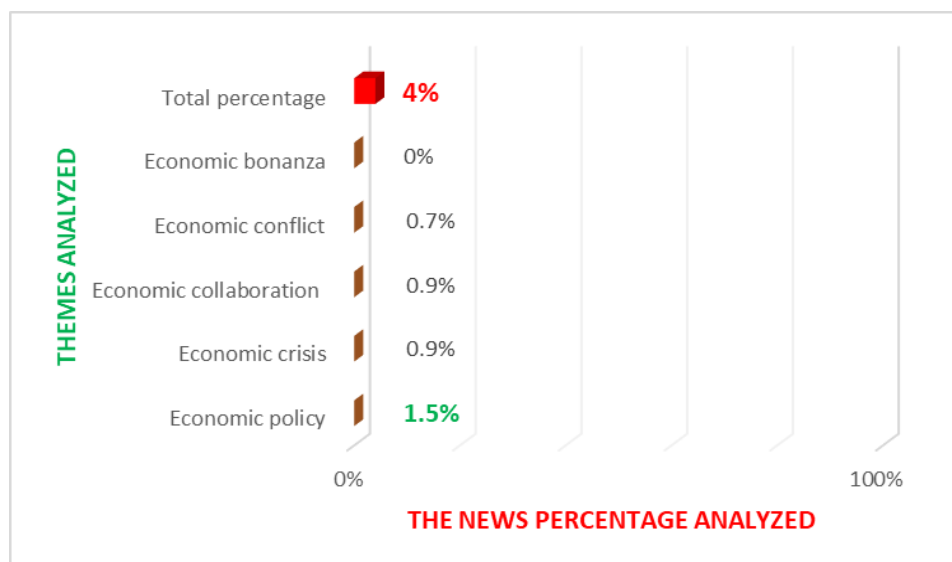
Fig. 2. Total "Economy" news published on Russia in Prensa Latina in 2020

The content of "Economy" in Prensa Latina media discourse is *not very intense* in the first half of 2020. It should be noted that the few messages analyzed in this category reflect the strong ties of the economic collaboration between Cuba and Russia, as well as the help that Russia provides to Cuba in this sector under current conditions.

The discourse in Prensa Latina agency reflects the economic repression of the United States towards Russia, implementing unilateral sanctions, even in times of current crisis due to the international epidemiological situation. In contrast, economic policy headlines predominate (1.5 % of the total – 4 %) reflecting, in a positive way, the economic decisions taken by the Russian government to restore the economic situation caused by Covid-19 since the beginning of 2020.

Correlation of the classification criteria: c) body of the news (length) and d) enhancement of the text of the news content.

In the "Economy" category, as in the "Politics" category, most of the messages have an *extensive* structure (11). There are two classified as *normal*, two as not very *extensive* and three as *very extensive*. Although the messages are "extensive", they have an objective, clear and well-defined speech, argued with paraphrased quotes taken from official sources and political leaders.

Classification of the news. Category Society (see Figure 3)

Correlation of the classification criteria: a) number of news per year and b) repetition of the same holder per month.
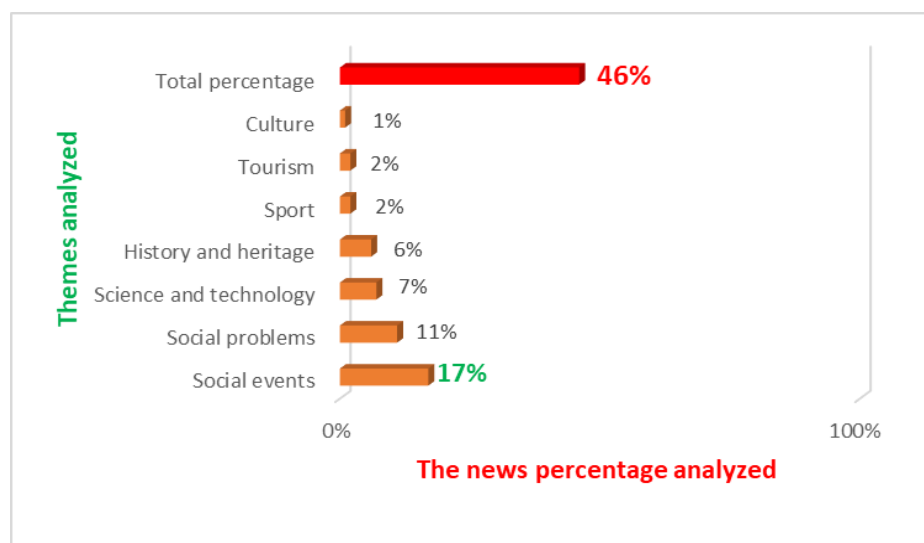

Fig. 3. Total "Society" news published on Russia in Prensa Latina in 2020

46 % on Society news published about Russia during the first half of 2020, 17 % is about social events, 11 % about social problems, 7 % about science and technology, 6 % about history and heritage, 2 % sports, another 2 % tourism and 1 % culture. In this category, a variety of content is observed, but a large number of messages about social events and problems are evident, which is due to the international epidemiological situation that took place in these months.

The positive news about the situation of the Covid-19 pandemic were included in the variable social events and the negative ones in social problems. Obviously, both variables were *strongly* evaluated taking into account the criterion of number of holders per year.

The epidemiological situation in the first semester of 2020, positive headlines appear repeatedly on the Prensa Latina website about the decision-making of the Russian government to control the pandemic. Thus, the positive headlines: number of tests carried out, high number of recovered, government support for social institutions, effective measurement plan, etc. are contrasted with the negatives: high number of infections, high number of deaths, second world position with positive cases, etc.

July (7.9 %), June (4.8 %) and May (4.2 %) were the months with the highest number of repeated headlines on the same topic: social events, evaluated *strongly*. In the same condition there is the variable social problems with a high number of repeated headlines in these months: July (3.9 %), May (3.9 %) and June (3 %). Obviously, in these months the degree of intensity reflected in both themes is *very intense*.

Thus, a variety of content from different social spheres are reflected in Prensa Latina media discourse, so the content of science and technology and history and heritage is also evaluated as very intense. Both categories were evaluated as "medium" according to the criterion of number of holders per year.

Correlation of the classification criteria: c) body of the news (length) and d) enhancement of the text of the news content.

208 published headlines about the Society in Russia only nine were classified as *normal* and 22 as *not very extensive*. The remainder, 92 were classified as extensive and 85 as very extensive. Most of the long headlines are about social events (36) and social problems (16). Likewise, most of the 92 headlines with a "very extensive" structure, are about social events (33) and social problems (29). The content of these messages is purely informative. Obviously, in Prensa Latina discourse, news with an extensive structure prevails, although the size of the texts is short.

It could be seen that in the content of history and heritage, the notes in the form of chronicles, descriptive and opinion prevail; generally very extensive and most are classified within the "exclusive" section. In the content, quotes, descriptions, verbal expressions are highlighted in quotation marks. Photos are shown that complement the verbal content.

Inference

The international epidemiological situation was of great repercussion specifically in the period that Prensa Latina content was analyzed (first semester of 2020). Precisely due to this situation, more than half of the headlines (31 % of 46 %) identified in the category "society" were about events and social problems related to the Covid-19 epidemic. Only 15 % of headlines are on social issues without mentioning the pandemic.

The thematic content analysis showed that, in relation to Russia, in Prensa Latina thematic agenda they attribute greater relevance of the Russian foreign policy issues. Special attention is paid to issues on international political conflict (10 % of the total in this variable - 50 %), which positively reflects the political influence of Russia in the international arena at the current time and its firm position as a strong and independent state and the permanent conflicts with the US and the Western powers.

Especial attention is paid to the content of political debate (6 % out the total - 50 %). The extra linguistic analysis reveals the use of stylistic resources that exalt the figure of Vladimir Putin, the confidence of the Russian people in their leader and the stability of the nation thanks to his leadership.

At the same time, the follow up on international relations messages (4 % out of the total – 50 %), although the figure is not very high. In this sense, they characterize the development of Russian-Cuban relationship at a high level in the current times, and highlight the historical ties and friendship between the two States.

In Prensa Latina news agency, the political approach, they publish news on national conflicts, political corruption, terrorism and espionage in Russia, but in the message they positively reflect the success in detecting extreme activities, as well as the effort of the Russian government to

guarantee sovereignty in national territory and preserve state assets. It is inferred that the intention is to form a positive image as an alternative to the negative image that Western media creates by portraying Russia as an unsafe country where terrorism is practiced.

The thematic content analysis showed, in Prensa Latina agenda, very little follow-up is given to the "Economy" topics on Russia. It was observed that the content that reflects the economic news of Russia, and even the economic collaboration between both countries, is very scarce (0.9 %). However, the economic messages analyzed reflect the active participation of Russia in the development program of the Cuban economy until 2030. The authors of this research infer that, with all intent, issues of current economic affairs in Cuba are hardly addressed. Russia in this environment, since the economic model adopted by the Russian Federation: current economic power, can be a source of inspiration to change the Cuban economic model for new generations.

In relation to "society" issues, the thematic content analysis revealed that, in Prensa Latina agenda, there is homogeneous follow-up to social issues on Russia. Materials on social events, science and technology, history and heritage of Russia are repeatedly published in Prensa Latina news agency.

The system of values and orientation represented in the Prensa Latina news agency texts is generally expressed implicitly, selecting the fact and reflecting its value in an objective and precise way, supported by the use of a large number of verbatim or paraphrased quotations. Although, in relation to the political conflicts between Moscow and Washington/Western powers, they repeatedly use phrases with evaluative connotations that express Havana's support for Moscow.

Prensa Latina online news texts are objective and accurate, adapted to the new digital environment. Content management is fast and operational, as the most read, most shared and most commented news are displayed minute by minute. The hyperlink is used to refer to the content of the headlines on the web and to the different linked platforms, but within the structure of the news text there are not always hyperlinks that link the reader with other content, only in some news there are hyperlinks with other related topics.

The analysis of thematic content, the frequency of emission of the messages was tracked. In this way, it was possible to see that relevant events are followed up during the day, that is, several headlines are published in the same day on the same topic. However, in the internal structure of the message some disadvantages were found: in the web banner they show the date (day/month/year) of the current day, but they do not show the time of issue or the year of publication of the headlines; they only publish the day and month of departure of the holder. Furthermore, it is only possible to retrieve messages from the current year (2020), the content of messages from previous years is not available on the Prensa Latina website. All this has a negative influence on the recovery of the content by the user, since it is not possible to constantly monitor the event by the interested audiences.

5. Conclusion

The thematic content analysis showed that, in relation to Russia, Prensa Latina thematic agenda shows a diversity of content, but they attribute more relevance to politics about Russia than to economy and society. Thus, the hypothesis raised at the beginning of the investigation was corroborated. In a positive way, the figure of V. Putin and the political authority of Russia as a strong state are exalted.

Little level of content is represented that reflects the economic aid of Russia to Cuba during the period analyzed. However, the economic headlines analyzed reflect the active participation of Russia in the development program of the Cuban economy.

The variety of social issues featured on Prensa Latina media agenda, specifically historical and cultural issues, demonstrates the positive image they want to form and create about Russia on the potential readers.

Finally, it was concluded that, despite of the low level of published content on international relations in the period studied, when analyzing the political discourse of the Prensa Latina texts, a high level of quotes and statements made by officials and political leaders were observed, both Cubans and Russians, who characterize the current diplomatic relationship between both governments at a high level and, in turn, connote the historical value and the ties of friendship that sustain current relations between both States.

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Formation and Development of Digital Literacy of the Population Based on Visualization Technologies

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Abstract

This study examines the formation and development of information literacy skills of the population in the context of the penetration of information and communication technologies in all spheres of activity and the formation of a global digital space. The analysis of the scientific literature showed a significant interest of scientists in the category of information literacy of various population groups. Based on the analysis, it was revealed that most attention is paid to the development of information literacy among young people. Schools, colleges and universities successfully teach young people modern technologies. As a result of the study, it was revealed that there are practically no training programs aimed at middle-aged people, although they are the active users of information technologies both in everyday life and in professional activities. Based on the results of the review, the study of modern visual techniques for the development of digital skills and methods for evaluating the effectiveness of such training in different conditions can be proposed for subsequent research. In the course of the survey of respondents, three groups of people were identified, to varying degrees focused on the digital environment. The results show that Respondents who are highly focused on the digital environment most often use it in a functional version: they use it exclusively for paying bills, receiving services from the state. Those who are on average focused on the digital environment, most often try to self-actualize in it, to find conditions for self-development. They have the most constructive and creative attitude to the possibility of using it. Based on the results of the study, recommendations were proposed for training centers on the use of visualization technologies, which will help significantly improve the efficiency and quality of information literacy development in middle-aged people.

Keywords: digital environment, information literacy, media literacy, digital skills, information technology, training, education, visual technologies, information.

1. Introduction

The ongoing changes in economic, political and socio-cultural life due to the rapid development of information and communication technologies initiate the introduction of information technologies and products in all spheres of society. Digitalization of all spheres of human activity is becoming a new trend in the socio-economic development of all countries, including Russia. The most important distinctive features of digitalization are: synthesis cyber psychologist systems that integrate the Internet of things, Internet of people, Internet technology;

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development and use of the Internet technology Web 2.0; functioning within the framework of the concept of "Industry 4.0", as in a conglomerate formed by economic entities, educational organizations, experts in the field of artificial intelligence and scientists; the use of blockchain and NAJM technologies. All the technologies mentioned above have overlapping zones of influence, communicate with each other in a complex way, constitute the essence of the "digital economy" and are related to intellectual capital belonging to society as a whole, diverse organizations, and individuals. The realization of the digital economy concept is based on the intellectual resources' procedures: reproduction, application, exchange, purchase and sale.

That is, the population needs the appropriate knowledge and skills to enable them to exist in the digital economy. The concept of digital literacy of the population is a fairly broad concept and includes a number of necessary skills and competencies, such as technical competence, the ability to use digital technologies in professional activities, in education and in everyday life, the ability to critically evaluate information and digital technologies, the ability to work safely in a digital environment (Ilomaki et al., 2016).

Understanding how modern reality works and the ability to make information and communication technologies a source of development, rather than worrying about the inability to communicate in a technologically complex environment, are provided by a high level of information literacy.

The skills of searching and evaluating information, individual and collective work in networks, and the use of the web environment for learning and leisure are directly related to the processes of learning, education, and social adaptation management. Access to information is determined by the recognition of information sources, the development of ways to acquire the necessary information and its assessment, all of the above being the basic components of literacy.

The information environment drastically increases the amount of potential sources of knowledge, but finding information in this environment requires additional skills of processing this information. Using print publications as sources of information, the credibility of information and the credibility of judgments can be assessed by the author's or publisher's reputation, while too many Internet sites (except for the official websites of publishers or institutions) do not include any indication or proof of a trustworthy producer of the information. In this case, the evaluation of the information plays a special role.

The ability to determine the adequacy, relevance, and quality of information requires the availability of information literacy skills that a person can acquire as a result of training and practical experience. The formation of information literacy in different age groups of the population has its own characteristics. Young people born in the digital age, from an early age, have primary skills in using simple technical devices, communicating in social networks and accessing media content.

People of the older generation, having received primary skills in working with computers and information technologies in schools and higher educational institutions, independently mastered new technologies as they appeared. Most of the development of new information technologies was carried out in the workplace as organizations began to widely implement new technologies in their activities (Ferroet al., 2011). Given that in modern conditions, the formation of information literacy skills is a mandatory component of educational programs in schools and higher educational institutions, the subject of discussion in this article is the content and acquisition of information literacy skills of middle-aged people.

2. Materials and methods

The analysis of the literature on the study of the content of the concepts of digital literacy and information literacy was carried out. The logic of the study was to analyze the research of information skills in various contexts, to determine which knowledge, skills and abilities form the concept of information literacy. The review includes theoretical and empirical studies on the problems of information literacy of the population. The empirical data in this article are the results of a sociological survey of middle-aged people regarding their level of information literacy.

The purpose of the study is to analyze the possibilities of using visual technologies in improving the digital literacy of the population.

The study was conducted using a questionnaire that was offered to respondents in a remote format, which allowed to reach a larger number of respondents. The sample was collected

randomly, but there were conditions that the respondents had to meet: age, work or leisure in the digital environment, employment, etc.

3. Discussion

In a broad sense, information literacy allows people to identify their information needs, accumulate information, create information and share knowledge, use existing information and communication technologies, and master new ones. Information literacy is the foundation for achieving a person's personal, professional and social goals. In modern literature, there are a number of terms related to, but not synonymous with, information literacy concepts, including computer literacy, media literacyиinformation competence. The Association of College Libraries and Research Libraries (ACRL) defines information literacy as a set of integrated abilities encompassing reflexive information discovery, understanding how information is produced and evaluated, the ability to use information to create new knowledge, and ethical participation in educational communities.

Heidi Julien, pointing to the diversity of terms related to public literacy in the context of information use, defines information literacy as a set of skills and knowledge necessary for effective, efficient and ethical access to information. In a broader sense, information literacy should include knowledge of how to interpret and evaluate information and how to use it in the context of decision-making, in creative activities, in academic activities, in everyday life and in professional activities (Julien, 2016). Information literacy is not limited only to the skills of perception and working with information, in the context of the ongoing digital transformation, the concept of information literacy should include the ability to work in various socio-technical infrastructures of data collection, storage and processing, expanding the possibilities of knowledge of the environment (Gray et al., 2018). Equally important are the issues of media literacy development, since the ability to adequately perceive and critically evaluate information, the ability to express oneself through the media are essential skills of the digital economy (Wallis, Buckingham, 2019).

Media literacy allows a person to design and implement their own vision of an information resource, and for this it is also necessary to be able to work with information and media content. Media literacy includes and even extends the competencies related to information literacy. Renee Hobbs defines media literacy as the ability to make a responsible choice of information from a variety of sources, analyze the information received and evaluate the quality of the source of information and the information itself, create your own content using audio and visual tools and technologies, distribute media content and share knowledge (Hobbs, 2011).

Taking into account the existing approaches to the definition of information literacy, we can agree that information literacy should be understood as technical skills in using computer equipment, mobile devices, the ability to formulate information needs, request, search, select, evaluate and interpret information, and create media content. The need to master information technologies in the context of the formation of national economies based on knowledge, the formation of the international information space is due to the opportunities that these technologies provide for obtaining economic and social benefits, the formation of a competitive personality.

Almost all developed countries, realizing the importance of information literacy of the population, pay considerable attention to the formation and development of knowledge in the field of information technology, developing and improving methods for assessing the level of computer and information literacy (Ainley et al., 2016). Studies of information literacy conducted among schoolchildren who use various mobile devices with access to the network have shown the effectiveness of information technologies in acquiring communication skills, interaction of students with parents and teachers, and increasing interest in learning (McDougall et al., 2018).

Researchers identified the need to provide access to technology and improve information literacy in older adults so that children can communicate with their grandparents at a distance using Skype. Information literacy skills in all age groups allow different generations to find more common ground and provide unlimited opportunities for communication and education. The issues of information literacy development and digital skills formation in various population groups are considered in the modern literature in various aspects.

An active consumer of information technologies is the education sector, which actively uses information technologies and the virtual educational environment. In this regard, a significant part of the research is devoted to the analysis of information literacy in young people, most often students of

colleges and universities, while the subject of study is not so much the level of digital literacy, but the impact of information technologies on the effectiveness of learning (Lacka et al., 2020).

The development of information literacy in the education system is accompanied by the replacement of traditional teaching methods and tools with electronic, multimedia interactive educational resources to improve the effectiveness of teaching. The study of how students use new technologies in the educational process shows a different level of proficiency in such technologies (Dommett, 2018). It is also interesting to study the extent to which young people themselves adequately assess their information skills. Inaccuracies in the assessment of one's own knowledge in the field of ICT can negatively affect the use of this knowledge in the learning process. The researchers suggest using more accurate methods of assessing their own knowledge (Vonkova et al., 2021; Webb et al., 2018).

The ubiquity of personal computers, smartphones and other electronic devices allows you to master the skills of information literacy at an early age. Modern young people actively use the Internet to communicate in social networks, search for necessary information, learn languages, respectively, these skills further contribute to active learning, allowing students to share opinions, receive prompt feedback. The availability of information literacy skills among schoolchildren and students in the context of modern socio-economic development is not in doubt, and practical experience with various information technologies in the learning process is important for mastering technologies that are relatively new, complex and will allow you to better understand the possible negative consequences of turning to certain technologies (Gálik, 2019; 2020; Kassens-Noor et al., 2020).

For the formation of information literacy among schoolchildren, teachers themselves must have a sufficient level of knowledge of these technologies. Considering information literacy as an integral part of the required digital competencies A.D. Olofsson, G., and J. Fransson. O Lindberg's research into the ability of teachers to use information resource skills in Swedish schools has determined that teachers are well acquainted with the functionality of various educational software and digital tools and know what value digital technologies will add to learning. They also have the competence to anticipate possible problems in students ' use of digital technologies and can help students solve their problems. Due to limited economic resources, they will know which digital technologies the school should buy and why, as well as how to search for free digital learning resources and programs on the Internet (Olofsson et al., 2020).

This means that, firstly, school education is able to provide the necessary level of information literacy among schoolchildren, and secondly, teachers were able to master the necessary technological knowledge because their professional activities require it. Nevertheless, the problem of forming information skills in the middle-aged generation is still debatable. The availability of information and media technologies implies their widespread use in the practice of teaching and improving information literacy both in school and outside of it, expanding the opportunities for knowledge exchange (McDougall, Potter, 2019).

The technical tools used to teach information literacy should be intuitive, then their effectiveness will be significantly higher (Tonyan, Piper, 2019). In the process of studying the formation of information literacy of various groups of the population, it is important to determine which factors and to what extent will affect the effectiveness of teaching information literacy skills (Williams, Evans, 2008).

Conducting research among college students, Michelle Hale Williams and Jocelyn Jones Evans found that during college students acquire information literacy skills, the improvement of students to some extent depends on their specialization. One of the strengths of the approach used here is quasi - experimental design. Measuring students 'information literacy at different time intervals during the semester allows us to determine the nature and evolution of students' learning. Data from Michelle Hale Williams and Jocelyn Jones Evans show that knowledge about information literacy depends on content. Not only is information literacy largely linked to multiple performance indicators, but it also appears to be discipline-dependent.

Studies on the formation of information literacy skills in the adult population have shown that in addition to anxiety about mastering the technologies of working with information resources, older people experience stress about the fact that they have to learn to use computers or other equipment with which they are not familiar (Grandy, 2019). A study of the process of teaching adults to use electronic library resources, conducted by R. Grandy at the college library, showed the

effectiveness of training and reduced anxiety in students with the active help provided by librarians and teachers.

The analysis of research on the problems of forming information literacy skills of various population groups showed a large amount of accumulated information on the organization of information literacy training in schools and higher educational institutions, rich traditions and experience of schools, universities and libraries in preparing citizens for life in the information society. Some researchers turn to the problems of information literacy in the elderly. The question of the current state and development of information literacy in middle-aged people remains poorly studied. In this regard, it is advisable to develop research on information literacy of the population in this direction.

Traditional ways of teaching and developing information literacy are the use of electronic textbooks, contact work with teachers, online training, and interactive training. For example, modern universities form an electronic information and educational environment, in which information systems and training technologies, electronic document management systems, and various databases are integrated (Ilchenko, Onufrienko, 2017). Undoubtedly, these funds are quite effective in universities, libraries and other organizations that teach information literacy. However, given the age characteristics of the students, it is advisable to use other teaching techniques, such as visualization techniques.

4. Results

As part of the study of modern research, literature reviews, we can say that the development of digital literacy goes in several directions: on the one hand, it is information literacy-the ability to actively interact with information in the digital environment (collect, process, analyze the data of interest, competently dispose of them, broadcast them to society), on the other, - literacy in working with digital resources and gadgets (creating an external digital space around you-accounts, selecting "smart" devices, a clear understanding of how and what needs to be used). There is a third direction-the development of safe digital behavior (which includes the ability to safely communicate your data and leave digital traces, as well as the ability to safely and culturally interact with other people in a digital environment).

In the near future, the "real self" and the "virtual Self" are expected to converge more and more – that is, a person will not be able to think about himself or imagine himself outside of the digital space. All this has a significant impact on the purposeful development and formation of a system of knowledge about the digital system, working with information, data, etc.

Currently, more and more children, teenagers and young people are showing interest in the digital environment, actively living in it and socializing. All training programs are mainly focused on them and are aimed at learning to "live in a digital world". At the same time, children and adolescents are not active users of the digital space for receiving services, creating websites for business development, interacting with business partners, social structures and government institutions. All these functions are implemented by middle-aged people (30-60 years). It is important to increase the digital literacy of middle-aged people, as this is the economically active population, the main working-age part of the country, which is the main consumer of digital services. There are practically no training programs that would purposefully form the necessary level of digital literacy for them. There are practically no methodological techniques and forms of work that would help middle-aged people to work effectively and assimilate in the digital environment, especially since the effectiveness of their training opportunities has not been analyzed. All this makes this study appropriate and relevant.

The research program was divided into several main stages:

1. Questioning people between the ages of 30 and 60 about their attitude to the digital environment, using it to improve the quality of life, including questions about the need for training and understanding how it could be.

2. Analysis of the survey results and development of methodological recommendations for the training program to improve digital literacy.

3. Implementation of these recommendations and evaluation of their effectiveness.

4. Summing up and discussing the results.

All the results of each stage are described sequentially below.

The survey included answers to closed and open-ended questions about the respondents' attitude to the digital environment, their understanding of their place in it, and their motivation to learn how to work in this environment. All questions were divided into 4 blocks:
– attitude to the digital environment;
– a picture of yourself in the digital environment;
– the amount of consumption of digital products;
– behavior and relationships in the digital environment.

A total of 729 people aged 30 to 60 years were questioned, conditionally they were divided into three groups: young people (30-40 years), mature people (41-50 years), conditionally "elderly" (51-60 years). All respondents are employed, have a professional education (secondary or higher); 87 % are married, 72 % have children; regularly use the digital environment as part of their needs. The respondents took part in the study voluntarily, all were in an even mood and normal physical well-being.

According to the results of the survey, all respondents were divided into three groups (Table 1).

Table 1. Data on the results of the survey

Group type	Qualitative characteristics	Socio-demographic majority
highly focused on the digital environment (10 %)	- positive attitude to the digital environment; - clearly represent their place in the digital environment (what they do, what they use it for); - the amount of consumption of digital products (thoughtfully and competently use digital products, have the necessary information about digital products); - behavior and relationships in the digital environment (easily find new friends, build connections, behave politely, sincerely and kindly)	Most of all in this group of people aged 35-45 years, have a family, children, a permanent job (most often in the specialty)
medium focused on the digital environment (41 %)	- neutral attitude to the digital environment; - they have a vague idea of their place in the digital environment (what they do there, what they can use it for); - the average amount of consumption of digital products (do not always use digital products, do not always have the necessary information about digital products); - behavior and relationships in the digital environment (they cannot always find new friends, there are difficulties in building relationships, in general, they often behave politely and kindly)	Most of the people in this group are aged 40-45 years and 50-55 years, have a family, children, a permanent job and hobbies
little focused on the digital environment (49 %)	- negative attitude to the digital environment; - they do not represent their place in the digital environment (what they do there, what they can use it for); - the average amount of consumption of digital products (do not use digital products, do not have information about digital products); - behavior and relationships in the digital environment (they can't find new friends, there are difficulties in building relationships, in general, they often behave coldly and aloof)	Most of the people in this group are aged 30-35 years and 56-60 years, do not have a family, hobbies, but are employed

In general, we can say that there is not so much pronounced orientation towards the consumption of digital products and orientation in the digital environment. Most likely, this is due to the fact that there is no purposeful conscious attitude to understanding the digital space and the possibilities of implementation within it. It is worth noting that respondents aged 30-35 years also have little focus on the digital environment, except for the sake of communication and entertainment content. Respondents who are highly focused on the digital environment most often use it in a functional version: they use it exclusively for paying bills, receiving services from the state. Those who are on average focused on the digital environment, most often try to self-actualize

in it, to find conditions for self-development. They have the most constructive and creative attitude to the possibility of using it.

At the next stage, the results of the survey were analyzed and the methodological recommendations of the training program for improving digital literacy were developed.

The results of the survey can be explained by the fact that excessive focus on the digital space or almost complete disregard for it is reflected in the motivation for its study and use: material or consumer motives, which are inherent in high and low-centered groups, always distort the perception and evaluation of any process. Active, but moderate use of the digital environment, a constructive attitude to it, which are inherent in a medium-oriented group, allow you to use the digital space more fully. This is because mindfulness always accompanies greater understanding and a desire to learn and develop in any mood, particularly in the use of the digital environment.

Therefore, it is necessary to develop a training system that will increase digital literacy, form a conscious attitude to the possibilities of self-realization in the digital environment. Such training programs, of course, depend on the goals and desired results, as well as on the scope and subject of training, but they have approximately the same structure and general mechanisms.

Within the framework of the study, training centers were offered methodological recommendations based on the results of the survey and taking into account the peculiarities of the cognitive sphere of modern respondents (involuntary attention, quick switching, orientation to the emotional component of information, orientation to practicality in using the obtained data). In addition to these recommendations, visual methods of presenting information and working with educational material were proposed. Before and after the training, respondents were questioned who were trained with and without all the proposed recommendations.

Among the recommendations listed for the digital literacy training program were the following:

1. Always explain the purpose of the training, the benefits and the possibilities of applying the acquired knowledge in practice.

2. Break down the information in the training into small pieces, often using forms of work - such as a lecture-workshop-creative task (about once every half hour).

3. Take into account the field of activity or the sphere of interests of students, if possible, link all the data provided to it.

4. Constantly give feedback, focusing on student achievement rather than mistakes.

5. Use images and metaphors in teaching, as bright and emotionally colored as possible.

6. Use only up-to-date and up-to-date information for learning how to work in a digital environment.

The recommendations listed above are universal, they are suitable for any training program, including those related to improving digital literacy.

In addition, the training should use the following methods, which can be divided into two groups:

A) used by the teacher:

-storytelling-inventing stories on a given topic, they form the most vivid images in the minds of students, which contribute to the memorization of the material;

-infographics - a form of presentation of data in the format of small images, symbols, which allows you to organize the data, highlight the main thing.

B) used by the student:

- sketching-drawing in the format of small images, it is convenient to remember the sequence and relationships between objects, objects, phenomena;

- scribing-arrangement of data representation in a visual format (complex data in the form of simple diagrams and graphs, with a focus on the main key idea);

- active mental work with cognitive constructs-the representation of an idea or task in the form of an object, the mental modification of which can lead to a solution.

Thus, 4 educational centers that teach digital literacy were offered recommendations and training methods in working with groups. In each center, 2 groups were selected: in one group, recommendations and training methods were applied, and in the other, they were not. Before and after the implementation of the programs, students were questioned to assess the effectiveness of the recommendations and the use of methods.

At the third stage, the implementation of these recommendations and the evaluation of their effectiveness were carried out.

5. Conclusion

Based on the results of the work carried out, the following conclusions were made:

A) in groups where recommendations were applied and training methods were used:

- both teachers and students noted that the efficiency of memorizing and structuring the material, as well as its comprehension and application in work practice, in life, in general, increased by 90 %;

- students noted a more personal attitude to the material, a desire to apply it in practice, an increase in motivation and interest in learning;

- teachers noted the greater involvement of students, the growth of professional inspiration, and their own interest in the taught material;

B) in the groups where the recommendations were not applied and the training methods were not used, no similar results were obtained.

At the fourth stage, the results were summed up and discussed.

In general, it can be said that the use of visual technologies makes qualitative changes in the assessment of the knowledge and skills that a student receives as part of improving digital literacy, since it is based on the use of images. Any cognitive image always has an emotional color and personal meaning for the person who represents it, so it becomes part of his inner world, is remembered.

In addition, all methodological recommendations are also based on working with information, forming an emotional attitude to it.

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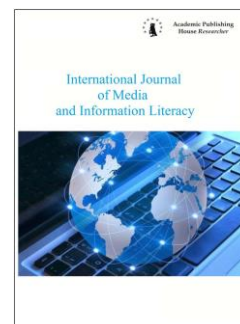
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From Business Information Literacy to Decision-Making, Problem Solving and Innovation

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Abstract

In the international literature, business information literacy refers to information literacy in the business context. Most of the research in this field focuses on university libraries, thus there is a gap in the literature with respect to business information literacy in industry and competitive organizations. The purpose of this paper is to investigate the state of the art about business information literacy, and it aims to identify how researchers have studied business information literacy in businesses. The method is a systematic literature review in international scientific databases. After the analysis of the systematic literature protocol, we included 26 papers that discuss business information literacy. These papers show that business information literacy research focuses on business management libraries and related fields. This paper concludes that libraries contribute to business management curricula, and students can develop critical thinking and lifelong learning. Similarly, members of business organizations can use business information literacy to develop critical thinking for decision-making and problem-solving.

Keywords: business information literacy, information literacy, business management libraries, business people's lifelong learning, critical thinking.

1. Introduction

Information literacy helps individuals to become more critical about the information they access. This critical thinking contributes to the evaluation of data and texts, since individuals need to evaluate among others the accuracy, credibility, authority, biases and truthfulness of information sources. Information literacy and critical thinking are fundamental to many aspects of people's lives such as personal, professional and social contexts (Belluzzo, Feres, 2015; Ottonicar et al., 2016; Santos et al., 2016; Silva et al., 2016; Yafushi, 2015).

Information literacy studies reveals a connection with lifelong learning. Regardless of the context, individuals are able to learn formally and informally. Every type of learning includes people's experience that guides behaviours and knowledge construction (Azevedo et al., 2018; Keiser, 2016; Rodriguez-Fernandes, Perez Del Prado, 2018; Sachon, 2018; Santos, Nassif, 2011; Zhang et al., 2012).

Based on those ideas, this paper aims to investigate the state of the art about business information literacy, and it aims to identify how researchers have studied business information literacy in businesses. This paper demonstrates the literature gap about that topic. Therefore, this paper encourages researchers to study business information literacy as a skill to improve the decision-making processes in competitive organizations.

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The first section of the paper is the introduction, and this section introduces the topics and its relevance to business information researchers. The second section discusses a few concepts of information literacy in the context of businesses. The third section is the methodology, which is based on a systematic literature review (SLR) about business information literacy in international databases. The fourth section provides a discussion of the results of the systematic literature review. The last section summarizes the ideas of the papers and identifies the literature gaps for future research.

2. Materials and methods

The first step of the SLR was to analyze the title and keywords of papers retrieved in eight scientific databases: Scientific Electronic Library (SciELO), Web of Science (WoS), Scopus, Brazilian Information Science Database (BRAPCI), National Meeting of Information Science (ENANCIB), Library and Information Science Abstracts (LISA) and Library, Information Science & Technology Abstracts (LISTA).

We selected papers published in scientific journals or international book chapters, papers that focus on competitive organizations and papers that study information literacy for competitive intelligence and other business management courses. We did not determine the period of time during the database search because the goal was to collect as many papers as possible.

The Latin scientific databases SciELO, BRAPCI and ENANCIB did not retrieve any paper that uses 'business information literacy' in title and keywords. We used the topic 'business information literacy' between quotations in every scientific database. The BRAPCI database showed 10 (ten) papers that connect information literacy to a business context. However, the topic 'business information literacy' is not very popular in BRAPCI yet. Table 1 shows the protocol of the SLR.

Table 1. Protocol of the SLR

Items	Explanation
Purpose	Identify papers that discuss information literacy and competitive intelligence together.
Databases	Web of Science, SCOPUS, EBSCO LISTA, Proquest LISA e Proquest Central, SciELO and BRAPCI
Period of time	No period of time. We retrieved papers published in all years in order to broader the information seeking because the topic is current and innovative.
Inclusion and Exclusion criteria	Inclusion: papers in English, Portuguese and Spanish. Papers published by journals and book chapters. All years. Papers that discuss competitive organizations and businesses. Papers that discuss information literacy to business management students. Exclusion: Papers published in other languages. Documents published in conferences.
First data retrieval	Keywords and title
Keywords	Information literacy AND competitive intelligence Information literacy AND environmental scanning Information competence AND environmental scanning Information competence AND competitive intelligence Business information literacy AND competitive intelligence Business information literacy AND environmental scanning

Strategies of information retrieval	The selected papers followed the inclusion and exclusion criteria described above. First, we selected the title and keywords. After that, we read the abstract. In the end, we read the paper. We retrieved information related to Information Science and Business Management Fields.

We excluded the papers that were not addressing specifically business information literacy and those that were duplicates. Therefore, we retained only 26 papers from the 139 that were retrieved. The appendix A shows the included and excluded papers based on the protocol of SLR.

3. Discussion

Information literacy in the business context

Information literacy is a scientific topic that has many concepts and approaches. Some approaches consider information literacy to be the ability to construct critical knowledge (Brady, 2021; Eisenberg et al., 2006; Keiser, 2016) and to develop digital skills in schools (Humrickhouse, 2021; Ma, Qin, 2021; Rubach, Larzarides, 2021). Information literacy is also useful for health students to seek health information (Hurt, McLoughlin, 2021; Khan et al., 2020; Stokes et al., 2021). Other approaches consider that individuals develop that literacy by their experience (Bruce, 1999). Regardless of the approach, information literacy is directly related to learning in several contexts and organizations.

Individuals access information and analyze its sources such as the author's name, ideology and interpretation based on cultural values (Lloyd, Williamson, 2008). Therefore, information literacy is an ally to lifelong learning because it encourages people to learn about different topics (Leonard et al., 2019) in their personal, professional and social life (Zimmerman, 2021).

P. Zurkowsky (1974) coined the term information literacy, and at that time, he considered that literacy was a crucial element to improve organizations. After 1974, academics started to develop further research about the topic. Information literacy discusses issues related to the field of education (Alkhezzi, Hendal, 2018; Graves et al., 2021; Reyes et al., 2018) and related theories are based on theories of learning created by great thinkers such as Piaget, Ausubel, Vygotsky, among others.

Beyond the education field, information literacy relates to other fields of knowledge such as politics in the sense that literacy contributes to citizenship as well as information science (Dawson, Yang, 2021; Hsieh et al.; Markless, Streatfield, 2017; Todorova et al, 2017) and communication when individuals access information. Furthermore, information literacy is related to the use of digital and media technologies for lifelong learning (Borkert et al., 2018). Because of these multiple links with various fields, some authors have considered that literacy is an interdisciplinary topic (Leonard et al., 2019) because it connects several scientific concepts of other fields of knowledge (Thomas et al, 2020).

Information literacy also contributes to the business management field (Cullen, Noonan, 2021) because it is a fundamental factor for decision-making, innovation and problem-solving (Thompson, 2003; Yafushi, 2020). In the context of management, information literacy allows managers and professionals to access high-quality and strategic information to benefit the company (Santos et al., 2016).

Recently, some businesses have used fake news as a strategy to compete in the market. A company may share manipulated information or even false information about themselves to affect its competitors. The competitive environment of organizations requires managers who are capable of identifying fake news and analyzing information critically (Ottonicar, 2020). Therefore, information literacy helps the identification of fake news (Jones-Jang, Mortensen, Liu, 2021).

If a manager makes a decision based on false information, the company may have a high risk of bankruptcy (Ferraro, Chipman, 2019). Therefore, information literacy is crucial to help managers to access truthful information on the internet, social media and information communication technology.

In addition to knowing how to deal with information sources, business people can use information literacy to develop such literacy in the context of work, especially in the transition between theoretical knowledge and practical knowledge (Lloyd, 2007; Rodriguez-Fernandes, Perez Del Prado, 2018; Sachon, 2018).

In conclusion, information literacy is useful to the corporate world and to business people who work for many organizations such as hospitals, schools, small businesses, startups and commercial associations (Ahmad et al., 2020; Khailova, 2021; Rosenberg, 2002; Yafushi, 2020).

4. Results

The international databases presented several papers about 'business information literacy' and most of the papers were published by the Journal of Business and Finance Librarianship (Taylor & Francis) which is very specific for libraries of the business field. In Scopus, we retrieved 22 (twenty-two) papers. We selected 8 (eight) papers in WoS. LISA had 78 (seventy-eight) papers and LIST had 29 (twenty-nine) papers about business information literacy. The four databases had a total of 137 (one hundred and thirty-seven) papers.

We applied the inclusion and exclusion criteria (Table 1) to select papers for the final analysis. After analyzing the title, keywords and abstract, we chose 26 (twenty-six) scientific papers (Table 2) which are part of the discussions in this section.

Table 2. Papers of the SLR '*business information literacy*'

Database	Papers
Scopus LISTA	An, A., Quail, S. (2018). Building bryt. A case study in developing an online toolkit to promote business information literacy in higher education. *Journal of Library and Information Services in Distance Learning,* 12(3-4): 71-89.
LISA	Howard, H.A., Wood, N., Stonebraker, I. (2018). Mapping information literacy using the business research competencies. *Reference Services Review*. 46(4): 543-564.
LISA	Marcos-Treceño, M.J. (2018). La formación en competencias informacionales en bibliotecas universitarias españolas de economía. *Revista General De Información y Documentación*. 28(2): 321-344.
LISA	Tariq, M., Ur Rehman, S., Mahmood, K., Mustafa, G. (2018). Online information searching skills of business students. *Pakistan Journal of Information Management & Libraries*. 20: 39-59.
Scopus WoS LISTA	Tingle, N. (2018). Taking care of business (before class): Information literacy in a flipped classroom. *Journal of Business and Finance Librarianship*. 23(2): 183-198.
LISA	Freeburg, D. (2017). A knowledge lens for information literacy: Conceptual framework and case study. *Journal of Documentation*. 73(5): 974-991.
Scopus WoS LISA LISTA	Stonebraker, I., Maxwell, C., Garcia, K., Jerrit, J. (2017). Realizing critical business information literacy: Opportunities, definitions, and best practices. *Journal of Business and Finance Librarianship*. 22(2): 135-148.
Scopus LISA LISTA	Kirkwood, H., Dejoie, R. (2016). Business information literacy integration into a freshman summer bridge course for underrepresented minorities. *Journal of Business and Finance Librarianship*. 21(3-4): 198-209.
Scopus LISA LISTA	Leavitt, L. (2016). Taking the plunge! A case study in teaching a credit-bearing information literacy course to business undergraduate students. *Journal of Business and Finance Librarianship*. 21(3-4): 274-287.
Scopus LISA LISTA	Michalak, R., Rysavy, M.D.T. (2016). Information literacy in 2015: International graduate business students' perceptions of information literacy skills compared to test-assessed skills. *Journal of Business and Finance Librarianship*. 21(2): 152-174.
Scopus LISA LISTA	Mezick, E.M., Hiris, L. (2016). Using rubrics for assessing information literacy in the finance classroom: A collaboration. *Journal of Business and Finance Librarianship*. 21(2): 95-113.
LISA	Spackman, A. (2016). Client-based experiential learning and the librarian: Information literacy for the real world. *Journal of Business & Finance Librarianship*. 21(3-4): 258-273.
Scopus LISA LISTA	Stonebraker, I. (2016). Toward informed leadership: Teaching students to make better decisions using information. *Journal of Business and Finance Librarianship*. 21(3-4): 229-238.
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LISA	Matarazzo, J.M., Pearlstein, T. (2014). The business case for information literacy: Why training is an important information services function. *Online Searcher*. 38(5): 42-49.
LISTA	Skipton, M.D., BAIL, J. (2014). Cognitive processes and information literacy: Some initial results from a survey of business students' learning activities. *Journal of Business & Finance Librarianship*. 19(3): 181-233.
LISA LISTA	Hristova, M., Miree, C.E. (2013). Longitudinal update: Business information literacy teaching at different academic levels. *Journal of Information Literacy*. 7(2): 153-155.
LISA LISTA	Gunn, M., Miree, C.E. (2012). Business information literacy teaching at different academic levels: An exploration of skills and implications for instructional design. *Journal of Information Literacy*. 6(1): 18-34.
Scopus LISA LISTA	Campbell, D.K. (2011). Broad focus, narrow focus: A look at information literacy across a School of Business and within a capstone course. *Journal of Business and Finance Librarianship*. 16(4): 307-325.
Scopus LISA LISTA	Fiegen, A.M. (2011). Business information literacy: A synthesis for best practices. *Journal of Business and Finance Librarianship*. 16(4): 267-288.
LISA	Aharony, N. (2010). Information literacy in the professional literature: An exploratory analysis. *Aslib Proceedings*. 62(3): 261-282.
Scopus LISA LISTA	Simon, C. (2009). Graduate business students and business information literacy: A novel approach. *Journal of Business and Finance Librarianship*. 14(3): 248-267.
Scopus LISA LISTA	Wu, Y.D., Kendall, S.L. (2006). Teaching faculty's perspectives on business information literacy. *Reference Services Review*. 34(1): 86-96.
Scopus LISA LISTA	Cooney, M. (2005). Business information literacy instruction: A survey and progress report. *Journal of Business and Finance Librarianship*. 11(1): 3-25.

The librarians A. An and S. Quail (An, Quail, 2018) developed an online tool for students to develop business information literacy. The authors evaluated the curriculum of York University students (Toronto, Canada), and they did a survey to collect data. Furthermore, they conducted a focus group with the objective of identifying students' difficulties in the teaching-learning process.

Howard, Wood and Stonebraker (Howard et al., 2018) in the paper "Mapping information literacy using the business research competencies" introduce a study to map information literacy in the business management field. According to the authors, librarians are the majority of professionals who are engaged in teaching information literacy to students. Librarians are important in the process of critical thinking, because they contribute to the development of short, medium- and long-term strategies. Therefore, these strategies influence students' learning in information literacy, so they become critical thinkers and lifelong learners in the business context.

The researcher M.J. Marcos-Treceño (Marcos-Treceño, 2018) developed a study about information literacy activities in libraries focused on economics courses in Spain. The author (2018) explains that students in the field of economics have access to various contents online such as journals and newspapers, and they face some difficulties to understand some topics and concepts of the field. Therefore, the understanding of how to access, evaluate and use information is essential for them to become information literate professionals. The Spanish context is heterogeneous and marked by inequalities regarding the support of libraries for students to develop information literacy.

In "Online information searching skills of business students", M. Tariq et al. (Tariq et al., 2018) researched the level of students' learning in business courses based on online information search skills. Thes authors concluded that online information training helps students to know how to seek information. The results of that research were published in the Pakistan *Journal of Information Management and Libraries*.

N. Tingle (Tingle, 2018) published the paper "Taking care of business (before class): Information literacy in a flipped classroom". In this paper, the author developed a case study with business students. The research was focused on learning to seek information and to identify

potential sources of information in the management field. This author emphasizes the importance of adopting new forms of learning with a focus on the student, so that they are able to think critically about information sources.

D. Freeburg (Freeburg, 2017) wrote the paper "A knowledge lens for information literacy: Conceptual framework and case study". The purpose of the paper was to identify the knowledge developed through data and information access. The process of learning through data and information stimulates creativity as a social process, and it enables individuals to develop skills to survive in an uncertain world.

I. Stonebraker et al. (Stonebraker, 2017) published the paper "Realizing critical business information literacy: opportunities, definitions, and best practices". This paper focused on managers' ethical issues. The authors explain that Critical Business Literacy (CBL) refers to the skill that involves ethics, critical management and social responsibility in organizational contexts. In addition, CBL encourages librarians and professors to think critically about social justice, so they encourage a positive and ethical behavior to students.

In the paper "Business information literacy integration into a freshman summer bridge course for underrepresented minorities," the authors H. Kirkwood and R. Dejoie (Kirkwood, Dejoie 2016) present the result of a partnership between a professor and a librarian. Both of the professionals aimed to improve the Management course curriculum so students can develop critical thinking. As a result, students started to develop critical thinking to make decisions in order to the face the organizational problems, instead of memorizing concepts.

According to L. Leavitt (Leavitt, 2016) the insertion of the business information literacy course allows students to give more value to the Michigan State University library. Leavitt (2016) shared these ideas through the paper "Taking the plunge! A case study in teaching a credit-bearing information literacy course to business undergraduate students." This type of course requires librarians to learn about pedagogy and information literacy.

R. Michalak and M.D.T. Rysavy (Michalak, Rysavy, 2016) showed that international business students have a different perception about their information literacy skills than reality. According to these authors, there is a difference between the necessary skills to work in the international business context and the students' perceptions about these skills. Thus, management students can improve their skills to access and use information intelligently through information literacy.

In the paper "Using rubrics for assessing information literacy in the finance classroom: A collaboration," Mezick and Hiris (Mezick, Hiris 2016) developed a framework for working with the business information literacy of finance students. The model is flexible and can be used in all courses of the finance program. The authors put the framework into practice with students at the end of their program, as well as to students of MBA courses. The authors emphasize the importance of collaboration between professors, librarians and university staff so that students can develop their skills and succeed in the workplace.

Business information literacy is understood as the ability to achieve professional success through lifelong learning. Management students can develop and strengthen their skills through courses about information literacy. Librarians and professors must encourage students' critical thinking through simulated business situations (Mezick, Hiris, 2016).

A. Spackman (Spackman, 2016: 260) addresses the issue of learning through experience and explains that learning through experience is the link between theoretical and practical learning. According to this author, business schools must teach students based on practical projects. In order to do so, students need to be in contact with customers. A. Spackman (Spackman, 2016) concluded these ideas in the paper "Client-based experiential learning and the librarian: Information literacy for the real world."

In the paper "Toward informed leadership: Teaching students to make better decisions using information", I. Stonebraker (Stonebraker, 2016) contributed to student learning about leadership and decision-making. Her research discusses the problem of information without context, because the lack of contextualization leads professionals to make mistakes in the decision-making process. The author emphasizes that information access is not enough for decision-making because professionals must also understand the organizational environment and the context of the retrieved information.

O'Neill (O'Neill, 2015) published a research with the title "The Business model canvas as a platform for business information literacy instruction". This paper showed management students can use the Canvas model to learn about practical concepts. This model helps students to

understand the different objectives of the business information sources. In addition, this model helps students to overcome the challenges of entrepreneurship activities, since they have difficulties to put the organization planning strategies into practice.

According to I. Stonebraker (Stonebraker, 2015) information literacy refers to the ability to access and use information in the context of business and management. The author published that idea in the paper "Flipping the business information literacy classroom: Redesign, implementation, and assessment of a case study a business information literacy". Furthermore, I. Stonebraker (Stonebraker, 2015) explains that the combination of face-to-face and online study encourages course tutors' and students' learning.

Matarazzo and Pearlstein (Matarazzo, Pearlstein, 2014) explain that sustainability is one of the challenges of libraries, because these organizations often suffer from cost reduction. The authors discuss the importance of business information literacy to libraries sustainability in the paper "The Business case for information literacy: Why training is an important information services function."

Skipton and Bail (Skipton, Bail, 2014) found out that management students prefer to use online information sources rather than print, and they published this idea in "Cognitive processes and information literacy: some initial results from a survey of business students' learning activities". Furthermore, the authors explained that students were hesitant to ask the librarian about information sources.

As a conclusion, the authors showed that students are not developing critical thinking for problem solving (Skipton, Bail, 2014). In order to overcome these difficulties, Hristova and Miree (Hristova, Miree, 2013) explain that exposing students very early to business information literacy is essential for learning in the paper "Longitudinal update: Business information literacy teaching at different academic levels".

Gunn and Miree (Gunn, Miree, 2012) compared students' information literacy in the first and last years of the undergraduate course in management through an online tutorial. They published the results in the paper "Business information literacy teaching at different academic levels: An exploration of skills and implications for instructional design". The authors mentioned that there is no difference between first-year and final-year students' business information literacy.

In "Broad focus, narrow focus: A look at information literacy across a School of Business and within a capstone course", D.K. Campbell (Campbell, 2011) conducted a market research at Rider University (New Jersey, United States). The author explains that the future projects of the university will involve librarians and professors who are specialists in the business field.

A.M. Fiegen (Fiegen, 2011) analyzed papers published by librarians about the practices of business information literacy in the paper Business information literacy: a synthesis for best practices. The author concluded that most studies implement business information literacy through a partnership between the university and different professionals working at the university.

N. Aharony (Aharony, 2010) identified that information literacy is a theme that is connected to the context. In the paper "Information literacy in the professional literature: an exploratory analysis", the author emphasizes that there is a tendency to develop research about information literacy in the medical context. N. Aharony (Aharony, 2010) showed that information literacy cannot be limited only to the context of libraries.

According to C. Simon (Simon, 2009), the current literature of business information literacy highlights the importance of partnership between librarians and other professionals in business courses. Students need to develop business information literacy to become leaders capable of managing different types of organizations. At that time, C. Simon (Simon, 2009) explained that there was not a lot of research about business information literacy to improve graduate students' learning.

Wu and Kendall (Wu, Kendall, 2006) show the importance of establishing a partnership between librarians, professors and university professionals to implement business information literacy in Management and Business courses. Teachers expect students to know how to search reliable information sources to develop the course projects. Professional need to teach the criteria to identify quality information sources, especially online.

In the paper "Business information literacy instruction: A survey and progress report", M. Cooney (Cooney, 2005) researched an association of librarians. The results demonstrated that business information literacy is a growing topic of courses in business management. Due to the complex and competitive nature of organizations, students need to be information literate.

5. Conclusion

The systematic literature review showed that university and college libraries have developed actions to disseminate the importance of business information literacy to the management field. Students who participate in these initiatives become professionals capable of making effective decisions. Therefore, libraries are organizations that impact businesses and they are strong allies for the innovation process.

The authors of the SLR papers agreed that the partnership between libraries, schools and universities helps to teach students how to become critical thinkers and lifelong learners. This partnership also helps to demonstrate the importance of business information literacy to decision-making, problem-solving and innovation (Cooney, 2005; Wu, Kendall, 2005; Simon, 2009; Fiegen, 2011). Furthermore, we suggest libraries should develop partnerships with business companies, manufacturing organizations and startup accelerators. The libraries can offer training to professionals to improve their information access and evaluation in the workplace. As I. Stonebraker (Stonebraker, 2016) explains, there is no point of knowing how to access information without understanding the context.

There is a gap in the literature about business information literacy in business, manufacturing companies and startups. The majority of research focuses on students' business information literacy at university. Therefore, the relationships between companies, libraries and universities should enhance practical learning. Business information literacy helps students to be prepared to deal with economic instability. Furthermore, literacy encourages business people's learning through the access of trustworthy information sources. Business information literacy allows students and professionals to construct lifelong learning in a critical and ethical way to become leaders who can overcome information challenges.

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Investigating the Effect of TikTok App on the Transmission of Cultural Values in Algeria: A Case Study of Algerian Youngsters

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les manuels scolaires de langues etrangères en Algérie), Algeria

Abstract

The current study revolves around the use of TikTok application by Algerian teenagers, highlighting its specific type of communication (nonverbal communication) that has significant effects on the transmission and communication of cultural values among generations, as it leads further to unequal online practices and behaviours. In this insight, at first, we established the link between the historical evolution of language in TikTok as a modern social media platform and its hidden effects on Algerian teenagers' cultural values. We attempted to make its users aware of the behaviours and habits decline in their cultural values and how it could influence them unconsciously. To reach our goal, we conducted the research study with 116 Algerian teenagers to confirm or nullify our hypotheses; and to collect the appropriate data we employed an ethnographic research method using online observation and online questionnaire as research tools. The results indicated that the nonverbal language used in TikTok application is a weak tool for communication. It has disturbed the flow of the local cultural values among adolescents because TikTok is enabling its users to create their content which is a factor that contributes to losing their cultural values and traditional standards by sharing useless and funny content.

Keywords: cultural values, nonverbal communication, TikTok platform, wrong behaviours.

1. Introduction

The increasing popularity of social media has become the hallmark of modern human societies, especially among teenagers who find themselves addicted in front of imported technology that responds to their age needs. However, it has a profound impact on social systems starting from language since it is the basic human and social need. In this view, the issue of modern technologies has become linked to many social factors, particularly, language and culture, because of their intimate relationship that will affect later on the transmission of cultural values. This technological revolution is the main factor that has shifted borders and distances; to this end, the fusion of languages and cultures despite their diversity. It affects the social and cultural stability of the countries of the East, in particular the conservative ones. It is a Western product that represents a Western way of life which contradicts the values and customs of traditional Arab societies, including Algeria, which still has traditional characteristics present in the country in the light of modernity and modern technologies.

Social media use has augmented considerably in Algeria and has changed all social aspects. In the light of these changes taking place in Algeria, it is significant to continue the path of previous

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researches in the field of social media studies and to join the group discussion on the subject of "the effects of social media on languages and cultural values". Therefore, this contribution takes influence from the newest and most popular type of social media, TikTok, and its frequent use of non-verbal communication on cultural values because language (spoken or written) was an obstacle in all previous social media platforms (Youtube, Facebook, Instagram, Viber, Whatsapp, etc.) It was not possible to establish contacts between people of different languages, and socio-cultural backgrounds only if they knew the language. Therefore, its consequences were implicit; this is not the case with the TikTok app which relies more on gestures and facial expressions which are performed online and uses it as an alternate language that almost anyone can understand regardless of mother tongue or social affiliation. As a result, this nonverbal language that most TikTok handlers are relying on is creating openness for its users which leads indirectly to a rebellious behaviour on the social system, culture and values that regulate the comportment of teenagers. Additionally, it yields to the abandonment of the original cultural values and the adoption of new ones under the umbrella of freedom and progress because this particular type of communication that is regarded as a principle code among TikTok users carries foreign behaviours and attitudes which will influence the social system that we seek to preserve and construct it not the opposite. Hereafter, the nonverbal language used in TikTok may have the potential in influencing the diffusion of cultural values and social ties of Algerian teenagers.

TikTok's widespread app is different from other apps because users create their content with non-verbal language, facial expressions, gestures, signs and imitations, which are universal and bring together followers from different linguistic backgrounds. They express their ideas and emotions better than the old social media platforms (Facebook, Instagram, Viber, Whatsapp) which relied more on written communication or sharing of ready written messages with limited recipients.

In the same vein, we are currently studying how Algerian adolescents play a more active role in the TikTok application, which has an impact first on language as the basic medium of human interaction, then on the transmission of Algerian cultural values. Henceforth, this study aims to link the shared nonverbal communication and its implication in disturbing the diffusion of local cultural values due to the incorporation of observed cultural values into the inappropriate behaviours of Algerian teenagers. In this regard, we formulate the following research questions:

1. How can Algerian teenagers convey messages using nonverbal communication and facial expressions in the TikTok platform?

2. To which extent does the nonverbal communication of TikTok application affect the diffusion of cultural values among Algerian teenagers?

Based on these questions, we put forward the following hypotheses:

Language is the primary tool of human communication; it carries and conveys social messages. However, languages are not the same, the fact that hinders the communication process between nations and cultures, especially in the virtual space where it is mandatory to write or speak. TikTok application has facilitated this process and has reduced the time by sharing short videos containing a nonverbal language to communicate easier than before and combine cultures.

TikTok app, with its diversity, is misused by Algerian adolescents and has meaningless content as it broadcasts inappropriate behaviours and opens doors to undesirable social and cultural changes that affect the suitable spread of indigenous cultural values, that is why it has a negative impact which deserves to fight.

2. Materials and methods

The key materials for this study were the growing use and the shared content of TikTok app among Algerian adolescents who rely more on non-verbal communication and body movements, highlighting its impact on the dissemination of cultural values and indulgent habits as it emerges as a formidable network space. Based on the nature of our study, we selected the netnographic research method because we seek to examine the behaviour of teenagers in an online community which is TikTok. Netnography is regarded as the most preeminent online researches to access the community members' knowledge online, which in turn helps to provide in-depth insights about consumers (Kozinet, 2015). According to (Kozinet, 2010: 12), online communities form or manifest cultures, the learned beliefs, values, and customs that serve to order, guide and direct the behaviour of a particular society or group. Hence, netnography refers to the number of related online methods that adapt to the study of communities and cultures created through computer-mediated social interaction (Bowler, 2010).

We purposefully selected a representative research sample of 116 participants based on the characteristics of youths who serve the objectives of the study. To this end, Algerian teenagers aged between 13 and 24 years were selected to obtain accurate and appropriate results. The selected participants are familiar with TikTok; they use the application more and have integrated it into their daily life. In addition, they have shifted from the stage of media audiences to media producers. To conduct this study, we used an online observation and online questionnaire tools to cover almost all regions of the country and enrich the subject in terms of linguistic and cultural differences between Algerian youths. These tools were used intentionally to be close to our participants, then to gather as much relevant information as possible to ensure the accuracy and objectivity of the results obtained.

After observing the widespread dissemination of the TikTok application among Algerian adolescents who have shared many videos on the Internet far from the values and culture of the society, we decided to investigate the misuse of this last application because we believe that this is an original subject, in the Algerian context. It will be a new contribution to the field of social sciences and new technologies. Thus, the starting point of this study was the online observation, where we tried to relate the content of the application, the language of the interaction, the social norms and the restrictions of Algeria as a society classic and conservative. Next, we designed the survey as a primary tool that provided us with quantitative data, opinions, and perceptions of various TikTok users. However, since it was shared online, we have encountered respondent procrastination or evasion. For this reason, we have used the snowball or rope technique by sending the online survey to people we know and asking them to help us and sharing it again with other people they know. Then, we analyzed and interpreted the data obtained to arrive at a general conclusion for this study.

To go deeply trough this context, we used online observation as the primary data to observe how TikTok application is used by Algerian teenagers. It includes listening and interpreting what people are saying or otherwise conveying (Rappaport, 2010). It can be defined, as finding out what is expressed online (Divol et al, 2012). Online observation was the first motivation for conducting this study. It was a tool used by researchers as individuals belonging to the same community and have noticed the same phenomenon (TikTok). In this investigation, we tried to cover and focus on the behaviour of Algerian youngsters regarding their access to the virtual world and the extensive and ridiculous use of TikTok through nonverbal communication in the sake of conveying codes and messages to those of similar age. Henceforth, we employed an online observation to examine the nonverbal interaction, the behaviour of Algerian youths, and the content shared among them on TikTok platform to collect data about the current topic.

TikTok application is designed for teens to create short videos containing nonverbal communication, symbols and signs with ambiguous meanings. Throughout our experience, we observed teenage interacting in TikTok using gestures and facial expressions, thinking that it is a powerful tool of communication world-wide.

Amid this media influx and the TikTok application, Algerian teenagers are no longer satisfied with receiving multimedia content; they have become enthusiastic about this media experience, and have become creators of their content. Hence, the particular use of TikTok application has the potential of updating cultural values.

TikTok is one of the sites that spread widely among Algerian adolescents since its introduction. They posted videos on different songs supported by nonverbal communication and signs that do not belong to their home culture and which are prohibited. TikTok application and its content circulating among young people are among the main factors in the process of influencing the value system of Algerian teenagers.

Furthermore, we noticed that the content shared between Algerian teenage contains immoral behaviour by marginalizing cultural values; one of its symbols is attitudes and behaviour. We have observed that teens do not interact and only exchange content via the TikTok app, but they are engaging in inappropriate online behaviours because the app itself works to lose their consciousness; they have become addicted. Also, the TikTok application contains empty and useless content because it involves misbehaviours that do not correspond to the values of the community. To sum up, we have observed that the interaction in TikTok is no longer private; it is shared online and accessible for everyone to view; this is not the case with other social media applications. It summed up everything that previous apps have brought. Therefore, it has become

the main factor that negatively influences the dissemination of original classical cultural values among Algerian adolescents.

3. Discussion

The technological revolution or social media with its different types are undoubtedly the twenty-first-century drivers, namely social, cultural and educational ones (Lawaheth, Hussein, 2016). Social media denotes the platforms where all digital users with internet access can share content, express opinions about diverse topics, and where communication and interaction process intensely take place without any time or place limitation (Ugyr, Gunduz, 2017). It highly is used for communication, information, entertainment and education. To this end, individuals and world communities are connected due to digital media that has renewed the lifestyle (Ghulam, Abdul, 2018). TikTok application is one of the recent social media platforms for creating and sharing short entertaining videos. It has attracted the millions of users who have integrated it in their daily practices and posted videos on different songs illustrated by nonverbal signs. Its main objective was to find glory and have fun with friends. In this regard, TikTok application is related with users' gratification theory which seeks to achieve precise goals through a careful choice of a particular type of media or content that satisfies given needs and allow users to enhance knowledge, relaxation and social interaction. It assumes that audiences are not passive consumers; rather they have power over other media consumptions and adopt an active role in interpreting and integrating media into their own lives (Jafar, Pegah, 2016).

Along the same lines, the main reason for the accomplishment of TikTok is the ability to find people who have common interests with teenagers, and who can connect and share content with them. Therefore, social media in general and TikTok application, in particular, have resulted in the migration process of individuals to a virtual space that provides their needs, therefore, contributing to the transformation of the existing culture into a virtual culture. Consequently, social media interrupts the continuity of the roles of individuals in preserving the existing traditional cultural values (Borivoje et al, 2018) because they guide and direct humans' behaviours. Additionally, (Khatib et al, 2016) have mentioned that the values and customs of the country we grow up in shape how we think to a certain extent; virtual sphere users' thoughts are not controlled because this setting is free of social restrictions.

Therefore, users' thoughts are expressed through verbal, written or nonverbal language; it depends on the application and its type of interaction. Regarding the current paper, we shed light on the nonverbal language that is extensively used in TikTok application because it is wide-reaching and less time consuming to perform different subjects, desires and aims. This particular type of communication shows the evolution of language in social media, starting from the earlier applications that relied more on written messages. Hence, the application is considered as a shift in the history of social media (from written "Facebook, Viber, Whatsapp and Instagram" to verbal "Youtube", then to nonverbal communication "TikTok"). However, sometimes this nonverbal communication is hard to be interpreted to comprehend the intended idea and leads to misapprehensions because the language provides people with the supporting tools to express and communicate thoughts daily (Kadri, 2019). Language is a social product, and for this reason, it is, strongly, combined with culture and its transmission among generations that belong to the same speech community.

Additionally, it is generally agreed that language and culture are closely related. Language can be viewed as a verbal expression of culture. It is used to maintain and convey culture and cultural ties. The language provides us with many of the categories we use for the expression of our thoughts (Khatib et al, 2016). In this regard, language researchers and linguists have agreed that language and culture are related and affect each other in many ways; they have a very complex and homogenous relationship that makes them inseparable. Language is, complexly, interwoven with culture; they have evolved together and have influenced one another in a long and endless human development process. The result of this associated complexity, evolution, and influence is that language and culture protect each other in such a way that is impossible to separate them (Kadri, 2019). To sum up, the emergence of TikTok application and its actual nonverbal interaction type has produced a global cultural communication.

In this line, young Algerian users have changed their speech and behaviour because they were influenced by TikTok application, which carries Western foreign values, behaviours, ideas and customs that differ from the Algerian thoughts and traditions. It has created a fear of new attitudes

of users which affect the cultural values of the nation, and this can be observed by the abandonment of traditional values and the adoption of new models, under the umbrella of development and change. Hence, it becomes an issue for a society that hinders the transmission of local conservative and traditional cultural values, for the reason that young Algerian users lose the ability of management and control; they seek to liberate themselves from all kinds of constraints through joining TikTok.

4. Results

To carry out this research and due to the nature of the subject, we selected an online questionnaire using the snowball technique to cover a relatively wide range and to collect the possible number of data about a varied sample. In view to the educational level of respondents, we adopted auto-administrated questionnaire, which comprises two categories: direct and simple questions followed by some multiple-choice questions due to the limited English level of most respondents. The questionnaire contained ten questions in addition to two other questions about respondents' age and gender. It was divided into three sections: respondents' general information, the language used in TikTok application and the impact of the nonverbal language on the transmission of cultural values; each section had a particular objective to achieve. Concerning the first section, we aimed to know which age group and gender use the application more. As for the second section, we have tried to cover the nonverbal language used in TikTok application, whether it is understandable and expressive or not. Finally, the third section undertakes the influence of the nonverbal language on the diffusion of cultural values.

Among the questions we have asked our participants about the use of TikTok application by Algerian teenagers and their attitudes, we have chosen to analyse the following questions and statements to discuss and draw general conclusions to the present study.

Section one: Respondents' general information

Table 1. The dispersion of participants according to age

Age	From 13 to 16	From 16 to 20	From 20to 24
Percentage (100 %)	8.9 %	73.2 %	17.9 %

Table 1 shows a high percentage of 73.2 % from the total number of respondents aged, between 16 and 20 years use TikTok application. 17.9 % of them are aged between 20 and 24 years, and only 8.9 % have between 13 and 16 years old.

Table 2. The dispersion of participants according to gender

Gender	Male	Female
Percentage (100 %)	24.6 %	75.4 %

Table 2 reveals that Algerian female teenagers use TikTok application more than males; females represent 75.4 %; however, males represent only 24.6 %. It means that most TikTok users are females, and this is due to the absolute freedom they found in this virtual platform as appose to the restricting values of the society.

Table 3. The distribution of the level of involvement in TikTok application

How much are you currently involved in TikTok application	Considerably involved	Extremely involved	Less involved
Percentage (100 %)	63.3 %	23.3 %	13.3 %

As the question we asked our participants about their involvement in TikTok application, table three demonstrates that the large proportion of participants in this research are considerably involved in TikTok application, they denote 63.3 %. 23.3 % of them are extremely involved, and 13.3 % are less involved. If we relate this table with the first one, we can deduce that those who are extremely involved and considerably involved are those aged between 16 and 20 years.

Section two: The language used in TikTok application
Question one: why do you use TikTok application?

The aim of using TikTok application

- to escape from social and academic pressure: 7.80%
- an enjoyable tool: 68.40%
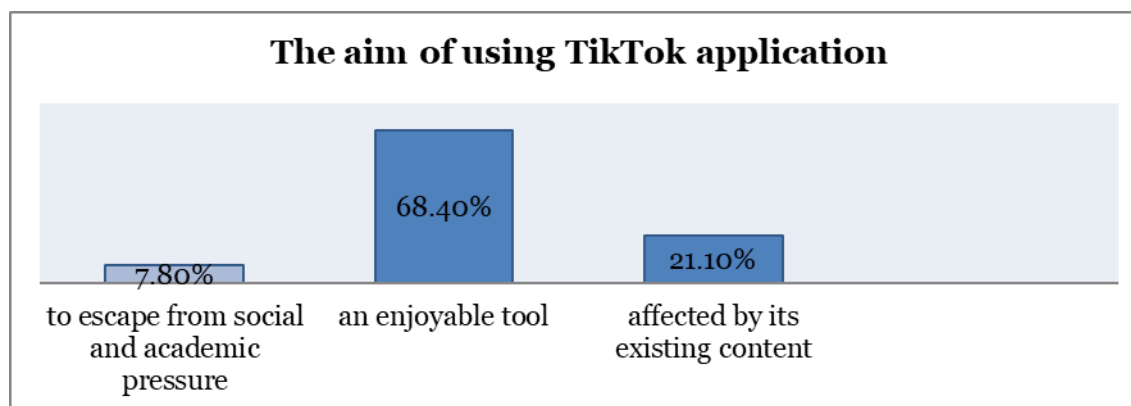- affected by its existing content: 21.10%

Fig. 1. The aim of using TikTok application

This figure gives information about the aim behind using TikTok application by Algerian teenagers. Overall, the majority of Algerian teenagers use TikTok application because they find it an enjoyable tool, exactly about 68.4 %. On the other hand, only a minority (7.8 %) use it to escape from social and academic pressures. Additionally, this minority has found TikTok as a source of gratification to escape from some social complications, such as divorce, unemployment, and school failure, this has led to using the application negatively without taking into account that it has supplementary undesirable social consequences, the most of which, is interrupting the flow of the local cultural values since TikTok is easily reached by everyone because they are unable to fully express their ideas via writing. Additionally, they are no more caring about the quality of their posts as they are caring about sharing meaningless and funny content without prior thinking or any goal; they are spreading mediocrity with a nonverbal language. 21.1 % of Algerian teenagers are affected by their existed posts and content.

Question two: Do you understand the nonverbal language of most TikTok videos?

Understanding the nonverbal communication of TikTok videos
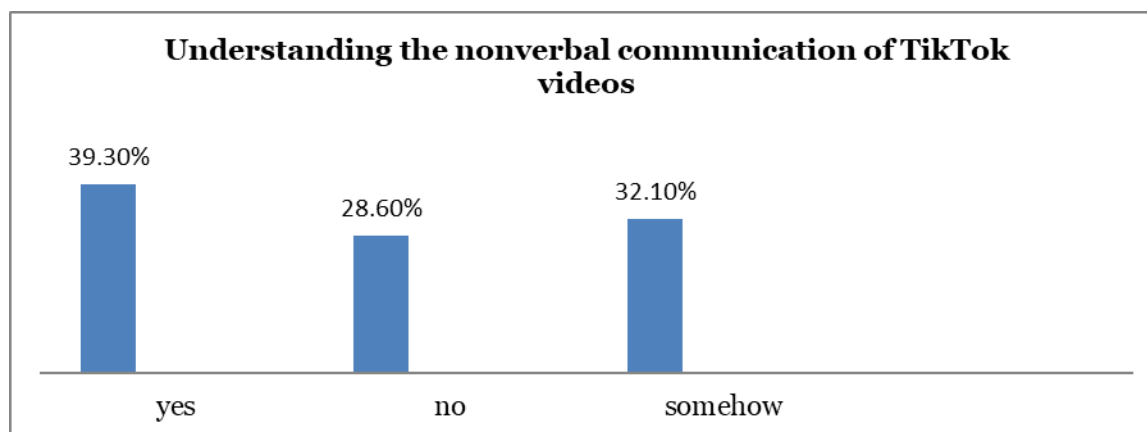
- yes: 39.30%
- no: 28.60%
- somehow: 32.10%

Fig. 2. Understanding the nonverbal communication of TikTok videos

Figure 2 is about the nonverbal language used by TikTok handlers, whether it is clear and easily understood by everyone or not. It demonstrates that most participants (39.3 %) understand the nonverbal language used in TikTok application. However, 28.6 % of them cannot decode the nonverbal signs, and 32.1 % of users understand it to a certain extent. It means that they make efforts to get the intended meaning because it is a new language used in a recent social media platform and the process of acquiring and understanding it takes time.

Question three: When you share a video on TikTok, do you feel that you are messaging other users and followers?

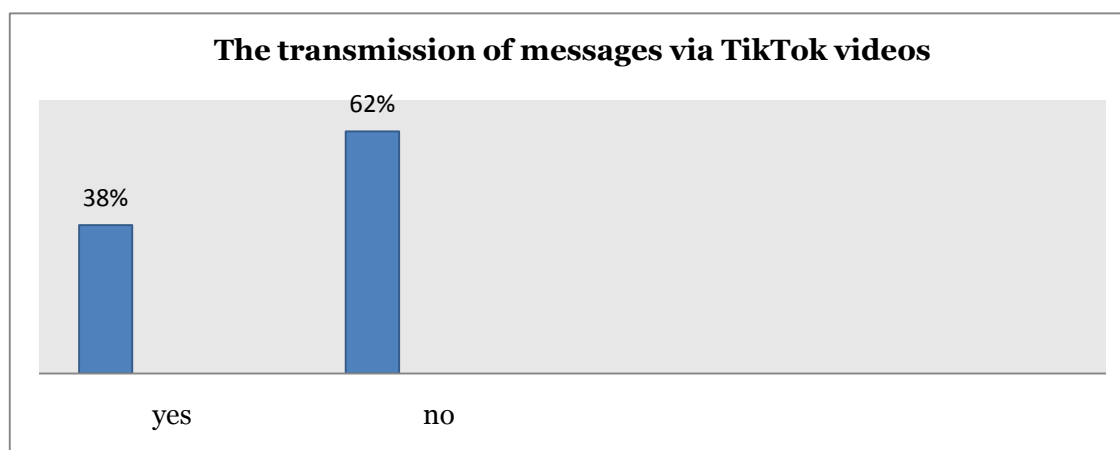**The transmission of messages via TikTok videos**

Fig. 3. The transmission of messages via TikTok videos

Figure 3 displays that 38 % of participants feel that they are messaging when sharing TikTok videos with gestures and facial expressions. Nonetheless, the large fraction of contributors in this research (62 %) affirms that they are not transmitting messages; they are using the application without any communicational purpose.

Question four: according to you, is the type of communication (gestures, facial expressions and body movements) used in TikTok application a kind of self-demonstration and self-validation or to keep pace with language development?
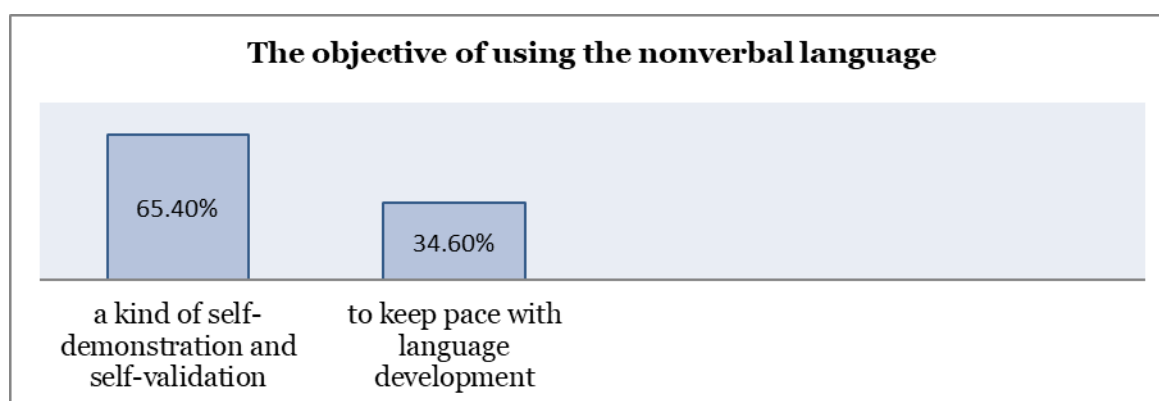

Fig. 4. The objective of using the nonverbal language

The above figure is related to either the nonverbal language is a kind of self-demonstration and self-validation, or it is to keep pace with language development. It demonstrates around 65.4 % and 34.6 % respectively.

Section three: TikTok application and its impact on the transmission of cultural values

Question five: is nonverbal communication a powerful or weak tool in transmitting the cultural values among Algerian teenagers?

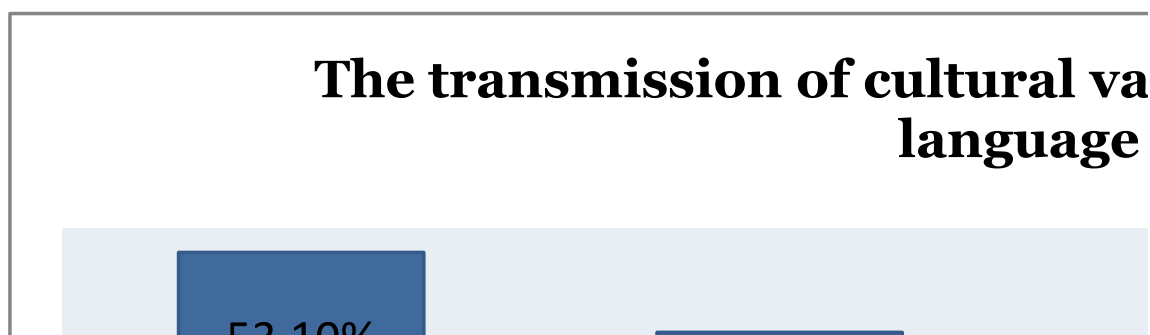## The transmission of cultural va
language

53,10%

Fig. 5. The transmission of the cultural values by the nonverbal language

Figure 5 is about whether the nonverbal language is a powerful type of communication in spreading the cultural values among Algerian teenagers or a weak one? It represents that the highest segment, accurately about 53.1 % see that it is deficient in transmitting the local cultural values to teenagers because they know that they are far away from the appropriate attitudes and behaviours in the society. However, 46.9 % of participants see the opposite due to the time they spend on the app integrating it into their daily activities; this means that they become aware of this new type of communication and have no difficulty in transmitting or receiving cultural values verbally or not.

Question six: in your opinion, does TikTok application have a positive or negative impact on the Algerian teenagers' thoughts and behaviours?

The impact of TikTok application on the thoughts of Algerian teenagers

78,90%

5,30%

15,80%

positive impact   negative impact   neutral
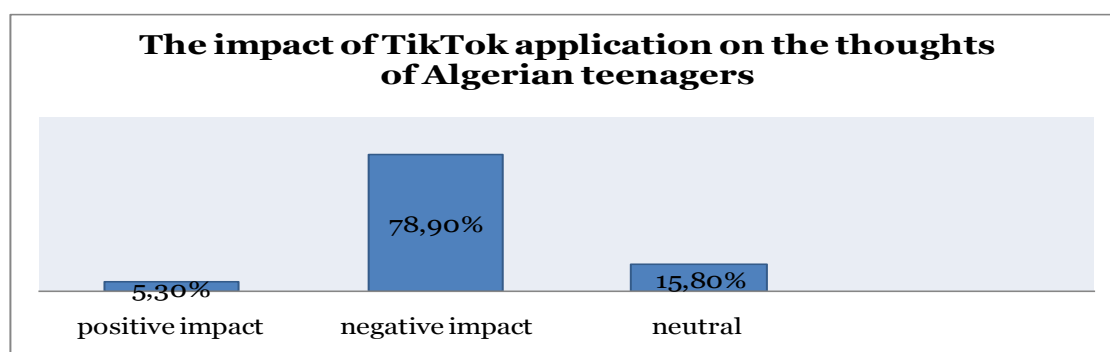
Fig. 6. The impact of TikTok application on the thoughts of Algerian teenagers

Figure 6 demonstrates that the large proportion of participants (78.9 %) see that the TikTok application troubles the thoughts of Algerian teenagers. However, 5.3 % have noticed that it has a positive impact, and 15.8 % had a neutral point of view.

Question seven: do you think that sharing videos online by Algerian teenagers contributes to changing the original cultural values?

The contribution of TikTok vi
cultural valu

35,10%   26,30%   14%

Fig. 7. The contribution of TikTok videos in changing the cultural values

Figure 7 is about the contribution of Algerian teenagers on changing their original cultural values through sharing their videos on the TikTok platform, 35.1 % of participants agreed and 26.3 % strongly agreed. However, 14 % disagreed and 5.3 % strongly disagreed. The remaining percentage (19.3 %) neither agreed nor disagreed.

Question eight: do you agree that the content of TikTok videos is influencing negatively Algerian teenagers' preservation of cultural values?
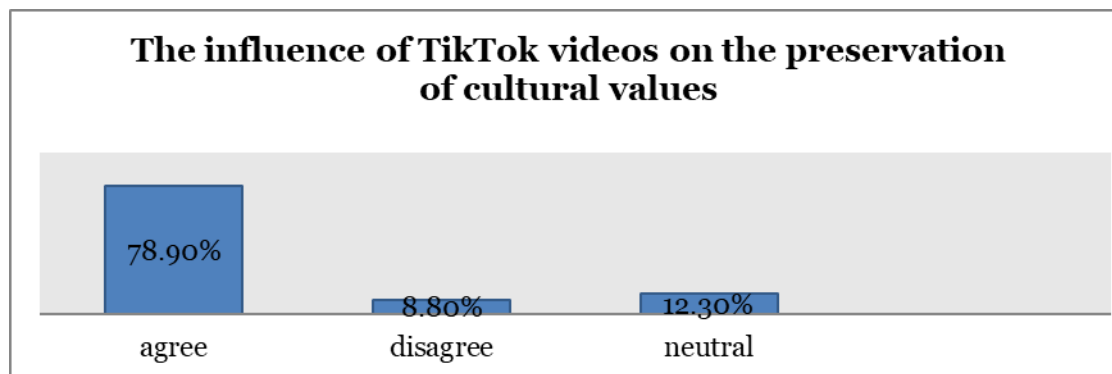

Fig. 8. The influence of TikTok videos on the preservation of cultural values

Figure 8 indicates that 78.9 % of the members participating in this research approved that the content of TikTok videos is influencing the preservation of cultural values. By contrast, a minority, exactly about 8.8 % disagreed and 12.3 % were neutral.

Over this research study and the instruments used to collect the most amount of information from TikTok users, we reached a set of results are summarized along these lines:

TikTok is regarded as a broad virtual field that has invaded the minds of teenagers, particularly those aged between 16 and 20 years and mainly females, thinking that it is an enjoyable tool. Additionally, they appreciate its quality and admire its content because it is different than the other applications in terms of interaction. Hence, it has provided different models of vision and virtual rituals far from the restricted guidelines of heritage and cultural determinants because Algerian adolescents have posted videos on different songs supported by nonverbal communication and signs that do not belong to their home culture and which are prohibited.

To sum up, TikTok application and its content circulating among young people are among the main reasons in the process of influencing the value system of Algerian teenagers; which led to overwhelming and unsatisfactory social results among them the interruption of the delivery of cultural values between Algerian youngsters.

5. Conclusion

In this research study, we attempted to examine a phenomenon that shows the language development in social media and the causes of social change, with focus on the cultural values of Algerian adolescents, who represent the majority of society and the most used part. They are influenced by its content, which in turn helped create new patterns and behaviours that reflect what came from another culture. As a result, this created a kind of debate about local cultural values.

Initially, nonverbal communication was created by TikTok users to accommodate and make speech comprehensible in short instants, thinking that communication is no longer difficult as it was. TikTok handlers around the world have created a language in common to be able to launch their ideas, thoughts, and even talents in an informal way that facilitates the communication process with a broad and large population. As appose to the other social media platforms in which the virtual interaction was via writing messages and status on their profiles or commenting. The writings must be well structured and arranged so that the delivered ideas can be understandable by the receivers; this writing process takes time. Otherwise, they record with limited audiences. Hence, the communication was neither easy nor accessible; in other words, the language was an obstacle for most social media users, particularly in writing, because it is more formal. Despite these communication barriers, cultural values have been maintained. However, the emergence of TikTok and non-verbal interaction has given way to misunderstanding because it contains signs

and gestures that conflict with local cultural values and disrupt the transmission of fair and appropriate values. After all, they do not only interact inappropriately. Verbal approach, but they overreach limits by showing inappropriate behaviours.

To conclude, through the final results of the current study, we confirmed the research hypotheses of why non-verbal language led to the weak transmission of values and morals among adolescents. They have neither reached intelligibility using this new variety as a principal tool for communication in this virtual platform nor preserved their original cultural values.

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Appendix

Online questionnaire

This questionnaire investigated the impact of TikTok application on Algerian teenagers' cultural values and users' attitudes towards this application. We will be pleased if you help us appropriate responses to our suggested questions. Your answers will be kept strictly confidential and will be used for academic purposes.

Section one: The use of TikTok by Algerian teenagers

Age: From 13 to 16 years. From 16 to 20 years. From 20 years to 24 years.

Gender: Male. Female

Question 1: How much are you currently involved in the TikTok application?

Considerably involved extremely involved less involved

Section two: The Language Used in TikTok Application

Question 2: Why do you use the TikTok application?

Affected by its existing content.

To escape from social and academic pressures.

An enjoyable tool.

Question 3: Do you understand the nonverbal communication of most TikTok videos?

Yes No Somehow

Question 4: When you share a video on TikTok, do you feel that you are messaging other users and followers?

Yes No

Question 5: Do you see that gestures and nonverbal communication are sufficient to communicate your thoughts and express your feelings?

Yes No

Question 6: According to you, is the type of communication found in TikTok application (gestures, body movements and facial expressions) kind of self-demonstration and self-validation or to keep pace with language development?

Section three: TikTok Application and Cultural Values

Question 7: Is the nonverbal communication a powerful or week tool in transmitting the local cultural values among teenagers?

Powerful tool Weak tool

Question 8: In your opinion, does TikTok application have a positive or negative impact on the Algerian teenagers' thoughts and behaviours?

Agree Disagree Neutral

Question 09: Do you think that sharing videos online by Algerian teenagers contributes to changing the original cultural values?

Agree Strongly agree Disagree Strongly disagree Neutral

Question 10: Do you agree that the content of TikTok videos is influencing negatively Algerian teenagers' preservation of cultural values?
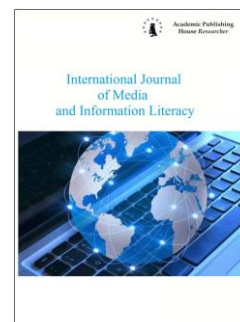
Agree Disagree Neutral

How Universities Communicate with Public Using Facebook Page

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Abstract

Social media has been identified as an important vehicle in fostering social connections that maintain and expand existing relationships between organizations and their customers and stakeholders. This research was conducted on top public universities from the Czech Republic, Slovakia and Poland, with a focus on their communication activities on Facebook. First, quantitative data analysis was conducted using the data mining tool Netvizz. The research is unique as measurement using Netvizz is currently not possible due to technical limitations on the most popular social network. Data obtained from 24 Facebook profiles of selected universities were used. Second, the expert evaluation and content analysis were used to examine how the posts influence audience. The findings provide evidence on the use of Facebook by universities for communication with public and show differences among universities. The findings also support an integrated view of content marketing and highlight the importance of adjusting the content strategy to suit the utilitarian nature of higher education institutions and engage high-involvement target groups. The collected data also show that the most popular posts on SNS are not directly related to research conducted at individual universities. Paradoxically, communication strategies of universities through social networking sites are deprived of the most important element – the university mission, i.e. dissemination of research results.

Keywords: communication, public, social media, Facebook, higher education, Poland, Czech Republic, Slovakia.

1. Introduction

Social media has revolutionised not only people's lifestyle but also the way organizations communicate with their customers (students) and stakeholders. Social media allows to use audio-video platforms, such as videos and photos that have a greater effect on users than a simple textual content (Aparicio-Martínez et al., 2017). It is thus no surprise that social networks such as Facebook, Twitter or Instagram represent one of the most common forms of socio-cultural interactions in particular for young people.

In 2019, the share of individual internet users was 88 % in the Czech Republic, 85 % in Slovakia and 82 % in Poland. The share of internet users who participating on social network was 54 % in all EU27 member states, 59 % in the Czech Republic, 59 % in Slovakia and 53 % and in Poland (Eurostat, 2020). Among younger users aged 16 to 24 years in the EU popular online activities entail participating in social networks (90 % in 2017), watching videos from commercial or sharing services such as YouTube and listening to music (Eurostat, 2018). The youth uses social networks to maintain contact not only with friends and family but also with organizations and brands.

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Social media has been identified as an important vehicle in fostering social connections that maintain and expand existing relationships between organizations and customers. A growing number of organisations establish and maintain their interactive online presence via social networking sites and consistently seek to engage with potential and current customers (Alalwan et al., 2013). Social media also facilitates communication among higher education institutions and their students, alumni, staff and other public (Eger et al., 2020; Lund, 2019).

Therefore, understanding the characteristics that influence the interactivity and relationship between an organization and its page visitors and influencers is essential for the organization's ability to respond to public on social networking sites in a desired manner.

The main purpose of this research is to develop the existing higher education marketing literature by considering the use and impact of social media within the university sector. Specifically, the research examines the use of Facebook by universities in the Czech Republic, Slovakia and Poland and the impact of that social media communication with public on student engagement. We begin with a brief overview of the literature regarding social media, brand communities, and situation in higher education in three selected countries.

'Social media is a term used to describe the type of media that is based on conversation and interaction between people online' (Strauss, Frost, 2012: 306). Social media offer users a variety of online services to communicate with others, which results in a completely new communication style (Jahn, Kunz, 2012). Nowadays, social media represents a phenomenon which can drastically impact brand's reputation, image of educational organization, and as a result also student recruitment (Rutter et al., 2016). Social media enables open communication, which also helps organizations to understand customer needs and motivates them to respond proactively and efficiently to those needs (Tajudeen et al., 2018). Therefore, the challenge for universities is not whether to use social media for communication with the public but rather how to effectively use this tool to reach their marketing goals.

Social networks allow individual users and organizations to create a profile, to publish and to share information using text, photos, videos, and to connect and maintain connections with other users on the Internet. Social networking sites like Facebook offer organizations several options to contact and communicate with their customers (fans). Fan pages (brand communities) has become an important online service for brand communication.

At the core of all communication on Facebook is a single post. It represents the unit of every Facebook communication. Each post draws a specific amount of attention from a Facebook page (profile) of an organization.

Facebook is popular across a broad swath of demographic groups and in many different countries, so it offers a unique source of information about human behaviour. This network has been studied from different perspectives (Bowden, 2009; Cho et al., 2014; Kim, Yang, 2017; Tezer et al., 2017; Wilson et al., 2012). However, little has been published about the use of Facebook in the context of higher education in relation to marketing purpose (Eger et al., 2019; Lund, 2019), the empirical research is limited.

Currently, the popularity of social networking sites provides brands (including brands of universities) with new platforms, such as brand pages on Facebook or accounts on Instagram or Twitter (De Vierman et al., 2017; Eger et al., 2020). These virtual communities on Facebook offer brands (university = brand) new opportunities to interact with their public. A brand community is based on a set of social relations among admirers of a brand. It means also between university and students, alumni, academic staff etc. A virtual brand community connects people with a common interest in a brand and is unrestrained by time and space (De Vierman et al., 2017).

Virtual brand community or fan page is considered as an interesting and useful tool for organizations to use. The main typical characteristics of fans are self-identification as fan, and emotional engagement. In practice, users become fans of a Facebook fan page by pressing the "like-button," which indicates to their social network that they like this brand. In this case Facebook will automatically add users as a follower of that page. When users choose to follow a page, they keep informed about new posts made on or by that page.

The term engagement becomes the central construct used to describe the nature of participants' specific interactions (Cvijikj, Michahelles, 2013; Lund, 2019). Previous work has shown that brand community engagement can affect membership loyalty, brand image, and word-of-mouth (De Vierman et al., 2017; Jahn, Kunz, 2012). Facebook offers users an opportunity to engage with organisations' profiles and to send messages through three different engagement tools

such as likes, shares, and comments. These three tools/activities represent different forms of social engagement within this social network.

The social network Facebook is considered as one of the prime platforms for universities in Europe to reach their target groups and engage with them. It is also a leading social network actively used by people and by organizations in three selected countries.

In the 1990s, the democratisation of higher education in Central Europe coincided with the establishment of new regional universities, which replaced higher education institutions in the region. Selected countries became members of the EU on 1 May 2004 and all of them are members of the European Higher Education Area and Bologna Process (EHEA, 2018).

In the Czech Republic, the past 25 years have been by marked by a period of school system reforms. The first private institutions of higher education were established in 1999. Since 2009, higher education in the Czech Republic has witnessed a decrease in the number of young people. The statistics from the Ministry of Education indicate that while in 2009 there were 389,000 students at Czech colleges and universities, in 2017 it dropped to 299,000. Currently in the Czech Republic (10.6 million inhabitants), 26 public universities and colleges, 2 states universities, and 34 private higher education institutions (HEIs) are operating (Ministry..., 2018, 2019). Almost 90 % of the general population of students attend public HEIs.

Currently in Slovakia (5.45 million inhabitants), 20 public universities and colleges, 3 states universities, and 12 private HEIs are operating. In the year 2017, there were 136,000 students at HEIs, which means 85 % of the general population of students attended public HEIs. Slovakia has rapidly increasing tertiary education attainment rates, but the internationalisation remains low. Slovakia has also seen a decrease in the number of young people at Slovak colleges and universities (Slovak..., 2019). According to the latest UNESCO statistics, more than 30,000 Slovak students studied outside of the country with almost 25,000 in the Czech Republic.

At present, Poland has 267 private colleges and universities, 59 public higher educational institutions (universities, technical universities, academies), and 34 state higher vocational schools (GUS, 2018). In the 2017/2018 academic year in Poland, there were 1.29 million students studying at universities, which is 4.2 % less than in the previous year. From the 2006/7 academic year, the number of students has been decreasing. This is due to demographic changes, that is, the decreasing number of individuals aged 19-24. In public HEIs, there was a 75 % enrolment of the general population of students. In the 2017/18 academic year, there was a growth in the number of foreign students-5.6 % of the overall number of students (Stat..., 2019).

HEIs facing falling numbers struggle to attract new students and thus have no other choice but to use effective marketing. The established HEIs (public institutions with historical tradition) may rely on the advantage of being well-known by people. However, that constitutes only the first step. They have a better position in terms of history and tuition-free education.

Marketing communication, including that on social media, became important for universities in the selected countries (Eger et al., 2019; Slabá et al., 2014). At present, the primary goal of marketing is to communicate the portfolio of study programmes to prospective applicants in an attractive way and convince them that studying the programmes taught at the university makes sense for their future (Kohring et al., 2013; Voss, Kumar, 2013).

The development of HEIs in the mentioned countries (Bilan et al., 2019) described above, the increase in competition in this field, and the demographic decline in the category of 18- to 23-year-olds, has resulted in the application of marketing in higher education (Slabá et al., 2014) including the usage of social media. In the last decade, it is evident that marketing at HEIs in these countries has become professionalised, first seen at private institutions and later followed by public ones.

This research provides evidence from a research focused on social media in higher education related to branding activities and PR activities and considers the impact of these activities on public engagement. It is assumed - based on the above-mentioned information about the importance and need of PR activities - that top universities from selected countries responsibly and professionally manage communication on their Facebook profiles.

Specifically, the research aims at answering the following research questions:

RQ1: How do top universities from three selected countries in Central Europe use Facebook to communicate with the public?

The hypotheses below were formulated in response to the research questions 1.

H1. There is a positive association between Engagement rate of the university Facebook page and number of published posts/year 2018 on university Facebook profile.

H2: There is a positive association between Engagement rate of the university Facebook page and number of students at the university.

RQ2: What kinds of call to action are used by selected universities to attract students and other publics on Facebook?

The answer to the question RQ2 is first based on the qualitative phase of the research. The research team applied expert evaluation of ten top posts and additionally conducted a quantitative survey using content analysis of the posts with the highest engagement from all selected Facebook profiles.

2. Materials and methods

Research design

To answer the research questions, a mixed-methods research design was used. This kind of design allows the researcher to explore a research problem from both qualitative and quantitative perspectives (Gray, 2009).

First stage of conducted research use the quantitative research design consisted of a data mining survey (Creswell, 2014). The quantitative approach used Facebook API to gather data using Netvizz with the aim to classify existing data and to compare activities on Facebook pages.

Second stage follows the first quantitative phase of research. The quantitative approach consisted of a data mining survey, while the qualitative approach used an expert evaluation of ten selected top posts.

Finally, the research team employed the content analysis of all the best posts from selected universities. This additionally conducted a quantitative survey used Facebook API to gather data using Netvizz (Netvizz, 2018) with the aim to classify existing data and to compare activities on Facebook pages. The expert evaluation and content analysis of selected posts were conducted to gather information about communication that Facebook administrators and marketing experts used to create engagement with the public via university Facebook profiles.

Sample

The sample consists of top universities from three countries in Central Europe, according to World University Rankings for the year 2018 (THE, 2018). The final sample comprised universities from the Czech Republic (12), Slovakia (3), and Poland (9). The list of selected universities and detailed information about the communication on their respective university Facebook profiles are presented in Appendix 1 and were also published by Eger et al. (Eger et al., 2020).

Procedures

First, the research used data mining using the Netvizz tool to analyse how selected universities communicated on Facebook in 2018. The data were downloaded in May 2019. It was freely available for non-commercial research purposes until September 2019.

Second, this tool was used to analyse different sections of the Facebook platform on every university profile (number of posts, types of posts, user engagement). A total of 8,696 (Netvizz) records of posts from 24 universities with Facebook profiles in 2018 were selected for detailed investigation (Links, Photos, Status, Videos).

To answer RQ1, the engagement was calculated for the selected 24 universities by using data downloaded from Netvizz. Engagement rate is a metric that measures the level (degree) of engagement received from the audience by a specific part of the published content. It shows how much target groups interact with the content. Engagement rate is a metric that is used greatly in analyzing social media (Kim, Yang, 2017; Rutter et al., 2016). This metric is continually refined by other parameters that enter into the calculation. As the engagement rate is calculated in relation to the number of followers a university has on social media, the rate for both small and large universities can be compared equally.

$$\text{Engagement Rate} = \frac{\text{Reactions} + \text{Comments} + \text{Shares}}{\text{Followers}}$$

The activity of the institution on Facebook is indicated, for example, by the number of published posts per year and the derived average number of posts per week. Generally, the number of students correlates with the number of alumni and academic staff. Spearman's rank-order correlation was used to analyse statistical difference between the rankings of two selected variables (Engagement rate and number of posts/year, Engagement rate and number of students). The Spearman correlation between two variables is high when observations have a similar rank.

$$r_s = 1 - \frac{6 \sum d^2}{n^3 - n}$$

To answer RQ2, the research team used content analysis as a method suitable for identifying, analyzing, and reporting themes within data from selected Facebook posts. In this stage of the research we followed recommendation by Green and Thorogood (Green, Thorogood, 2004) who argue that in exploratory work in an area where not much is known, content analysis may be suitable for the simple reporting of common issues mentioned in data. Applied method uses a descriptive approach in both coding of the data and its interpretation of quantitative counts of the codes. To explain the fan-page usage behavior, we used the uses and gratifications theory (Dolan et al., 2016; Katz et al., 1974; Ruggiero, 2000) and evaluated four main groups of gratification by Dolan et al. (Dolan et al., 2016).

3. Discussion

In the higher education marketplace, building open communication and developing positive relationships with potential and current students, alumni, staff, and stakeholders has become essential. This study has addressed the knowledge gap identified by Lund (Lund, 2019) concerning the use and impact of social media within the university sector. The study shows how followers of university Facebook pages engage in brand-related activities (De Vierman et al., 2017; Eger et al., 2020).

The study provides evidence from a research focused on social media use in higher education and related branding activities. It considers the impact of the marketing activities, in particular, of interactions between selected universities and their target groups. To reach high commitment (Dennis et al., 2016) and high engagement on social media (Alsufyan, Aloud, 2017; Lund, 2019; Tuten, Solomon, 2015), universities should actively communicate to the stakeholders and to the media using social networks like Facebook.

The conducted research on Facebook engagement (Eger et al., 2020) showed differences among the selected universities in the use of this popular social network for communication with the public. The results of the research showed that high engagement on Facebook profile is not associated with the number of students enrolled at the university and that efficiency is not related to the number of published posts.

The high effectiveness in communication with Facebook users in selected research sample was achieved primarily by photo and video posts.

The findings of the qualitative phase of conducted research shed light on what types of posts increase engagement of Facebook users. The results in Table 1 and Appendix 2 summarise that the post with content related to its target group and an appropriate call to action reaches higher engagement. The findings indicate that popular types of posts offer entertainment for the audience (Lund, 2019). The high engagement rate for some posts could illuminate a path for targeting ads on Facebook.

Information about top posts (Table 1 and Appendix 2) calls for discussion about categories of engagement behaviour, in particular about reactive and proactive engagement behaviour (Gutiérrez-Cillán et al., 2017; Ji et al., 2017; Kim, Yang, 2017, Peruta, Shields, 2017; Tajudeen et al., 2018).

A central topic in studies towards social networking sites is the motivation, why people use these platforms. The UGT approach is the predominant user-centric theoretical framework for studying how and why people use media (Mutinga et al., 2017). The research team, using content analysis, evaluated the sample of selected top posts and found that universities focused their posts namely on Information, Entertainment and Interaction. Our findings indicate that less attention has been given to the area Renumeration from selected UGT concept by Dolan et al. (Dolan et al., 2016).

Furthermore, the findings show that there is a possibility to improve application of so called "call to action marketing" in managing communication on the university Facebook profile (Table 1). A lot of analysed posts were evaluated only as information that not contains piece of content that encourages audience to do something. We are in line with statement by Cvijik and Michahelles (Cvijik, Michahelles, 2013) according to them, entertaining content is a significant factor in increasing the number of likes, comments and shares made on social media content. On the other hand, "joke" is also not content that usually leads all users to positive engagement.

4. Results

Engagement rate

The calculated engagement rate for selected universities and their communication on Facebook for the year 2018 is presented in Appendix 1.

The calculated value of Engagement Rate considers the number of followers and put the universities in order accordingly. The first universities were Palacký University in Olomouc (2.29) and the University of Chemistry and Technology from Prague (2.01) followed by universities University of West Bohemia, AGH University of Science and Technology and Masaryk University in Brno that achieved Engagement rate above 1.5. The lowest result was achieved by the University of Silesia Katowice (0.27).

As it is apparent from Appendix 1, there were differences in publishing posts/year among selected universities, e.g. the Comenius University in Bratislava published 665 posts/year 2018 (12.8 per week) and opposite the Tomas Bata University in Zlín only 107 posts on university Facebook profile (2.1 per week).

H1. Association between Engagement Rate and number of post/year has been proven. The value of r is 0,38226 and the p (2-tailed) = 0.06527. The association between the two variables would not be considered statistically significant. It means that the high number of published posts /year does not leads to efficiency in terms of achieved engagement. For example, the Palacký University in Olomouc published higher number of posts (548) and achieved top engagement (2.21), the Comenius University in Bratislava published the highest number of post/year (665) but received engagement only 0.80, it means near the average (0.98). Opposite, the University of West Bohemia in Pilsen published only 220 posts /year and received third higher engagement (1.93).

H2. Association between Engagement Rate and number of students has been proven. The value of r is -0,05088 and the p (2-tailed) = 0.81335. The association between the two variables would not be considered statistically significant.

As it is apparent from Appendix 1, the Charles University in Prague had 45,235 students and was the largest university in our sample of selected universities from the Czech Republic, Slovakia and Poland. The University of Chemistry and Technology in Prague had only 3,880 students but achieved the second highest Engagement Rate 2.01. It means, the high number of students does not mean that the university also automatically obtains high engagement on Facebook profile.

Posts types and engagement

Considering the marketing communication of selected universities on Facebook, the conducted analysis of posts in terms of their engagement provided important findings. The most used type of post in 2018 of the analysed universities (Appendix 1) was a photograph (4,758 = 55 %), followed by links (2,844 = 33 %). There were 985 (or 11 %) video posts and 109 (or 1 %) of the so-called basic status updates.

The high effectiveness in communication with Facebook users is achieved primarily by photo and video posts. These findings are in line with Peruta and Shields (Peruta, Shields, 2017). For instance, a very high engagement in 2018 was reached by the AGH University of Science of Technology. A photo ratio reached a value of 309; from the research sample, 9 universities reached a photo ratio above or near 100. There were big differences in the use of video for PR among universities. On the one hand, Adam Mickiewicz University published 91 video posts and the University of Wroclaw posted 83 videos per year. One university, Nicolaus Copernicus University, published only 3 video posts in the year 2018 (Eger et al., 2020).

The top posts and call to action

This underscores the need to qualitatively evaluate the posts that achieved the highest engagement and thus find out what may constitute the most appropriate type of content for universities while communicating with the public. In order to identify the most successful posts, data obtained by Netvizz were again used. The top three most successful posts for each university were described in detail and further analysed. Appendix 2 shows the top 10 posts from 72 selected posts.

The expert evaluation of the selected posts includes key identity information (type, date, engagement data, hyperlink) and a brief description of their content, call to action, or motivation for users (Strauss, Frost, 2012; Tuten, Solomon, 2015). In analysing the content, the researchers answer the question what types of posts result in greater engagement (Lund, 2019).

First, experts (authors of the research) evaluated ten top posts from the sample. The purpose of this expert evaluation is to demonstrate the focus of the top posts.

The first post (Example 1) is a result of student activity. It displays a photo, as a joke, that links to the issue of the famous Vogue magazine with a building from the university and the university's name. This post received higher engagement. Example 2 presents the university campus using Lego-this type of post activated a lot of public engagement. The bronze medal

(Example 3), from our sample, received a post with information about donations for the university hospital and represents CSR activity by the university.

Some posts (Example 4 and 7) are invitations to activities at the university. Some posts aim to entertain the audience (Example 5, 8, and 9) and demonstrate that humour has a place in academia, which attracts high engagement. Example 6 is focused on international cooperation and uses appearances of VIPs to the university as promotion. This post contributes to the positive name of the university and also achieves notable engagement. Opposite to this was seen in Example 10, which was a very sad message, shown in Appendix 2, and received a high number of shares.

Netvizz divides Facebook reactions into 'love', 'ha-ha', 'wow', 'sad', 'angry', and 'thankful.' As stated above, it is necessary to differentiate between the forms of interaction (Zell, Moeller, 2018). The post in Example 6 received a higher number of comments, which means that this post received a higher number of cognitive reactions by the public.

Furthermore, the examples also stress the importance of posts' content in relation to their target group. It may be assumed that the type of posts exerts less influence (Eger et al., 2019).

It is evident (Appendix 2) that users are engaged with an organisation not only through connecting and liking but also by sharing its content on their personal social networks as well as by creating new comments on the organisations' profile page, which represents the highest level of public engagement on Facebook. In this case, the findings are in line with Peruta and Shields (Peruta, Shields, 2017) who argue that more page likes (reactions) means each post gets a larger organic reach and there is more opportunity for engagement.

To gain more detailed information, the research team conducted content analysis. After completing and organizing the data (three post with the highest engagement from each selected university), it was separated in two important parts. First one briefly describes content of each post and second one describes action from communication point of view. A brief description is based on the agreement of two experts after viewing the post (expert evaluation). Followed coding simply involves identifying similarities and differences in the data conducted by researchers. The code serves as a tag used to retrieve and categorize similar data so that the researcher can pull out and examine all of the data across the dataset associated with that code (Castleberry, Nolen, 2018).

In this case is the action of coding focused on specific questions of the data.
First part:
What is happening in the post?
Who are the recipients (target groups) of the post?
When is it happening?
Second part:
What kind of call to action the post used?
What kind of gratification is connected with the post?

A coding strategy was established before coding begins (a priori) based on current theory on communication using social media, namely social network Facebook (Cvijikj, Michahelles, 2013; De Vierman et al., 2017; Lund, 2019). Further, the uses and gratifications theory (UGT) was taken in account. This theory provides information for what people needs, where needs originate, and how they are gratified (Choi et al., 2016). In this research we follow Dolan et al. (Dolan et al., 2016) who posit that social media content can be categorised into four main group factors, based on its level of information, entertainment, remunerative and relational content.

Conducted content analysis concentrated analysis on the manifest content of data. The unit of analysis was selected post. Next, the collected posts were classified based on different structural dimensions and related analytic categories, which where obtained from both deductive and inductive categorization techniques. The main categories were (Table 1) topic of the post, target groups, perceived time, call to action and categories of UGT.

Researchers divided up the content of the posts into smaller parts, into meaning units. Then condensed these meaning units further by formulating codes and then grouped these codes into categories. As is shown in Table 1, the selected published posts in category topic of the post received 12 codes: Funny, Persons, Update photo, Promotion, Campus, Ecology, Study, Management, Offer service, Sports, Students event, Award and Others. Funny picture or funny announcement were the most used post in this sample of Facebook posts. Administrators and people responsible of Facebook profile often published posts about famous persons and update photo of the university on the second place. Some posts were focused on prospective students (Promotion). Above presented codes represent focus of selected posts. Recipients (target groups) were usually students, staff and all public but 11 posts had a

particular focus on students. The other 7 posts were mainly aimed at students and staff and 5 post aimed at prospective students on the first place.

Two thirds of the posts were related to the current event, some of the posts were focused on the future and the smallest number on historical information and events. To activate users on social media, it is suitable to use call to action phrases. However, almost half of the posts were assessed by experts as informational only without a call to action. Joke (16), then an invitation (5), a call to follow us (4) and a special offer (3) were most often used to activate users.

Finally, the communication presented on Facebook was evaluated from the perspective of UGT. As mentioned above, the researchers used four categories of UGT by Dolan et al. (Dolan et al., 2016). The factor Entertainment dominated in 13 posts and in a total of 30 posts contained tis factor. The interaction factor was identified by experts in 23 posts and the factor Information in 22 posts. The factor Renumeration was marked by experts in 9 posts (Table 1).

Table 1. Categories, distribution of codes for top 72 posts

Topic of the post	Total	Target groups	* Total	Perceived time	Total	Call to action	** Total	UGT	Total
Funny	15			History	5	Joke	16	Entertainment	13
Persons	10	Students, staff, all public		Past event	2	Invitation	5		
Update photo	9		*	Actual	49	Follow us	4	Entertainment partially	30
Promotion	4	Students	11	Actual/ future	10	Offer	3	Interaction partially	23
Campus	5	Students, staff	7	Future	6	Call to protect freedom	2		
Ecology	4							Only Information	22
Study	2								
Management	3	Prospective students	5			Thanks	1	Renumeration	3
Offer service	4							Renumeration partially	6
Sports	2								
Students event	2								
Award	2								
Others	10								

Note. * most of the posts are focused on students + staff + all public, ** the half of the posts has only information value and not contains piece of content that encourages audience to do something.

5. Conclusion

This research makes several contributions of both researchers and practitioners in communication using social media. The research aims to assist people who are responsible for communication of higher education institutions with their target groups (Slabá et al., 2014) in better understanding the methods and activities that support their institution's image and brand via Facebook.

Universities need to attract attention from the public and the social network Facebook is considered as one of the prime platforms for this purpose. The study provides evidence that investment in social media can help institutions develop their relationship with prospective and current students, alumni, staff, and other stakeholders. The findings show that targeting community members on Facebook profile may be particularly beneficial and lead to higher engagement. This study also shows that in the higher education area the best practice is to publish posts about important persons that are connected with the university and briefly describe their stories. On the other hand, entertainment and jokes have also important role in communication via social media.

The findings support the claim that the type and content of the post play an important role in engagement (Lund, 2019). They also provide HEIs with a lot of useful information about interests

and behaviours of active followers. The results also show that community members can help develop positive stories about the university and support its image.

Limitations

We believe our research has interesting implications, but we are aware about its limitations. First, the study focused exclusively on the top universities from three Visegrad countries in Central Europe. We suggest that further research in different countries and cultures is needed. Second, data using Netvizz in May 2019 were obtained only from the social network Facebook. Third, this research investigated perspectives of UGT using the concept by Dolan et al. (Dolan et al., 2016) and thus focused only on four gratifications within social media content.

The presented research can be further extended by focusing on other relevant social media. Additionally, further research is needed for the effects of negative word-of-mouth on social media.

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Appendix 1

Universities	Country	No of students	No of followers	No of posts	Links	Photos	Status	Videos	Likes	Comments	Reactions	Shares	Facebook 2018 Engage-ment
Charles University in Prague	CZ	45235	42158	394	135	183	5	71	15033	843	18156	2353	21352
Masaryk University, Brno	CZ	30163	38389	595	351	216	7	21	46134	2389	55337	2872	60598
University of Chemistry and Technology, Prague	CZ	3880	9053	356	101	194	4	57	14333	473	16810	905	18188
Czech Technical University in Prague	CZ	17549	10991	372	147	197	3	25	3704	110	4107	344	4561
Palacký University Olomouc	CZ	19670	23369	548	173	322	5	48	38500	973	46598	6042	53613
Brno University of Technology	CZ	18263	15014	254	114	114	1	25	6022	952	7003	450	8405
Czech University of Life Science Prague	CZ	18533	16073	208	19	154	1	34	5634	293	6235	390	6918
University of Ostrava	CZ	8332	12163	279	121	104	2	52	6977	444	7951	498	8893
University of Pardubice	CZ	6804	11596	276	69	167	3	37	6977	444	7951	498	8893
Tomas Bata University in Zlín	CZ	8482	8354	107	12	83	0	12	2948	102	3457	223	3782
VŠB Technical University of Ostrava	CZ	11304	9992	255	62	146	1	46	7604	543	8438	871	9852
University of West Bohemia	CZ	10422	5496	220	29	175	1	15	8771	326	9861	416	10603
Comenius University in Bratislava	SK	23867	16771	665	436	187	2	40	10549	417	11386	1635	13438
Slovak University of Technology in Bratislava	SK	12195	11062	461	358	79	7	17	5190	172	5777	755	6704
Technical University of Košice	SK	9575	6171	334	77	186	1	70	4444	218	4724	535	5477
Jagiellonian University	PL	36902	69121	411	56	284	2	69	46769	3232	56932	2385	62549
AGH University of Science and Technology	PL	23909	62818	389	3	342	10	34	90770	4987	111225	2150	118362
University of Warsaw	PL	42700	70930	270	55	185	2	28	30318	2887	37351	2893	43131
Warsaw University of Technology	PL	27072	32985	238	41	172	5	20	16922	1713	20948	787	23448
Adam Mickiewicz University	PL	34534	30034	393	65	237	0	91	23639	1693	29237	2375	33305

Gdaňsk University of Technology	PL	15085	23091	547	134	380	5	28	16530	2650	20270	885	23805
Nicolaus Copernicus University	PL	22169	31553	146	11	131	1	3	16115	480	18667	1186	20333
University of Silesia Katowice	PL	22774	27915	366	77	193	37	59	5967	146	6345	1078	7569
University of Wroclaw	PL	24658	38772	612	198	327	4	83	37227	3576	46942	2836	53354

Note. CZ = Czech Republic, SK = Slovakia, PL = Poland, HU = Hungary, No of students = 2018

Appendix 2

No.	University	Type	Reactions	Comments	Shares	Content	Action	Categories	Targit groups	Call	UGT
1	AGH University of Science and Technology — 14.02.18	Photo	3548	76	47	Students photo in front of builiding, stylised cover Vogue	Joke, VOGUE journal and university name	Funny	Students, staff, all public	I	I
	Link	https://www.facebook.com/239574985661/posts/10155379906985662/									
2	AGH University of Science and Technology — 12.12.18	Photo	1848	48	25	AGH campus build from LEGO (scale 1:1250)	Promotion of campus using LEGO	Update photo	Students, staff, all public	I	I
	Link	https://www.facebook.com/239574985661/posts/10156063290370662/									
3	Jagiellonian University — 12.02.18	Photo	1824	10	59	Volunteering. University hospital recived ambulance from national action WOŚP	Thanks to university for donation	Others	Students, staff, all public	Thanks	I
	Link	https://www.facebook.com/311279977472/posts/10155474102522473/									
4	Palacký University Olomouc — 12.09.18	Photo	1747	31	446	Streetartfestival, nontradion picture of presindent Masaryk	Invitation to visit the festival, call to discussion	Students event	Students, staff, all public	Invitation	E+A
	Link	https://www.facebook.com/165988140107925/posts/2420076041365779/									
5	Palacký University Olomouc — 16.01.18	Photo	1589	2	86	Snow in the park	Joke, rabbit made of snow on the tree	Funny	Students, staff	Joke	E
	Link	https://www.facebook.com/165988140107925/posts/1999647536741967/									
6	Masaryk University in Brno — 20.12.18	Link	1368	226	87	Award of the president of Slovakia	Promoting cooperation with the neighboring country	Persons	All public, users from Slovakia	I	I + A
	Link	https://www.facebook.com/570841892946940/posts/2200194696678310/									
7	Jagiellonian University — 10.05.18	Photo	1342	54	70	Students action in main square in Cracow	Call to solve the puzzles	Offer	Students	Try to solve task	I+A+E
	Link	https://www.facebook.com/311279977472/posts/10155679059317473/									
8	University of Wroclaw — 19.02.18	Photo	1315	26	47	Funny photo, students watch in class room ski jumping	Students watch sport reportage	Funny	Students	Joke	E
	Link	https://www.facebook.com/222697984491947/posts/1663908987037499/									
9	Jagiellonian University — 10.01.18	Photo	1314	81	11	Pigeon photo. The University is located in Pigeon street	Joke, pigeon and Pigeon street in campus	Funny	Students, staff, all public	Joke	E
	Link	https://www.facebook.com/311279977472/posts/10155391829072473/									
10	Charles University in Prague — 21.12.18	Photo	1306	59	320	Message of death of famous personality	Sad news	Persons	All public, staff, students	I	I
	Link	https://www.facebook.com/100164363380362/posts/2207438282652949/									

Note. I = information, A = Interaction, E = Entertainment. All top post are evaluated as Actual

Communication Barriers and Process of Feedback in Social Interactions

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Abstract

Barriers in a communication process hinder the intended feedback which, if not sent back to the message sender, disperse in the surrounding. This study intends to relate those communication barriers with the message-receiver, who instead of sharing his or her views back to the message-sender, contends to disseminate it among peer groups and social media platforms. The study conducted in-depth interviews of 9 students who were scrutinized as message receivers in their communication roles of parents-children, teacher-student, and religious scholars-religious follower. Five communication barriers; cultural, psychological, educational, economic, and religion were analyzed as hindering factors in a smooth communication process. The study found out that people, if suppressed for their feedback opinion, contend to multiple channels to do catharsis, consoling their ideology and attain resonating responses. Intra-communication, peer groups, and social media are those platforms that initiate a free flow of information from different message-receivers who could not give their feedback to the real message-sender due to pressure of cultural patterns, psychological divergence, educational incompatibilities, economic limitations, and religious conventions. Hence, the feedback message which was supposed to be shared with the parents, teachers, and religious scholars, reaches other segments of society which are not directly related to the particular communication.

Keywords: communication, barriers, feedback, social interactions.

1. Introduction

In the communication process, a sender sends a message to a receiver who, after receiving the message, responds to the sender with feedback, terming the process of communication as completed. The process of communication does complete in technical aspects as the sender and receiver of the message interacted with the same message and processed it as per their circumstances but, according to the researchers, certain circumstances do not let the receiver respond properly. It eventually turns out to be a dispersion of feedback through other means on different platforms which initiate a new dimension of discussions and arguments (McQuail, Windahl, 2015). Consequently, an answer which was supposed to be delivered to the sender exactly as thought is spread to the audience who is not directly involved in the communication process initiated earlier. Further, F.C. Lunenburg (Lunenburg, 2010) argued that communication is a complicated, cooperative process, so if there is a breakdown in a communicative process it may lead to the impediment of a successful transfer of understanding among the people. Consequently, the issues in any one of the aspects may lead to a reduction of communication success (Keyton, 2011).

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Moreover, individuals or groups of all the Social institutions have different levels of understanding which can capacitate a certain degree of dialogues or social interaction which may vary and differ from the existing ideas and beliefs. When children did not get a chance to give their feedback to their elders in the family, they are doing their catharsis through different ways, they opt for alternate ways for the flow of information e.g. social media. In educational institutes, students fear to denounce their teachers' opinions for being disgraced in front of the whole class when there is quite a probability of correction and addition to the existing knowledge of the former. In religious discussion, fear of being tagged as blasphemer and irreligiousness curtail the religious followers in sharing their true understanding of religion and their practice. Resultantly suppressing the innovative stances and discouraging the concept of open debate on any novel idea or belief in the society. This situation ultimately stops the people to engage in any kind of discussion due to an intolerant response from society and hence a social blockade of sharing ideas and thoughts occurs (Rebout et al., 2020). Therefore, it leads towards the communication barrier and stops the process of feedback in social interaction. The researchers undertook three social institutions, Family, Education, and Religion with regards to communication processes between their message disseminators and the respondents. In this study, elders and especially the parents in the family, Teachers in education institutes, and religious scholars in religious institutes are considered as the message senders and children in the family, students in the educational institutes, and religious followers in the religious institutes are considered as the message receivers. The researcher tried to find out the communication barriers in these institutions and the process of feedback in social interaction.
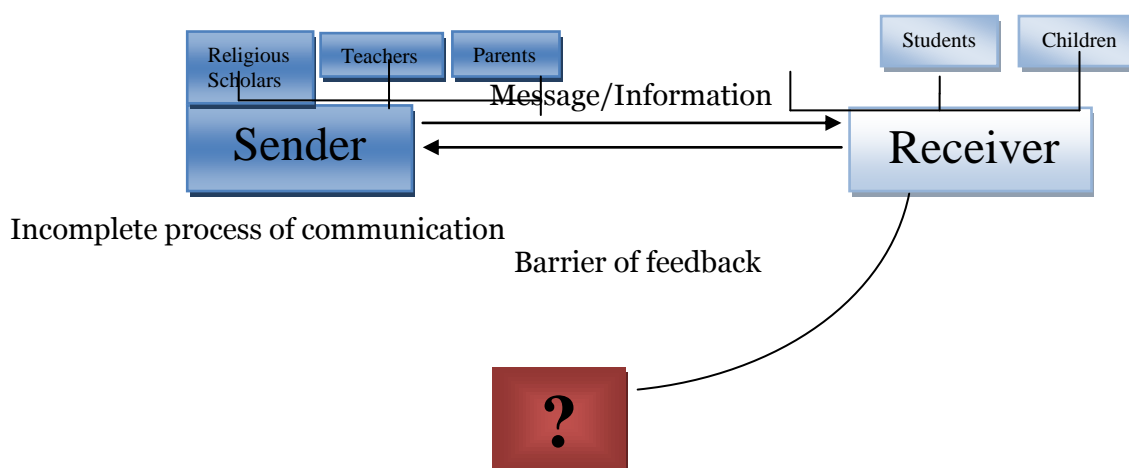
Fig. 1. Indecisive Feedback in Communication Process of Social Institutions

The researchers intended to evaluate four dimensions related to barriers in the communication process. firstly, if the message receivers respond as per their free will or they must mold their feedback according to the family, educational or religious setup. Secondly, do they express their internal feelings about that certain message with any other who is directly or indirectly not associated with that communication and its outcomes? Thirdly, do they share it with friends in their peer groups, argue it in some random manner on some social networking sites, relate it with social media memes, discuss it with the one they are at ease with, or they do not share with anyone. Fourthly, what are the cultural, psychological, educational, economic, and religious factors that hinder their feedback to be shared with the real message sender instead it reaches the audience who are not directly associated with the message?

A.F. Hannawa (Hannawa, 2015) described that people with less knowledge, fear of rejection, and isolation tend to suppress their responses to ideas and hold on to them until there comes a time when they release them in some way or the other. Parents in a family, teachers in any educational institute, and religious scholars in any religious institute are always in a dominant position to communicate their desired message with their children, students, and religious followers, respectively. But it is difficult to measure if the respondents of those messages convey their thoughts or answers as per their perceptions.

Similarly, their feedback techniques in which they sometimes remain silent by not replying give the feedback that was not intended, or by doing catharsis of discussing the outcome of that

communication with people other than the actual message sender (Mafela, 2013). Keeping in view the Pakistani social setup, the researchers derived five themes to investigate the respondents' communication feedback techniques. The researchers attributed these themes; cultural, psychological, educational, economic, and religious, with the respondents' social circumstances to analyze that how much these factors can affect in giving the exact communication feedback.

2. Materials and methods

The study implied a qualitative approach with an in-depth interview method for data collection. Nine respondents, who were students (for students-teacher communication and feedback), adults (parents-children communication and feedback), and religious followers (religious scholars and religious followers' communication and feedback) simultaneously, were purposively selected from the urban areas of Lahore. The selected sample age bracket remained 15 to 35 years old with minimum qualification as graduation with the male and female proportion of 5:4. The message receivers were interviewed as the research intended to study only the treatment of feedback by them. The students at the University of Management and Technology were purposively selected and divided into students, children, and religious followers' categories. Questions about the themes were asked from them while ensuring their identity to be confidential. They were also ensured about their comments for not being connected with any social, educational, and religious association to attain pure data without any artificial thoughts. Each interview took an average of 20 minutes which was audio-taped and transcribed afterward. Computer software NVivo was applied to assemble the assessment, management, and evaluation of the qualitative data produced.

Furthermore, in-depth interviews depict an insight version of the interviewee's understanding of any ideology and by selecting less but most relevant respondents, it becomes rather comprehensive in extracting out the valid and most related insight information. The study relied on small sample size as P. Waikar (Waikar, 2018) stated that useful interpretative data can, whether in a small portion, can represent the whole background idea which any huge content of the irrelevant or unnecessary sample cannot. The researchers selected only three segments of communication patterns of parents-children, teachers-students, and religious scholars-religious followers since Pakistani society depends largely on the progress of youth developing and successfully communicating their families, educational institutes, and religion. Moreover, the factors which barred their communication to reach a conclusion, cultural values, psychological misinterpretations, illiteracy, economic discrepancies, and orthodox religious ideologies, are the essential intervening aspects which were needed to be studied with regards to the Pakistani social setup.

3. Discussion

The process of communication has been devised and modified throughout its evolutionary period. While the intermingling factor of barriers in a communication process has previously been studied with different dimensions. The current study underwent highlighting the communication process, possible barriers, and different dimensions of feedback. The Communication process is equally simplistic and complicated as well. There is research aiming at describing the phenomenon of communication with regards to its various aspects, associated factors, and elements. According to F.C. Lunenburg (Lunenburg, 2010), it is a process of human relationship because of the verbal exchange of facts and standpoints, without the application of technology. Whereas he further explained communication as the collection of notions the individuals have when they want to generate understandings in other minds using an orderly and lasting process of narratives, listening, and understandings. V. Bisen P. Bisen (Bisen, 2009) attributed communication as a performance that results in an exchange of meanings.

It is essential to have effective communication with a complete feedback cycle, fulfilling the purpose of not just the message sender but the receiver to apprehend the message and respond in the same frequency. According to Gamble et al (Gamble et al, 2013) "Communication is the core of our humanness" and thus "how we communicate with each other shape our lives and our world". Moreover, communication is termed successful when all the aspects of the communication process go well with the planning. It implies the receivers understand the messages in the manner they aimed. Feedback is vital in any communication process as D. Scott (Scott, 2012) stated that poor feedback precludes the receivers from comprehending the true intentions of the messages of the senders. It leads to the misconception of the messages as well as poor interactive communication. While "filtering information may result in an incorrect impression of the true situation" (Willson, 2014).

Barriers in the Communication Process

The receiver of the message scrutinizes the information under certain cultural, religious, economic circumstances, and behaviors. D.E. Broadbent (Broadbent, 2013) elaborated that "people perceive messages through mental, emotional, and psychological filters; that is, the meanings they attach to simultaneous messages are perceived as per the receiver's understanding developed through education, experience, and exposure". And when there erupts any disruption in terms of backlash by the message sender, rejection of the idea, criticism of response, degradation of thoughts, and suppression of creativity then those barriers of communication create mistrust for the message receiver.

K.U. Rani (Rani, 2016) further stated that "Cultural differences cause a breakdown in the communication process". Unfamiliarity with the cultural values, assimilation of modernity in cultural aspects, and accumulation of new trends scare the culturally bonded population and it suppresses the innovation. Various traditions of "communication" of culture cause misconceptions if the people engaged in the communication process are unfamiliar with the traditions. Whereas there is a need to understand the nature of feedback which can be of any condition as many nonverbal messages are susceptible to multiple interpretations" (Islam, Kirillova, 2020). There arise barriers in the communication process when language problems or jargon cause ambiguity and sometimes delay and lazy transfer of information result in frustration and loss of speakers' interest to continue (Ramlan et al., 2018). Sometimes there is fear or anxiety associated with either real or anticipated communication among people from different groups, especially cultural and ethnic groups" (King et al., 2013).

D. Van Camp, J. Barden, L. Sloan (Van et al., 2016) noted that the individuals who are "intrinsically religious" hold fewer prejudices against others in contrast to "extrinsically religious" people. According to M.J. Brandt, D.R. Van Tongeren (Brandt, Van Tongeren, 2017) the religious inclination helps in understanding the prejudiced thoughts of religious people. According to them, religious fundamentalism led to conflicts when individual opinions and strict obligations are involved in the disagreements. Nevertheless, when the disagreements become conflicts, the prospect of disagreement exists at various stages for various people, who termed as, the "tolerance for the disagreement" (Teven et al., 1998). Moreover, according to Barnidge "tolerance for disagreement" is defined as "the degree to which we can deal with disagreement from another person before we take it personally" (Barnidge, 2018).

Dimensions of Feedback

Religious arguments and feedback in such conversations, at times, become so crucial that people avoid giving any remark which might be considered as ill or unsacred to the religious people. As stated by P.O. Ottuh, M.O. Jemegbe (Ottuh, Jemegbe, 2021) that "religious fundamentalism" implies that the religious bigots hold a particular truth; wherein there is no scope for dialogue. Communication is considered one of the critical social phenomena that impact the growth of public relations and dynamically help in the process of opinion-making (Kühne, Schemer, 2015). People tend to disperse their reserved thoughts and reviews to multiple platforms while the latest technology of social networking websites is one of them. As stated by A.M. Kaplan, M. Haenlein (Kaplan, Haenlein, 2010), it can be termed as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of User Generated Content". Y. Ten (Ten, 2017) described that Social media facilitates people to express their opinions and feel them involved in social processes. Nevertheless, the opposite views state that it entails detrimental effects, for instance, confidentiality problems, data load, authenticity aberration (Keller, 2013).

However, social media is acknowledged as a critical interactive tool for the general public who open modern facilities for useful debates and helps communities to manage dynamic and complex situations successfully (Soto, Gomez, 2011). It develops deep interaction with all the users in an efficient communication network. Besides its advantages, the use of Social Media jeopardizes the risks relating to security, confidentiality, and its functionality (Machamara, Zerfass, 2012). The contemporary social media communication tools, it has led to an effective means to reach, engage and enhance accessibility to reliable communications on the issues of development (Dunu, Uzochukwu, 2015). Moreover, the analysts concur that social media facilitate people to portray themselves, create and maintain communal interactions with others, and communicate with the social links. However, a critical aspect of "social media" implies: "... extent to which once-passive audiences can engage with media producers and fellow consumers. Dispersion of information and

possible feedbacks through social media networking platforms helps in building a strong network of ideas. This is commonly linked to a democratization of the media: the expanded interaction of members of the community through the media, and the ability of user communities to have greater editorial roles in shaping the content they consume and recommend to peers in their social networks" (Chen, Vromen, 2012).

The psychological studies pointed out several developmental tasks that the youths of the society need to a meaningful and successful changeover to maturity. Indeed, a major developing objective is personality formation that relates to adjust to the maturing bodies and thoughts, developing and apply abstract skills in decision making, to identify important ethical norms, principles, and their communications with parents, and other (Simpson, 2001). The identity characteristic of youths deals with the socio-cultural, political, and ethnic standards. One of the aspects of identity development of youths is the determination of self and how they communicate with particular social groups in the society. Hence, the social theory explains the processes wherein the youths relate to their behaviors, capabilities, and viewpoints to others, to realize their selves (Fong et al., 2016).

Nevertheless, the Internet presents prospects for staying in touch with peers and for individual research. In contrast, constant peer presence could be challenging to free oneself from further group stresses. Besides, extreme connectivity behavior relates to high impulsivity and creates an adverse interaction with their parents (Waller, Süss, 2012). The significance and potential strength of feedback are deep-rooted, both in the academic as well as in other occupations. Due to that reason, there is a need to offer feedbacks following different kinds of evaluation (Norcini et al., 2011).

The feedback barrier in academia usually restricts the efforts of educators who provide feedback and as well restrains the acceptance of feedback by the pupils particularly those that are successful in the evaluation (Archer, 2010). Thus, for example, youths, when they are assured about their good performance, search for feedback for not getting details for themselves, however, express or pass data to others (Mahfoodh, 2017). Furthermore, several studies showed that poor performers are less probable to look for feedbacks. However, mentors should certify that the youths comprehend the feedback communication. Otherwise, ambiguity and vagueness would cause greater cognitive load for the youths that could harm the feedback responsiveness (Shute, 2008).

Nevertheless, although the feedback communication is comprehended, the youths should be keen to consent to the feedback and apply it. However, they would not utilize feedback if the data verified what they knew beforehand (Hattie, Timperley, 2007). However, the feedback may be rejected if it lacked reliability since the feedback provider has not perceived the learners directly. As well, the youths are anxious concerning the feedback information received which contests their evaluation of their capabilities. Critical feedbacks could lead to powerful emotional responses which could impede efficient progress (Tekian et al, 2017). Some youths seem more involved in utilizing feedbacks for increasing their confidence instead of improving their knowledge as well as skill shortcomings.

4. Results

Many studies denoted that Pakistani social, the educational and religious institute has certain communication patterns motivated by set norms, values, traditions, customs and conventions (Aslam, 2018; Bashir et al., 2013; Islam, 2004; Safdar, Khan, 2018; Sajjad, Dad 2012; Shah, Amjad, 2011; Toor, 2005). These set indicators are transferred to the new generations by the elders who are culturally, psychologically, educationally, economically, and religiously patronized and patterned so.

Culture: cultural norms and values impact the communication process and feedback.

Culture is a collection of norms and values experienced and transferred by a generation to another through traditions and customs. It has a larger verbal and non-verbal demonstrative aptitude which lets its components, including individuals, evolve and modernize it with time. Many participants stated that their cultural identity overshadows their responses to a stereotypical idea promulgated by the institutional authorities. They hardly think of going against it as it will be an unnecessary confrontation. The following quotations reveal the respondents' perception of cultural aspect in hindering feedback during relevant debates: "I tried to change my family's mindset to avoid a typical three-day marriage ceremony but the fear of family relatives' comments on being miser and disrespectfulness demotivated me to utter this plan among them. I relied on sharing this

idea with my friends who were flexible enough to listen to it and on Facebook where only those people could comment who were likeminded."

"I am being a female in our society could not wear jeans and T-shirt among my family members and people know me. But I wear those dresses, which are stylish and modern for my family, among my close friends and sometimes I share my pictures on social media which help me present a modern side of me."

Pakistani culture has traditions and customs which denote its identity but when any new idea assimilates or accumulates in existing values, it is considered as an outside element and sometimes, very hard to become a part of it. Therefore, any modern advancement is culture initiates from those segments of society who take up the challenge by popularizing the innovation among youth through modern social media platforms.

Psychology: attitudes and behaviors impacting the responses.

Attitudes are a depiction of emotions and behaviors which are influenced by social experiences and understandings. Social setups shape individuals' attitudes which are showcased through verbal and non-verbal communications in their surroundings. Successful communication is dependent on the message sender's attitude and behavior as it sets the extent of limit for the message receiver. While the respondents contended to their personal experiences as: "I fear the anger of my parents, teachers and religious clerics who have the authority to denounce my stance on every point. I get scared and keep silent when I am unable to say anything which will make them satisfied."

"I do not talk to religious clerics because I know they are conservative and will give a narrow-minded answer to my question. That is why I either keep my religious queries inside me or I share with someone who I feel will be flexible and won't judge my religion by my less knowledge."

"Teachers think they have a final verdict on any issue they discuss in class, but I have many times kept my questions to myself and later expressed with my friends, which I wanted to ask from my instructors. There is the pressure of exams grading and insult among other class fellows."

"My father is educated and very friendly with me. He let me talk and express my ideas even in front of my brothers, he let my suggestion or opinion prevail in the family. I fear religious scholars as they always judge you and ultimately give fatwas. So, I do not talk about religious ideas among people who I think have the same mentality. My teachers are friendly and let me question even if I ask a childish question. I feel confident while asking questions from my mentors."

"My mother discourages me to speak up for some important point as she has been through a family setup who thinks bad of a woman expressing her opinion. I, too, have to stay silent on many issues on which I have my stance, but I rely on social media posts to express and relate my suppression and helplessness."

The respondents revealed multiple psychological issues and aspects which they claim to be the most vital in presenting their opinion or views as feedback to their message sender. They further proclaimed that society needs a complete psychological uplifting and overhaul to make feedback smoother and flexible. Few respondents negated the family and religious perspective to be a psychological barrier by stating that it is a reason for not following religion and disrespecting the family norms which result in such confusing debates.

Education: Educational environment, degree, instructors, and academic pressure regarding feedback.

Education and literacy are vital elements of a society to develop a socially knitted and united community. Moreover, it is stimulated by communication bonds among the social institutions, groups, and individuals. The respondents expressed their views as: "I don't think religious people are educated enough to talk to. They have a typical reply to every innovative question I have. It's better to present your idea in front of the whole world of social media where everyone has its own choice of response and sometimes you find good people to learn the religion from."

"My mother is not educated but she has a beautiful temperament of listening and patience of a saint. I always share my problems with her and take her words seriously. I am not happy with today's teachers' attitude who feel like an expert in education and do not let us educate ourselves in a flexible sphere. It is always better to learn from people on the street, friends, video tutorials, books, and others rather than being taught by teachers."

"Our teachers want to listen what they want to listen. They hate arguments on the ideas which they are adamant about. Educational institutes are just those places where we come to get

degrees after a certain period. It is not a place to create new ideas with your imagination. So, I talk through my writing, novels, blogs, and vlogs."

"Education is so mandatory that I feel frustrated at times due to people's unawareness with simple ideas. There should be some app (software) which can translate my thoughts and feelings to the other in the same manner the other person could understand."

The literacy rate in Pakistan is drastically poor and not every person can go to colleges and universities for higher education. Thus, the level of communication is not always inspired by educational background but through irrelevant contexts of religion, ethics, moral values, etc. There prevails a stigma that if an educated person talks of make others understand about a new thing, manner, or act, he or she is mocked and discouraged for his educational superiority and sophistication. Whereas there is commercialization in the education industry which makes it difficult to hire a big number of trained professionals. Thus, educational institutes rely on less trained talent who, after becoming teachers, showcase more of their personality in their profession than being professional at their jobs with their respondents (students). The fear of being insulted by the teacher discourages the students to ask questions and eventually allowing them to express their views about the teacher, education, system, and everything in a covert, derogatory and ill-mannered way to others.

Economy: Financial caliber and economic status in the communication feedback process.

Economic status is the outcome of how an entity is enabled with financial and monetary facilities. It relates to the power and control enjoyed by the people who hold high economic status as compared to those who are less influencer among their peer groups and social gatherings due to poor economic status. The interview respondents thought: "I feel bad when people respond after judging you based on your dress, family background, wealth, cars, expensive mobile phone gadgets. I can feel it in my classroom when teachers prefer to talk and reply to those students who come from rich families. Poor students, like me, remain reluctant and hesitant to comment on those topics which require a wealthy background pertaining knowledge of expensive cars, brands information and trips to foreign countries."

"Religious scholars are always welcoming to those who look miserable or low profile. They have envious and hatred feelings for those who wear jeans pent and t-shirts. I think they hate modern dresses just because they can't wear them due to religious stigmas. Thus, rejecting a comment or argument coming from a modern person with stylish dressing."

"I see clerics behaving extraordinary and giving protocols to those people who come from a wealthy family. It's like, you have to be a rich person to win your argument over anyone."

The economic factor of a person lets him, or she enjoy a status of being respected among those who are deprived of all those privileges. Thus, setting a benchmark of economic hazard for those who cannot afford to speak up and share their thoughts due to lacking financial standing in society.

Religion: Religious obligations, restrictions, conservatism, and liberalism.

Religion is a system of belief and faith that regulates the lives of its followers. The set ideas remain fixed in nature as a manuscript of doctrine defined by the divine authorities. The religious followers go to different lengths to apprehend and inquire about a problem related to any aspect of life, they depend on religious clerics to guide them about the religious teachings and paths. The respondents argued about their religious communication as: "I feel the religion is an open sphere where people can discuss their problems to seek a way out but people in our society, who rules the religion, become the final authority and label any extraordinary question as unsacred and prohibited."

"I am not a good religion practitioner as that is because of the reason that religious scholars and teachers do not let people ask what they feel instead they direct people to ask what should be asked."

"I do not ask any question to anyone about religion because I fear getting a fatwa or being called blasphemous. I even stop to ask basic questions from people as it might hint them anything irrelevant and they blame me for disrespecting even if I have very good intentions in the back of my head."

"Social media is the only source where I do catharsis of my religious thoughts and inquire anything by remaining anonymous. This is the only way I can escape being labeled as blasphemous or unreligious."

Pakistan is an Islamic country by religion and has deep roots in religious ideological history. Religious fundamentalism is a prevailing element of Pakistani society that hinder in allowing common people to ask questions and feedback about their cognitions.
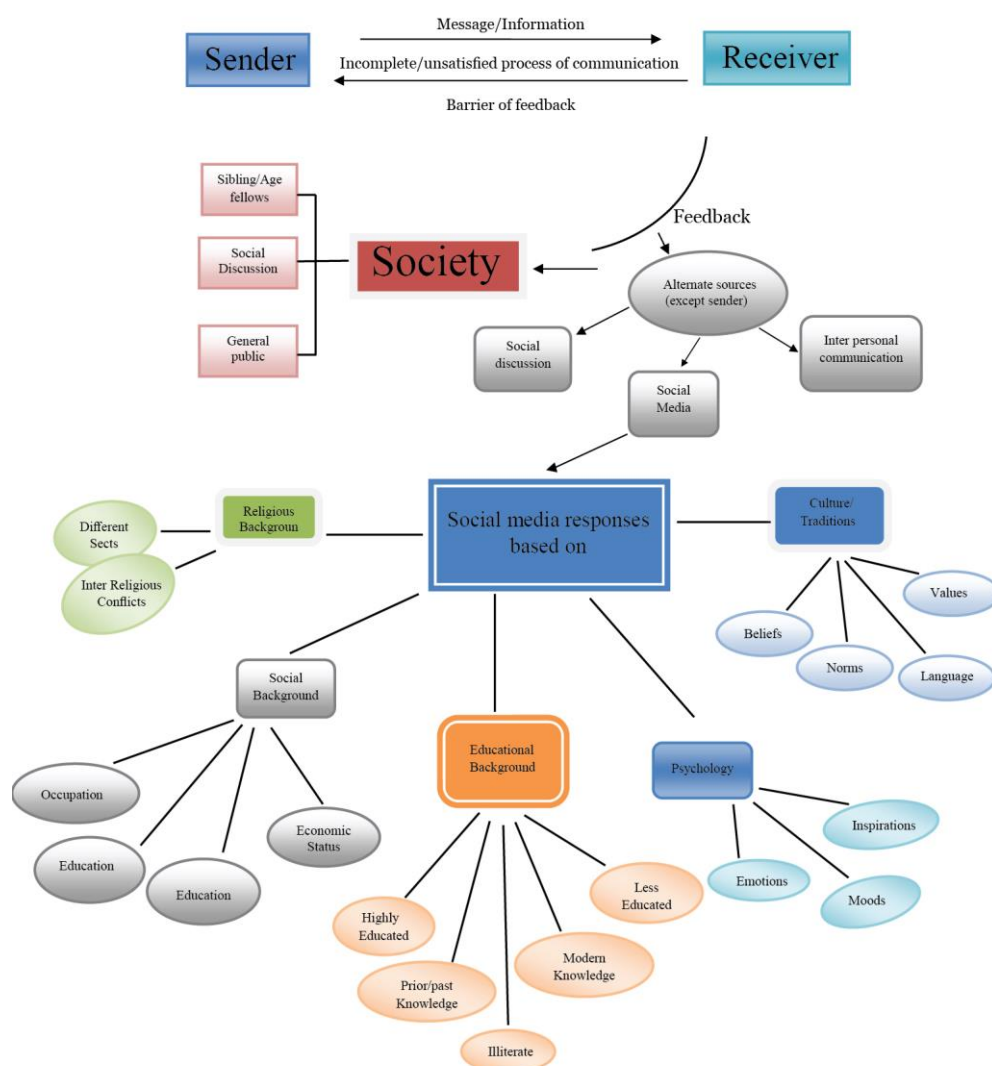
Fig. 2. Dispersion of feedback due to socio-eco-cultural, educatuional and religious barriers

4. Conclusion

Social institutions of family, education, and religion are dependent on communication processes by their members. A continuous course of communication enables advancement thus ensures its strengthened base. Whereas Pakistani society is in a stage of slow pace towards achieving a point where communication patience, tolerance, and forbearance have a long way to go. Families are culturally bound to their traditions, customs, and values so much that elders of a family setup discourage any innovative idea or thought by the youngsters with the fear that it might eliminate their family repute, social dignity, and cultural values. Resultantly, the youngsters in families and those with less economic status and less educational background share their opinions on social media platforms and with peer groups. Which pave way for a never-ending debate of certain issues with no specific answer to them. Therefore, the message sending authorities counter this view that it is better to have a limited or specific answer to any question rather than multiple stray and betraying opinions which result in nothingness but chaos.

Literacy is also another weak aspect of Pakistani society which becomes the reason for the communication barrier in a lot of scenarios. Lack of teachers training, commercialization of educational institutes, poor syllabi and curriculum, economic factors in the education sector, illiteracy, conservative mindset, and ignorance are the leading factors for communication hindrances among the public. Teachers' incompetency to satisfy a student's query results in

suppressing the student's demoralization and for him, opening new platforms to express his thoughts and get multiple responses to learn from. Illiteracy of parents and stereotypical knowledge of religious scholars who do not adhere the modern advancement, make the children and audience, respectively, reluctant to respond to any idea which dissonates with their cognition. Students do catharsis of such incomplete discussions with their teachers through social media groups where they have the freedom to abuse, call names, make fun or say whatever they want. This happens due to their understanding that the teacher will not let the students go against his or her views and eventually the whole class is bound to obey whether wholeheartedly or halfheartedly.

The religious association of a follower makes him bound to act and practice according to the surroundings. Whenever a follower questions the conventions, he or she is stated indifferent or tagged as a deviant. Who, after not finding the answers to his or her questions, seeks knowledge from other sources consisting of flexible educated peers, liberal social gathering, and social media platforms? Thus, making it a taboo of a religious matter to be discussed in fear. Therefore, people in certain circumstances of educational poverty, economic deprivation, psychological pressures, cultural restrictions, being accustomed to specific family values, and religiously orthodox, create an atmosphere of communication blockade. Hence, the people on the message receiving end, having their ideas, which may be new, wrong, or irrelevant, fear to express in front of the educational authority, family's elders, and religious scholars. They sometimes keep the responses to themselves and omit them verbally or nonverbally on real virtual platforms.

Thus, by spreading those messages to different channels and platforms, the orientation of the message, the intention of the idea discussion, the pattern of argument, and elements of content disperse in manifold layers which kick start new debates. Resultantly, a talk between two or more people could have an impact on the message receivers finds new destinations of healthy discussions and sometimes an unbridled communication process with a never-ending solution.

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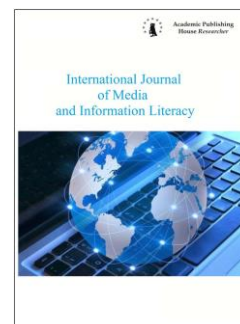
The Role of Media and Information Literacy during COVID-19 Pandemic and Post-Pandemic Period

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Abstract

Media and information literacy in the modern world is a set of skills, abilities that allow users to analyze media messages broadcast through the media and the Internet, the ability to critically approach the received data and perceived information. The COVID-19 pandemic that swept the whole world in the spring of 2020 forced all the population of the planet to use the worldwide network and the media actively, because they became the main source of information and a means of communication. This fact was also used by "ill-wishers" who launched false information about the statistics of those infected with the new virus, about the means of fighting it and much more. It was information literacy and critical thinking that allowed the population not to succumb to fake news and not to lose their heads. As shown by the authors' survey, the time that the population spent on the Internet before the pandemic was less than the time that it began to spend on the Internet after the announcement of the total quarantine. This can be explained simply – people had no other means of communication. However, as it was revealed as a result of the survey, people after the lifting of the quarantine regime, especially between the ages of 20 and 25, do not want to spend so much time at electronic space. According to the authors, the reason for this fact was the increased media literacy of this category for the population. People have learned to filter information flows, think critically and be skeptical about news. Nevertheless, many have switched to a distant work format and do not want to return to the previous offline mode, and for them, it is also necessary to develop media communications and increase their information literacy.

Keywords: media literacy, media, information literacy, COVID-19 pandemic, Internet, critical thinking.

1. Introduction

The development of information literacy is closely related to the acquisition of digital and media competencies. The ability to think critically and not to trust all information that is distributed on the network, and above all to analyze the data base, assess the status of the media and the author are the main components of a person's media literacy. The COVID-19 pandemic, which locked the entire population of the planet at home, forced people to develop their information and media literacy actively and the ability to filter information flows (Al-Zou'bi, 2021; Datu et al., 2020; Greene et al., 2020; Nagle, 2018; Schmuck, Sikorski, 2020).

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2. Materials and methods

The materials of our research are books and scientific articles on media literacy, the development of media literacy and critical thinking skills in modern society, as well as Internet sites. The methodology is based on fundamental research in the field of interconnection and integrity of phenomena, logical cognition, information literacy theory and development trends of modern society. The research is based on comparative analysis. The following methods were used in the research: information gathering and analysis, field research in the survey form of respondents using the Google docs tool (docs.google.com/forms/d/1lWU6_9r4Ek2d_CCwh4-EgCgo1Wl4ilVFCVNTtIGSnvk/edit), theoretical analysis and synthesis, generalization, and classification.

3. Discussion

Over the past year, the number of studies related to media and information literacy, critical thinking, analysis of information disseminated in the media and the Internet has increased significantly. This is quite logical, because the whole last year was spent under the slogan "stay at home" (Al-Zou'bi, 2021; Datu et al., 2020; Greene et al., 2020; Polizzi, 2020; Schmuck, Sikorski, 2020).

Information literacy includes a number of components such as computer, digital, visual, and media literacy. It is the combination of all these components that ultimately forms information literacy – the ability to think critically and interpret the information received. Figure 1 shows a diagram of the information literacy development.
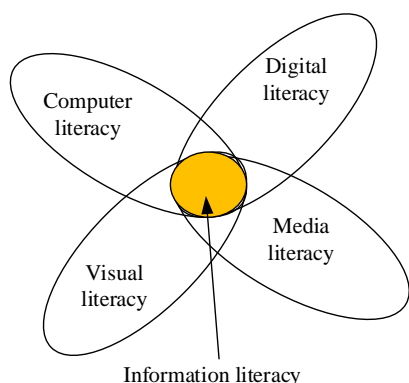
Fig. 1. Scheme of information literacy development

Thus, the information literacy development is possible only if there is digital, computer, visual and media literacy. The importance of all information literacy components has been described in the studies of many scientists and researchers (Graves et al., 2020; Gálik, 2019; 2020; Hammons, 2020; Kačinová, 2018; Petranová et al., 2017; Schmuck, Sikorski, 2020).

The following list is what exactly is involved in the development of information literacy:
- ability to analyze the information source;
- ability to determine the validity of data;
- ability to master the technologies for searching information пп the Internet;
- ability to understand the purpose of searching for different information types;
- ability to work with databases and libraries;
- ability to understand the legal aspects and consequences for the dissemination of false information on the network;
- ability to be skeptical about unverified sources of information.

The COVID-19 pandemic has made significant adjustments to the development of information literacy. People who stayed at home and spent virtually all their free time surfing the Internet had to develop their own critical thinking, master new computer technologies, and acquire new digital competencies. Those who were able to cope with this task faster became less vulnerable to fake news and a large number of pseudo news. This is also emphasized by many researchers (Ahmed et al., 2021; Lutfullaev et al., 2020; Makarova et al., 2020; Sandars et al., 2020; Soldatova et al., 2020).

In this connection, according to the authors, it became expedient to conduct a study of Internet users from different age categories and social status in order to obtain information about

how information literate they are, how their information literacy level has changed during the pandemic and whether they want to spend most of their time online, reading the news or working.

4. Results

The year 2020 will be remembered for a long time not only as the year of the first global pandemic (we are talking about COVID-19), but also, in fact, the first large-scale experience in the history of mankind in the implementation of the "distant work / learning format".

It cannot be argued that the distant work format is fundamentally new - back in 2018-2019, studies conducted showed that about a third of employees employed in such areas of activity as marketing, advertising and PR, accounting and law already had such experience, and they even found certain advantages in it, including saving on transport, flexible working hours, etc. (Challenge..., 2021). However, what the domestic economy faced in 2020 was a real shock for entrepreneurship: many enterprises and their employees had to build new work schemes in just a matter of hours or days as a maximum.

Almost a year has passed since the moment when Russian citizens first encountered "distant work" mode, and it seems that the world will never be the same: people will not completely return to the old work formats and will use distant work formats, even if not to the same extent that it used to be during the pandemic outbreak, but definitely more than a couple years ago. Nevertheless, the number of news related to COVID-19 in the network does not decrease, and there are also news stories related to political changes in the world. People who are accustomed to consuming large streams of information during a pandemic are in the news stream all the time. The authors decided to clarify how much the respondents learned over the past 2020 to filter information and news coming from the network, how much time they are spending in the Internet and for what purpose, whether or not their level of information literacy has increased due to the development of digital competencies. The composition of the respondents who took part in the survey is characterized as follows (see Fig. 2, 3).
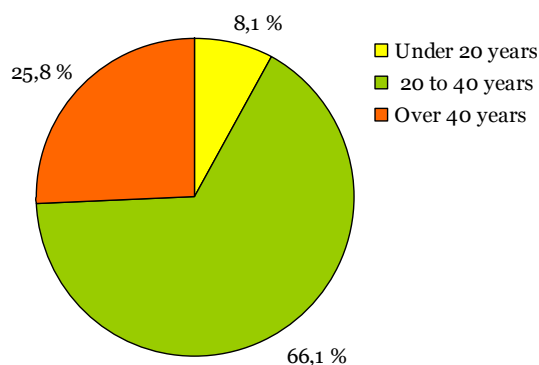
Fig. 2. Composition of respondents by age
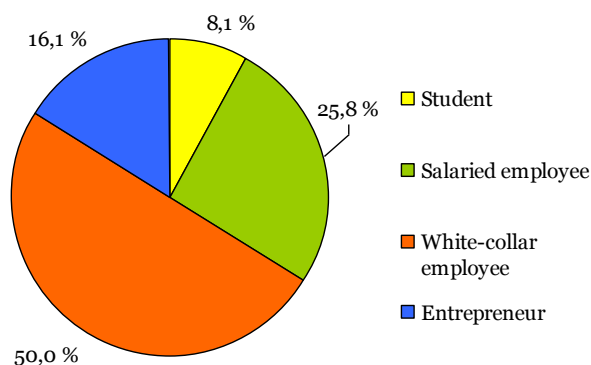
Fig. 3. Composition of respondents by social status

Based on the results of the survey, the following findings were obtained: in general, during the pandemic, most of respondents began to use various kinds of digital technologies for

communication and work to a greater extent. Also, a significant part of them are sure that after the end of the pandemic, if the use of these devices and technologies decreases, the decrease will be insignificant. At least, it will not decrease to the level of information and communication Internet technologies use in 2019 (Figure 4). This means that there is a need to increase the level of information literacy for safe work in the Internet.
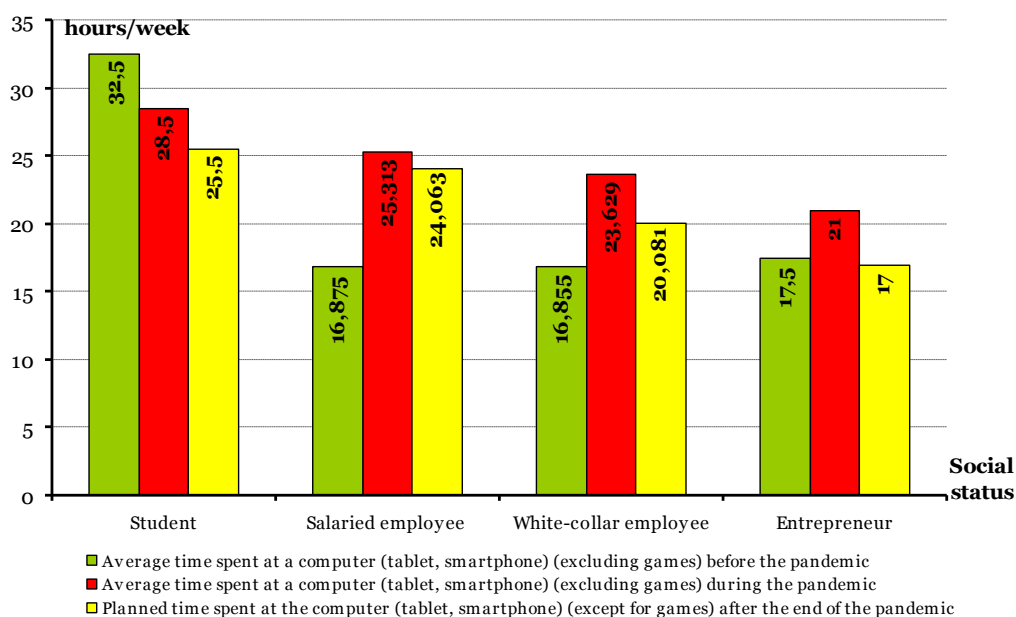

Fig. 4. Average time of respondents using information and communication Internet technologies by social groups

Obviously, during the pandemic, the use of information and communication Internet technologies increased in three out of four groups of respondents: in the category of "salaried employees " - by 50.01 %, in the category " white-collar employees " – by 40.19 %, in the category "entrepreneurs" - by 20.0 %. Moreover, for all these three groups of respondents, there is confidence that after the end of the pandemic, the use of distant work technologies will decrease, but not significantly.
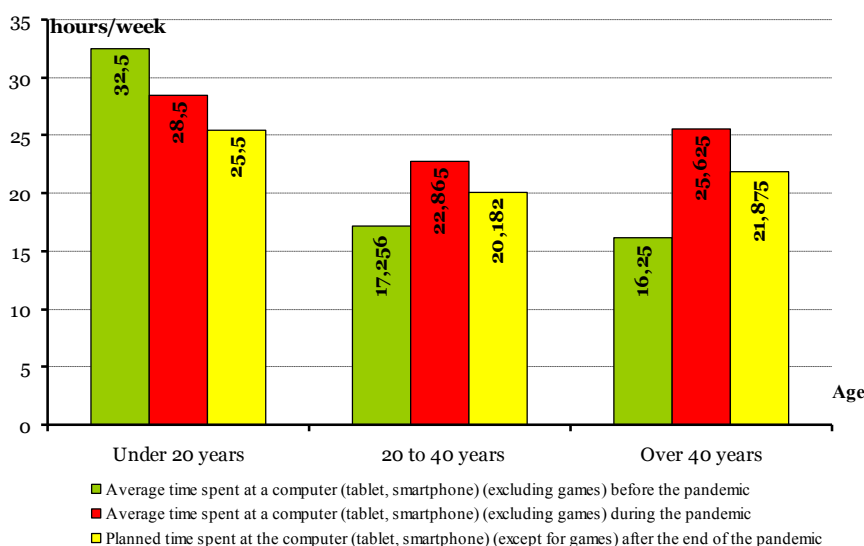
Fig. 5. Average time of respondents using information and communication Internet technologies by age

The only exception is the group of "students" – who spent more time in the Internet environment than other groups of respondents before the pandemic and who are confident that by the end of the pandemic they will graduate and are planning to start working, where it will be much more difficult to spend time "communicating in the Internet".

A similar situation is observed in the case of division of respondents by the age (Figure 5)

The negative dynamics in the group "under 20" is explained by the same factors as in the previous case: almost all respondents under the age of 20 are students.

Further an analysis was carried out of the computer programs used by the respondents in their daily life and at work. The results are shown at Figure 6.
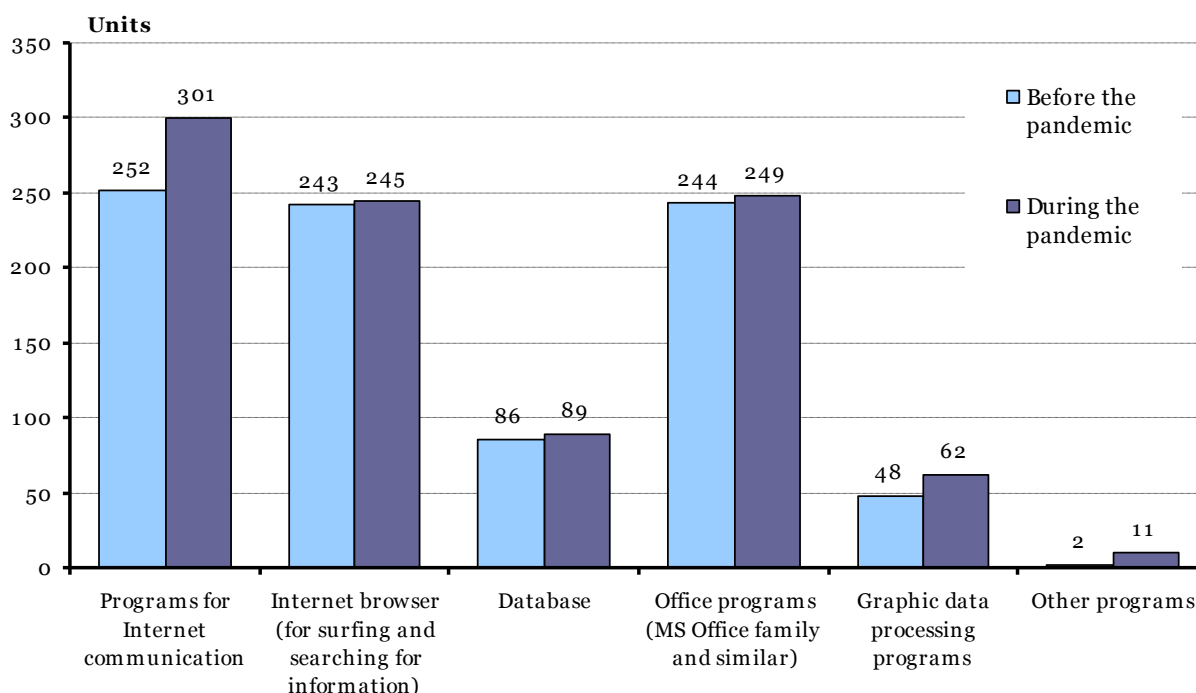

Fig. 6. Dynamics of the various kinds of programs use, before and during the COVID-19 pandemic

The analysis shows that across all categories of programs, there was an increase in use. However, the major increase (19.44 %) was observed in the category of "Programs for Internet communication". The second most popular is the "Internet browser for information search", which is important, it is from the browser that people get the main stream of news, which means that it is important to develop information literacy and critical thinking. Many respondents admitted that the source of information is important for them, but they found it difficult to answer how to check the level of the source reliability, and this is the first stage in the development of information literacy. It is also worth paying attention to the small percentage of using databases – people do not know how and do not want to use databases, statistical yearbooks, collections of reports, they would rather trust unverified sources with unconfirmed facts, because looking for facts on their own takes a lot of time and is difficult.

The above data, on the one hand, determine and confirm a real increase in the time people spend at work and communication through the information and communication capabilities of the Internet, and on the other hand, they show that people do not possess all the tools necessary for information literacy and the development of critical thinking, as well as software products necessary for distant work and data analysis. However, this assumption is also confirmed by the fact that a significant part of the respondents (of those who were forced to acquire new software knowledge and a new communication format in the Internet) was able to cope with this either on their own or by watching the corresponding training videos in the Internet (see Figure 7).
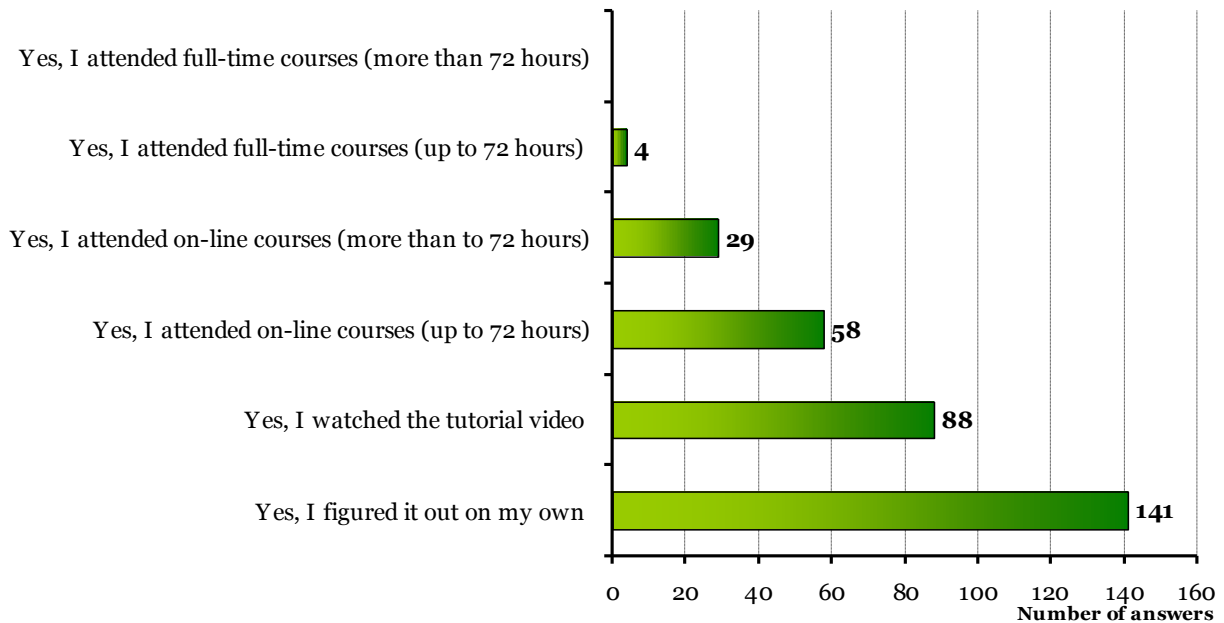
Fig. 7. Respondents' responses on how they can acquire new software and technologies knowledge during the COVID-19 pandemic (multiple choice is assumed)

It is noteworthy that about a third of the respondents (32.25 %) answered that they did not have to acquire new software products at all during the last year, and they easily switched to a distant format mode of work and/or training. Another confirmation is the fact that the absolute majority of respondents liked the distant work format (Figure 8), and there is no correlation between this answer and the respondent's age and/or status.
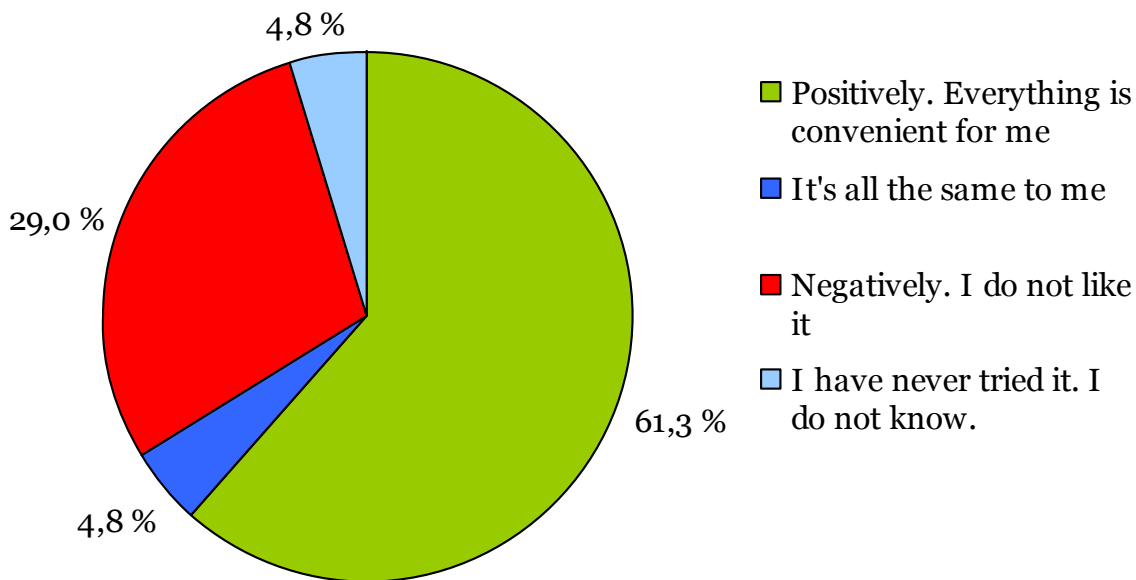
Fig. 8. Respondents' answers to the question "How do you feel about the distant format mode of work (training)?"

However, it should be noted that a fairly large part of the respondents (29.0 %) did not like the distant work format mode at all. Basically, this answer was given by people whose work cannot be transferred to a distant format (drivers, sellers, builders, etc.). Finally, it should be noted that almost 3/4 of the respondents answered that in the future they will be able to work in a distant format at least 50% of their time (moreover, a third of them are ready and can do their work 90 % or more precisely in a distant e format).
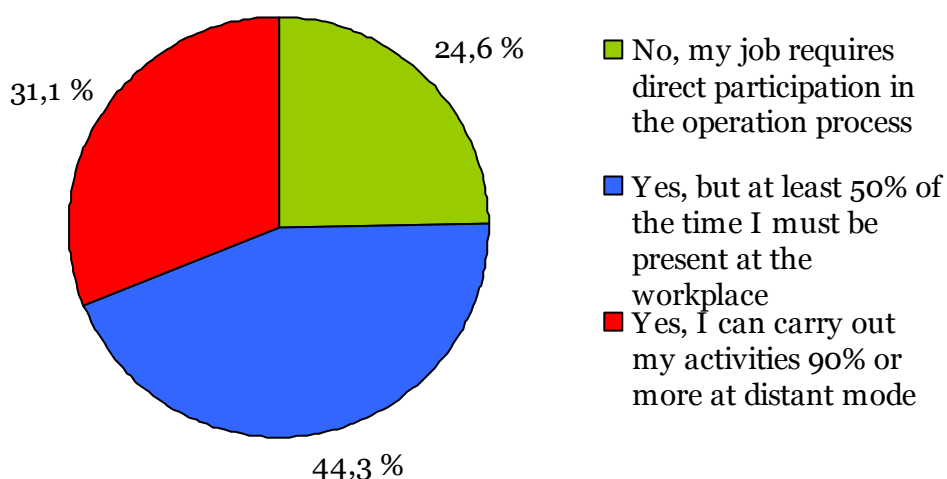
Fig. 9. Respondents' answers to the question "Can you now fully carry out your professional activity (work, study) through Internet technologies?"

The results of the research show that the population of Russia as a whole relatively easily switched to work / education through Internet technologies, and in the future, one should expect that certain professions can completely "switch to distant work". Working "distantly" has its advantages, which many researchers have written about, including the ability to control your time independently, work from anywhere in the world, save on travel costs, receive megalopolis salaries in the regions, and much more. Within the framework of this research, it is necessary to pay attention to the fact that distant work and the possibility of a massive transition to it should be accompanied by the active development of digital and information competencies among the population. The ability to evaluate the information consumed, be skeptical about the data received, be able to verify the data and work with primary sources, know the legal aspects of working with information on the Internet and understand the consequences of its false dissemination. Only having mastered these competencies can we talk about the transition to a distant format of work and study.

Currently, the Digital Certificate program is being implemented in Russia – the provision of free certificates for obtaining digital professions by residents of Russian regions, however, the list of acquired competencies is still not long enough, and the range of programs is mainly aimed at developing computer literacy. According to the authors, it is more important to develop not the ability to use office applications and the browser, but the Internet as a huge mechanism with an uncontrolled flow of information, to teach the skills of competent information search, filtering, skeptical and critical comprehension.

5. Conclusion
The 2020 pandemic showed that people are able to maintain their potential and quickly find solutions in stressful situations: most of the respondents rapidly adapted to the distant work format, figured out new applications, learned how to work outside the office, but it was far from being able to learn how to critically perceive the entire news stream. A survey carried out by the authors showed that, in general, people were comfortable working distantly (at least because they did not lose their jobs during the crisis), and over time, people have adapted to this format, and the majority even expressed a desire to continue distant work mode after all restrictions were lifted.

Nevertheless, it is necessary to make a number of recommendations that should be paid attention to, including by employers, when transferring employees to a distant location mode:
- make sure that employee knows how to use databases, libraries;
- make sure the employee knows how to search for information using search engines;
- make sure the employee is able to prove the quality and reliability of the information received;
- make sure the employee is aware of the legal aspects of the dissemination and use of information received in the Internet.

Only after making sure that a person is media literate and with developed critical thinking, we can talk about the possibilities of transferring this person to a distant work mode.
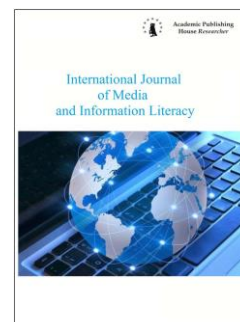
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Media as a Source of Popular Science Information during COVID-19 Pandemic

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Abstract

Popular science journalism is an effective method of communication between the scientific community and ordinary people. In the article it is considered popular science media as an important part of mediaspace. On the basis of overview of Ukrainian media, it is done the analysis of the current situation with popular science information in media. To understand the expectations of audience it was conducted the survey (N = 200). Thus it was determined the role of scientific information for the audience, as well as identified relevant methods of presenting scientific information. The survey showed that popular science journalism plays an important role in the lives of Ukrainians. Especially it is actual during world pandemic, when citizens want to know about the newest means of treating from COVID-19. Most respondents, as expected, actively use the Internet to learn about the latest advances in science and technology. As it turned out, Ukrainians read not only domestic publications, but also foreign ones, but there are still respondents who are poorly oriented in the topic, are not informed in the current situation with new in science and in particular with the COVID-19 researchings.

Keywords: popular science, media, audience, Ukraine, online, podcast, TV, survey.

1. Introduction

Science and journalism do not stand still. Information about scientific discoveries and achievements is interesting not only for the scientific world, but also for common citizens. After all, the state of science illustrates the world in which we live. At first glance, popular science materials do not relate to the social, economic or political life of the country, but they show the general state of scientific and technological progress of the world. Thanks to the achievements of the digital age, the dissemination of information about the next discovery in any field of science, becomes available in an instant around the world. But despite the speed and ease of disseminating information, journalists act as intermediaries between science and ordinary people. Scientific terms are difficult to understand, and therefore the role of a journalist is to convey the essence of an event, discovery, achievement as simply and clearly as possible.

The urgency of the topic is also due to the need to cover the current state of Ukrainian popular science media and prospects for their development. The topic is practically unexplored on the territory of Ukraine and needs a deeper analysis, although such media belong to the underdeveloped topics in our country. There is a lack of research on popular science journalism in the Ukrainian media space. Now journalism is a reflection not only of the political, social, secular aspects of life, but also primarily scientific, namely the latest advances in science and technology. Problems and achievements in scientific fields occupy a significant share in mass communications. However,

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scientific topics are often covered not in specialized publications, but in informational ones, so it is obvious that society's needs for narrowly specialized media are growing.

The media play a leading role in modern society, new directions, styles of writing and presenting information appear, new needs of consumers arise. In a rapidly changing society, it is vital to keep up with its pace, knowledge of advanced technology prepares people for the challenges that overwhelm the modern world. Journalism itself has changed with the development of science and technology. Advanced technologies are used by all media without exception - computers, cameras, the Internet, audio recording media, etc. The significant need of the audience in the formation of a scientific picture, in obtaining operational information about various branches of science, as well as the popularization of science in general, forces the media to respond to consumer demands.

Popular science journalism is an effective method of communication between the scientific community and ordinary people who do not participate in scientific achievements directly, but who are influenced by any scientific discovery. In our digital age, information is the engine of progress. This is a product that is treated with special meticulousness. And now the requirements of the population for popular science information are not fully met. Popular science journalism, which aims to disseminate scientific knowledge in society at this stage, is represented by short columns in the media, and very few independent publications. And popular science journalism is a science for a wide range of readers with different levels of scientific knowledge.

2. Materials and methods

To cover this topic, we will first analyze the theoretical sources. The next step is the analysis of Ukrainian popular science media, as well as Internet alternatives. With the help of analysis and analogy we will assess the state of popular science journalism in Ukraine, conduct a poll to find out the role of science for the audience, methods of presenting scientific information.

We have analyzed Ukrainian online and printed media and also radio and TV, which is available for the most of our population to find out if there is a popular science content there.

Popular science media is different from traditional media. But due to the narrow specialization, the circle of readers is not too large. That is why it is important to understand the place of journalism about science in the life of Ukrainians. We decided to conduct a survey on the importance of popular science journalism for the audience, as well as to find out which popular science media Ukrainians consume. The survey had been held during April-May, 2020. Accordingly, our aim was to analyze the needs of the audience in popular science media and analyze their role in the life of modern consumers of scientific information. The main question is what should be popular science media to meet the needs of the modern reader and whether it is necessary to change the established form of media.

The purpose of the survey was to determine the target audience of popular science media, to find out whether the form of work of such media is suitable for users and to determine what modern popular science resources should be in order to be in demand and interesting to audiences. Based on the survey, we will analyze the popular science media that are read in Ukraine, give them a description and form their own project of popular science media, as well as form advice for media that write about science. We conducted a survey by questionnaire. We developed a questionnaire and envisaged two possible ways to fill it out – manually or via an Internet link in Google form. We offered both options, so we were able to determine which part of the audience tends to be traditional and which to the digital future.

The questionnaire contains 6 questions – open, closed and mixed types. 200 respondents were interviewed – hospital students, representatives of IT specialties, teachers, personal acquaintances of the author, people of different ages and status, 124 women and 76 men. Manual processing was used as one of the methods of information processing. Among age categories: 18-24 years old – 36,5 % of respondents, 25-40 years – 46 %, 41-50 years – 7,5 %, 51-65 years – 5,3%, 65 and more – 4,7 %.

3. Discussion

Scientific and popular sphere of communication is now rapidly developing and gaining new features - virtuality, globality, mosaic, social orientation (Egorova, 2018).

In an era of mass media propagation, the potential to disseminate scientific discoveries to a curious and literate public is unprecedented. Scientist and science advocates have the ability to

bypass gatekeepers of traditional media to grow and nurture their own audiences. What role should scientist play in correcting bad science, fake science, and pseudoscience presented in popular media? We identify two tracks that scientists can use to maximize the broad dissemination of corrective and educational content: that of an audience builder or an expert resource (Thaler, 2015).

The state of popular science journalism primarily depends on the state of science in the country and the world. The state of Ukrainian science can be assessed in one word – threatening. This is due to both insufficient funding and staff turnover, as well as the "brain drain" abroad. The number of scientists per unit of population is rapidly declining in Ukraine (Romanchuk, 2011). Given this trend, the number of popular science media cannot increase, because the topic of science is not popular in our country. The Ukrainian mass media market is full of periodicals not only of informational content but also of entertaining, advertising, and political nature. There is simply no place for popular science journalism, not only because there is no demand for it, or because we have a low state of science, but also because it is almost impossible to make money on such publications. New media in Ukraine are created either for the purpose of earning money or for the purpose of achieving certain personal goals (creating the necessary reputation, promoting one's own ideas, political ambitions, etc.).

For example, in China, the term "science" became known only in the last century. Science education, the discourse of science, and popular imagination of science emerged only during the past hundred and twenty years, over which time they gradually gained recognition. (Yang, 2016). O. Pilkigton declares that popular science has a majority of definitions. She argues that even without the replacement of terminology popular science maintains the focus on the specific rather than the general (Pilkington, 2019).

In journalism, there are often battles over the topic: who should write materials that promote science - scientists or journalists? Of course, it is good if professional scientists have the desire, time, and skill to write such materials, but if a scientist does it all the time, will he have time for science itself? On the other hand, journalists often lack the knowledge to correctly interpret certain events or phenomena (Bondarenko, 2012).

So the best thing for this situation is the cooperation of scientists with journalists. Ukrainian scientists are not used to working with the media, and hence the problems with communication. That is why you need to become part of the civilized world and be able to find methods of communication in completely different areas. In Ukrainian realities, such cooperation is not always productive, especially in the humanities and history in particular.

Part of the population consumes only entertaining content, so when scientific explanations are not entertaining, they are less read and watched. That's why media should provide not science information, but in popular format, which can be interesting for audience. On this case Donna G. Show says that children and students may not realize the difference or even that they are being exposed to science because they are only seeking to be entertained (Show et al., 2000).

Science and entertainment represents two of the most powerful cultural institutions that humans have developed to understand and explore their world. Most people are not scientists. Therefore, the public encounters images of science most often through depictions in popular culture (Jamieson et al., 2017).

There are a lot of definitions of popular science media and journalism. In Ukrainian dictionary, popular science publication is a publication of information on theoretical and (or) experimental research in the field of science, culture, and technology, presented in a form understandable to non-professional readers. Such publications are partly similar to scientific ones, but journalists aim to explain certain complex phenomena to the general public, avoiding excessive formulas and terms, instead of explaining everything briefly and in essence. This simplification is also done in order to interest a wide range of readers in science and to encourage scientific activity. In fact, popular science increases medialiteracy of readers and it is very important nowadays because «the discussion around the problem of media manipulation has dramatically intensified in recent years, especially in connection with the spread of fake news via the Internet" (Levitskaya, Fedorov, 2020).

However, Clint Witchalls says that scientists have a societal obligation to deliver credible information to those who can use it. Failing to do so, he suggests, leaves scientists at risk of becoming irrelevant (Witchalls, 2016). He declares that scientists have much to gain by sharing their research with the public. Moreover, it is important to have a relevant argumentation in the

popular science articles. That is why Kononenko et al. pay attention on different types of argumentative structure are considered and the co-occurrence of arguments "from Expert opinion" with other types of argumentative reasoning typical of the popular science genre (Kononenko et al., 2020).

The task of a science journalist is to process complex scientific information, which he must convey without changing the meaning and distortion. That is why such journalists are people who have training in certain professional disciplines because it is not so easy to become a real popularizer of science through the media. There is no special training. With the growth of scientific information, science has actually begun to play a key role in society, as most of the information we consume is related to science.

Researcher Jutharat Jitpranee identifies that one of the most important principle in populas science materials is the availability and interesting presenting of the information (Jitpranee, 2017).

There is no single definition of scientific journalism in world science. Proof of this is the statement of scientists Summ, A., & Volpers, A. In the classic understanding, science journalism is prompted by scientific events and is rather noncritical. Science coverage in a broad sense is defined by a wider range of journalistic styles, driven by non-scientific events, and with a focus on the statements of scientific experts (Summ, Volpers, 2016). With the increasingly growing technological advances and their consequences for societies, the public has the right to be engaged in the outcomes of science. On the one hand, the public are interested in acquiring information about the results of scientists' experiments. On the other hand, the scientists are willing to share their feelings about their discoveries with the public in order to achieve wider audience (Babaii et al., 2017).

The topics of popular science publications reflect the level of the best achievements and achievements of society, which is a litmus test that indicates the level of development of society at a certain stage and the level of interest of scientists in specific fields of science.

Often the media which is not focused on popular science, but has columns, or distributes such news, or makes its own programs. Some media prefer to digest scientific news. But there are also mass media that are exclusively popular science.

The topics of popular science media often change, but this area is alive, dynamic, it covers advanced technologies (Sokolova, 2019). Some topics have been supplanted by newer, more modern and topical ones (eg cloning, the impact of structured water on human health, the latest technical advances, such as mobile phones, laptops, etc.), some have become narrower. only in passing (as a historical fact), others, on the contrary, more broadly (the fight against cancer, the nature of dreams, systems of development of human internal resources - breathing, yoga, starvation, meditation), and a completely new topic. However, all these changes did not happen simultaneously and suddenly. It was a slow and inconspicuous process, which, however, significantly changed the "face" of popular science media around the world. Especially actual popular science became during the world pandemic. COVID-19 has not only caused an unprecedented health crisis; it has also caused an infodemic with the spread of false news (Javier, 2020), so quality popular science materials can help to increase the medialiteracy of readers and avoid fake news.

Now the Ukrainian and world media are trying to provide more environmental news. Media and communication processes are central to how we come to know about and make sense of our environment and to how environmental concerns are generated, elaborated, manipulated, and contested. Media and communications landscape have evolved profoundly with the continued rise of digital and social media. Such changes have gone hand in hand with and often facilitated, enabled, and enhanced shifting balances of power in the politics of the environment. There is thus a greater need than ever to analyze and understand the roles of mediated public communication about the environment, and to ask critical questions about who / what benefits and who / what is adversely affected by such processes (Hansen, 2018) concerning the environment, can most often be found in the sections *Science* in such media as *BBC Ukraine*, *Radio Liberty*, *Novoe Vremya*, on the website of the online publication *Kunsht*, which is also published in print.

There is no separate Ukrainian popular science television channel. Attempts to occupy this niche were once made by the *Mega TV* channel, but it never became a narrow-topic channel on this topic (Kitsa, 2018). The channel now broadcasts some natural programs (*Mind Games*, *Alaska: Rules of Survival*) and short scientific experiments, which, however, occupy no more

than 20 % of the channel's airtime. Some popular science programs were also broadcast in 2016–2017 on *Tonis, Eco TV*, and *UFO TV*, but these programs were not authentic, but only translations of foreign media products. Instead, on the most rated Ukrainian TV channels, popular science topics are replaced by pseudo-scientific programs, such as *Show of psychics, Molfar, Diary of a medium* and others.

As for the magazine market, at the present stage in Ukraine there are Russian-language versions of popular science magazines *National Geographic*, *In the world of science* (Scientific American), actually *Russian Around the World, Science and Life.*

Ukrainian media mostly present scientific information as a note in a news feed and thus perform only an informative function. Instead, editors of popular science publications such as *BBC Future* have set themselves the goal of making people smarter every day, and their material explains how to live smartly in a world that is changing so fast (Barnett, 2015). A significant promoter of science in the United States is the National Aeronautics and Space Administration or NASA for short. After all, NASA not only launches spacecraft but also studies various soil rocks, phenomena, looking for evidence of life in space and on Mars, in particular. Science pop articles appear on their websites, as well as on social networks, where their account is registered (Singh, 2011).

Journalism and journalistic discourses play a crucial role in framing environmental issues not only through narratives but in how media institutions, as stakeholders themselves, are tightly enmeshed with and weigh in globalization and commercialization processes and governance. Embedded in framing, on the whole, be it of news or scholarly analysis, is a significant form of storytelling power (Åberg et al., 2018)

4. Results
To the first question "Do you distinguish popular science news from general?" 193 people answered "Yes", 4 – "Did not think", 3 - "No". In percentage terms, the results look like this:
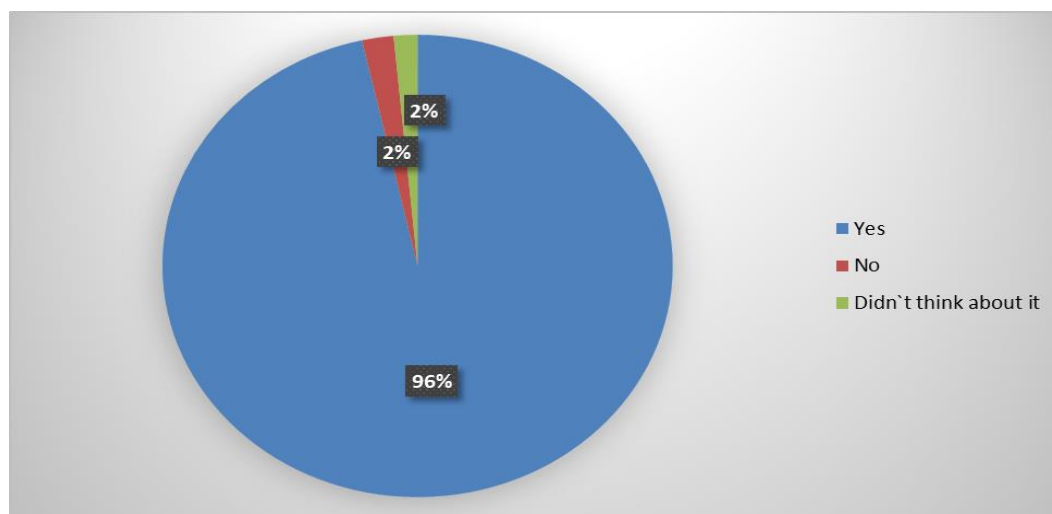

Fig. 1. Do you distinguish popular science news from general?

To the second question "How often do you read, listen, watch news about science?" For those who answered "yes" and "did not think". And in the Google form, we created restrictions, for those who answered "No" - the survey ended with questions that are classified as passports, i.e. the last three. was made in order to participate in the survey only those who are really interested in science, because on the basis of this survey we have to develop a project of our own media and make recommendations for popular science media, so we got the following results:

So, as we can see, the world pandemic influences on the demand of audience for popular science materials. However, the similar survey has not been provided by us before the COVID-19, so we can`t say if the interest of respondents to the popular science has increased or not.

Regarding the next question "What types of media do you prefer?", 113 people were chosen online media. Those are respondents from the first and second age categories, and 33 people were

chosen from social media. Among the third category – 19 people chose online media, 5 – TV, 9 – Radio, 12 – wrote their version – they combine different media and turn to different types.
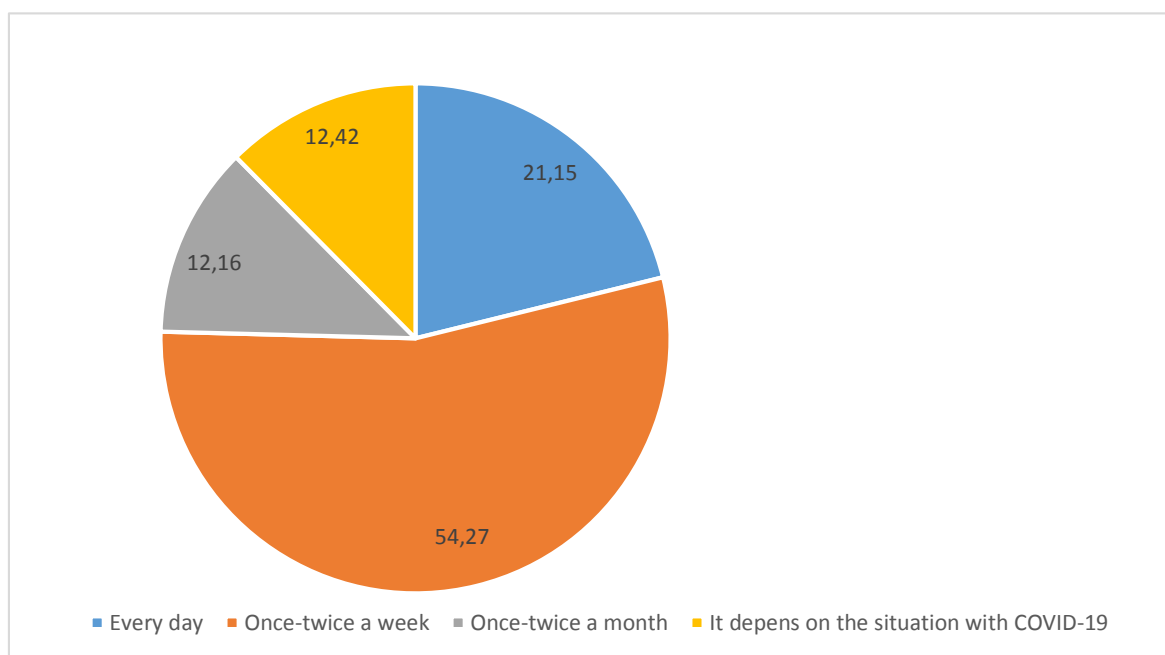

Fig. 2. How often do You read popular science materials?

The oldest category prefers television – 26 out of 50; 4 – TV and press; 7 – radio; 15 – Internet media. So, the choice of today's audience is still for the online media. But the younger age groups are between the ages of 18 and 35 and learn news from social media (9 people). Which is not surprising, because there are not many publications that promote science, so most information can be obtained from the media on the Internet.
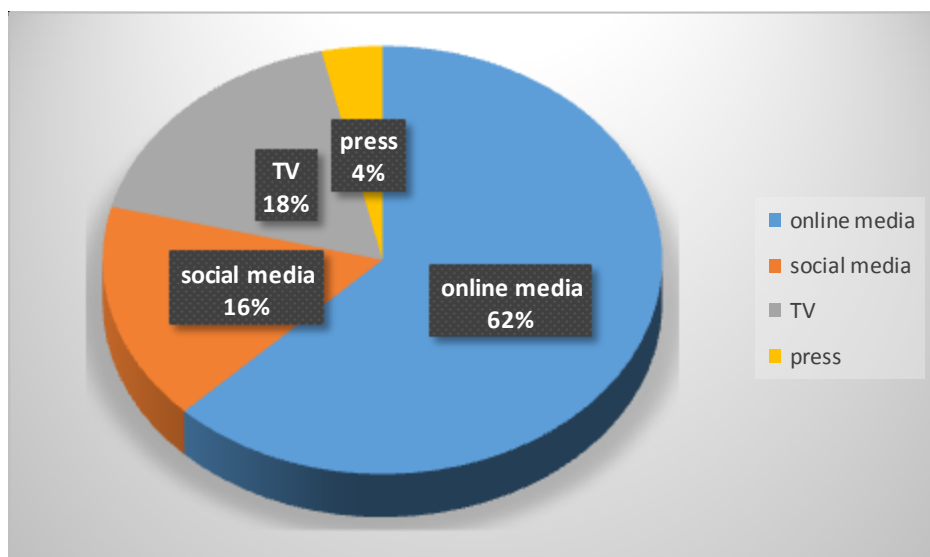
Fig. 3. What types of media do You prefer to get popular science information from?

There were some completely open-ended questions in this questionnaire. This is done in order not to push the respondent to answer, but to make him think and remember what he knows. The situation is the same with the question: "Indicate the names of Ukrainian media from which you receive information about the state of science?". It is open, because it was important for us to find out what kind of media it is without tips. After all, based on these answers, we will analyze the media and draw up a plan for our own popular science media. Thus, the respondents

gave the following answers: Leader of the survey: *Kunsht* (54 respondents indicated it), TV channel *Mega* (36 respondents), *Cursed Rationalist* (29), *Interesting Science* (29), *Techno. Novoe vremya, Technologies* (13), *Science and Technology. BBC Ukraine* (11), *Inventor and Innovator* (10), 2 + 2 (9), *Experiment* (8), *Ear* (5) - no longer available, *Science and Technology* (4) – Russian-language and is not currently available. Some of the respondents indicated several media outlets, so the total number of these media outlets is 208.

It was rather strange that nobody from our respondents choosed radio as a source of popular science materials. Nevertheless, in open-ended questions 12% of respondents have answered that they listen to the podcasts on the sites of online media, such as *Ukrainska Pravda*. These are respondents, aged 18-24 year. They also concreted that listen podcasts about medicine, new technologies and space. Also 5 % of respondents have told that they wish such podcasts to be more.

Perhaps one of the most important questions of the questionnaire was about the features that you consider the most important in the popular science media. One or more answers could be given to the question. The first thesis *Topics*. Often important things are left out "is relevant for 189 people. As for the format, it is 154 people, the audience does not like to read long texts. Only 46 people want to read long texts, depending on the complexity of the topic. ¾ respondents want to read popular science topics on the Internet, ie a platform for dissemination should be created there. This could be judged from previous answers about the Internet. 51 respondents are sure that science should entertain. That is, if you count the scale of all respondents, it is ¼. The point of accessibility was chosen by all respondents. All in one voice declare that science should be easy to perceive. The format of popular science newsletters for 71 respondents is also important, so as not to miss anything important. There was also an item "Your option", only 21 people left a comment. There were comments like this: *"For more popular science media", "For ordinary media to introduce separate sections on science", "It would be good if Ukraine continued to publish National Geographic", " We have few specialized journalists, we need to increase the number of them to have someone to write about the popular science", etc.* Several confirmed the theses that were submitted for selection.

Content analysis of popular science topics in the Ukrainian media gives grounds to choose only a few media for more detailed analysis. The reason is that most socio-political media mostly do not have a permanent column *Science*, and there are also very few specialized popular science media.

One of the most frequently read media by our respondents is *Kunsht magazine*. The slogan of the magazine is *Science as Art*, as the name suggests, because *Kunsht* is translated from Old Ukrainian as art. Many artists, illustrators and designers work on the magazine to bring the beauty of science to life. The journalists who create the magazine say the following about it: *Kunsht* is a modern design and texts about how the world is changing. More than 50 people can work on one number. The magazine is illustrated, published on thick glossy paper, has 100 pages. *Kunsht* has a website, but it was rather created to order products there, because in addition to magazines, you can also order a variety of merch. The authors decided not to post scientific news on the site, because this journal is not aimed at information and scientific presentation. That is, they prefer large genres. For example, in the first issue there are 14 articles, from 3 to 10 pages. The first issue is devoted to the topic of space tourism. An article called *to the moon and back* tells how many millions you can become a space tourist, how many people have already seen the "blue planet" from space and why it is so expensive to fly from Earth.

Although the magazine relies on popular science articles, short news items also appear in them. First of all, on the Facebook page, which has 20,000 subscribers. This is almost twice as much as in Ukrainian popular science channels, which also run social networks and promote science on such platforms. So on the fb-page, readers can often watch a short informative video about the landing of a new mission from NASA to Mars, or the peculiarities of aurora borealis in Alaska and others. Kunsht applies the principles of convergent journalism in its work. One such example is the free newsletter for registered users – *KunshtWeekly*. This is a digest of popular science information that took place in the world in a week.

One more media which have chosen our respondents is a Ukrainian popular science television channel *Mega*. It is a part of InterMediaGroup media holding. Founded in 2005. This is one of the first popularizers of science in Ukraine on such a scale. The slogan of *Mega* is "always an interesting TV channel". Now the channel has both own and translated foreign projects. The projects of own production include: *Pride of Ukraine, Ukraine: forgotten history, War inside us, Skarb.ua, Nauka.ua, Fake history*. That is, as for its own production, the channel is more

inclined to historical programs about Ukraine and the world. There are many more translated programs, here are some of them: *Treasures from the landfill, Women who changed the world, Ruthless Universe, The greatest deceptions in history, Mega-food, Incredible space, Naked science, Tanks. Great Battles, Mind Games, TopGear, Planet Earth, Secret Life of Animals* and others. These are the programs that are the most rated on the TV channel. From such a large number of programs, it becomes obvious that the content of the TV channel is not lacking, and there is a specific lack of Ukrainian content, because there are far fewer programs created directly in our country.

The downside for viewers was that you could watch these programs only directly on the channel, later it became possible on the site, but in real time, now many programs can be watched on the official YouTube channel *Mega*. Nevertheless, the YouTube channel continues to be used for program announcements, and the programs themselves can already be viewed on the site. The Facebook page has 8.4 thousand followers.

YouTube bloggers have quickly invaded our lives and are considered the influencers of the modern generation. What they are talking about responds to modern progressive people, which is why moisture is so popular now.

The Cursed Rationalist is a popular science, Ukrainian-language YouTube channel, the author of which promotes rationalism and skepticism, he calls it the presumption of the scientific method. The channel has 3.4 thousand subscribers. This is a non-profit project, without advertising. The total number of views is 54,826. The channel was founded by Artem Albul. You can help the channel in its development on the *Patreon* website, where I can officially send voluntary contributions. Anton Senenko wrote in one of his blogs that *The Cursed Rationalist* is a vaccine against populism and lies. There are videos on this channel that relate to different areas of life, but there are many videos that are aimed at debunking the myths. This topic is actually quite popular among Ukrainians, because the level of scientific awareness in our country is much lower than, for example, in America, the Scandinavian countries, Australia. For example, a video about iridodiagnostics on the channel *Cursed Rationalist*, a scientific approach proves that the method of determining diseases of the iris - does not work. Importantly, the author doesn't just say, "It doesn't work because it didn't help me." He cites real research as an example, be sure to link to it in the description of the video, and now even makes a special Google document, where he leaves a link to all the materials he used. In addition, Artem Albul also actively maintains pages in Telegram, Instagram and Facebook. In the latter, he leaves many links to scientific materials, announces popular science events, news of the channel, etc.) In Telegram information is more concise, many author's popular science reviews and articles. Instagram announcements of new releases, photos from backstages, etc.

Another material of the *Cursed Rationalist* concerns the debunking of myths about oral care. Video *Fluoride in toothpastes - a necessity or a conspiracy of dentists?* talks about fluoridation of teeth from a scientific point of view, he gives specific figures of the amount of fluoride that should be contained in toothpaste to be effective, explains how fluoridation at the dentist prevents disease, but only if the doctor prescribed it to you. The channel's channel insists in its videos against self-medication, especially with methods such as iridodiagnostics, as mentioned earlier.

Each video on this channel is an example of good popular science journalism that meets all standards. There are no empty evaluative judgments, all conclusions are made by the author based on scientific research, he has no evaluative judgments, there is only a healthy scientific skepticism. The channel began its existence in 2017 and has 20 videos, with the number of views from 1500 to 7.5 thousand views. Also noteworthy is the material on vaccination, which is very ambiguously perceived in Ukraine, feared and considered a conspiracy by corporations, while suffering from measles outbreaks. Video *Vaccines. Genocide or Salvation* was written by the author precisely because the popularity of vaccination refusals has risen sharply. This video is almost twice as long as the previous ones (11 minutes), the author debunks the myths about vaccines based on advanced research by scientists.

5. Conclusion

Thus, the survey showed that popular science journalism plays an important role in the lives of Ukrainians. Most respondents, as expected, actively use the Internet to learn about the latest advances in science and technology. As it turned out, Ukrainians read not only domestic publications,

but also foreign ones, but there are still respondents who are poorly oriented in the topic, and therefore included in the list of media that are no longer published. The most popular are the media that operate on the Internet, they are popular not only among young people, but also among all age groups that we have considered. However, several groups of respondents do not mind reading a popular science magazine or newspaper, arguing that they will not miss anything. After all, a newspaper or magazine is like a digest of scientific news that can be obtained by mail.

Some respondents admitted that it is important for them to send such news so as not to miss anything important from what happened in the world of science. It is also important that popular science media write in an accessible way, because it turned out that respondents are poorly oriented in scientific terms and, nevertheless, do not want to miss important events happening in the world of science and technology. Respondents also know many Ukrainian and foreign popular science media. There were those who called the media, which ceased their activities, but nevertheless, respondents are guided by what is offered to them in the field of science. This is not surprising, because education in the world as a whole has increased, and the number of people who use many technologies in their lives has increased, and therefore must be able to use them.

Ukraine definitely has an audience for popular science media. The only problem is that our domestic market is not yet able to meet the needs of consumers. After all, there are very few projects that promote science, and often those that are, are difficult to write and do not try to meet the audience, for which it is important that information platforms are on the Internet, to develop applications, have the opportunity to receive newsletters. The traditional press, for example, is also not bad, but it must also use modern approaches. People want more Ukrainian-language content, as well as for the media to have a separate section on news from the world of science. Then in any media you can quickly find out what is happening in science.

Based on the results, we will form our own concept of popular science media, a modern media platform that will be as convenient as the traditional press, but at the same time interactive. It is important to surprise, encourage and influence the modern consumer of information. If the media cannot answer the user's question "Why should I do this?", Then such a user will not consume the information provided by you, in whatever wrapper it would be. It is important to explain the need for this knowledge. And you can do this through the rebranding of your own media, if it is outdated.

Today's audience needs new approaches to presenting information. It is necessary to create applications for Android, IOS platforms, work in social networks - make official accounts, develop the site as interactive as possible, be sure to be able to comment and distribute news. It is also important to involve not only social networks, but also various video hosting services, because the modern consumer requires maximum interactivity. One of the demanded formats of popular science information are podcsts. They can be situated on the sites of online media or on the platform Spotify. It is also important to present the information concisely and clearly, so that only from the title the author gets an understanding of what it will be about, so that each material distributed on social networks has a short intro. And, as the experience of other media shows, it is important to maintain accounts on many social networks to increase the audience.

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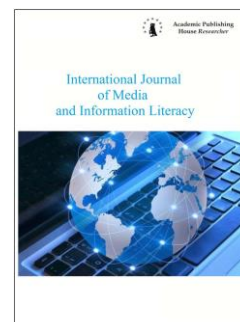
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Criteria and Methods for Assessing the Effectiveness of Activities, Contributing to the Development of Students' Media Competence in the Process of Analyzing Media Manipulative Influences

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Abstract
Based on the analysis of scientific literature and specific media educational experience, this article concludes that the characteristics of the criteria for a high level of activity efficiency, contributing to the development of students' media competence in the process of analyzing media manipulative influences, are as follows:
- motivational criterion of the teacher's activity (versatile motives of media education: emotional, epistemological, hedonistic, moral, aesthetic, etc.; striving to improve their knowledge and skills in the field of media education);
- contact criterion of the teacher's activity (weekly classes from classrooms in the process of media educational activities, contributing to the development of students' media competence in the process of analyzing media manipulative influences);
- information criterion of the teacher's activity (systematic awareness, extensive theoretical and pedagogical knowledge in the field of media and media education, typology and essence of media manipulations);
- technological criterion of the teacher's activity (developed technological skills in the field of media and media educational activities, contributing to the development of students' media competence in the process of analyzing media manipulative influences);
- evaluative criterion of the teacher's activity (comprehensive knowledge of the methods of assessing the knowledge and skills of students in the field of media education and analysis of media manipulative influences);
- practical and operational criterion for the teacher's activity (high quality of practical media educational activity, contributing to the development of students' media competence in the process of analyzing media manipulative influences);
- creative criterion for a teacher's activity (a pronounced level of creativity in media educational activities, contributing to the development of students' media competence in the process of analyzing media manipulative influences).
Keywords: criteria, media competence, media, media manipulation, audience, students, teachers, media education.

1. Introduction
The modern media sphere is characterized by the spread of misinformation, which has a negative impact on students (both cognitively and emotionally), on the learning process in schools

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and universities. The consequences of disinformation campaigns can be profound, especially at the school level. They have undoubtedly complicated teachers' job, especially, in such subject areas where propaganda and manipulation is more frequently attempted (history, social studies, etc.). Many scholars hold the view that "media literacy initiatives have been shown to lessen the vulnerability of children to disinformation. The development of critical thinking and analytical competences are key components of a successful educational intervention. There is an ongoing debate on the best strategy to address students' susceptibility to disinformation, revolving around the extent to which interventions should target a person's core belief system and worldview. Media literacy campaigns against propaganda and disinformation have historical precedents that can inform present efforts to combat vulnerability to disinformation. There are many current educational initiatives that improve students' capacity to detect disinformation and protect themselves against its influence. Evidence shows that students who reported high levels of media literacy learning opportunities were more likely to identify misinformation, which lends credence to the impact of media literacy programmes. Such initiatives should be more widely researched and implemented" (McDougall et al, 2018: 50). Therefore it is particularly important to develop the criteria and assessment means for the efficiency of activities, aimed at media competence's development of students in the process of media manipulative influences' analysis.

2. Materials and methods

Materials of our research are academic books and articles on media manipulation and the topic of media manipulation, on media and information literacy education as well as Internet sites. Methodology is based on theoretical framework on the relationship, interdependence and integrity of the phenomena of reality, the unity of the historical and the logical in cognition, the theory of the dialogue of cultures. The following methods are used: data collection related to the article's theme, analysis of the academic literature, theoretical analysis and synthesis; generalization and classification.

3. Discussion

We agree that the political and media environment of the 21st century motivates educators and researchers to create effective tools to increase the media competence of people, including preparing citizens to counter disinformation in any form and manifestation. In order to do that, in particular, one needs to: a) "develop a coherent understanding of the media environment, b) improve cross-disciplinary collaboration, c) leverage the current media crisis to consolidate stakeholders, d) prioritize the creation of a national media literacy evidence base, e) develop curricula for addressing action in addition to interpretation" (Bulger, Davison, 2018: 18).

Nevertheless, it should not be forgotten that, etymologically, the word "propaganda" does not bear negative connotation. It is derived from Latin "propagare" - set forward, extend, spread, increase, which can be illustrated by "healthy lifestyle propaganda" or "anti-smoking propaganda". Thus, the word, which was not originally pejorative, in modern political sense, becomes such, and implies bias or deliberate misleading. This phenomenon has also been noticed by Renee Hobbs: "Propaganda, which is generally defined as strategic communication designed to activate strong emotions, bypass critical thinking, and shape attitudes and behaviors, has long been an important form of social power. But for too many American students, the term is only associated with historical examples from the middle of the 20th century. As a result of biases and omissions in classroom instruction, some high school and college students wrongly think propaganda only happened in Nazi Germany! Today, propaganda is everywhere, and it takes new digital forms that blur the lines between entertainment, information, and persuasion. Propaganda can be found on YouTube videos, websites, and TV news, and in movies, music, and video games. And it doesn't have to be solely negative; some forms of propaganda are actually beneficial. Think of the public service messages that remind you not to text and drive, for example. Well-designed propaganda activates strong feelings that motivate people to take action" (Hobbs, 2017).

However, the numerous prior researches have shown that it is the adolescent audience that is the most vulnerable and susceptible to manipulative media influences, it "has the highest tendency to read and to spread hoax or fake news. This is also tied to the fact that millennial spend more time on the Internet, and therefore have higher exposure to many various types information, including fake news" (Pradekso et al., 2018).

Yet, in spite of all the efforts of media educators around the globe, attempted throughout recent decades (Blumeke, 2000; Bowker, 1991; Buckingham, 2000; 2003; 2015; 2017;

Buckingham, Sefton-Green, 1997: 285; Bulger, Davison, 2018; Courtney, 2018; De Abreu, 2019; Dell, 2019; European Commission, 2018; Friesem, 2019; Gallagher, Magid, 2017; Gálik, 2019; 2020; Gálik, Gáliková Tolnaiová, 2015; Hartai, 2014; Hobbs, 2010; 2011; 2017; Hobbs, McGee, 2014; Ireton, Posetti, 2019; Jeangène Vilmer et al., 2018; Jolls, Wilson, 2014; Kačinová, 2018; Kubey, 1997; Mason et al., 2018; McDougall et al, 2018; Müller, Denner, 2019; Petranová et al., 2017; Pérez Tornero et al., 2018; Potter, 2001: 28, 53; 2012; 2019; Potter, McDougall, 2017; Semali, 2000: 55; Silverblatt, 2001: 2-3; Silverblatt, Enright Eliceiri, 1997: 40; Wilson, 2019; Worsnop, 2004, etc.) the research results "indicate that nearly 6 in 10 (57.0 %) primary school teachers and half of secondary school teachers (52.9 % in KS3 and 50.7 % in KS4) believe that currently, the curriculum does not equip pupils with the skills they need to be able to identify fake news. Nearly two-thirds of teachers (64.8 %) feel that the critical literacy skills taught in school are relevant to the real world, yet over a quarter (26.4 %) are not convinced this is the case" (Fake news…, 2018: 21).

For that reason, we suppose that it is the development of the efficient ways of mediacompetence's development, especially of students and teachers, that is the key to improving the situation, including in terms of resisting media manipulations.

4. Results

By the *media competence* of an individual, we mean the sum of their motives, knowledge, skills, abilities (criteria: motivational, contact, informational, perceptual, interpretive/evaluative, practical-operational, creative), contributing to the choice, use, critical analysis, evaluation, creation and communication of media texts in various forms, forms and genres, analysis of complex processes of media functioning in society.

At the same time, we believe that a media competent person has: the ability to select and use what the media can offer; knowledge of economic, social, technical, political conditions that are associated with the production and distribution of media products; knowledge of the conventions of the types and genres of media texts, the ability and willingness to make an effort to adequately perceive and understand the content of the media text and filter out "noise"; understanding the power of influence of media texts; the ability to distinguish between emotional and reasoned reactions in the perception and analysis of certain phenomena in the field of media culture, media texts of different types and genres; the ability to competently judge the content of the media text; to critical reflections on media texts, no matter how influential their sources are; knowledge of the specifics of the language of various media and the ability to understand their impact, regardless of the complexity of media texts; skills to create their own media products (Fedorov, 2007; Weber, 2002).

The Philosophical Encyclopedic Dictionary defines the term "criterion" (from the Greek *kriterion* – means for judgment) as "a feature on the basis of which an assessment is made, a means of verification - a measure of assessment" (PED, 2010).

Based on the above, in 2007 we developed a number of such criteria/features, on the basis of which we further assessed the levels of media competence of the audience (Fedorov, 2007: 31-56) (Table 1).

Table 1. Criteria (indicators) of audience's media competence

Criterion	*Criterion's Description*	*Levels of the particular criterion development**
Motivational	motives of contact with media and media texts: genre, thematic, emotional, epistemological, hedonistic, psychological, moral, intellectual, aesthetic, therapeutic, etc.	High. Average. Low
Contact	frequency of communication/contact with media and media texts	High. Average. Low

Informational	knowledge of terminology, theory and the history of media culture, the process of mass communication	High. Average. Low
Perceptive	ability to perceive media texts	High. Average. Low
Interpretational/ evaluative	ability to analyze the process of media functioning in society and media texts of different types and genres	High. Average. Low
Practical/operational	the ability to choose one or another media and media texts, create / distribute your own media texts, self-education skills in the media	High. Average. Low
Creative	evidence of creativity in various aspects of activities (perceptual, game, artistic, research, etc.) related to media	High. Average. Low

* The levels are described further in Table 2.

The decoding of the levels of criteria for a person's media competence was compiled by us (Table 2) based on six basic areas of knowledge and understanding for media education ("media agencies": studying the work, functions and goals of the creators of media texts; "media categories": studying the typology – types and genres of media/media texts; "media technologies": the study of methods/technologies for creating media texts; "media languages"": the study of media languages, that is, verbal, audiovisual, montage of media texts, codes and conventions; "media representation" : the study of ways of presenting, rethinking reality in media texts and its consequences, author's concepts, etc. .; "media audience": studying the typology of the audience, the typology of media perception), identified by leading British media educators (C.Bazelgette, 1989; Bowker, 1991; Hart, 1997, etc.) and taking into consideration the prior findings of leading world experts in the field (Adams, 2018; Baake et al., 1999; Blumeke, 2000; Buckingham, 2000; 2003; 2015; 2017; Buckingham, Sefton-Green, 1997: 285; Bulger, Davison, 2018; Courtney, 2018; De Abreu, 2019; Dell, 2019; Friesem, 2019; Gallagher, Magid, 2017; Hobbs, 2010; 2011; 2017; Ireton, Posetti, 2019; Jeangène Vilmer et al., 2018; Kubey, 1997; Mason et al., 2018; McDougall et al, 2018; Müller, Denner, 2019; Pérez Tornero et al., 2018; Potter, 2001: 28, 53; 2019; Pradekso et al., 2018; Salma, 2019; Semali, 2000: 55; Shen et al., 2019; Silverblatt, 2001: 2-3; Silverblatt, Enright Eliceiri, 1997: 40; Wilson, 2019; Worsnop, 2004, etc.) and Russian (Bondarenko, 1997: 22-23; Cherkasova, 2019; Dakhin, 2004; Gura, 2005; Khilko, 2001; Khutorskoy, 2002; Pisarevskaya, 2018; Polichko, 1987: 7-8; Usov, 1989a, etc.) media practitioners and theorists.

Undeniably, this kind of typology is conditional, but it gives an idea of a differentiated approach to the development of media competence, when, for example, in the presence of high levels of contact or creative criteria, an average or even low level of information and evaluative features is possible. The rest of the indicators appear in an undeveloped, "shrunken" condition. But it seems as an axiom that without the developed media perception and the ability to analyze and evaluate the media text, media competence cannot be considered as high leveled. Neither knowledge of the facts of the history of media culture, nor the frequency of communication with the media, nor the practical ability to create media texts can by themselves make a person media literate.

Many researchers have examined a wide and varied range of motives of the audience's contacts with media and media texts (in particular, cognitive, emotional, aesthetic and ethical, etc.) (De Abreu, 2019; Kubey, 1997; Potter, 2001: 8; 2019; Semali, 2000: 55; Silverblatt, 2001: 2-3; Silverblatt, Enright Eliceiri, 1997: 40; Worsnop, 2004). Of course, these motives largely depend on factors such as the environment (micro and macro) of territory/communication, heredity/genetic code, education/upbringing, age, gender, etc.

Table 2. Description of the levels of criteria/indicators of media competence

Criteria's levels	Description of the levels of criteria/indicators of media competence
Levels of the motivational criterion	
High	A wide range of genre, thematic, emotional, epistemological, hedonistic, intellectual, psychological, creative, ethical, aesthetic motives for contacts with media and media texts, including: - the desire to obtain new information; - the desire to search for materials for educational, scientific, research goals; - selection of a varied genre and thematic spectrum of media texts for mandatory inclusion of non-entertainment genres; - the desire for recreation, compensation for entertainment (in moderate doses); - striving for identification, empathy; - striving to confirm their own competence in various spheres of life and media culture; - striving for artistic impressions; - striving for philosophical/intellectual, ethical, aesthetic dispute/dialogue with the creators of the media text, constructive criticism of their positions; - the desire to learn how to create media texts yourself, studying specific examples of professionals' work.
Average	A range of genre, thematic, emotional, epistemological, hedonistic, psychological, ethical, aesthetic motives for contacts with media and media texts, including: - the desire to obtain new information; - the desire to search for materials for educational, scientific, research goals; - selection of a diverse genre and thematic spectrum of media texts with a dominant focus on entertainment genres; - the pursuit of thrills; - striving for recreation, entertainment; - striving for identification, empathy; - striving to extract moral lessons from the media text; - the desire for compensation; - striving for psychological "treatment"; - striving for artistic impressions; - weak expression or lack of intellectual, creative motives of contacts with media texts.
Low	A narrow range of genre, thematic, emotional, hedonistic, ethical, psychological motives for contacts with media and media texts, including: - the desire to obtain new information; - selection of only entertaining genre and thematic spectrum of media texts; - the pursuit of thrills; - striving for recreation, entertainment; - the desire for compensation; - striving for psychological "treatment"; - lack of aesthetic, intellectual, creative motives for contacts with media texts.
Levels of contact criterion	
High	Daily contact with media and media texts
Average	Weekly contact with media and media texts
Low	Contact with media and media text is less than several times a month

	Levels of informational criterion
High	Knowledge of most types and genres, media languages, basic terms, theories, basic facts of the history of the development of media culture, creativity of media culture figures, the typology of the media audience, a clear understanding of the process of mass communication and media influences;
Average	Satisfactory knowledge of types and genres, media languages, individual basic terms, theories, some facts of the history of development of media culture, work of individual personalities in media culture, typology of media audience, processes of mass communication, media influences;
Low	Lack of knowledge (or poor, minimal knowledge in this area) of types and genres, media languages, basic terms, theories, facts of the history of the development of media culture, creativity of media culture figures, typology of the media audience, processes of mass communication, media impacts
Levels of perception criterion	
High	Identification with the author of the media text while maintaining the main components "Primary" and "secondary" identification (except for the naive identification of reality with the content of the media text): that is, the ability to relate with the author's position, which allows you to envisage the plot's development "on the basis of the emotional and semantic correlation of the plot elements, the perception of the author's thought in the dynamics of the sound-visual image, the synthesis of the viewer's thoughts and feelings in figurative generalizations" (Usov, 1989b: 314)
Average	Identification with the character of the media text: that is, the ability to empathize, put oneself in the place of the character/presenter, understand their psychology, motives of actions, perception of individual components of the media image (detail, etc.);
Low	Emotional, psychological connection with the environment, the plot (chain of events) of the media text: that is, the ability to perceive the chain of events in the media text (for example, individual episodes and scenes of the plot), naive identification of reality with the content of the media text, assimilation of the environment (emotional perception and relation to the reality presented in the media text, etc.)
Levels of interpretational/evaluation criterion	
High	Ability to analyze the process of media functioning in society, taking into account a variety of factors based on highly developed thinking. Analysis of media texts based on the ability for media perception, close to "complex identification", the ability to analyze and synthesize the space-time form of a media text, understanding, interpretation, implying comparison, abstraction, induction, deduction, synthesis, assessment of the author's concept in the context of the structure works, historical and cultural contexts (expressed by reasoned agreement or disagreement with the author's position, assessment of the moral, emotional, aesthetic, social significance of the media text; the ability to correlate emotional perception with conceptual judgment, transfer this judgment to other genres / types of media culture, link media text with your experience and the experience of other people, etc.). In general, this kind of level of interpretation, assessment of the media text is based on high levels of informational, motivational and perception criteria of media competence;
Average	Ability to analyze the process of media functioning in society taking into account selected, most noticeable factors based on the average development of thinking. Ability to characterize actions and psychological states of characters in a media text based on fragmentary knowledge, the ability to explain the logic of the sequence of events in the plot of the media text, the ability to tell about the individual components of the media image; lack of interpretation of the author's position (or its primitive interpretation). In general, this level of analysis of interpretation, media text in this case is

	based on the average levels of information, motivational and perception criteria of media competence;
Low	Lack of skills to adequately analyze the process of media's functioning in society, lack of critical thinking skills. "Illiteracy", i.e., ignorance of the language of the media, poor ability to retell the plot of the media text; instability, confusion of judgments, uncertainty, predisposition to external influences, lack of (or extreme crudeness) of the interpretation of the position of the heroes and authors of the media text; a low level of tolerance for ambiguous, complex media texts. In general, this level of interpretation, analysis of the media text, is based on low levels of informational, motivational and perception criteria of media competence.
Levels of practical/operational criterion	
High	Skills to independently practically use various types media; the ability to select, create/distribute media texts (including individual and/or group media projects), the ability of active self-education in the practical sphere of media;
Average	Skills in the practical use of various types of media; skills to select, create/distribute media texts (including individual and/or group media projects), of various types and genres with some form of assistance (by teachers, specialists, etc.);
Low	Lack (or extremely weak expression) of practical skills in choosing, using, creating/distributing media texts, educating oneself in the practical sphere and/or unwillingness to do it.
Level of creative criterion	
High	A prominent level of creativity in various forms activities (perceptual, game, artistic, research etc.) related to media;
Average	Creative abilities are manifested in certain types of activities related to the media, yet they are not obvious;
Low	Creativity is not demonstrated, there is no evidence for creativity.

One should emphasize the ambivalence of the contact criterion of media competence. On the one hand, a high level of frequency of audience's contacts with media and media texts by no means mean a high level of media competence of an individual as a whole (one can watch TV, videos and surf Internet sites for hours every day, yet, is not able to analyze media texts). On the other hand, a low level of contact with various media can mean the tendency to avoid media messages that are difficult, to narrow contacts with media texts to a minimum, in order to always remain in information field which is familiar and protect yourself from the need to spend additional intellectual efforts (Potter, 2001: 28), but also an increased selectivity of an individual who does not want to consume low-quality (in their opinion) media production.

When analyzing the levels of the perception criterion of a person's media competence, in fact, it should be remembered that most people remember only 40% of what they see and 10% of what they hear (Potter, 2001: 24), and that media perception is both an active and social process (Buckingham, 1991: 22).

When discussing the levels of media perception, in our opinion, one should also take into account the so-called "folklore" type of perception. For, as accurately noted by N.M. Zorkaya:

- there is an absolutely real (and by no means mythical) vast majority of viewers with the same aesthetic needs, preferences and taste;

- the common taste is based on the constants of folk taste and archetypes of folklore perception (listening to fairy tales, watching fair/market plays, etc.);

- general public favours... in one or another modification, traditional folklore plots which are reproduced, and divided into episodes. This kind of repertoire is mass, serial production that plays the role of a kind of "soil", compressed "cultural layer" of old traditional images, plots, "tropes" of folklore genres, some of which are of ancient origin (Zorkaya, 1981: 136-137).

The therapeutic effect and the phenomenon of compensation are also important for the mass success of the media text. Of course, it is absolutely natural for a person to make up for the feelings and experiences they lacks in real life. Z. Freud affirmed that culture must mobilize all its forces in

order to put an end to the aggressive primary urges of a person and slow down their manifestations by creating the necessary psychological reactions (Freud, 1990: 29).

Thus, based on the above, it can be concluded that media texts (including those with manipulative agenda) owe their popularity to many factors. These include: reliance on folklore and mythological sources, constancy of metaphors, reference to the consistent embodiment of the most persistent plot schemes, synthesis of the natural and the supernatural, appeal not to the rational, but to the emotional through identification (imaginary getting into the character's skin, merging with the atmosphere, the aura of the media text), the "magic power" of heroes, standardization (replication, unification, adaptation) of ideas, situations, characters, etc., mosaic, multi-series stories, compensation (the illusion of fulfilling cherished, but not fulfilled desires), happy ending, intuitive guessing of subconscious interests audience, etc.

In recent decades, media texts (including manipulative ones) have also acquired the interactivity of the virtual world, in which the following main features can be distinguished (Kostina, 2006: 236-237):

- the relevance of existence, i.e. existence without past and future, elimination of the opposition between life and death, real and imaginary;
- immersion in events, when a person acts directly or is in the illusion of acting;
- centralization of the cultural perspective, focusing in the human space, where the whole world is perceived to be oriented towards him;
- the similarity of the interactive media text with the state of sleep, the possibility of its comprehension through the metaphor of a dream;
- the production of virtual objects of human-computer interaction or (inter) human activity.

Video/computer games built on these principles have incorporated the entire folklore and mythological set of archetypes and are popular with the mass audience largely due to the same factors as traditional media texts. However, their influence is enhanced by the interactive participation of a person in the development of the plot of a computer media text.

When deciphering the content of the levels of criteria/indicators of the audience's media competence, we take into account the characteristics of the levels of the interpretation/evaluation criterion of media competence, developed by J. Potter (Potter, 2001: 28, 53):

- high level (highlighting the main meaning of the media text; analysis: identifying the main elements of the media text; comparison: identifying similar and unique fragments of the media text; assessing the value of the media text or its fragment; judgment based on comparison according to a certain criterion; abstracting: the ability to create a short, clear and accurate description of a media text; generalization; deduction: using general principles to explain individual information; induction: deriving general principles from the observation of individual information; synthesis: the ability to reassemble elements into a new structure (Potter, 2001: 53);

- low level (weak intelligence (in relation to problem solving and creativity); weak memory, which can sometimes remember only few important things; thematic dependence, lack of insight, that is, lack of understanding of what is important in messages; need for an advisor, assistant, reference book, study guide; low tolerance for the ambiguity of media texts, uncertainty; weak conceptual differentiation in the presence of few categories for messages; negative attitude towards new messages that do not correspond to the usual categories, or simplification of this media text - deliberately classifying it into the easiest category; high impulsivity - quick decision making with the sacrifice of precision (Potter, 2001: 28).

When substantiating the classification of the levels of an interpretive / evaluation criterion of a person's media competence, we relied on the characteristics of the following audience's abilities to perceive media texts as proposed by Yu.N. Usov: 1) multifaceted comprehension of the figurative recreation of the fact in the plastic composition of individual sequences, their linkage in the artistic structure; 2) identification of the logic of the development of the author's thought in space-time dimensions; 3) reading implied imagery, perception of an artistic choices, multi-layered internal content; 4) the perception of the development of artistic thought in the complex unity of the sound-plastic organization of space: graphic, tonal organization, tempo-rhythmic organization of the work due to the repetition of visual images, plans, their temporal activity, emotional and semantic correlation of individual fragments, visual themes (Usov, 1989a: 17-18). Clearly, the case described by Yu.N. Usov is the manifestation of the highest interpretive level of the personality's media competence. J. Potter calls such skills extended (Potter, 2001: 52).

According to J. Potter (Potter, 2001: 129), within each of the levels of the interpretive/evaluative criterion of a person's media competence, one can also distinguish:

1) cognitive (*knowledge*: structural, narrative, etc. features of the genre formula; *skills*: the ability to analyze the content of a media text, recognize its genre formula, identify/compare key scenes of the plot, types of characters and themes);

2) emotional (*knowledge* based on the memory of personal experience, as it would feel in a specific situation of the plot of the media text; *skills*: the ability to analyze the feelings of the characters, identify oneself with the position of various characters, the ability to control their emotions caused by the plot and theme of the media text);

3) aesthetic (*knowledge*: o screenwriting, directing, editing, etc.; *skills*: to analyze the professionalism and artistic level of the media text; to compare the skill shown in the interpretation of a given plot with familiar counterparts);

4) moral (*knowledge*: various moral principles, values and decisions – including in the media system - their significance; knowledge of stories similar to those told in a specific media text – from the point of view of "good" and "bad" morality; *skills*: to analyze the moral components of a media text proved by the decisions of the characters, the significance of these decisions for the plot and the main theme of the media text; compare the ethical decisions presented in the media text with the decisions in other works; evaluate the ethical responsibility of media producers and compilers of the repertoire) aspects.

When analyzing the problem of interpreting media texts, in our opinion, it is legitimate to take into account that a person interprets the content of media messages of any type, proceeding from one's:

- background (what does the audience already know about the topic?);
- the level of interest / attention (how much is the audience interested in the topic?);
- predispositions (what is the attitude of the audience to the topic - positive or negative – at the beginning);
- priorities (could the issues be of particular importance to the audience? Why?);
- demographic profile (national/gender/racial/ethnic origin; age; education; financial security);
- psychological profile (self-identification concept; emotionality; life experience; attitude towards others; personal aspirations);
- communication environment (what is the size of the audience? What does it do when it receives information?);
- particular stage of a person's development (Silverblatt, 2001: 40-41).

In unison, during contacts with the media, an audience with a low "threshold of tolerance" to the content and form of media texts perceives/analyzes them differently than an audience with a high level of media competence. If the media message corresponds to the preliminary opinion (attitude towards media perception) of people with a low "threshold of tolerance", then this media text reinforces their opinions. If the surface layer of the media text does not correspond to the person's preconceived opinion, the message is ignored. In short, there is no analysis. People with a high tolerance for ambiguity do not have an analytical barrier (Potter, 2001: 26).

It is known that knowledge of the historical and cultural context is extremely important for the interpretation/analysis of any media message.

As A. Silverblatt points out, a media text can provide for an understanding of the period of its creation; in countries with limited civil liberties, media authors are often forced to comment on political and cultural issues in an indirect way; understanding of media texts can be provided by understanding of historical events / references; media texts sometimes contain social criticism that predicts historical events; media texts can provide for the reaction of the audience to ongoing events; media texts can play an active role in shaping historical events (Silverblatt, 2001: 46-47).

It has been reported that in many cases manipulative media texts can distort the audience's understanding of historical facts, cause inadequate audience reactions and unreasonable social criticism, and initiate real events necessary for the manipulator.

We find confirmation of the last thesis in the works of a media theorist D. Rushkoff, who, among examples of active media influence on historical events, singles out the technique of marginalization: in order to ensure public support for illogical policies, leaders need to name the enemy and demonize him, and then send the rage of society on him. Anyone who continues to oppose the proposed policy should be belittled, sidelined, or marginalized (Rushkoff, 1994).

The anti-manipulative media competence of an individual undoubtedly enhances independent judgments and competent decisions of people in response to information transmitted through media channels. The ability of a person to think dialogically is extremely important, that is, to be able to understand opposing points of view or references, which implies: 1) distinguishing between facts that can be verified and value statements; 2) determining the reliability of the statement or source; 3) determining the accuracy of the statement; 4) the distinction between guaranteed and non-guaranteed statements; 5) identifying bias; 6) identification of explicit and implicit assumptions; 7) recognition of logical inconsistencies; and 8) determining the strength of the argument (Silverblatt and Enright Eliceiri, 1997: 40).

Meanwhile, the analysis of the media text is regarded as a process of dialogue (Buckingham, 2003: 14), and not the achievement of a previously agreed or predetermined position, since there can be no unambiguous, once and for all "right" interpretations of media texts. In addition, media texts often do not have the meanings that people who analyze them give them, so often all interpretations of media texts (especially complex ones) may be "false" (Buckingham, 2000: 216). So we once again come to an understanding of the relevance of the very concept of "dialogue of cultures" by Mikhail Bakhtin – V.S. Bibler (Bibler, 1991) and its practical application in the process of media education.

So, we come to the conclusion that the media competence of a person is a combination of one's motives, knowledge, skills, abilities (criteria: motivational, contact, informational, perceptual, interpretive/evaluation, practical-operational, creative), contributing to the choice, use, comprehensive analysis, assessment, creation and transmission of media texts in various forms, forms and genres, analysis of complex processes of media functioning in society.

It is worth noting that there exists a body of literature highlighting the supremacy of the "activity" criterion of media competence (for example, the theory of media activity and the "journalistic model" of media education: Dzialoshinsky, 2009; Zhilavskaya, 2008), aimed at the practice of creating media texts. However, as we have already noted, the emphasis only on the user's and practical skills of the audience in creating and distributing media texts (to the detriment of the analytical process), in our opinion, sharply narrows the spectrum of a person's media competence. In addition, the activity itself, which develops media competence, is by no means confined to the practice of creating and distributing media texts, but first of all it is an analytical activity, without which a person (even who has mastered the practical aspect of the matter) becomes an easy target for media manipulations.

Further on, we are going consider the criteria (features) of the effectiveness of media educational activities that contribute to the development of students' media competence in the process of analyzing media manipulative influences (Table 3).

Table 3. Criteria (indicators) of the effectiveness of media educational activities of (future) teachers, contributing to the development of media competence of the audience in the process of analyzing media manipulative influences

Criterion	Criterion's description	Criterion's levels *
Motivational	Motives of the media educational activities of (future) teachers, contributing to the development of the media competence of the audience in the process of analyzing media manipulative influences: emotional, epistemological, moral, legal, etc.; striving to improve their knowledge and skills in the field of media and media education and resist media manipulative influences.	High Average Low
Contact	The frequency of contacts of (future) teachers with audiences in the process of media educational activities that contribute to the development of media competence audience in the process of analyzing media manipulative influences.	High Average Low
Informational	Awareness, theoretical and pedagogical knowledge of (future)	High

	teachers in the field of media, media education, typology and essence of media manipulations.	Average Low
Technological	Technological skills of (future) teachers in the field of media educational activities, contributing to the development of audience's media competence of the audience in the process of analyzing media manipulative influences	High Average Low
Evaluation	(Future) teachers' awareness and skills of assessment/evaluation of audience's media literacy	High Average Low
Practical	Quality of practical media education activities of (future) educators, promoting development of media competence of the audience in the process of analyzing media manipulative influences	High Average Low
Creative	Creativity of (future) teachers in media educational activities, contributing to the development of media competence of the audience in the process of analyzing media manipulative influences	High Average Low

* The levels are described in Table 4.

Table 4. Defining the levels of criteria/indicators of the effectiveness of media educational activities of (future) teachers, contributing to the development of media competence of the audience in the process of analyzing media manipulative influences

Criterion's level	Description of the level
Levels of the motivational criterion of the (future) teacher's activity	
High	Versatile motives of media educational activity: emotional, epistemological, hedonistic, moral, aesthetic, etc.; striving to improve their knowledge and skills in the field of media and media education;
Average	The predominance of certain motives of media educational activity aimed to improve their knowledge and skills in the field of media and media education;
Low	Weak motivation for media educational activities, lack of motivation to improve their knowledge and skills in the field of media and media education.
Levels of the contact criterion of the (future) teacher's activity	
High	Weekly classes integrating media education activities contributing to the development of media competence in the process of analyzing media manipulative influences;
Average	Monthly classes integrating media education activities contributing to the development of media competence in the process of analyzing media manipulative influences;
Low	Occasional classes integrating media education activities contributing to the development of media competence in the process of analyzing media manipulative influences.
Levels of the informational criterion of the (future) teacher's activity	
High	Systematic knowledge, extensive theoretical and pedagogical knowledge in the field of media and media education, typology and essence of media manipulations;
Average	Partial awareness, satisfactory theoretical and pedagogical knowledge in the field of media and media education, typology and essence of media manipulations;

Low	Poor awareness, weak theoretical and pedagogical knowledge in the field of media and media education, typology and essence of media manipulations
Levels of the technological criterion of the (future) teacher's activity	
High	Developed technological skills in the field of media education activities that contribute to the development of media competence of the audience in the process of analyzing media manipulative influences;
Average	Adequate technological skills in the field of media education activities that contribute to the development of media competence of the audience in the process of analyzing media manipulative influences;
Low	Fragmentary technological skills in the field of media education activities that contribute to the development of media competence of the audience in the process of analyzing media manipulative influences.
Levels of the evaluation criterion of the (future) teacher's activity	
High	Comprehensive knowledge of the methods of assessing the knowledge and skills of the audience in the field of media education and analysis of media manipulative influences;
Average	Satisfactory knowledge of the methods of assessing the knowledge and skills of the audience in the field of media education and analysis of media manipulative influences;
Low	Poor knowledge of the methods of assessing the knowledge and skills of the audience in the field of media education and analysis of media manipulative influences.
Levels of the practical criterion of the (future) teacher's activity	
High	High quality of practical media educational activities, contributing to the development of media competence of the audience in the process of analyzing media manipulative influences;
Average	Suitable practical media educational activities, contributing to the development of media competence of the audience in the process of analyzing media manipulative influences;
Low	Poor practical media educational activities, contributing to the development of media competence of the audience in the process of analyzing media manipulative influences.
Levels of the creativity criterion of the (future) teacher's activity	
High	Pronounced level of creativity in media education activities that contribute to the development of media competence of the audience in the process of analyzing media manipulative influences;
Average	Creativity is only demonstrated in certain types of media educational activities;
Low	Creativity in media education activities that contribute to the development of media competence of the audience in the process of analyzing media manipulative influences is not demonstrated or very seldom expressed.

Proceeding from existing teacher evaluation approaches, we recognize the following combination of tools to assess the effectiveness of media educational activity: observation of teacher's work during the lesson; interviews, surveys, teachers' reflection; creative works (e.g., written work, essays exposing media manipulation); project activities (various kinds of media projects carried out individually or as part of a group); research activity on media material (including research on media manipulation); testing. When evaluating this kind of work, the following should be taken into consideration: the degree of argumentation, validity, independence when performing various kinds of educational tasks; mastery of media material; readiness to learn new information; to cooperate and communicate; self-reflection, etc.

Applying this set of measures for assessing the effectiveness of media educational activities, we use the developed criteria (as described in Tables 1-4), taking into account the fact that these criteria can be used both for the audience as a whole (Tables 1-2) and for the audience of future and working teachers (Tables 3-4).

5. Conclusion

Thus, for a person with a high level of media competence (note that some scientists use the terms "media culture level", "media literacy" or "media education" interchangeably, which, in our opinion, once again testifies to the terminological pluralism inherent in media education process), the following characteristics are intrinsic:

- the motivational criterion of media competence: aspiration to search for materials for educational, scientific, research purposes; desire to obtain new information; a wide range of genre, thematic, emotional, epistemological, hedonistic, intellectual, psychological, creative, ethical, aesthetic motives for contacts with media and media texts, including: a choice of a diverse genre and thematic spectrum of media texts with the obligatory inclusion of non-entertainment genres; wish for recreation, compensation for entertainment (in reasonable portions); striving for identification, empathy; striving to confirm their own competence in various spheres of life and media culture; the pursuit of artistic experiences; striving for a philosophical/intellectual, ethical, aesthetic dispute/dialogue with the creators of the media text, for constructive criticism of their position; the desire to learn how to create media texts yourself, studying specific examples of the professionals' creative work;

- contact criterion of media competence: daily contacts with various types of media and media texts;

- information criterion of media competence: knowledge of most types and genres, media languages, basic terms, theories, basic facts of the history of the development of media culture, prominent samples of media texts, the typology of the media audience, a clear understanding of the process of mass communication and media influences;

- the perception criterion of media competence: identification with the author of the media text while maintaining the main components of "primary" and "secondary" identification (except for the naive identification of reality with the content of the media text): that is, the ability to correlate with the author's position, which makes it possible to predict the course of events in the media text "on the basis of emotional the semantic correlation of the elements of the plot, the perception of the author's thought in the dynamics of the sound-visual image, the synthesis of the viewer's thoughts and feelings in figurative generalizations" (Usov, 1989b: 314);

- interpretive / evaluative criterion of media competence: the ability to analyze the process of media functioning in society, taking into account various factors on the basis of highly developed critical thinking. Analysis of media texts based on the ability for media perception, close to "complex identification", the ability to analyze and synthesize the space-time form of a media text, understanding, interpretation, implying comparison, abstraction, induction, deduction, synthesis, assessment of the author's concept in the context of the structure works, historical and cultural contexts (this expresses a reasoned agreement or disagreement with the author's position of the creators of the media text, assessment of the moral, emotional, aesthetic, social significance of the media text; the ability to correlate emotional perception with conceptual judgment, transfer this judgment to other genres / types of media culture, link media text with their own experience and the experience of other people, etc.). In general, this kind of level of interpretation, assessment of media text is based on high levels of informational, motivational and perceptual criteria of media competence.

- practical and operational criterion of media competence: the ability to independently use various types of media in practice; the ability to select, create and communicate media texts (including those created individually or as group projects) of various types and genres, the ability to actively self-educate in the practical sphere of media;

- creative criterion of media competence: a pronounced level of creativity in various types of activity (perceptual, game, artistic, research, etc.) related to media.

As for the teacher, the characteristics of the criteria for his/her high level of activity efficiency, contributing to the development of students' media competence in the process of analyzing media manipulative influences, are as follows:

- motivational criterion for the teacher's activity: versatile motives of media educational activity: emotional, epistemological, hedonistic, moral, aesthetic, etc .; striving to improve their knowledge and skills in the field of media education;

- contact criterion of the teacher's activity: weekly classes integrating media educational activities, contributing to the development of media competence of the audience in the process of analyzing media manipulative influences;

- information criterion of the teacher's activity: systematic awareness, extensive theoretical and pedagogical knowledge in the field of media and media education, typology and essence of media manipulations;

- the technological criterion of the teacher's activity: developed technological skills in the field of media and media educational activities, contributing to the development of the audience's media competence in the process of analyzing media manipulative influences;

- evaluative criterion of the teacher's activity: comprehensive knowledge of the methods of assessing the knowledge and skills of the audience in the field of media education and analysis of media manipulative influences;

- practical and operational criterion of the teacher's activity: high quality of practical media educational activities, contributing to the development of media competence of the audience in the process of analyzing media manipulative influences;

- a creative criterion for a teacher's activity: a pronounced level of creativity in media educational activities, contributing to the development of media competence of the audience in the process of analyzing media manipulative influences.

6. Acknowledgements

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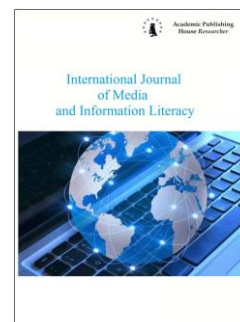
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Phenomena of Loneliness and Fear Caused by the Mass Media Threat in the Situation of COVID-19 Pandemic

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Abstract

Recent research shows significant effects of the pandemic COVID-19 situation information in mass media on the population's mental health. These effects have to be impartially assessed and thoroughly analyzed in order to prevent mental and psychosomatic diseases, maladjustment to restrictions caused by a lockdown. Social media platforms are among the most widely used sources of information in the world, the easy and inexpensive access to the internet and a large number of social networks make them the most effective ways to disseminate information. The problem is that this information may be truthful or fake. Mass media play a crucial role in people's lives in regular situation and is especially significant in the situation of lockdown due to COVID-19 spreading. It is obvious that for complete understanding of people's anxiety and unexplainable fear social surveys using standard psychological tools should be used, although special scales for evaluating pandemic effects on people's lives have not been created yet. The authors emphasize the need to take into account qualitative analysis of the entire completeness of stress effects in a situation of pandemic (virtual threat and information stress, deprivation, self-isolation, loneliness, socio-economic stress) and suggest a means to prevent stress-associated mental and psychosomatic disorders.

Keywords: mass media threats, coronavirus, social anxiety, fake news, pandemic, COVID-19, psychology.

1. Introduction

The Covid-19 pandemic has brought an unprecedented health crisis and a sensation of alarm, uncertainty and chaos where the search for information is the daily antidote to calm restlessness and to stay in touch. For some people searching for information and being in touch is also a way to overcome loneliness in the situation of lockdown. Based on the official statement of the WHO that considered the Coronavirus a pandemic due to its rapid spread throughout the world (Sevillano, 2020), the governments of different countries took measures to prevent spread of the disease and to fight the impact of the virus. Among them there is the limitation of business activities and the confinement of the population, as well as self-isolation and quarantine measures when necessary. All of these measures cause anxiety, depression and the sense of loneliness. In a context of uncertainty and stress, the media play an important role in the dissemination of information, in informing the citizens about the threat of COVID-19 and its consequences. It is also a means to

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follow recommendations of the world scientists concerning symptoms, the course of disease, innovative medication and methods of treatment.

Social media platforms are amongst the most widely used sources of information in the world, the easy and inexpensive access to the internet and a large number of social networks make them the most effective ways to disseminate information whether truthful or fake. During major events, the overall response is usually a greater search for information be it a sports event, a pandemic disease, or a natural disaster (González-Padilla, Tortolero-Blanco, 2020) In several researches it was studied what elements conditioned confidence in the measures adopted by the federal or local governments, and how information exposure influenced the spread of fake news, whether or not alarm and the statistics of sick and deceased people increase social anxiety and loneliness that people experience.

The main psychological conclusion that can be drawn in the researches during the pandemic period is that the population in the condition of quarantine and lockdown is experiencing a significant deterioration of mental health, especially those who are directly affected by the disease - sick people as well as doctors, involved in the fight against the virus, also those people living in fear of catching a disease and spreading it further. Moreover, on the one hand, the virus is able to directly influence the activity of the central nervous system and thus cause psychosomatic and organic disorders of emotions, cognitive sphere, and consciousness, but on the other hand, a pandemic poses the risk of widespread psychogenic disorders resulting from the inability of the individual to effectively cope with stress, to avoid anxiety and loneliness during the self-isolation periods.

Especially difficult self-isolation can be for young people and students – it is often accompanied by the risk of depression and poor mental health caused by loneliness as was definitely seen during the lockdown in 2019. Transition from familiar to unfamiliar environments is a period of imbalance (Bessiere et al., 2008), besides lack of communication and socialization adds to the problem. Thus, we assessed both the intensity of social media and social media connectivity strategies to determine their relative importance in reducing loneliness and avoiding stress and anxiety. Social media can have advantages and disadvantages, the responsible use of these tools may lighten the burden of loneliness or aggravate psychological climate of people restricted by the disease spread worldwide.

The intensity of social media, its use to maintain friendship and to search for necessary information was significantly negatively correlated with loneliness. Our research highlights the important role social networks play in this situation. Social media can be a useful tool to facilitate new online relationship and keep in touch with old friends, to entertain and to study, to get the information and to stay informed of the present situation in the world. Thus, social media can become an important source of information on the situation (Ellison et al., 2011). A good example can be seen with the peak of searches for information on the Internet and social networks in the period of COVID-19 pandemic. During this period people suffer not only physically, but also experience some psychological problems. These are fear, anxiety, loneliness, distress, uncertainty and boredom. Social networks have also become means to maintain communication with friends and family to reduce isolation and boredom, to avoid loneliness which is associated with social anxiety and long-term distress, therefore becoming an important recommendation for isolation at home to help to reduce the psychological impact (Brooks et al., 2020). These are the major advantages of the Internet and social networks: people can share information about the protection equipment, disease treatment or medication to be found at sufficient speed. Those who are sick and stay in isolation at home can get support and comforting from friends and family, can also order food and medication online. Information about protection measures, primary symptoms of the disease, healthcare procedures can be found on many cites. Among advantages there are quality information sources, downloaded scientific articles or interviews with medical doctors and researchers, importance that communication plays in the perception of risk, and the need to delve into this field, due to the psychological, social and economic implications that this phenomenon implies.

Among disadvantages we can highlight outdated or incorrect information, rumors and gossip, exaggerated information creating fears and sense of alarm, causing panic and social anxiety. People get trapped in mental nets set by the Internet and social networks. Cyber-victimization is a well-known phenomenon, cruel games or aggressive Web-sites influence children and adolescents by violence imposing and manipulation turning them into violence victims (Makarova, Makarova, 2019). People with no medical education discussing COVID-19 consequences, being quoted and paraphrased (interpreted) can cause fear, stress and depression adding to all the problems that

people already have. It has already become customary to say that the global coronavirus epidemic will have manifold consequences, including psychological. Connected with this same issue, the lay public gains access to preliminary and *in vitro* study results through newscasts practically at the same time that this information is available to the medical community, which combined with the generalized fear of the virus and healthcare systems overwhelmed, generates pressure on patients to demand such experimental treatment for themselves or their families, and doctors may feel compelled to try them, even when there is no high-quality evidence to support their use for these purposes. Now any judgments and predictions about changes in the life of society caused by the virus will inevitably acquire shade of speculation. People of the world remain hostages of pandemic COVID-19, not only because it spreads worldwide and closes borders, but also because now we are all in the crisis system caused by mass media threats. And it is somehow reflected in our consciousness, self-awareness, emotional condition, lifestyle and thoughts. Total assessment of the mental damage and social anxiety by the virus undoubtedly is limited by lack of opportunities for impartial scientific analysis of psychological and psychopathological consequences of COVID-19. The scale of the pandemic impact on the psychological well-being of an individual has still no knowledge and psychological predictors which the impact depends on need to be identified (Grishina, Abakumova, 2020). Disinformation travels at the same seed as information does. The huge number of myths and disinformation in social media platforms was so great that World Health Organization (WHO) had to develop an exclusive section on its website designed for coronavirus myth-busting (UN tackles…, 2020).

2. Material and methods

The basic source for this article was the analysis of the materials of journal publications and articles on COVID-19 appearing every day. Critical analysis helps differentiate scientific materials from "yellow" press publications. As it has been already mentioned, mass media spreads all kinds of information, some of it fake and intended to disseminate fear and panic. So, we have used articles from respected journals indexed in international databases. Besides, for this research two scales were used: "The Spielberger-Khanin Self-Assessment Scale of Anxiety Level" and standardized questionnaire "Type of Role Victimization" (**Ошибка! Источник ссылки не найден.**) TheSpielberger Anxiety Scale (State-Trait Anxiety Inventory – STAI) is a way to self-assess the level of anxiety at the moment (reactive anxiety as a state) and personal anxiety (as a stable characteristic of a person). Developed by Ch.D. Spielberger and adapted by Y.L. Khanin, this scale is used for scoring unconscious emotional manifestations. The standardized questionnaire "Type of role victimization" is based on the theoretical analysis of scientific works and basic concept definitions, it is intended for examination of mentally healthy people aged 14 years and older, regardless of their level of education and professional preferences, to figure out role-based victimization. It is a tool for analyzing latent victimization manifesting itself not only in difficult or restricted life situations, but also in everyday life.

3. Discussion

Currently, the Russian and foreign media discourse is full of situations of social uncertainty affecting readers' consciousness and sub-consciousness and causing fear and anxiety (feelings, emotions, affect, passion, frustration, depression). The concept of fear can be considered from three main perspectives of different sciences: from a philosophical (and historical) point of view it is shown that fear is one of the few factors that unite the modern multicultural society. Extreme fear manifests itself in terror. Based on this assumption, fear is considered both in the context of everyday life and in the context of modern cultural universalities and new cultural values. On the basis of philosophy, metaphysical fear, rationalized fear, and fear-anxiety as manifestations of fear are distinguished. Ways to fight fear or compensate for it are identified; the compensation of fear by myth, ideology and science is analyzed. Also the role of fear in a new system of moral values development is analyzed. From a psychological point of view, fear is a short-term emotion or persistent feeling generated in a person by real or imagined danger and it is often substituted by the term "anxiety". S. Freud was the first to propose a specialized concept of anxiety. According to Freud, anxiety as a painful symptom appears due to the presence of an internal threat and generated by an internal conflict. Meanwhile he considered fear as generated by external threat or conflict. Today we deal mostly with social anxiety as a psychological phenomenon.

From a linguistic viewpoint it would be interesting to analyze the phenomenon of fear in the mass media; verbal fear-makers occur in the modern media discourse. Verbal and non-verbal markers in the media create special effect causing fear, anxiety and even phobias. The significance of social anxiety investigation during COVID-19 pandemic period will lead to extra research of media discourse, to analysis of mass media fake news and information, media text, verbal and non-verbal manipulation, lexical, grammatical, and stylistic means of creating social fear and anxiety. The verbalization of the concept "fear" in linguistics reflects all the physiological and psychological processes that occur within a person experiencing this emotion. By researching the shades of meanings of this concept it becomes possible to understand fear, to fight or avoid it. Fear is most often perceived as a cause that generates an uncomfortable, painful condition that can paralyze people's wills and sometimes their bodies. Definitions of this concept in different spheres of research contribute to its understanding and description.

By the social fear we mean the negative form experienced by a person, their relationship with society, the implementation of social opportunities, people's dependence on circumstances instead of abilities in designing their lives (Gulyaikhin, Telnova, 2010). Social anxiety is often more than just a fear of interacting with other people. Typically, a person with social anxiety is worried about the environment. When people occur in socially significant situations, they instantly begin to experience intense fear and anxiety, sometimes even panic attacks. Panic attacks are a consequence of increased anxiety, which is based on certain way of thinking. In this case, there are some beliefs that natural manifestations of the nervous system, such as changes in the rhythm of breathing and heart rate, can harm you. Therefore, there is a fixation on internal sensations and their constant tracking. People with social anxiety may analyze their actions afterwards, since they believe in everything they hear or learn especially in social media, they may negatively perceive or evaluate information they have read or heard. Also they have trust in whatever is said or shown in mass media; in addition they may misinterpret, misunderstand or exaggerate minor events or news, make conclusions of their own and get anxious about these events or news. Statistics also makes space for speculations and deliberation, figures, graphs and diagrams give enough food for thinking and imagination.

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Fear is one of the dominant human affective emotions. Social anxiety is the persistent fear and uncertainty of a person facing challenges of natural disasters, threat to life, death of close people, war, and unknown future - all of these can confirm the universality and dominance of this emotion; it is a persistent fear of any social phenomenon, due to the circumstances, characterized by anxiety of expectation and denial of avoidance (Zubareva, 2015). But we need more sophisticated scales and surveys for our study as the focus is on social anxiety. S. Budner (Budner, 1962) identified four indicators of individual threat perception, acting as threat experiences (phenomenological reactions) or behavior in a threat situation (operational reactions): they are discomfort, repression, suppression; avoidant behavior and destructive or reconstructive behavior. Anxiety can be classified as one of such predictors. In order to assess the level of stress and anxiety among students, a reliable scale of self-assessment that measures the degree of anxiety and depression was used. COVID 19 Pandemic Anxiety Scale composed of 20 statements (compiled by analogy with HADS) was used for preliminary analysis of respondents' state of anxiety. This one is fast and easy to process and to interpret, as it is intended for self-evaluation. Respondents have to choose one of the answer options and sum up the points; at the end of the scale they will see the results. It takes from 2 to 5 minutes to complete. The Hospital Anxiety and Depression Scale

originally developed to measure depression, anxiety, and emotional distress among hospital patients who were treated for a variety of clinical conditions can be used in the situation of COVID-19 as well. According to the authors of the scale (Zigmond, Snaith, 1983), this would reveal the contribution of mood disorders (especially anxiety and depression) in the development and treatment of the disease. It should be emphasized that self-rating scales are valid only for screening purposes; the final conclusion should be based on the process more sophisticated than this 14-step scale. Respondents should consider the epidemic's psychological impact and to establish appropriate measures to prevent sequels associated, such as stress disorder or depressive disorders. Other more severe sequels or events such as suicides have already been reported in some parts of the world as a result of social anxiety and depression caused by COVID-19 pandemic. The levels of depression and anxiety are assessed independently of each other. A separate scoring is conducted for questions assessing the level of depression and for assessing the degree of anxiety. To interpret the results, two subscales are used: the HADS-A subscale – (A – anxiety, social anxiety) and the HADS-D subscale – (D – depression). The total score for each subscale determines the result as follows: 0-7 points – the norm; 8-10 points – subclinically expressed anxiety/depression; 11 points and above – clinically expressed anxiety/depression.

Unfortunately, these scales do not offer coping strategies to fight social anxiety and depression, no recommendations are made. Some other scales that have been used in our research do not offer any recommendations either. Their goal is to determine personal or social anxiety, to indicate their levels and to identify a person's predisposition to demonstrate some kind of victimized behavior in case of threatening situations, fear or loneliness.

4. Results

The diagnostic research carried out in November 2020, was attended by 51 students of secondary schools of Neklinovsky district of the Rostov region (the age of respondents was from 14 to 17 years). There were 33 boys and 18 girls among the respondents. The survey was carried out using two methods: the first one is the Spielberger-Khanin State-Trait Anxiety Inventory (STAI): Scale of Anxiety and the second one is Type of Role Victimization (by Odintsova). The study of anxiety using the first technique has proven well for different age groups. With its help, the level of anxiety was determined (reactive anxiety as a state characterized by tension, anxiety, nervousness) and the level of personal anxiety (as a stable characteristic of an individual who has a stable tendency to assess a wide range of situations as threatening, which causes personality anxious reaction). Very high levels of anxiety have a negative effect on the functioning of the psyche and nervous processes: for example, with a high level of reactive anxiety, attention disorders occur, and in some cases, fine motor skills disorders can be noticed; overestimated indicators of personal anxiety are associated with the presence of a neurotic conflict, are fraught with emotional, neurotic breakdowns and psychosomatic diseases. On the other hand, low anxiety requires increased attention to motives of activity and an increase in a sense of responsibility, since sometimes very low anxiety in the test indicators is the result of an active repression of high anxiety by a person in order to show off. Also, under unfavorable circumstances, some individuals prefer to demonstrate the behavior of victim. The methodology "Type of role victimization" is designed to identify the individual's predisposition to demonstrate some type of victim's behavior, expressed in the social environment or to play the role of victim. The technique is a tool for analyzing latent victimization in everyday life, with conscious and unconscious reappraisal of emotional state.

The obtained results are gender-related (Figure 1). Using "Spielberger-Khanin State-Trait Anxiety Inventory (STAI): Scale of Anxiety", we analyze the data obtained, the average reactive anxiety score for females is 43.6 points, for males is 39.4 points. As it can be seen, reactive anxiety of males and females is in the same range – it is moderate in both gender groups. A somewhat different result can be seen in terms of the average score of personal anxiety: for females it is 48 points, for males it is 39.6 points meaning moderate for males and high for females.
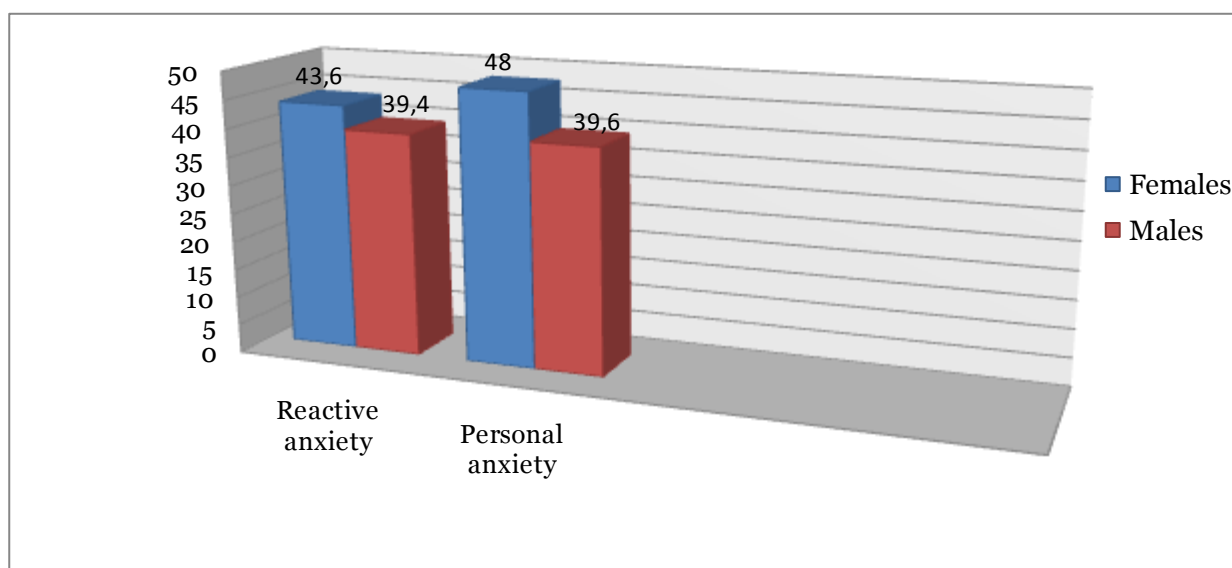
Fig. 1. Gender-related anxiety: comparative analysis

Next, the percentage correlation is presented: for females, low reactive anxiety was noted (16 % of their total number, moderate – in 34 % of them, high – in 50 % of them). With males, the indicators of reactive anxiety are as follows: low – in 12 %, moderate – in 67 %, high – in 21 % of the total number of males. Personal anxiety among females was noted as low in 11 % of respondents, moderate – in 28 %, high – in 61 %. The indicators of personal anxiety in young men are low in 21 %, moderate in 58 %, and high in 21 %. So, our study of adolescent anxiety shows that females have higher indicators both in terms of the level of reactive anxiety (in particular, in the situation of diagnosis (fear, anxiety in a situation of uncertainty, depression etc.), and in the level of personal anxiety (i.e. this quality is their characteristic "in general", regardless of the present situation). The conclusion is that females show anxiety three times more often than males. This does not mean that males are not anxious in general, but they prefer not to demonstrate anxiety, not to admit to be scared considering it unacceptable for masculine behavior.

The results of students' diagnostics according to the questionnaire by M.A. Odintsova and N.P. Radchikova "The Type of Role Victimization" show some different scores. The authors propose to investigate three indicators: playing role of victim, social role of victim, and the overall score of role victimization.

The results for the entire sample according to the methodology "Type of role victimization" (Table 1) allow drawing the following conclusion: according to the scale "The playing role of victim", 59 % of students have the indicator that is normal according to the scale "Social role of victim", 51 % of students also have normal indicator, according to the scale "General score of role victimization" 55 % of students have normal indicator.

Table 1. Results of victim behavior diagnostics among adolescents according to the method "Type of role victimization"

Scales/Scores	Playing role of victim	Social role of victim	The overall score of role victimization
Very low	0 %	1 %	1 %
Low	10 %	10 %	14 %
Below average	24 %	8 %	12 %
Average	59 %	51 %	55 %
Above average	1 %	16 %	8 %
High	6 %	6 %	8 %
Very high	0 %	8 %	1 %

Indicators below the norm on the scale "The playing role of the victim" are for 34 % of adolescents; above the norm are 7 %. Indicators below the norm on the scale "Social role of victim"

are 19 % for adolescents, above the norm are 30 %. Indicators below the norm on the scale "Overall score of role victimization" are for 27 % of adolescents, above the norm are 17 %.

The results for young males according to the methodology "Type of role victimization" (Table 2) allow drawing the following conclusion: according to the scale "Playing role of victim" for 58 % of the respondents the indicator is normal, according to the scale "Social role of victim" for 61 % of respondents the indicator is also approaching the norm, according to the scale "General point of role victimization" for 55 % of young men the indicator is normal.

Table 2. Results of victim behavior diagnostics among males according to the method "Type of role victimization"

Scales/Scores	Playing role of victim	Social role of victim	The overall score of role victimization
Very low	0 %	3 %	3 %
Low	9 %	9 %	12 %
Below average	27 %	6 %	15 %
Average	58 %	61 %	55 %
Above average	3 %	9 %	9 %
High	3 %	3 %	3 %
Very high	0 %	9 %	3%

Indicators below the norm on the scale "Playing role of victim" are identified for 36 % of adolescents, above the norm - for 6 %. Indicators below the norm on the scale "Social role of victim" are for 18 % of adolescents, above the norm – for 21 %. Indicators below the norm on the scale "General score of role victimization" are for 30 % of adolescents, above the norm – for 15 %.

The results for females according to the methodology "Type of role victimization" (Table 3) allow drawing the following conclusion: according to the scale "Playing role of victim" 61 % of respondents showed normal indicator, according to the scale "Social role of victim" 33 % of respondents also showed the indicator approaching the norm, according to the scale "General role-based victimization score" for 54 % of females the indicator is normal.

Table 3. Results of victim behavior diagnostics among females according to the method "Type of role victimization"

Scales/Scores	Playing role of victim	Social role of victim	The overall score of role victimization
Very low	0 %	0 %	0 %
Low	11 %	11 %	17 %
Below average	17 %	11 %	6 %
Average	61 %	33 %	54 %
Above average	0 %	28 %	6 %
High	11 %	11 %	17 %
Very high	0 %	6 %	0 %

Indicators below the norm on the scale "Playing role of victim" were noticed in 28 % of adolescents, above the norm – in 11 %. Indicators below the norm on the scale "Social role of victim" were noted in 22 % of adolescents, above the norm – in 45 %. The indicators below and above the norm on the scale of the "General score of role victimization" are the same for females – 23 % respectively. It turns out that the females show the highest indicators on the scale of "Social role of victim". The social role of the victim involves being an outsider. Such individuals experience the feeling of being outcasts, the world around seems hostile; they feel lonely and uncertain thus suffering deeply. The tendency to blame the circumstances for lockdown or loneliness is combined with self-accusations, blaming themselves for what has happened. They are also less flexible in relations with other people, it is more difficult for them to adapt to new situations such as pandemic isolation.

Comparing the indicators of males and females on three scales we get the following results presented in the diagrams below (Figures 2-4).
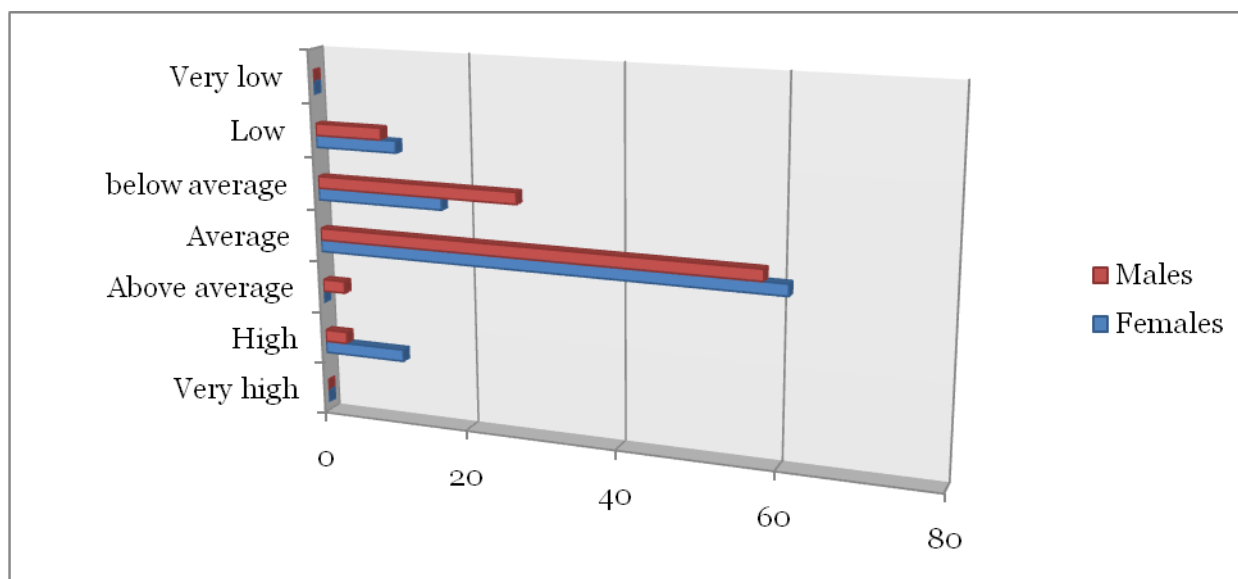

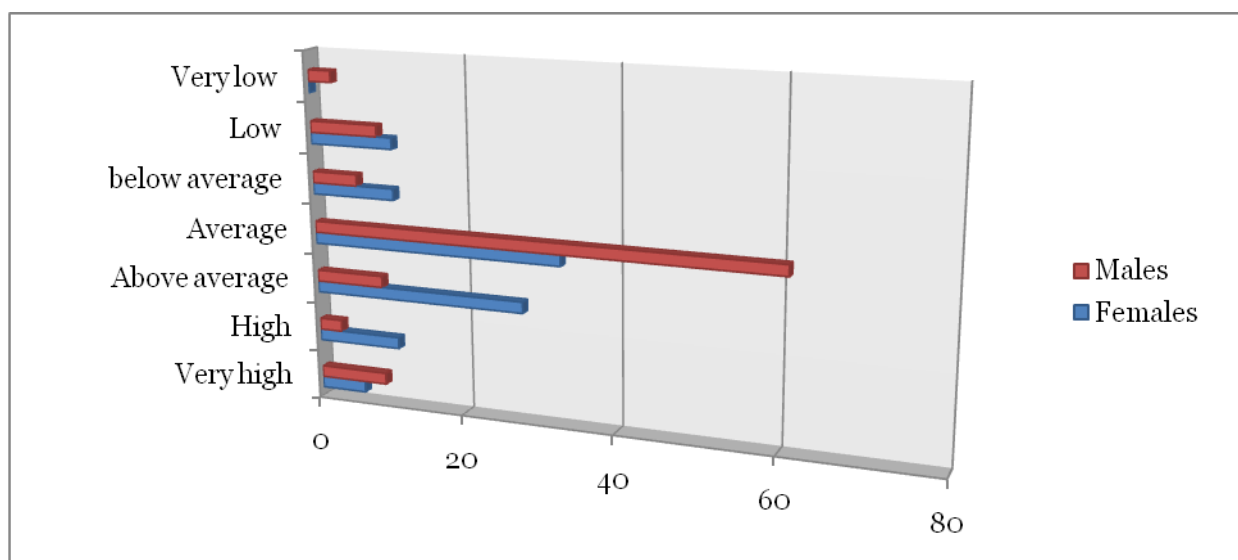**Fig. 2.** Indicators of the scale "Playing role of victim"

Fig. 3. Indicators of the scale "Social role of victim"

As it can be seen, there are no special scales on social anxiety during the period of COVID-19 pandemic, but some of existing psychological scales can be used to measure social anxiety and victimization of people in the situation of lockdown and loneliness. These scales also provide a comparative gender-related study. Males and females react differently in the situation of uncertainty and fear. Males, even when they suffer greatly from depression, fear and anxiety, would not admit it while answering the questions of the survey, probably thinking it does not fit the masculine image. But females do not find it embarrassing to admit being scared, lost and depressed. It is also demonstrated by the indicators of different scales of victimization. Victimization is an interdisciplinary term defining a feature of the behavior of a person who unintentionally becomes a victim of a crime or unfortunate circumstances. Victim's behaviour is studied by the social psychology as such behavior depends greatly on external circumstances and social influence. Teenagers and adolescents as immature personalities are especially vulnerable to the negative influence of nature, other people, situation, and mass media in case of our study.
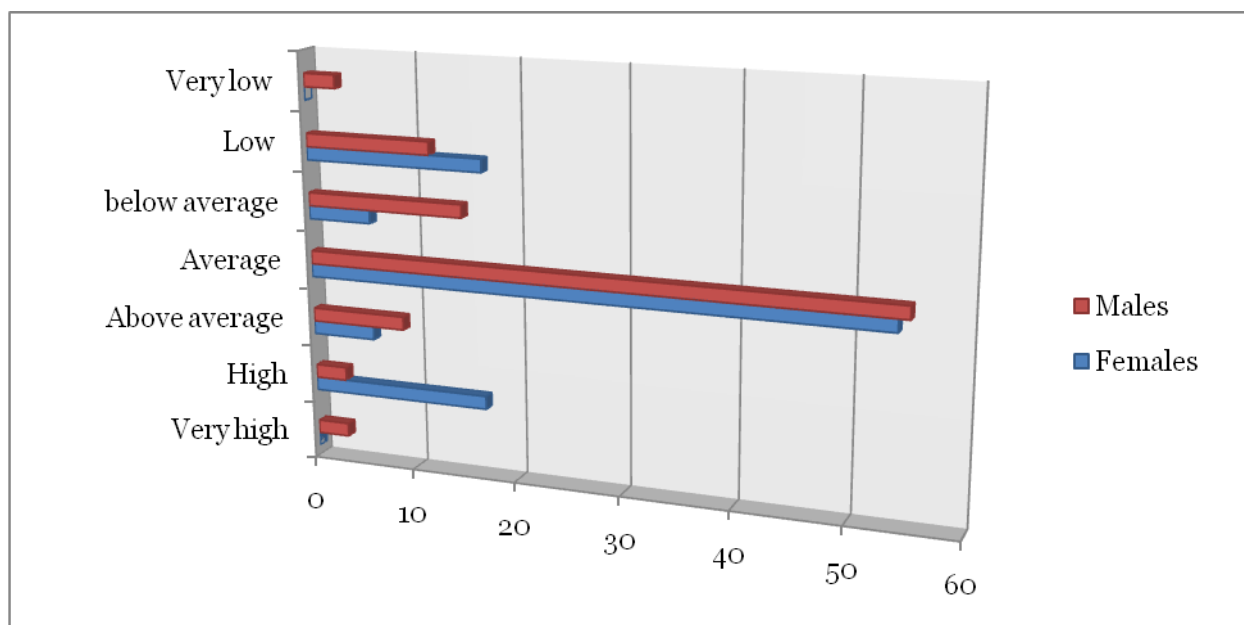
153

Fig. 4. Indicators of the scale "The overall score of role victimization"

5. Conclusion

Although quick access to the Internet and different social networks platforms can help during a pandemic to quickly spread new important information, to share diagnostic, treatment and follow-up protocols, comparing different approaches from other parts of the world to adapt them to local setting and available resources, there definitely exists the downside of possible dissemination of fake data, myths, and pessimist information that combined with quarantine states and lockdown situation may lead to anxiety, depression, forgetfulness and in some extreme cases, serious mental disorders and even the suicide. Anxiety leads to stress, sleeplessness, mental health problems, increased irritability, anger and frustration, it can fuel bad emotions. Unfortunately, such problems as being unable to fall asleep or waking up in the middle of the night lead back to anxiety closing the circle. Especially difficult are these problems for adolescents who are uncertain in life just because of their age and financial dependence upon the family. With loneliness and sleeplessness, exercises and exposure to the sunlight might help, but it is extremely difficult in the situation of lockdown.

Being exposed to mass media and all kinds of disturbing news can be extremely harmful for mental health. Although we cannot recommend avoid using mass media in order to prevent social anxiety, but we can definitely recommend limiting consumption of news — including social media, choosing only the trustworthy ones. To overcome your vulnerability, try to share your anxious thoughts and emotions with others. Don't be afraid to expose your weakness and vulnerability.

In the paper the empirical results of the research are described. As we can see, males do not demonstrate their social anxiety considering it manifestation of weakness, so they might be in a worse position than females who are more open about their anxiety and victimization levels. Summing up we can conclude that adolescents with a high level of role victimization are characterized by a lack of conscious life goals, they live for today or tomorrow, they are afraid to look into the future. According to data received, females have higher indicators. In combination with a high level of personal anxiety, this further complicates self-control in crisis situations.

Present study is devoted to problems of young people's social anxiety and depression due to the influence of mass media spreading information and initiating panic among the most vulnerable segments of population. Thanks to existing methods of psychology it is possible to reveal and measure social anxiety and victimization level. Our next step is to offer coping strategies to fight fears, anxiety, depression and victimization among young people who use mass media as their major source of information.
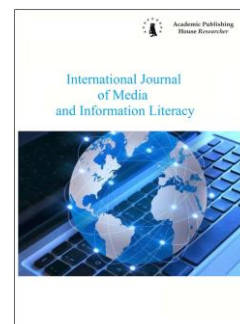
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Bringing MIL into the Margins: Introducing Media and Information Literacy at the Outskirts

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Abstract

With the vast amount of information readily available online, not to mention the gaining popularity and use of social media platforms and the rampant proliferation of alternative facts and news fabrication that affects decision-making, it is indeed empirical for everyone to be media and information literate. More true in it sense, people living in areas with limited or no internet access at all should be more critical and analytical about every information they encounter as this may affect their perspectives on things and life in general. This paper documents how media and information literacy was promoted and introduced to selected Senior High School (SHS) students and teachers of Loyola College of Culion (LCC) in Isla Culion, Palawan, Philippines. The effectiveness of the seminar-workshops conducted among the participants was also determined as well as their working knowledge on MIL through some tests and group activities. This case study also revealed that the participants' working knowledge has increased after being exposed to the lectures and activities. Furthermore, the participants highlighted how they found MIL valuable in critically evaluating sources of information and how to use social media responsibly. In addition, the participants found the seminar-workshop engaging and recommended to have more sessions like this in improved in the future.

Keywords: media and information literacy, Isla Culion, Palawan, Philippines

1. Introduction

With an average of 9 hours and 45 minutes per day spending on the internet and almost 3 hours and 53 minutes devoted to the use of social media (Kemp, 2020), it is undeniably no doubt that Filipinos were one of the heaviest users of Internet. Thus, they should need to be well-verse and are expected to be more responsible in using this technology. While it is true that Philippines has been called the social media capital of the world (Sanchez, 2020), there are still areas in the country that has limited access to internet such as the Isla Culion in Palawan.

Dubbed as the *Island of the Living Dead, the Land of No Return*, and even a *Paradise Lost*, Culion was declared as the Leper Colony in 1904 (Mun. of Culion, 2018). Avoided by some outsiders and travelers due to its unique history, Isla Culion has slowly been recognized to be one of breathtaking islands in Palawan and even in the country. With its declaration as leprosy-free in 2006 by World Health Organization (Mun. of Culion, 2018) and its gaining popularity and emerging development especially in tourism, people in the island such as students and teachers of Loyola College of Culion (LCC), a lone private school in the island, were now able to enjoy limited access to internet. Given this, students and teachers should be able to learn and understand the value of information before disseminating it. This paper documents how media and information

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literacy was promoted and introduced to selected Senior High School (SHS) students and teachers of Loyola College of Culion in Isla Culion, Palawan, Philippines last March 2019. The effectiveness of the seminar-workshops conducted among the participants was also determined as well as their working knowledge on MIL through some tests and group activities. Furthermore, the paper identified some of the strengths and weakness of the said seminar-workshop and how can it be further improved in the future.

The Isla Culion and The Loyola College of Culion, Palawan. Beautiful not only because of its breathtaking landscapes but also due its unique story, Isla Culion was once called as the Island of the Living Dead, the Land of No Return, and even a Paradise Lost (Mun. of Culion, 2018). Being the second largest island of the Calamianes Group north of Palawan, Culion was selected to be a leper colony due to its strategic location, cool climate, great harbor, adequate water and its suitability to be developed in a minimal cost (Arcilla, 2009). Under the American administration, with the passage of the Act No. 1711 of the Philippine Commission, it was mandated the compulsory segregation and isolation of lepers in Culion to avoid the spread of such disease (Culion…, 2020). As time goes by and with the various successful treatments conducted over the years, the World Health Organization finally declared the island as leprosy-free in 2006 (Carpio, 2017). This rich history of Culion were well documented in the Culion Leprosy Archives which made its way to its inscription as a UNESCO Memory of the World for Asia and the Pacific in 30 May 2018 (Pe, 2018).

The Loyola College of Culion (LCC) is also one of the institutions in the island that has a great history to share. Tracing its humble beginnings since 1936, LCC began its journey as the Culion Catholic Primary School under the Jesuits administration which gave primary education to children of the leper patients. In 1942, it started to open its doors to high school students and in 1988, was renamed to Loyola College of Culion to accommodate those high school students who would like to proceed to higher education. As a lone private school in the island, they eventually received a recognition from the government in 1992 to offer Bachelor of Arts major in Literature. In 2009, they started to offer BS Entrepreneurship major in Entrepreneur Tourism and two years after, the Teacher Certificate Program was able to offer to students. As years goes by, after producing a number of graduates despite limited resources, LCC still envisions itself to be a "leader in Entrepreneurial Tourism and Transformative Education in the Calamian Islands" and is committed to form Christ-centered, competent, and compassionate leaders who care for creation and are concerned for the poor" (Loyola…, n.d.). In 2012, following a nationwide mandate to offer K-12 education, LCC started to offer Senior High School (Grades 11-12) with academic track on Humanities and technical-vocational track on Tourism Services. Up to this date, LCC still putting its best efforts to provide quality education to students in the islands despite limitations.

2. Materials and methods

Two seminar-workshops were conducted to Senior High School (SHS) students and teachers of Loyola College of Culion (LCC) in Isla Culion, Palawan, Philippines last 12 March 2019 to introduce and promote media and information literacy (MIL). The participants were comprised of 36 students who were in Grades 11-12 and all 16 teachers of LCC. These students were already taking MIL, thus the seminar-workshop was aimed to supplement, in some ways, the subject being taught. On the other hand, all teachers, who teaches across all grade levels and subjects were encouraged by the school administration to attend the said activity.

Adapting the technique from the study conducted by Yap and Manabat (Yap, Manabat, 2018) to gauge the working knowledge of participants about MIL, all participants were asked to answer pre and post tests before and after the session. Scores on these tests were compared to check if their knowledge in MIL has increased. During the seminar-workshop, a group activity was conducted wherein participants were asked to determine the different scenarios where misinformation, disinformation, and mal-information happens. In addition, an interactive gamified quiz was also used to make the session more fun. After the session, a simple general evaluation of the effectiveness of the seminar-workshop was also conducted as perceived by the participants. Percentage of the scores were calculated, tabulated, and analyzed to determine the effectiveness of the seminar-workshop.

To ensure the credibility and integrity of this paper, the researcher applied for the Nazarbayev University Institutional Research Ethics Committee (NU-IREC) review and was approved for exemption from further IREC oversight.

3. Discussion

The Use of Social Media and The Fake News Hoopla. Social media is one of the primary means of communication used by people across the globe. With 3.8 billion active social media users (Kemp, 2020), people can only imagine how every bit of information accessible at their fingertips. The increase use of social media coupled with the rising digital technology has also paved the way to the proliferation of "fake news" and fabricated rumors (Lim, Tan, 2020). As it was used to describe the modern form of online disinformation, fake news in some ways, are information created with the intention to deceive and imitates news media content but not in the organizational process or intent (Vziatysheva, 2020). These information distortions might be similar in some concepts but they are in some way different (Carmi et al., 2020). As defined by Wardle and Derakhshan (Wardle, Derakhshan, 2017), there are different definitions depending on the intention why the information is created and disseminated:

Misinformation – false information but the person disseminating it believes to be true;

Disinformation – false information and the person disseminating it knows it is false, thus it is a deliberate, intentional lie; and

Mal-information – information that is based on reality but it is used to inflict harm on a person, organization, or country.

With this in mind and the fast spread of these falsified information, everyone should take into account being critical on every information they encounter online, thus being media and information literate is a must (Wardle, Derakhshan, 2017).

Media and Information Literacy. Media and Information Literacy (MIL), as defined by The United Nations Educational, Scientific, and Cultural Organization (UNESCO), "includes a set of competencies to search, critically evaluate, use and contribute information and media content wisely; knowledge of one's rights online; understanding how to combat online hate speech and cyberbullying; understanding of the ethical issues surrounding the access and use of information; and engage with media and ICTs to promote equality, free expression, intercultural/interreligious dialogue, peace, etc." (UNESCO, 2019). These competencies help people to be critical thinkers and responsible producers and consumers of media and information. While it is true that media literacy educates people on how and not what to think (Silverblatt, 2018), with the influx of overwhelming information available online, being media and information literate is really a must. Hence, including MIL in the curriculum would educate them to make cognizant decisions in life.

Integrating MIL in the curriculum is one of the UNESCO's objectives as indicated in various UNESCO publications that aim to foster MIL concepts, principles, and importance. Media literacy education is not just mere incorporating computers and technology in the educational system, it should be associated with the capacity of students to apply critical thinking skills to any information available online and the responsible use of it (Fedorov, Mikhaleva, 2020). There were a number of studies shows that students were not quite demonstrative of their strong evaluation skills wherein students tend to have some troubles being critical and analytic about the information they encounter on the internet particularly on social media (Johnston, 2020). Furthermore, MIL also aims to transcend values education across general educational system by teaching the students with the responsible use of media and by applying analytical and critical thinking skills to every bits of information they encounter (Sanchez et al., 2019).

MIL in the Philippine Setting. In the Philippines, the Department of Education has started to integrate MIL in the school curriculum since 2013 as a core subject for senior high school students or those students that are in Grades 11 and 12. Taken for 80 hours per semester, the course aims to "introduce the learners to basic understanding of media and information as channels of communication and tools for the development of individuals and societies; and also intends to develop students to be creative and critical thinkers as well as responsible users and competent producers of media and information" (Department of Education, 2013).

Educators are the primary actors in the knowledge transfer especially in the school setting. Thus, teaching MIL effectively to students lies heavily on the hands of teachers. Teachers can integrate in their lesson plans and teaching resources a variety of approaches and strategies in teaching MIL (Leaning, 2017). Aside from resources, teachers also needs some training on how to impart such knowledge to their students. However, MIL educators still lack training on teaching MIL. The study conducted by Labangon and Zabala (Labangon, Zabala, 2018) revealed that majority of the MIL instructors in the Philippines were not exposed to training due to unavailability of sessions and training for teaching MIL. Thus, train-the-trainers approach is very much needed.

Introducing MIL to students is not just a sole responsibility of teachers but also the librarians as well. Revolving around the Association of College and Research Libraries (ACRL) framework that "Authority is Constructed and Contextual" that is very much related to evaluating the source, librarians can help learners to think critically and to understand what bias is (Faix, Fyn, 2020). Dela Cruz (Dela Cruz, 2016) revealed in her study that there was an evident increase in the scores in the test taken by the students after their exposure to the media information program (MIP) modules conducted by the grade school library. To help address the lack of training of MIL instructors (Labangon, Zabala, 2020), an MIL training program entitled "TeachMeet with LORA, The Librarian for selected public secondary school teachers was organized by De La Salle University Libraries with the aim of imparting knowledge, skills and experiences through a half-day lecture and mentoring focusing on the value and importance of MIL (Yap, Manabat, 2018). The participants found the seminar-workshop effective and greatly appreciated the knowledge imparted by the resource persons.

The Loyola College of Culion in Palawan, just like all the other schools in the country that offers senior high school programs, has been doing its best to integrate MIL in their curriculum despite limited resources. Even before the pandemic escalated in the country, the school has been trying to make ends meet. LCC students, just like any typical students were also able to enjoy limited access to internet and are quite acquainted in using social media. Although it is a lone private school in the island, they are not exempted from experiencing limitations such as the instability of internet connections and power failure not to mention the lack of financial, manpower and state-of-the-art infrastructures.

Last 12 March 2019, a simple seminar-workshops on introducing media and information literacy (MIL) was conducted by the school administration with a professional librarian as a facilitator. Two half-day seminar-workshops were conducted; the morning session was dedicated for senior high school students while the afternoon session was focused on the teachers. These two seminar-workshops were aimed to introduce and promote media and information literacy to the participants through lectures, tests and activities. As part of this outreach initiative, the facilitator with the help of other librarians, visited the school library and conducted some technical assistance on how they can further improve their library service.

4. Results

The Respondents. The participants were comprised of 35 students who were in Grades 11-12 and all 16 teachers of Loyola College of Culion. These students, aged 16-18, were already taking MIL, thus the seminar-workshop was aimed to supplement, in some ways, the subject being taught. On the other hand, all teachers, who teaches across all grade levels and subjects were encouraged by the school administration to attend the said activity.

Assessment Tests. To gauge the knowledge of the participants about media and information literacy, they were asked to take some tests prior and after the lecture sessions. The tests were composed of 10-item MIL-related true/false questions were participants are asked to determine if the statements were true or false (Camosum..., 2020). These questions are appropriate to assess the surface knowledge or familiarity of the participants with the topic or subject content and to check for popular misconceptions (Center..., n.d.).

Students were asked to take pre-test and post-test to determine their working knowledge about media and information literacy concepts. Their scores on both tests as well as their percentage were presented in Table 1. During the pre-test, only 3 students (8.33 %) got a score of 8 out of the 10-item test while almost half of the students got a score of 5 and below. An increase in their scores were observed in their post-test after they have been exposed to the lectures and activities wherein four students were able to get a perfect score and less than half of them got a score lower than 5. The distribution of the students' scores on both tests is also shown on Figure 1.

Table 1. Percentage of students and their scores during the pre and post-tests

Pre-Test Scores	Number of Participants	(%)	Post-Test Scores	Number of Participants	(%)
10			10	4	11.11
9			9	3	8.33
8	3	8.33	8	6	16.67
7	8	22.22	7	6	16.67
6	7	19.44	6	5	13.89
5	6	16.67	5	4	11.11
4	8	22.22	4	5	13.89
3 and below	4	11.11	3 and below	3	8.33
TOTAL	36	100		36	100
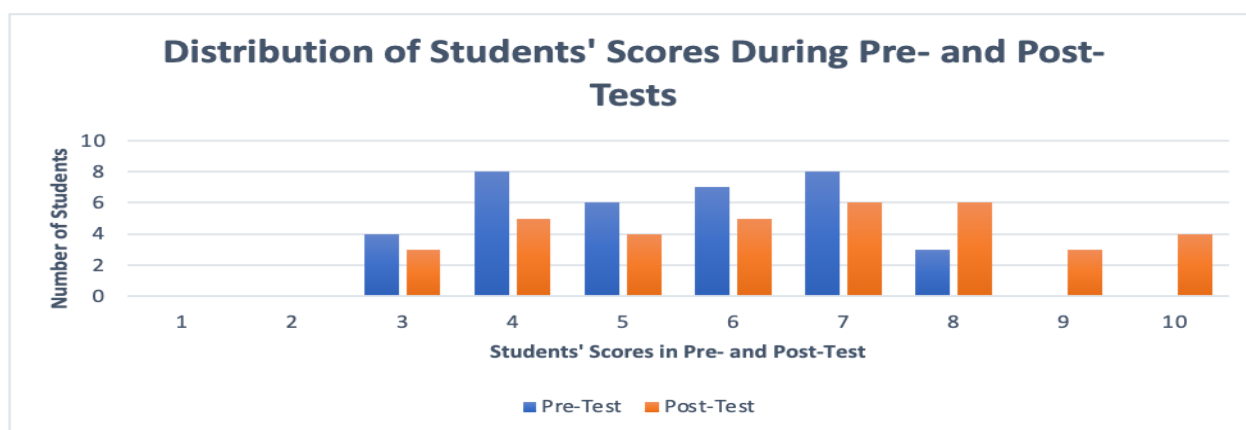
Fig. 1. Distribution of students' scores during pre and post-tests

Teacher participants were also asked to take the same set of tests. As presented on Table 2, from one participant during the pre-test, 10 participants were able to get a perfect score during the post-test. The noticeable increase on the scores were observed after the participants have attended the sessions. A graphical distribution of their scores is presented on Figure 2.

Table 2. Percentage of teachers and their scores during the pre-test

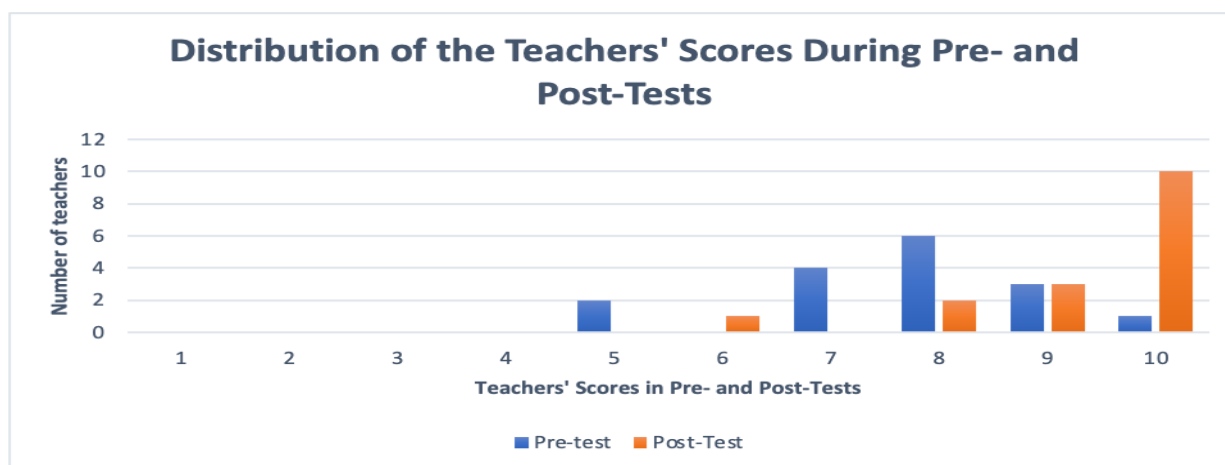| Pre-Test Scores	Number of Participants	(%)	Post-Test Scores	Number of Participants	(%)
10	1	6.25	10	10	62.5
9	3	18.75	9	3	18.75
8	6	37.5	8	2	12.5
7	4	25	7	1	6.25
6	0	0	6		
5	2	12.5	5		
4			4		
3 and below			3 and below		
Total	16	100		16	100

Fig. 2. Distribution of teachers' scores during pre and post-tests

The noticeable increase in both students' and teachers' scores in the post-tests in some ways indicates that the knowledge of the participants have improved after their exposure to the lectures during the half day seminar-workshops. This further shows that knowledge transfer among the participants has been successful.

The Activity. During the sessions, the participants were asked to examine some scenarios and identify if these scenarios shows misinformation, disinformation, and mal-information. This activity was a good way to encourage participants' engagement during the sessions. To guide the participants in examining the scenarios, the following definitions by Wardle and Derakhshan (Derakhshan, 2018) were used.

The students were divided into five groups to identify the seven scenarios, while the teachers were divided into four groups to examine nine scenarios. Out of 5 student groups, 2 groups were able to have 6 correct answers. For the teachers, 3 groups were able to get 8 correct answers. While it is true that the said activity cannot be used to measure the success of the program, it will, in some ways, supplement to the lecture sessions attended by the participants to fully understand the concepts related to MIL.
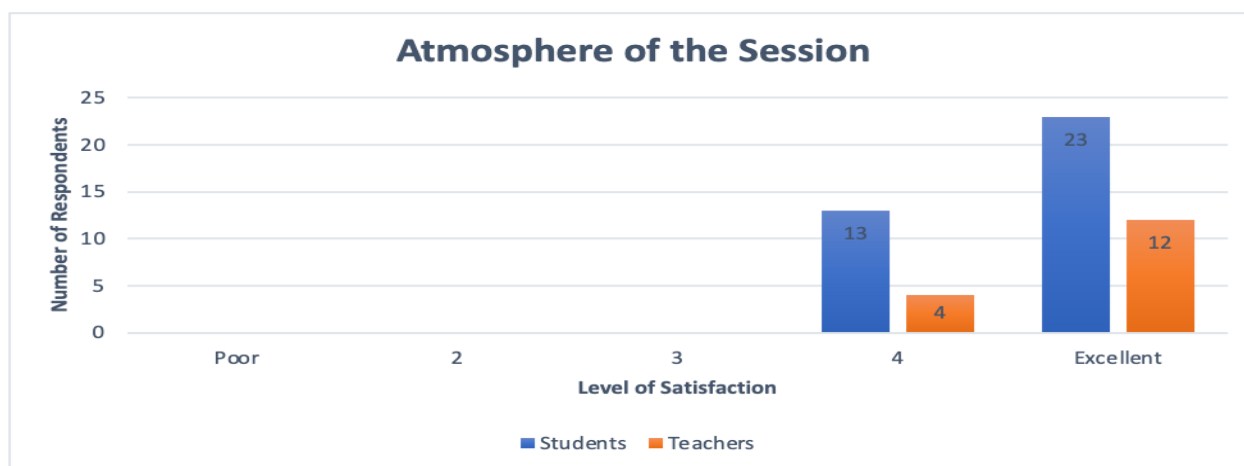

Fig. 3. Level of satisfaction of participants on the atmosphere of the sessions

The Seminar-Workshop. To gauge the effectiveness as well as to further improved the seminar-workshop, the participants were asked to evaluate the sessions based on the session's atmosphere, program flow, speaker, facilitation of the sessions, logistics and venue, as well at the overall satisfaction of the program. They were even asked for some learning during the sessions and their comments and feedback if any. A Likert Scale wherein 5 = Excellent and 1 = Poor was used in this evaluation.

Session's atmosphere. The session atmosphere deals with the mood or tone of the session. Was the session provided a friendly, accommodating and encouraging atmosphere among the participants and also with the facilitator? Based on the participants, they found the session's mood accommodating and friendly with 75 % and 63.89 % of teachers and students, respectively as presented on Figure 3. This further indicates the that participants felt comfortable and relaxed during the entire course of the session.

Program Flow. The smooth course of the session was being measure through the program flow. Was the session too fast? Does the timing okay? As shown on Figure 4, majority of the participants with 69.44 % of students and 68.75 % of teachers found the program smoothly executed. Participants believed that half-day session was enough to cover the basic topics in MIL though some of them would like to have more time for the activities.
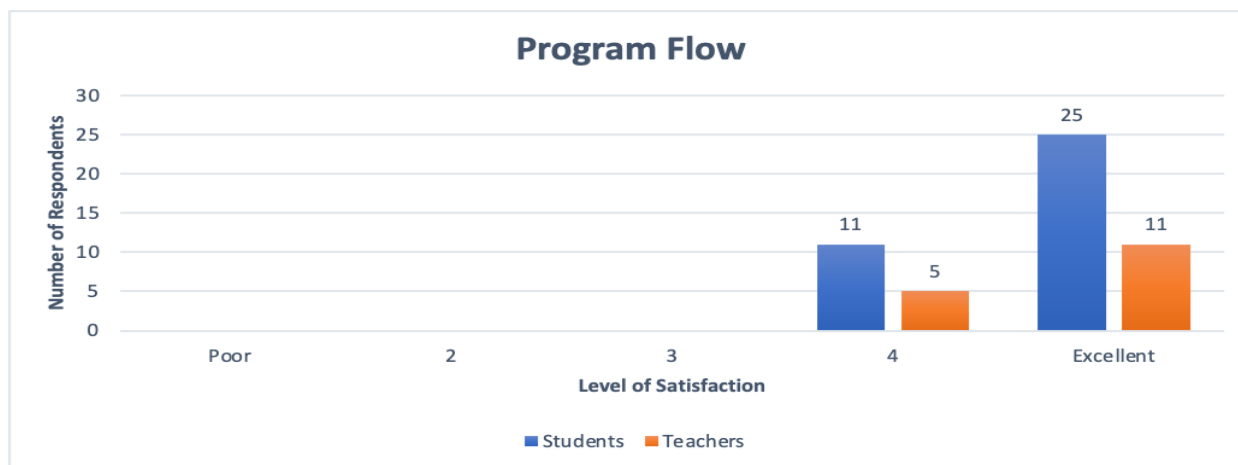

Fig. 4. Level of Satisfaction of Participants on the Program Flow of the Sessions

Speaker. The knowledge and expertise of the facilitator was being measured in this part. Did the participants found the speaker knowledgeable about the topic being discussed? Figure 5 shows that almost all the student participants (88.89 %) revealed that they found the speaker knowledgeable on the topic. This perception was same with the teachers' responses with 87.5 %.
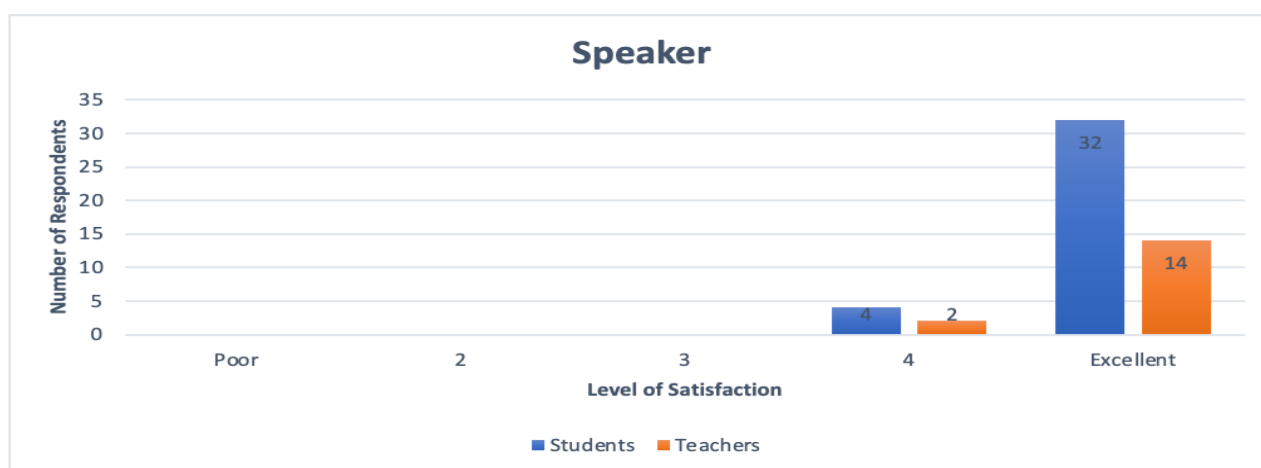

Fig. 5. Level of Satisfaction of Participants on the Speaker

Facilitation of the Session. Facilitation of the session also deals with the smooth action of the organizers in making the session easier for the participants and speakers. Were the participants feel at ease on doing the activities and answering the tests? As presented on Figure 6, majority of the students (63.88 %) and teachers (81.25 %) participants has observed an excellent facilitation of the session of the organizers. Though there were areas that still needs to be improved, the participants found the smooth implementation of the two sessions.
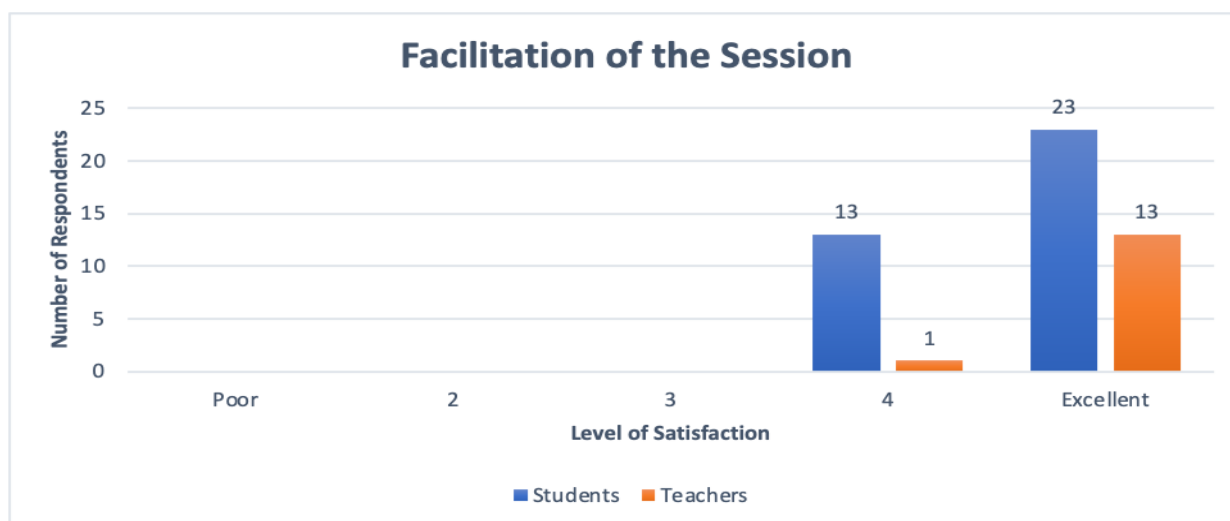
Fig. 6. Level of Satisfaction of Participants on the Facilitation of the Session

Logistics and Venue. The place of the event as well as the materials and equipment needed were also being evaluated. Is the place conducive for the seminar-workshop? Were the materials needed for the seminar-workshops and activities available? Both students (52.78 %) and teachers (75 %) believed that the venue was conducive for the session and that all the materials needed were made available to the them during the sessions. Although it was expected that there will be problems encountered especially with regards to the internet connections, the organizers made it sure that the internet connection works well during the entire sessions. In addition, printed tests as well as other papers and pens to be used for the activities were also made available to the participants to help them focus on the lectures during the sessions.
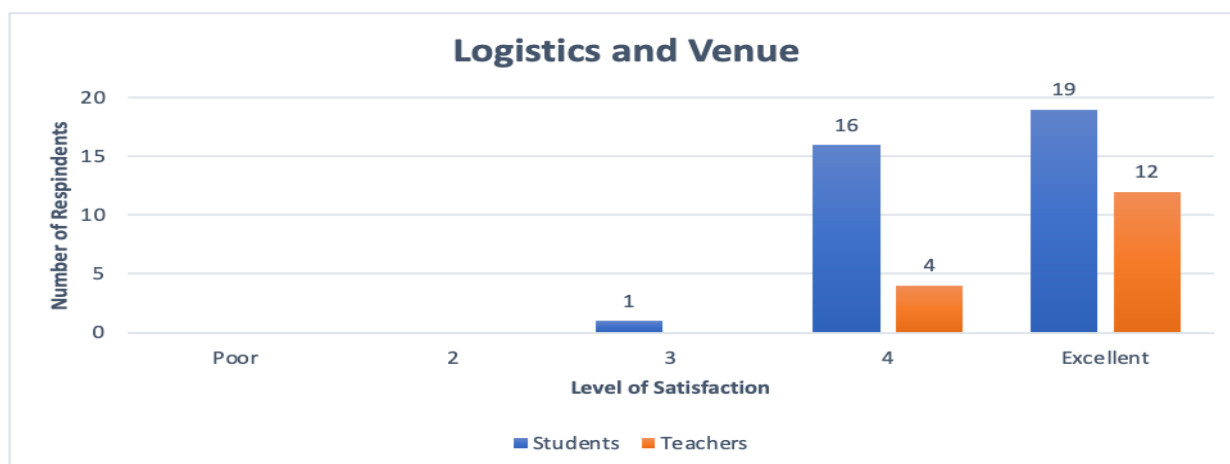

Fig. 7. Level of Satisfaction of Participants on the Sessions' Logistics and Venue

Overall Satisfaction of the Sessions and Their Feedback. In general, both the student and teacher participants rated the sessions excellent with 77.78 % and 81.25 %, respectively. They found the sessions enjoyable, interesting and useful. As perceived by the students, they liked the session as it provides them some knowledge related to MIL in a more fun and understandable way. As for the teachers, they found the session interesting and even became aware of what they read or share online.

Responsible use of social media and the importance of being media and information literate were emerged as their takeaways during the sessions. Though they found the sessions interesting and enjoyable, they thought that the time was limited, thus requesting for a follow-up session in the future.
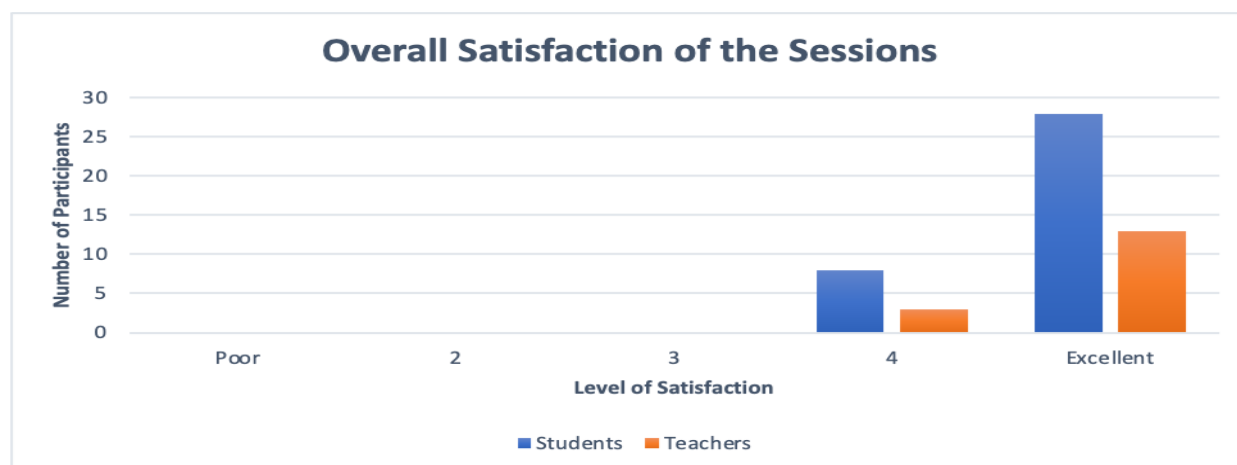
Fig. 8. Overall Satisfaction of Participants on the Session

5. Conclusion

In a world where all information is just a click away, it is very much needed that people should be educated in the responsible production, consumption, and dissemination of information. Thus, equipping people to be media and information literate is a must. Especially in those areas where access to information is limited, it is important to make sure that the information is reliable, trustworthy, and factual since this information will be used in making cognizant decisions in life. The seminar-workshop was just one way of reaching out to more people in the outskirts and to educate them about the value of MIL. Though there were challenges encountered and weaknesses identified while planning and implementing the sessions, the event became successful because of the support and cooperation both from the participants, organizers and facilitators. Alongside the effectiveness of the program, the lessons learned and the experiences that the participants gained will be more useful in making better life decisions and good judgment.

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News Literacy and Content Contribution: A Survey of University Students in Pakistan

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Abstract

News is the foundation of the media. The main function of news is to update the people and based on that they make decisions. Thus, the public needs to know about what news is. What are its functions? What is the credibility of news sources and the medium it is circulated? The public can get an insight into the above questions through news literacy. News media literacy is a specific part of media literacy. In this way, the purpose of this is to assess the news media literacy level of the students and their knowledge about the production of news media content. The researchers used a cross-sectional survey to collect data from purposively selected students of three leading public sector universities of Sindh, province of Pakistan. The findings exhibited that students at the public sector universities in Sindh province of Pakistan are literate about news and they know about contribution. The contributed content for media organizations particularly for traditional media in the content genres like articles, features, and writing letters to the editors and contributed for social media in the form of texts, photos, audio, and video clips as well. The studies related to media literacy should be conducted in other universities of Pakistan.

Keywords: news, news literacy, media literacy, content, universities, students.

1. Introduction

News is a foundation of the media (Maksl et al., 2015). The main function of news is to update the people, and based on that they make decisions (Vraga et al., 2015). So, the masses take a keen interest to read news for getting updates themselves. The authentic information taken through news authentic sources by masses supports and strengthens democracy (Mason et al., 2018). Thus, the public should be informed about the news, its sources, and the agenda of the organization that disseminates the news. The process of getting the above information regarding news and media is called media literacy. Media literacy is defined as "News media literacy" which is concentrated on the individuals' application of media literacy abilities to the understanding of news. Frequently, the news is measured as a depiction of the 'truth' or objective reality, but like all media, the news is created via the preferences of reporters, editors, and media companies (Gans, 1979; Kovach, Rosenstiel, 2014)."

Being a significant part of media literacy, the scholar emphasizes the importance of news media literacy (Tully, Vraga, 2017; Vraga et al., 2015). The practice of news media literacy connects the masses to practical realities. It develops analytical, communication, and critical thinking skills among the masses, specifically the school students too. Like other masses, news media literacy helps students too to become a news analyst. It can create its meaning while evaluating the

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information. The capacity of students must be in the context of news media literacy to build their critical and analytical skills (Hobbs, 2010). It engages people especially students with news media.

Though, the literature review of this study that media literacy in Pakistan is an emerging discipline; hence the news media literacy is quite new over here. In Pakistan, there is not any research study on news media literacy yet. In this way, the purpose of this is to assess the news media literacy level of the students and their knowledge about the production of news media content. Hence, this study determines that do the students know about the creators of news stories, and as news media consumers do, they contribute any sort of content for media, and if yes then particularly what genre of media content do, they contribute? In this context, the specific research objectives are (i) To check the knowledge of university students about news story creators, (ii) To know whether university students contribute any media content, and (iii) To know what type of media content university students contribute. Following the above research objectives, the research questions of the study are (i) Do university students know who creates news stories? (ii) Do university students contribute any media content? And (iii) What genre of media content do university students contribute?

2. Materials and methods

In this quantitative study, the researchers conducted a cross-sectional survey to collect data. A survey is an approach that is perceived as very effective in describing the uniqueness of a massive population. According to R.D. Wimmer and J.R. Dominick (Wimmer, Dominick, 2014), cross-sectional surveys allow the researchers to find a relationship between various variables in research studies.

Further, the researchers chose students enrolled at public section universities of Sindh, Pakistan as the population of this study. As reported by the website of the Higher Education Commission of Pakistan (HEC), in Sindh province the total number of public sector universities is 23. These universities offer degrees in various disciplines. The information given on the HEC website further shows that out of a total of 23 public sector universities, 10 universities have Faculty of Social Sciences.

Furthermore, in this study three leading public sector universities out of a total of ten (10), having Faculty of Social Sciences such as Karachi University, Sindh University, and Shah Abdul Latif University Khairpur, were sampled purposively. In the purposive sampling technique, the researchers sampled students of final years of the disciplines such as Political Sciences, International Relations, Sociology, and Media/Communication departments for data collection.

In the process of data collection, the researchers administered a pre-designed self-completion close-ended questionnaire as an instrument for data collection. The researchers designed this close end-ended questionnaire based on previous studies and following the objectives of this study. The researchers themselves administered this survey by physically visiting the departments of all three universities. The survey questionnaires were handed over to students in the classrooms. The faculty members of the concerned departments also helped researchers to collect data from the students. After completion of the survey, the data were entered into SPSS and analyzed. The findings below are presented by applying relevant statistical tests to the nature of the collected data.

3. Discussion

News is a foundation of the media (Maksl et al., 2015). According E.K. Vraga et al. (Vraga et al., 2015), the main function of news is to update the people, and based on that they make decisions. Therefore, it eventually supports and strengthens democracy (Mason et al., 2018). Therefore, the masses take a keen interest to read news for getting updates themselves.

Thus, the public needs to know about what news is. What are its functions? What is the credibility of news sources and the medium it is circulated? The public can get an insight into the above questions through news literacy. According to H.J. Gans (Gans, 1979) and B. Kovach, T. Rosenstiel (Kovach, Rosenstiel, 2014), "News media literacy" is concentrated on the individuals' application of media literacy abilities to the understanding of news. Frequently, the news is measured as a depiction of the 'truth' or objective reality, but like all media, the news is created via the preferences of reporters, editors, and media companies."

News media literacy is a specific part of media literacy. E.K. Vraga et al. (Vraga et al., 2015) emphasized the significance of news literacy. The scholars suggest that news has a very important role. Hence, news media literacy should be prioritized at a high level rather than measuring it simply. As mentioned by M. Tully, E.K. Vraga (Tully, Vraga, 2017) news media literacy endorses an

interpretation of news-making practices and promotes audiences to build the aptitudes needed to examine and assess news.

Although, it is argued that news media literacy connects the masses to practical realities. It develops analytical, communication, and critical thinking skills among the masses, specifically the school students too. News media literacy helps students to become a news analyst. It can create its meaning while evaluating the information. R. Hobbs (Hobbs, 2010) suggests that news media literacy initiatives should be taken to develop an enabling environment for students as they take interest in news composition and analyze it critically.

Moreover, news media literacy ultimately engages people especially students with news media. A study conducted by A. Maksl, S. Craft, S. Ashley, D. Miller, (Maksl et al., 2017) among college students, revealed that the students who were enrolled in news media literacy course were found higher news media literate, highly news consumer and knowledgeable as compared with the students who were not enrolled in the course. The researchers suggest that though the students are potential citizens, hence, they must be taught the news and its greater role regarding developing democracy.

It is also observed that news media literate youth are more active than non-news literates. S. Craft, A. M. Maksl, S.D. Ashley (Craft et al., 2013) in their study divided the young people into two groups. In this way, they found that the young men who were at high news media literacy level were more critical towards news media than the teens that were low news media literate.

In this way, news media literacy enables youth to consume news critically. According to A. Maksl et al. (Maksl et al., 2015) news, literate young people have in-depth knowledge of products of media, its functions, and impact. They consume news critically as compared to the other people and their understanding of media consumption is at a high level. The author further argues that news literacy equips young people to face the challenges of this ever-changing media environment.

In this age of news and information saturation, students are in control of media which has become unavoidable. The only solution is to understand, evaluate, and analyze it critically as well as skeptically. Media literacy helps students to understand the news phenomena and enhance their ability to face the challenges that media have created for them. The other way to respond to these questions is to connect the news media literacy as part of the curriculum (Moore, 2013).

J. Fleming (Fleming, 2014) states that news media literacy enables students to be skeptical like journalists as well as consider the events with the lenses of media practitioners. It teaches them to review the news and enhance their awareness level about the news phenomenon. Results of the study recommend that media literacy teachers should teach the students methods that how they analyze the news critically.

In another survey study of 379 adults, S. Craft, S. Ashley, A. Maksl (Craft et al., 2017) analyzed the prediction of news media literacy for the endorsement of conspiracy theories and the impact of literacy on narrow-mindedness. The analysis forecasted that higher information about the news media lesser probability of conspiracy theory endorsement, the inclination is similar for the political ideology too. Though, E.K. Vraga, M. Tully (Vraga, Tully, 2016b) suggested in a study that the competence of media literacy messages to impact students' administering of the following political program is prepared by their established media literacy education. S. Geers, M. Boukes, J. Moeller (Geers et al., 2020) examined a two-wave panel study of educational intervention media literacy competence of lower-income aged 16-26. The results revealed that the 'educational program has changed the level of political efficacy and news media literacy'.

Further, E.K. Vraga, M. Tully (Vraga, Tully, 2016a) suggested in an experimental study that various news media literacy messages were positive in communicating their message and encouraging political commitment, but these impacts also vary on media perspective and audience attributes. In another panel study, M. Tully, E.K. Vraga (Tully, Vraga, 2018) examined individual differences in media literacy growth. The findings exhibited that some individuals encounter more development in news media literacy and that growth promotes democratic opinions and actions. Although, some researchers measure news media literacy about social media (Guess et al., 2020; Vraga, Tully, 2019).

News Media Literacy in Pakistan

It is noted during the literature review of this study that media literacy in Pakistan is an emerging discipline; hence the news media literacy is quite new over here. In Pakistan, there is not any research study on news media literacy yet. As during this investigation, the author did not find any academic study even on media literacy. However, as the news is based on information, and in

this regard, K. Ameen, G. Gorman (Ameen, Gorman, 2009) conducted a study in Pakistan on information literacy to assess the level of the university students and faculty members. They found that in Pakistan, the state of information and digital literacy is deprived. They further revealed that the provision of quality information is a prerequisite for informed citizenship. Thus, the authors suggest that the critical consumption of information is significant for the holistic empowerment of society.

Media literacy empowers people to review the news critically that appears in media. And that was started in a workshop on media literacy conducted in 2009 in Pakistan, which is claimed the first-ever activity of its nature in the country. Further, the workshop participants concluded that media literacy should be integrated into the curriculum because it helps people to become critical citizens.

News media literacy is not recognized in Pakistan because there are not interventions on media education events in universities. In this connection, a study by A. Ashraf, N.I. Chaudhry (Ashraf, Chaudhry, 2013) illustrates that there seems no satisfactory contribution of public sector universities on media education in Pakistan. The authors of the investigation suggest that Higher Education Commission should create an enabling environment for media professionals as they may contribute regarding media education.

4. Results
Demographic Descriptions of the surveyed students

Table 1. Composition of the students by demographic characteristics

Demographic variables	Number	Percent %
Gender		
Male	211	54.2
Female	178	45.2
Marital status		
Single	366	94.1
Married	23	5.9
Age		
21 years	66	20.3
22 years	111	34.2
More than 22 years	148	45.5
Mother Tongue		
Sindhi	172	45.0
Urdu	154	40.3
Other	56	14.7
Class		
M.A Final	209	53.0
B.S Part -IV	169	42.9
Discipline/Department		
Media and Communication	135	34.3
International Relations	78	19.9
Political Science	67	17.1
Sociology	111	28.4
University		
Sindh University, Jamshoro	168	42.6
Shah Abdul Latif University, Khairpur	43	10.9
Karachi University, Karachi	183	46.4

Table 1 presents data regarding the demographic characteristics of the students. In this context, findings exhibited first the frequency of gender that the proportion of male students is higher with 54.2 percent. However, the female proportion is higher than two-fifths with 45.2 percent. Hence, findings conclude that most of the students; 54.2 percent were male.

Second, results in the subject of marital status showed that nearly all the students; 94.1 percent were single/unmarried. Nevertheless, a meager percentage of 5.9 percent declared themselves as married.

Third, the frequency of age revealed that the biggest number of the students; 45.5 percent was above 22 years old; and the second biggest fraction of greater than one-third 34.2 percent declared that they were 22 years old. Although the remaining percentage of a little bit greater than one-fifth 20.3 percent mentioned that they were just 21 years of age. Hence, findings revealed that the maximum proportion of 45.5 percent of the students was older than 22 years.

Fourth, findings in the context of mother tongue revealed that the main highest quantity of more than two-fifths 45.0 percent mentioned their mother tongue is the Sindhi language. Likewise, another maximum amount of somewhat over than two-fifths; 40.3 percent mentioned their mother tongue is Urdu. Though, the remaining amount of higher than one-tenth 14.7 percent of the students told they speak 'other' languages such as Punjabi 4.3 percent, Balochi 2.5 percent, Pashto 1.0 percent, Hindko 1.3 percent, Kashmiri 1.3 percent, Gilgiti 1.0 percent, Shina 1.0 percent, Saraiki .5 percent, Dhatki .5 percent, Gujrati .3 percent, Burjshaski .3 percent, and Khowari .3 percent. Hence, findings revealed that the greatest amount of the students; 45.0 percent declared the Sindhi language as their mother tongue. However, the second-highest percentage 40.3 mentioned the Urdu language as their mother tongue.

Fifth, findings regarding education level showed that the amount of greater than fifty percent 55.3 of the students told they are enrolled in class M.A Final. Nevertheless, another higher number more than two-fifths 44.7 percent marked they are enrolled in class B.S. Part-IV year. Hence, results revealed that most of the students were students of class M.A Final. Beyond, the results about education also revealed that the earliest maximum percentage of more than one-third of the students; 34.3 percent told that they are students of the Media & Communication (M&C) department. Though another maximum proportion of higher than a quarter; 28.4 percent told that they are enrolled in the Department of Sociology, however, the third greatest quantity of about one-fifth 19.9 percent told they are enrolled in the International Relations (I.R.) department. Nevertheless, the final remaining amount of 17.1 percent revealed that they are enrolled in the Political Science (P.S.) department. Hence, it was determined that the greatest number of students is enrolled in the Department of Media and Communication.

Lastly, in the context of a university, it was observed that the greatest percentage more than two-fifth of 46.4 percent told that they are enrolled in the Karachi University (KU), and the second maximum number that also positions bigger than two-fifths 42.6 percent told that they are enrolled in the Sindh University (SU), Jamshoro; though the remaining percentage greater than one-tenth 10.9 percent told that they are enrolled in Shah Abdul Latif University (SALU), Khairpur.

Overall, it revealed that the participants of this study were male and unmarried. Although, in the perspective of age the participants were older than 22 years in age and Sindhi language studying M.A Final in the department of Media &Communication or Mass Communication University of Karachi (KU).

News Media Content Production

See Table 2 that presents data about the production of news media content; in this way first, when it was asked from the students who create news stories, in response the proportion of nearly three-quarters 73.4 percent expressed that reporters. However, the second-highest proportion of a little higher than one-fifth 21.9 percent of the students answered that editors are the creators of news stories. Whereas the remaining little proportion of 4.7 percent of the students was of the view that neither reporters nor editors rather photographers create news stories. Thus, it was deduced that overall, the great majority of the students had the correct knowledge or perception that the main role in the creation of news stories is played by reporters.

Table 2. News media content production

News media content production variables	Number	Percent (%)
Creator of news stories?		
Reporters	278	73.4
Editors	83	21.9
Photographers	18	4.7
Contributed media content?		
Yes	209	56.5
No	161	43.5
What have you contributed?		

Article/feature/letter to editor	143	57.2
Texts/photo/video/audio clip on social media	100	40.0
Blog	5	2.0
Reporting	2	0.8

Secondly, when it was asked from the sampled students of this study that have, they ever contributed any content for media? Then in response, the proportion of higher than two quarters 56.5 percent was of the view that they had contributed media content. Whereas the remaining proportion that was higher than two fifths 43.5 percent mentioned that they had not ever contributed any media content. Hence, it was found that overall, most of the students was news media contributor.

Finally, about the type of content being contributed by the students, it was seen that the first highest proportion that was higher than fifty percent 57.2 percent mentioned that they contributed articles, features, and letters to editors. And the second-highest proportion was two fifths (40.0 %) of the students who contributed texts, photos, video clips, and audio clips on social media. Whereas the remaining little proportion of 2.8 % said that they contributed content for news media in the form of writing blogs, and reporting for media organizations. In this way, it was deduced that most of the students contributed to traditional media in the form of articles, features, and letters to the editor. Whereas the second-highest chunk of the students in this study contributed contents particularly for social media in the forms of texts as well as photo, and audio or video clippings.

Table 3. Distribution of the students by news media content production and gender

Gender			
News media content production variables	Male (%)	Female (%)	Total (%)
Creator of news stories?			
Reporters	152 (75.2)	124 (71.3)	276 (73.4)
Editors/photographers	50 (24.8)	50 (28.7)	100 (26.6)
Total	202 (100)	174 (100)	376 (100)
Contributed media content?			
Yes	121 (59.9)	88 (53.7)	209 (57.1)
No	81 (40.1)	76 (46.3)	157 (42.9)
Total	202 (100)	164 (100)	366 (100)
What have you contributed?			
Article/feature/letter to editor	86 (57.3)	57 (57.0)	143(57.2)
Text/photo/video/audio clip on social media	59 (39.3)	41 (41.0)	100 (40.0)
Blog/reporting	5 (3.3)	2 (2.0)	7 (2.8)
Total	150 (60.0)	100 (40.0)	250 (100)

Moreover, according to Table 3 when news media content production was more put under analysis in perspective of gender, then it was observed first, about the creators of news stories that those students who said that reporters are the creators of news stories among them the percentage of the male students; 75.2 percent was greater than the number of female students; 71.3 percent. However, against it those who said that editors or photographers are the creators of news stories among them the ratio of the female 28.7 percent was higher than the fraction of the male 24.8 percent. Thus, it was observed that on average the correct perception about the creator of news stories was greater amongst the male students compared with the female students.

Second, regarding contributing the media content it was seen that those students who had ever contributed media content among them the fraction of the male 59.9 percent was bigger than the fraction of the female 53.7 percent. Whereas conversely those who had not ever contributed any media content among them the quantity of the female students; 46.3 percent was bigger than the proportion of the male students; 40.1 percent. In this way, it concluded that the trend of media content contribution was bigger among the male students compared with the female students.

Third, regarding content type to be contributed by the students, it was observed that those students who contributed articles, features, and letters to editors among them on average the proportion of the male 57.3 percent were slightly over than the fraction of the females; 57.0 percent. Similarly, those students who wrote blogs and reporting for media among them as well on average the percentage of the male students; 3.3 percent was greater than the proportion of the female 2.0 percent. However, in the contrast, for those who created texts, photos, video, or audio clips on social media among them the fraction of the female 41.0 percent was higher than the quantity of the male 39.3 percent. Thus, it was deduced that on average the contribution of articles, features, letters to the editor, blogs, and reporting were greater among the male students compared with the female students. Whereas the contribution of creating texts, photos, video, and audio clips on social media was higher among female students than male students.

Table 4. Distribution of the students by news media content production and age

Age categories			
Media content production variables	22 years or less (%)	Above 22 years (%)	Total (%)
Creator of news stories?			
Reporters	130 (76.9)	99 (67.8)	229 (72.7)
Editors/photographers	39 (23.1)	47 (32.2)	86 (27.3)
Total	169 (100)	146 (100)	315 (100)
Contributed media content?			
Yes	87 (53.7)	81 (56.6)	168 (55.1)
No	75 (46.3)	62 (43.4)	137 (44.9)
Total	162 (100)	143 (100)	305 (100)
What have you contributed?			
Article/feature/letter to editor	20 (51.3)	41 (60.3)	61 (57.0)
Text/photo/video/audio clip on social media	15 (38.5)	26 (38.2)	41 (38.3)
Blog/reporting	4 (10.3)	1 (1.5)	5 (4.7)
Total	39 (36.4)	68 (63.6)	107 (100)

Additionally, (see Table 4) when news media content production was analyzed in the perspective of age categories, then it was observed first about the creators of news stories that those students who said that reporters are the creators of news stories amongst them the number of those who were just 22 years old or less in age 76.9 percent was higher than the fraction of those who were higher than 22 years old 67.8 percent. However, on the contrary, those who said that editors or photographers are the creators of news stories among them the fraction of those who were above than 22 years old 32.2 percent was higher than the fraction of those who were just 22 years old or less 23.1 percent. Hence, it was determined that on the standard the correct perception about the creators of news stories was bigger among those students who were just 22 years old than those who were above 22 years old.

Second, about contributing media content it was seen that those students who said that they contributed media content among them the quantity of those who were above than 22 years old 56.6 percent was bigger than the fraction of those who were just 22 years old 53.7 percent. Whereas conversely those who had not ever contributed any media content among them the quantity of those who was just 22 years old 46.3 percent was bigger than the proportion of those who were above than 22 years old 43.4 percent. Thus, it was found that on average the news media content contribution was greater among those students who were above 22 years old than those who were just 22 years old or less of age.

Third, regarding the type of content to be contributed, it was seen that those students who wrote articles, features, and letters to editors among them on normal the percentage of those who were above than 22 years old 60.3 percent was bigger than the quantity of those who was just 22 years old or less. And those students who created texts, photos, video or audio clips on social media among them on average the proportions of both who were just 22 years old 38.5 percent, and above 22 years old 38.2 percent were almost equal. However, conversely, for those students

who wrote blogs and did reporting among them on average the proportion of those who were just 22 years old 10.3 percent was bigger than the fraction of those who were above 22 years old 1.5 percent. Thus, it was observed the trend of contributing the articles, features, and letters to editors was greater amongst those students who were above 22 years old than those who were just 22 years old. Whereas the trend to contribute the texts, photos, videos or audio clips on social media on average was equal among the students of both categories who were either above 22 years old or just 22 years old. Lastly, the trend to contribute the blogs and doing reporting on average was bigger among those students who were just 22 years old than those who were above 22 years old.

Table 5. Distribution by news media content production and department

Department					
Media content production variables	Media (%)	I.R (%)	Political Sc. (%)	Sociology (%)	Total (%)
Creator of news stories?					
Reporters	104 (78.8)	52 (72.2)	43 (64.2)	78 (73.6)	277 (73.5)
Editors/photographers	28 (21.2)	20 (27.8)	24 (35.8)	28 (26.4)	100 (26.5)
Total	132 (100)	72 (100)	67 (100)	106 (100)	377 (100)
Contributed media content?					
Yes	106 (81.5)	24 (32.9)	34 (54.0)	45 (44.1)	209 (56.8)
No	24 (18.5)	49(67.1)	29 (46.0)	57 (55.9)	159 (43.2)
Total	130 (100)	73 (100)	63 (100)	102 (100)	368 (100)
What have you contributed?					
Article/feature/letter to editor	80 (60.2)	11 (40.7)	19 (51.4)	33 (62.3)	143 (57.2)
Text/ photo/video/ audio clip on social media	47 (35.3)	16 (59.3)	18 (48.6)	19 (35.8)	100 (40.0)
Blog/reporting	6 (4.5)	0 (0.0)	0 (0.0)	1 (1.9)	7 (100)
Total	133 (53.2)	27 (10.8)	37 (14.8)	53 (21.2)	250 (100)

[1.]X^2= 56.34, p < .000, DF = 3.

Analyzed news media content production in the context of the department (see Table 5) it was observed first, about creators of news stories that those students who said that reporters are the creators of news stories among them on average the proportion of those who studied media 78.8 percent was greater than the proportion of those who studied international relations, 72.2 percent, political science 64.2 percent, and sociology 73.6 percent. However, in the contrast to those who mentioned that editors and photographers are the creators of news stories among them on average the proportion of those who studied political science 35.8 percent was greater than the proportion of those who studied media 21.2 percent, international relations 27.8 percent, and sociology 26.4 percent. Hence, it was concluded that on average the correct perception about the creators of news stories was higher among those students who studied media than those who studied international relations, political science, and sociology.

Second, about contributing media content it was seen that those students who said that they contributed media content among them the proportion of those who studied media 81.5 percent was greater than the proportion of those who studied international relations 32.9 percent political science 54.0 percent, and sociology 44.1 percent. However, on the contrary, those who said that they had not ever contributed any media content among them on average the proportion of those who studied international relations 67.1 percent, was bigger than the proportion of those who studied media 18.5 percent, political science 46.0 percent, and sociology 55.9 percent. In this way, it was found that on average the contribution of media content was greater amongst those students who studied media than those who studied international relations, political science, and sociology.

Third, about the type of content to be contributed, it was observed that those students who wrote articles, features, and letters to editors among them on average the proportion of those who studied sociology 62.3 percent was higher than the proportion of those who studied media 60.2 percent, international relations 40.7 percent, and political science 51.4 percent. And those students who created texts, photos, video or audio clips on social media among them on average

the proportion of those who studied international relations 59.3 percent was greater than the proportion of those who studied media 35.3 percent, political science 48.6 percent, and sociology 35.8 percent. Whereas, the students who wrote blogs, and did reporting for media among them on average the proportion of those who studied media 4.5 percent was bigger than the proportion of those who studied international relations 0.0 percent, political science 0.0 percent, and sociology 1.9 percent.

Thus, it was concluded that on average the contribution of articles, features, and letters to editors was higher among those students who studied sociology than those who studied media, international relations, and political science. And the contribution of texts, photos, video, or audio clips on social media on average was higher among those students who studied international relations than those who studied media, sociology, and political science. Whereas, the contribution of blogs, and doing reporting for media on average was higher among those students who studied media than those who were enrolled in sociology, international relations, and political science.

5. Conclusion

Overall, the great majority of the surveyed university students were found to have correct knowledge that the key role in the production of a news story is performed by a reporter. Moreover, the surveyed students revealed that they contributed content for media organizations particularly for traditional media in the content genres like articles, features, and writing letters to the editors. However, the second-highest chunk of the students mentioned that they contributed to social media in the form of texts, photos, audio, and video clips as well.

Moreover, in gender context, the knowledge about news story creator and the trend of content contribution was found higher among the male students compared with the female students. It was also observed that male students mostly contributed articles, features, letters to editors and blogs. However, on the contrary, the female university students on average contributed more on social media in the form of creating text, and uploading photos, video, and audio clips.

In the age context, the correct perception about news story creators was higher among those university students who were just 22 years old than those who were above 22 years old. Whereas media content was contributed more by those who were above than 22 years old; similarly, articles, features, and letters to editors were also contributed more by those who were above than 22 years old. As far as uploading texts, photos, videos, or audio clips on social media is concerned then it was found that such content was contributed equally by both categories of university students. However, blogging and reporting were practiced more by those students who were just 22 years old.

About the department, it surfaced that the accurate knowledge regarding news story creators on average was higher among those university students who studied in the department of media or mass communication. Similarly, on average, the media content was also contributed more by those who studied the discipline of media or mass communication. Media students particularly contributed more to the form of blogging and reporting. Whereas the students who studied sociology contributed more articles, features, and letters to editors. And lastly, the contribution in the form of uploading texts, photos, video, and audio clips on social media on average was made more by those who studied the discipline of international relations.

6. Acknowledgements

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International Journal of Media and Information Literacy: Five-year Anniversary

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Abstract

In June 2021, the International Journal of Media and Information Literacy celebrated its fifth anniversary and has come a long way from being a completely unknown publication in Europe and the world to becoming a prestigious journal indexed in Scopus (Q3) that publishes authors from dozens of countries around the world. This review article is devoted to the most significant areas of publication activity of this journal, its most characteristic trends and topics.

The Journal's fifth anniversary is a good occasion to remember how it began and how it developed. Already in the first issues of the journal it became apparent that the leading researchers in the field of media education are interested in it. For example, American professor Art Silverblatt, author of several editions of *Media Literacy*, wrote that "Information Literacy applies critical thinking skills to the assessment of Information. Media Literacy is a critical thinking skill that is applied to the source of most of our information – the channels of mass communication" (Silverblatt, 2016: 55). We think that this provision can be called key to the general concept of the *International Journal of Media and Information Literacy*.

Keywords: media and information literacy, journal, media message, media text, media culture, mediation, media literacy education, media studies.

1. Introduction

In June 2021, the *International Journal of Media and Information Literacy* celebrated its fifth anniversary and has come a long way from being a completely unknown publication in Europe and the world to becoming a prestigious journal indexed in Scopus (Q3) that publishes authors from dozens of countries around the world. This review article is devoted to the most significant areas of publication activity of this journal, its most characteristic trends and topics.

The Journal's fifth anniversary is a good occasion to remember how it began and how it developed. Already in the first issues of the journal it became apparent that the leading researchers in the field of media education are interested in it. For example, American professor Art Silverblatt, author of several editions of *Media Literacy* (Silverblatt, 2014), wrote that "Information Literacy applies critical thinking skills to the assessment of Information. Media Literacy is a critical thinking skill that is applied to the source of most of our information – the channels of mass communication" (Silverblatt, 2016: 55). We think that this provision can be called key to the general concept of the *International Journal of Media and Information Literacy*.

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2. Materials and methods

Materials of this article are articles on media and information literacy, published in *International Journal of Media and Information Literacy*. The research is based on the content analysis and comparative approaches, analysis of academic articles, generalization and classification.

3. Discussion and results

In recent years, UNESCO (UNESCO, 2011; 2013; 2015; 2020) has concentrated its organizational and publishing efforts to bring together information literacy and media educators around the world.

In this sense, I think, the *International Journal of Media and Information Literacy* appeared at the right time, exactly when the unifying ideas of UNESCO were in demand all over the world.

For example Art Silverblatt wrote that "media have become so pervasive throughout the globe that the ability to decipher messages conveyed through the media has become a 21st century survival skill. ... International Media Literacy focuses on what members of the media literacy community can learn from one another with regard to media literacy principles, concepts, programs, and strategies. Media literacy scholars apply those strategies that most effectively approach the study of media and media presentations in their cultures. Within this context, it can be useful to identify the media literacy principles, concepts, and approaches that are most effective in particular cultures. Further, it can be useful to consider other media literacy approaches that might offer a fresh perspective into that country's media and media presentations" (Silverblatt, 2018: 30).

We agree with Art Silverblatt: "The ability to develop a critical distance from the messages being conveyed through the channels of mass communication is of vital importance. However, the value of Media Literacy education extends beyond media analysis, furnishing critical thinking skills for people who are in danger of losing the ability to come to independent conclusions based on the systematic assessment of evidence. ... What determines the validity of an analysis is the following: 1) the systematic application media literacy methodologies; and 2) the contentions must be supported with concrete examples (e.g., television episodes, films, and social media threads). Instead, the discipline of Media Literacy furnishes individuals with the skills to develop an independence of thought so necessary to the survival of democracy" (Silverblatt, 2018: 66).

At the same time, W. James Potter and Chan Thai believe that "while there are a many definitions of media literacy, the existing definitions typically cluster around highlighting several components, especially skills and knowledge but also behaviors and affects. To a lesser extent there is a clustering around certain domains of skills and particular domains of knowledge. But at this point the conceptualizations stop providing detail, and this inadequate degree of specificity in the explication of media literacy requires researchers to fill in conceptual gaps in order to design their measures. The gaps have resulted in the design of a great many measures of questionable validity, which sets up a vicious cycle. Researchers who want to design a test of media literacy go to the literature for guidance, however that literature shows them an overwhelming choice of definitions with no single definition being regarded as the most useful one. Even more problematic is that none of the many definitions provides enough detail to guide researchers very far through the process of designing measures of media literacy. Until more fully explicated definitions of media literacy are offered to scholars, researchers will be left with little guidance, which will result in the continuation of inadequate conceptual foundations for their empirical studies and therefore a fuzzy and incomplete foundation to use as a standard for judging the validity of their measures" (Potter, Thai, 2016: 27).

We found the results of studies concerning a study into the skills of using data verification tools as a media information literacy instrument for university students (Lebid et al., 2020: 184-190) and cultivating the skills of systems thinking in the context of fostering the basic and professional competencies associated with media education and media literacy (Lebid, Shevchenko, 2020: 60-68).

Thanks to the international composition of the authors of this scholarly journal, readers can gain insight into how information and media literacy education is evolving in countries such as Algeria (Aboulkacem et al., 2018), Bulgaria (Nedelcheva, 2018; Tsvetkova, 2016), Canada (Rother, 2016), China: Hong Kong (Cheung, 2017; Cheung, Connie, 2017; Cheung, Wu, 2018; Ko-Wai Tang,

2018; Tang, 2018), Georgia (Levitskaya, Seliverstova, 2020), Ghana (Sarfo, Ansah, 2020), Hungary (Szíjártó, 2017), Montenegro (Cortoni, 2017), Morocco (Hattani, 2016), Nicaragua (Camarero, Varona, 2016), Nigeria (Anumudu, Ibrahim, 2020), Oman (Segumpan et al., 2017), Pakistan (Khuhro, Shoukat, 2020; Umrani et al., 2019), Russia (Balina et al., 2020; Chelysheva, Mikhaleva, 2017; 2020; Fedorov, Levitskaya, 2017; Gorelova, Khilko, 2020; Kamyshanova et al., 2020; Kazakov, 2017; Khlyzova, 2019; Mikhaleva, 2016; 2019; Tselykh, 2019; Vziatysheva, 2020), Saudi Arabia (Hattani, 2016), Slovakia (Čábyová et al., 2020; Petranova, Vrabec, 2016), Sub-Saharan African countries (Alemayehu, 2020), Thailand (Karuchit, 2016), Ukraine (Kitsa et al., 2020; Slavko et al., 2020), USA (Potter, Thai, 2016; Silverblatt, 2016; 2018), Uzbekistan (Chelysheva, 2019).

The authors of the *International Journal of Media and Information Literacy* attach great importance to the topics of typology and mechanisms of media manipulation (Levitskaya, Fedorov, 2020: 69-78).

An significant part of the journal's publications is devoted to the problems of media culture – the Internet, cinema, television, etc. (Fedorov, 2016; 2017; Gorbatkova, Levitskaya, 2018; Kayal, Seena, 2019; Naeem et al., 2020; Nedelcheva, 2018; Sabah et al., 2020; Salny, 2019; Srivastav, Rai, 2019; Szíjártó, 2017; Tselykh, 2020; Umrani et al., 2019; Zaidi et al, 2020).

The journal could not be more responsive to current events related to the pandemic and how media education is conducted in the face of the risk of COVID-19 infection (Alemayehu, 2020; Anumudu, Ibrahim, 2020; Cifuentes-Faura, 2020; Sarfo, Ansah, 2020).

4. Conclusion

Our analysis of the article of the *International Journal of Media and Information Literacy* has enabled us to identify the following current trends:

- In almost every country in the world, researchers and educators are concluding that media and information literacy is a necessary and vital component of human competence;

- UNESCO's concept of combining the fields of information literacy and media education is gaining more and more supporters;

- In recent years, the attention of researchers to the problem of media manipulation, fakes, and the development of technologies to counteract negative media influences has increased;

- The pandemic has left its mark on the development of the information and media literacy movement, but even under quarantine and online education, MIL continues to develop.

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YouTube as a New Culture in Indonesia : The Construction of Gender Role in the Lens of the Circuit of Culture

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Abstract

This study explores the construction of gender roles performed in The Irvandi's YouTube channel. By deploying cultural studies approach and working within the framework of the circuit of culture by Stuart Hall, this study aims to show how gender role is regulated, produced, consumed, and represented, which then constructs Indonesian women's identity. The result shows that the gender role is regulated through religion by which Islamic teachings are applied in her daily life and the social construction rooted within the patriarchal ideology. Next, the video's content is produced as the content creator accepts the gender roles tightly related to the regulation. Further, the video is consumed by its viewer where power, ideology, gender, and social class have shaped each other. Within its consumption, the video reveals the gender stereotyping and brings the effect of empowering women. As an interrelated element, the circuit of culture represents Indonesian women as ideal Muslim women (shaleha). The identity of women in the video is constructed through representation. She constructs her identity as a religious woman and *shaleha*. Besides, showing viewers where she usually buys home furnishing products indicates that she shows her middle social class. In conclusion, YouTube has become a new culture in Indonesia and has created an Islamic cultural industry as the content is presenting a series of images, practices, and religious values which is marketed especially to Muslim women. Then, this kind of YouTube video is re-strengthening and re-emphasizing the role of women in the family. The differentiation of roles between men and women is reconstructed and reproduced within this online video sharing platform.

Keywords: YouTube, culture, media, circuit, Indonesian muslim women, gender role, religion.

1. Introduction

The popularity of YouTube in Indonesia has inspired people to produce various content of videos and upload them within this platform. On YouTube, people can share vlogs, music videos, DIY's (Do It Yourself), skits, live shows, and many more (Zanatta, 2017). According to C. Chau (Chau, 2010), YouTube is an online platform in which people can share and broadcast the content. He said that this is a combination of media production and distribution with the features of social networking. This is such an ideal venue to create, connect, collaborate, and circulate something personal. Further, M.L. Khan (Khan, 2017) stated that online behavioral engagement on YouTube is manifested through the way people like, dislike, comment, share, and upload videos. These five actions are seemingly important for the content creator.

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All people can easily become producers for their videos and have a private channel to navigate themselves. It seems that YouTube serves as an attractive platform for amateur content creators and media companies (Burgess, Green, 2018; Xu et al., 2016). The other professions, organizations, and institutions such as politicians, news organizations, education institutes, businesses, music and film artists, and all people from any background are using YouTube (Khan, 2017). This cultural practice, of course, has its purposed. M.L. Khan (Khan, 2017) said that this online platform aims to undergo social interaction, give information, spread the news, and entertain people. Further, P.G. Lange (Lange, 2019) said that sharing videos on YouTube is a way of maintaining social networking. Video could serve as a forum for sharing stories and experiences (Davis et al., 2015).

According to R. Gehl (Gehl, 2009), in this digital age, YouTube highlighted a particular desire as it found a great number of its contents. It has increasingly attracted and tempted people to play with their creativity and become producers for their videos. It is no wonder that hundreds, even thousands, or millions of people worldwide are trying to create content based on their interests, hobbies, and preferences. "Broadcast yourself", however, seems to be the ideal slogan for YouTube (Stiegler, 2009). It is widely known that content creators or commonly called YouTubers, get paid when they reach certain viewers. Plenty of potentials and rewards come with the development of the YouTube channel (Holmbom, 2015). It indicates that capitalism is also playing within this cultural practice. R. Gehl (Gehl, 2009) stated that the evolution of YouTube is somehow inevitable, just like preceding media technologies as it has developed in capitalism. With the temptation of capitalism, it is understandable that YouTube is the fastest-growing site in history (Snickars, Vonderau, 2009).

In Indonesia, people try to engage with this online platform including Indonesian Muslim women. There are many videos created which contents are sharing their personal life, such as doing daily routines, cleaning the house, cooking, taking care of babies, pregnancy moment, childbirth, and many more. On one side, these activities seem to be very private, and people will not know those things to be seen by others. On the other side, people may see these as something common to be performed in public video sharing by which hundreds even thousands of people see their activity. Indonesian women become active participants on YouTube since they have regularly uploaded the videos every day or once a week or at least once a month. Here we see how important it is to share private life, and then it is becoming public consumption. There are plenty of reasons why Indonesian women create videos with such content and upload them to YouTube. They may think that their works on videos are simply about creativity or merely because they love to do so. They may also run their creation for business and earning money. However, we argue that all the activities are not as natural as it is, the works of the content creator on YouTube is an ideological cultural practice. Sharing daily routines such as cleaning the house, cooking, and taking care of babies brings the issues of women, gender, religion, patriarchal ideology, and capitalism. More than that, the actions that the content creator expected, such as like, share, comment, and subscribe have indicated multiple exegeses concerning social, economic, politic, culture, and religion.

One of the YouTube channels which have such content is The Irvandi's Home. This video was published on May 9, 2020, entitled *Beres-Beres Rumah* & *Bersih Bersih Rumah*|Aesthetic Minimalis| Clean up with Me|Cleaning Motivation. An Indonesian Muslim woman presented the video. Within the video, the content creator is stressing her role as a wife and a mother. Here, we see that the text is re-emphasizing the gender role, which tightly relates to Islamic teaching. As the media used to share is YouTube, which is labeling as the fastest-growing company and running the business, it is interesting to see how this kind of cultural practice has participated within the mainstream media. YouTube has become a new platform for Indonesian women to share their domestic matters, mostly in traditional media such as television programs, television advertisements, magazines, and many more. This kind of YouTube channel combines cultural practice, religion, and capitalism. Thus, this becomes the Islamic cultural industry when powers control human activities, including participation on YouTube. As the video highlights the role of women in the family, then gender role is the focus of this research. Considering her active participation on YouTube, which regularly uploads her contents, having 2.449.122 viewers and 22.400 subscribers becoming the reason why this video channel is chosen as the corpus of analysis.

To have a deep understanding on religion in relation to capitalism, the concept of Circuit of Culture by Stuart Hall is used. The Circuit of Culture has five interrelated elements: representation, regulation, production, consumption, and identity. As a circuit, these five elements are flexible on

what is becoming the first. It can start with the discussion of regulation or production depending on the researcher's being seen first. The circuit of culture stressed those five elements and the interrelated articulations (Cahyo, 2017; Hall et al., 2013; Leve, 2012; Mora et al., 2019).

In exploring the study on YouTube, it is important to see how other scholars were doing such a thing. Here, we highlight three contemporary pieces of research related to this work. First, Lange's research entitles *Publicly Private and Privately Public: Social Networking on YouTube,* published by Springer in 2019. P.G. Lange (Lange, 2019) analyzed how the content creator on YouTube can develop and maintain social networking. This study showed that circulating and sharing videos on YouTube reflected different social relationships among youth.

Second, the research of Zanatta entitles *Understanding YouTube Culture and How It Affects Today's Media* published in 2017. In her research, J. Zanatta (Zanatta, 2017) emphasized that YouTube culture has a significant role in shaping society. More than that, it impacted the media as well. Further, she said that YouTube had influenced the younger generation and Millennials because of the history and the evolution of YouTube, the approach of its business and marketing, and the influence of education.

Third, Khan's research entitles *Social media engagement: What motivates user participation and consumption on YouTube?* It was published in 2017. In his research, M.L. Khan (Khan, 2017) extended the understanding of engagement participation and consumption behavior on YouTube. He revealed that the users of YouTube have various motives such as entertainment motive and social interaction motive for the active participant of YouTube. Meanwhile, it was an information-seeking motive for passive consumption.

Based on the previous works, those studies did not explore the cultural view that is incredibly important to understand the cultural phenomena like the emergence of content creators on YouTube and what is being shared. This study then advances the cultural sight of human behavior on YouTube as they actively upload and share their personal life. Here, by highlighting the language used by the content creator when sharing the daily routines on YouTube. Cultural studies enable a researcher to see the meaning of cultural practices through language. A cultural studies approach provides a lens to understand the meaning of cultural practice as content creators share it on YouTube. Moreover, the circuit of culture emphasizes the production, representation, consumption, regulation, and identity to understand the meaning of cultural practices and to represent the processes by which meaning is constructed within cultures (Hall, 1997). The circuit of culture combines the interrelated elements of representation, production, identity, regulation, and consumption as an inseparable process that investigates cultural phenomena (Hall et al., 2013).

By deploying a cultural studies approach and working within the framework of the circuit of culture, this study aims to explore the multiple interrelated processes involved in the video created by the content creator of YouTube, which tightly related gender, religion, patriarchal ideology, and capitalism. This study addresses the research questions; how does the circuit of culture view the gender role performed on The Irvandi's Home YouTube Channel?

2. Materials and methods

This research method is descriptive qualitative by exploring the YouTube video channel named The Irvandi's Home, entitle *Beres-Beres Rumah* & *Bersih Bersih Rumah*|Aesthetic Minimalis|Clean up with Me|Cleaning Motivation. The data analysis is collected by watching the video with a critical understanding of gender roles and focusing on the content creator's language when presenting the daily routines. To explore, analyze and understand more deeply about this cultural practice, we attempt to deploy a cultural studies approach and work within the framework of the circuit of culture by Stuart Hall. The circuit emphasizes the production, representation, consumption, regulation, and identity to understand the meaning of cultural practices and to represent the processes by which meaning is constructed within cultures (Hall, 1997). To investigate the video's content, the circuit of culture then understands the circulated meaning within the culture. The discussion of this research starts with the regulation, followed by the production, consumption, representation, and identity as an interrelated element in the circuit of culture. The circuit reveals the representation of the cultural artifact or practice, the social identity, the production, the consumption, and the mechanism of regulation and distribution (Cahyo, 2017; Mora et al., 2019).

3. Discussion

This study explored five interrelated elements of the Circuit of Culture on a female content creator on YouTube Channel named Irvandi's home. She is a mom of two children, a Muslim woman who wears a hijab, a housewife, and an active participant on YouTube as she regularly uploads the videos on her YouTube channel. In the video's caption, the content creator wrote that she is cleaning the house, children's bedroom, living room, and loving cleaning the furniture from IKEA as the stuff is washable. She added that in this video, she shares her parenting experience for her children. At the end of the caption, she wrote happy watching mom and thanks viewers (The Irvandi's Home, 2020).
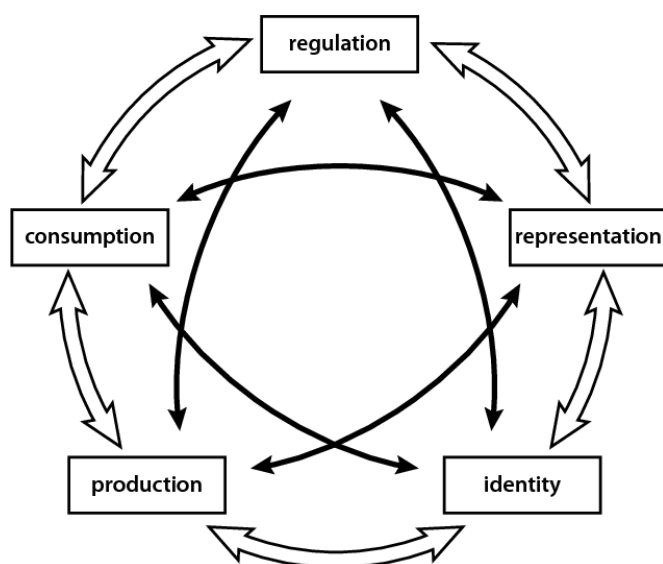
Fig. 1. Circuit of Culture (Hall, 1997)

By focusing on gender role in relation to religion and capitalism, the discussion of the circuit of culture starts with the regulation that inspires the content creator to do their daily routines, then the discussion of production influenced by the regulation. The third discussion is about consumption. Then the consumption which is incredibly important to see the representation. Lastly, based on the representation presented in the video reveal the identity construction of Indonesian Muslim women.

Regulation

According to Z. Sarabia-Panol and M.D. Sison, regulation consists of formal and informal control that runs social norms, technology, and institutional, including economic, religion, and political systems (Sarabia-Panol, Sison, 2013). For more understanding, formal control alludes to officially authorized regulation instruments such as composed rules, standard operating systems; meanwhile, informal control is unwritten, unofficial, and less objective (Kreutzer et al., 2016).

Talking about women's roles in the family, particularly in Indonesia, is highly related to the religion and social norm, including the differentiation of roles between men and women. For instance, the Quranic verses Surah An-Nissa verse 34, Surah Al-Ahzab verse 33, and some Hadiths written the obligation of women (wife) to her husband. The Islamic teaching attached to the Quranic verse and Hadits is particularly to invite women to be obedient to her husband and do anything based on her husband's permission. In Islam, women are suggested to service husbands, including household and taking care of the babies. The religious teaching is then becoming guidance in every social interaction (Moghissi, 2002).

Next, in Indonesia, the social construction of gender put women in the domestic area. All attributes supposed to be appropriate for women are also influenced by religious tenets, subsequently becoming social norms and cultures. Gender, which is socially and culturally constructed for a very long time, has made women stay with society's social norm. Moreover, gender has made the differentiation of roles, positions, responsibilities, and division of labor between men and women on the nature of women and men, and deemed appropriate according to norms, customs, beliefs, or habits of the community (Molony, 2020).

Thus, the combination of Islamic teaching and social constructions leads women to produce activity. The content creator is sharing her daily routines concerning her role as a wife a mother. The following text describes how religion and social construction have placed women in domestic matters:

"The plan anyway I want to continue cleaning up the house. Clean up starting from the child's room first, this was the children already finished the condition like this mam. Well, this is your husband's workplace, mam is still a mess, so I will continue to clean up after the nursery. well then this is my living room too mam mess Let's go see the other room, Mam, the chair where there are clothes like that, yes, the child's toys are still there too. Now, this condition there is a husband's wallet, the narration anywhere even though already given a place with me. Well, and then there is the bread that hasn't been put in place, mom, it's a mess. Then in the kitchen, I was still in a mess. I was sleepy, so I didn't clean up first. Now, I want to clean up everything. So now we start Yes, I cleaned the stove first because I want to boil Mam's potatoes for later. Potatoes that want to make potato balls so use cheese mam" (The Irvandi's Home, 2020).

The text above talks about the daily routine of a woman who must clean up the house, including the husband's workspace, taking care of children, and cooking. Those activities are conducted based on the regulation which is internalized in the mind of the women. In Indonesia, religion is the most influential factor for women to run their roles as wives and mothers. Indonesia has the largest Muslim population seeing the conventional interpretations of Islam by emphasizing women's roles as wives and mothers. Also, the content creator is a Muslim woman, and she knows that Islam teaches married women to obey and give services to her husband. Then, cleaning the house, cooking, and taking care of babies is the production by which regulations are attached. The social construction that has been long rooted in Indonesia makes domestic matters solely the women's duties.

Through the concept of regulation applied to this research, this is increasingly acknowledged that Islamic teaching and gender as socially and culturally constructed play an important role in designing and producing the YouTube content that shares Indonesian Muslim women's domestic duties. Moreover, religion and social construction hold power over woman behavior.

Production

The production within this study means the cultural practice which the content creator presents on her YouTube channel. The video is produced as she has a real situation and real obligation in her family, especially in her role as a wife and mother. The family's role then creates these practices, cleaning the house, taking care of children, cooking, and other domestic duties. As the circuit of culture is highlighted in the interrelated elements within it, this production is influenced by society's regulation and the religion that play an important role in shaping the women in society. In Indonesia, which patriarchal ideology is also strong and the social norm, it has put women in strong thought about becoming a good wife and a good mother. Becoming *Shaleha* (modest, pious, and obedient to Allah) is ideal for describing Muslim women in Indonesia.

According to Du Gay in A.M. Leve (Leve, 2012), in the late modern societies, the economy and the culture are categorized as a hybrid that is irrevocable. She said what people think of as purely economic processes and practices are cultural phenomena. Here in this study, the cultural practice has the meaning of economic practices. The content creator is trying to produce an economically successful product which the platform is YouTube which is recognized as the fastest growing business today. By saying please press the like button, share, comment, and subscribes represented the aims of creating the video.

"All moms can support me by subscribing like comments and sharing as much as possible must be clicked yes mam the red button that says subscribe has finished then the bell button is activated so that all can get notifications from me when I make a new video Thank you for watching mom see you on my next video. Assalamualaikum" (The Irvandi's Home, 2020).

The content creator produces an economically successful product by which cultural meanings, norms, beliefs, and values are considered. The cultural economy seems the most appropriate to describe the cultural phenomena when YouTube is now becoming a favorite platform to share their activities. The actions ask such as subscribes, likes, comments, and shares by the content creator are solely economic. Gaining more viewers means gaining more benefits for

the content creator. In this production, economic practices are a cultural practice that is becoming a hybrid (Boxman-Shabtai, 2019).

Thus, the video content on YouTube, which shares women's domestic duties and highlights the women's role in the family, has become the Islamic cultural industry when series of images, practices, religious values are marketed especially to Muslim women. Both the producer (content creator) and the viewers are likely to be active participants either as producers or consumers. Further, this kind of YouTube channel is becoming persuasive media messages that will influence the viewers on women's role in the society, as YouTube is a new media that also has its power to impart the ideological and patriarchal messages (Fourie, 2001). For these reasons, YouTube channel with such video is reconstructed, reproduced, and re-emphasized the existing patriarchal ideologies which have been long rooted in Indonesian culture. Then the Islamic teaching is strengthened its practice in society.

Consumption

In the article: Within a cultural studies framework, consumption refers to more than the acquisition, use, and divestment of goods and services. Consumption represents a site where power, ideology, gender, and social class circulate and shape one another. Consumption involves studying particular moments, negotiations, representational formats, and rituals in the social life of a commodity. Consumers' consumption of cultural objects can empower, demean, disenfranchise, liberate, essentialize, and stereotype. Consumers are trapped within a hegemonic marketplace (Denzin, 2001; Leve, 2012: 123).

From the understanding of consumption, it is obvious that consumption here is a certain circulation by which power, ideology, gender, and social class have shaped each other. The second key is that the consumer's consumption of one cultural artifact or cultural practice will be empowering, demeaning, revoking suffrage, freeing, essentializing, and stereotyping.

In this study, the notion of consumption refers to the YouTube viewer and their involvement in video-sharing by the content creator through actions such as like, share, subscribe, and the comments available on YouTube. Those who gain the information on the YouTube Channel are considered active consumers interested in such video content.

In this study, power, ideology, gender, and social class shaped each other within consumption recall the patriarchal ideology that put women under the control of men. The patriarchal practice is addressed to women's position in the society, which runs domestic matters only (Asri, Hayati, 2019). This ideology also places women as if she is the only one responsible for any domestic duties. Walby (1989) has shown the two forms of patriarchy, private and public. Private patriarchy refers to the household area or private space such as family and religion. Meanwhile, public patriarchy highlights the wider expansion such as a country. If private patriarchy focuses the power on an individual or a men hand, then the public patriarchy aims to show collective hands' power (Asri, Hayati, 2019).

Further, gender stereotyping is reshaping this video and re-emphasizing women who always stay in the domestic area. This stereotype is also influenced by religion which teaches Muslim women to be *shaleha*. Then, the social construction leads to the identification of Indonesian women as good Muslim where Islamic teaching is always embraced and considered in their daily actions.

This content empowers women to keep their spirit when doing all domestic duties regarding the key consumption that brings effects such as empowering, stereotyping, and others. This can be seen from the comment of the viewers by responding: *"Waalaikumsalam, keep your spirit up, Masya Allah, mom, but why do you clean it up, aren't you sleepy? It's time to rest bun, it's amazing mom, the spirit is really clean".* Another comment said keep spirit mom and many more.

Here, the viewers or the consumers keep giving spirit to the content creator, who is always doing domestic duties. Then this indicates the consumption is empowering. Further, as in the whole script of the content creator, she keeps addressing her video for moms. The channel has 2.449.122 viewers and 22.400 subscribers, and most viewers are all women who have the same routines as her. Many of them are giving comments on her video. It means that the content creator has a targeted market on her YouTube Channel. As one of the media, YouTube presents social reality in other media communication (Novianti, Fatonah, 2019). The viewers as a consumer here are essentializing with the women's task as they see on YouTube. Then, the stereotype of a good wife and a good mother also emerges within this study's consumption.

We can say that the content creator tries to establish a business on YouTube that combines economic and religious motives. She engaged in the creation, labeling, and advertising of the objects, narratives, representations, and performances of Muslim womanhood that combine Islamic teachings and practices with the conceptions of piety and motherhood. B. Gökarıksel and E. McLarney demonstrated that Muslim women had been identified as a segmented market with certain needs and desires, and for the most part, ascribed to an essentialized Muslimness (Gökarıksel & McLarney, 2010).

Representation

The exploration of the circuit of culture (regulation, production, and consumption) of the YouTube video brings the representation of Indonesian Muslim women as the content creator presents it on her YouTube channel. Representation is a process by which meaning is produced and share within communities (Hall, 1997). The representation is working through representation systems, thought, and language. To reveal the representation of the YouTube Video by which daily routines of women are shared, seen on the following expression:

"Sometimes I have to take a deep breath first when seeing the mess, mam, but if we want to take the lessons (hikmah); doing this every day, Alhamdulillah, I can train my children for their good habits" (The Irvandi's Home, 2020).

The quotation found the words *hikmah* and *Alhamdulillah* indicated that she described herself as a religious person. Becoming a good wife and a good mother also means becoming Islamic. Within the video, the content creator keeps saying Islamic words from the beginning until the end of the video, such as *Assalamualaikum, Alhamdulillah, Inshaallah*, and many more. The words she said indicated her closeness to religion. Another quotation:

"Alhamdulillah, there is not much dust, if we often clean it like this, so now I clean it more quickly... So, this is the result, Alhamdulillah, it's already neat, it's clean, OK, so I'm even more excited about cleaning in other areas... Well this is the guest room after cleaning. Alhamdulillah, it looks different, just by changing the room decoration a little, I used the flower from the TV shelf and the pot keeps changing, so it looks different, mam yes" (The Irvandi's Home, 2020).

Through the language she used, she tries to describe herself as a religious person who always remembers Allah in every activity. In Islam, these words are called *Kalimah Toyyibah* or good sayings. *Alhamdulillah* (all praises to Allah) is suggested to mention when people reach achievement, finish doing things, being healthy, get prosperity and many good things happen in life. Language enables thought, ideas, and feeling to be represented in a culture (Hall, 1997). As a result, this representation produces culture, in this sense, Islamic culture.

Another indication that the content creator is religious found in the following quotation:

"So, if I put the prayer mat here, Mam. Alhamdulillah, this is a small place, but it has a lot of capacity, it can also accommodate 5 as wide as it is Mam, it keeps looking neat, mom does not look like that" (The Irvandi's Home, 2020).

By showing the prayer mate which is used to pray is also becoming a clear sign that she regularly does her obligation as a Muslim by worshiping Allah. The investigation of what the content creator said when delivering her content reveals Indonesian women who are religious and *shaleha*. *Shaleha* is frequently addressed to the ideal Muslim women. People's perception of reality is seen through language use (Govender et al., 2014). Here, the perception is the real good wife and mother. As the video is sharing the daily routine of an Indonesian Muslim Woman, it is obvious that a good woman always does the obligation by which it is socially constructed. More than that, religion or Islamic teaching also play an important role in representing Indonesian Muslim women. In this study, the representation is closely tied up with identity.

Identity

Like the circuit, women's representation through video sharing on YouTube flatform has led to identity construction. Representation is closely related to the contestation area in which power is dominant, both constructing identity and stereotype. S. Hall (Hall, 1997) has shown the stereotyping tends to reduce, irritate, experience, and insulate differences. Political power catch on cultural representation. The power of religion and patriarchal ideology seems to be the strongest element representing Indonesian women's identity.

Dijck (Van Dijck, 2007) argues that the authorship of the YouTube video supports personal agency and creativity. Through the video, both are made and delivered by the owner of the video (McRoberts et al., 2016). The Irvandi's Home, as the content creator, articulates her identity as an Indonesian woman who is religious and *shaleha*. This is in line with the previous study that

media represented Indonesian Muslim women as a good wife or s*haleha* (Rosida, Wulansari, 2017). Further, as one of the media today, YouTube has a great deal in producing meaning (Rosida, 2019). The meaning is produced through the language she used when presenting her video and has shown her identity as an Indonesian Muslim woman.

Besides representing her identity as a good Muslim woman, the social class is also revealed as she mentions brand equity, particularly the shopping mall where she usually buys the furniture and home furnishing:

"So, I want to move the boxes here, Mam, there are boxes for food, so there are also clothes that I bought from IKEA, Mam. Well, this is goat's milk, which is called good fit, before I reviewed this milk, here I will give you the link above, mom" (The Irvandi's Home, 2020).

It is common for a woman to shop the groceries, furniture, and other need. What is being highlighted from the text above is the content creator mention IKEA, the furniture and home furnishing company established first in Sweden. The store, for the first time, opened in Indonesia in 2014. Since its opening, it has gained success as it becomes a reference for Indonesian to shop for furniture and home furnishing. IKEA's main target is family and children, followed the other target such as office, teenagers, and all categories.

Regarding the content creator that mentions IKEA within her video is a kind of articulation of her social class identity. Then, social identity is closely related to where she usually buys pieces of stuff. By shopping in certain brand equity, the content creator impliedly articulates her social class that she is middle social class.

The World Bank reported that Indonesia's economy had grown so fast, and the Indonesian middle class has led the economic growth as the group's consumption has grown, which is half taken from household consumption (The World Bank, 2020). As society has a financial increase, the level of social status has changed. The ability to buy the product and join in consumption is a clear sign of economic growth. Buying a certain product in a certain store indicated the stuff which is affordable for her. The content creator writes in the video description that she is cleaning the house, children's bedroom, living room and she said loving the furniture from IKEA as the stuff is washable. Loving the furniture from the famous brand equity is connected to social class relations. Consuming commodities with specific brand naming is how she constructs her social class identity (Zajda, 2021).

Through the exploration of regulation, production, consumption, and representation, the circuit of culture by which each element is interrelated has led the identity construction. The content creator constructs her identity as an Indonesian Muslim woman from the middle social class within the video. The language she uses when presenting the video helps the researcher reveal the meaning as it shares a thought, ideas, feelings, shopping preferences, and many more.

The analysis of the circuit of culture, which specifically focuses on gender role in Indonesia as presented on YouTube, has given the meaning of the cultural practice when daily routines or all domestic matters are presented in the media. This practice seems to be natural, but in the cultural studies lens, this kind of practice reveals the meaning connected to the power, ideologies, religion, capitalism, and social class (Barker, 2003).

4. Results

By using the concept of the circuit of culture, we have explored how the gender role is regulated, produced, consumed, and represented, which then constructs the Identity of Indonesian women as it is performed in The Irvandi's Home YouTube channel. The result shows that the gender role is regulated through religion by which Islamic teachings are applied in every activity that women do. Then, the social construction which rooted within the patriarchal ideology. Next, the gender role is produced by the content creator as she accepted the gender roles which tightly relate to regulation. Further, the video is consumed by its viewer where power, ideology, gender, and social class shaped each other, and the root is the patriarchal ideology and within its consumption. The video reveals the gender stereotyping and brings the effect of empowering women who have the same experience. As an interrelated element, the circuit of culture represents Indonesian women as ideal Muslim women (*shaleha*). The identity of the woman in the video is constructed through the representation. She constructs her identity as a religious woman and becoming *shaleha*. Besides, showing viewers where she usually buys home furnishing products indicates that she shows her social class identity.

5. Conclusion

Due to its massive production, YouTube is now becoming a new culture in Indonesia. For women, in particular, this media has become a new platform for them to share their daily life, which brings the issues of women, gender, religion, patriarchal ideology, and capitalism. In Indonesia, both religion and social construction have the strongest role in shaping their identity as women. *Shaleha* is seemingly appropriate to describe Indonesian women's identity in which Islam and its religious tenet are becoming their consideration for every step they make and for every action they do. Besides, the YouTube channel is a kind of Islamic cultural industry. The content presents the series of images, practices, and religious values marketed, especially Muslim women. Then, this kind of YouTube video is re-strengthening and re-emphasizing the role of women in the family. The differentiation of roles between men and women is reconstructed and reproduced within this online video sharing platform. For further study, this kind of YouTube content can be investigated using other theories such as power relations by Michael Foucault, feminist cultural studies, or feminist media studies.

6. Acknowledgment

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People's Information Security during a Pandemic and in the Post-Pandemic Period as a Systemic Phenomenon in Terms of Their Protectedness

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Abstract
This paper shares the findings from a study that assessed the level of a person's information security during a pandemic and in the post-pandemic period. The base for the study was advertising and textual and visual content with theoretical-academic, practical-medical, cultural-educational, social, and social-political narratives containing information about COVID-19, an acute respiratory disease caused by the SARS-CoV-2 coronavirus. The authors analyzed materials from leading media outlets in Ukraine, Russia, the UK, Germany, Poland, the Czech Republic, Spain, and Italy and from the official website of the World Health Organization (WHO).

For a better insight into the ongoing processes, the following key groups of threats to one's information security wereidentified: another person, groups of people, collectives, masses, and social institutions; programming and technical means and information-telecommunications systems; structured channels for dissemination of mass information. The more tangible impacts on one's information security within the specialized information space segment were investigated in the third group of threats, namely at the level of analysis of structured channels for dissemination of mass information.

Based on their analysis of the latest information flows, the authors developed a special socio-communication model for ensuring a person's security in times of epidemics and crises that covers principles of informing the public such as filling the information space with various conceptual markers; ensuring proper professional-information interpretation of various phenomena and processes; undertaking the innovative enhancement of the sphere of information production and diffusion; ensuring a universal individual nature.

The authors suggest that the study of content in local, regional, statewide, and international media resources potentially can serve as a crucial knowledge base for comprehending all significant characteristics of informing the public in times of societal disruption.

The authors' exploration of information flowing across multiple media channels helped them gain a better understanding of the need for and utility ofverifying and fact-checking information to ensure the meeting of information needs and proper performance of relevant roles in society, with the following key characteristics of good information identified: value, relevance, objectivity, reliability, completeness, comprehensibility, and adequacy.

Keywords: pandemic, information flows, information security, socio-communication model

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1. Introduction

Over the course of its history, humanity has experienced a time of trouble more than once (e.g., wars, natural disasters, pandemics, zooanthroponoses, etc.). In terms of pandemics, examples from history include the spread of plague ("The Black Death") in Europe, Asia, and Africa, cholera, the Russian, Spanish, Asian, and Hong Kong flus, and HIV/AIDS, with fatalities running into millions.

People tend to experience in such times a heightened state of mental, psychological, and emotional stress, as the foregrounding of the issue of survival leads to the prevalence of emotions such as fear, confusion, anger, despair, and hopelessness. It is in a state of this kind that people tend to have an impaired ability to critically assess facts, arguments, opinions, and speculations and differentiate between them. Consequently, by being unable to protect themselves at even the basic level people tend to expose themselves easily to information-based influence and manipulation.

People in fear for their life tend to be ready to believe just about anything, just hoping for the problem to go away. Throughout history, this has given rise to all kinds of crooks posing as scholars, professional physicians, or holistic healers. Such individuals have given medications that not only could have no curative effect but could even lead to poisoning.

The development of medicine and information technology has failed to prevent another pandemic from occurring. In November 2019, they found in the city of Wuhan (Hubei Province, China) the so-called "index case" for the then-unknown coronavirus. December 2019 witnessed the outbreak of the disease in Wuhan. The World Health Organization (WHO) recognized the disease as a pandemic in March 2020. Researchers have yet to produce a coherent explanation as to what caused it.

The Center for Systems Science and Engineering (CSSE) at Johns Hopkins Universityregularly monitors the situation with the spread of the pandemic around the world (COVID-19 Dashboard).

What spread faster than the disease was information about it - both official information and information founded on assumptions, rumor, speculations, and personal judgements.Structured andunstructured channels for dissemination of information were filled with stories of the "current" progress of the disease, the "right" way to diagnose it, and "efficient" ways to treat and prevent it. There appeared all kinds of theories with regard to the origins of the infection, while many people did not even believe in its existence. Just like in the Middle Ages, people would start looking for someone to blame, withmany ready to go as far asanathematizing the infected, if not burning them at the stake outright.

Access to an almost infinite source of information,such as the Internet, andthe possibility of disseminating information at great speed have facilitated the emergence of a new phenomenon – infodemics, i.e. filling the information space with pieces of news that are factually incorrect or are provided without being fact-checked first and are mainly of a manipulative nature.

All this has had an impact on people's consciousness, affecting their information security.

2. Materials and methods

The base for the study was advertising and textual and visual content with theoretical-academic, practical-medical, cultural-educational, social, and social-political narratives containing information about COVID-19, an acute respiratory disease caused by the SARS-CoV-2 coronavirus.

The authors drew upon relevant materials from newspapers, magazines, and online media, including discipline-specific medical, official, social-political, and advertising-information content. They analyzed content from leading media outlets in Ukraine, Russia, the UK, Germany, Poland, the Czech Republic, Spain, and Italy and from the official website of the World Health Organization. The primary focus was on specialized information, namely medical information, considering that people's need to obtain information on health and illness prevention and treatment is governed by the basic self-preservation instinct. The criteria for selection were the thematic content of information and its orientation toward the masses.

In exploring the visual and textual content selected as the study's material, the authors employed the methodological principle of scholarly inquiry, more specifically the information-based approach, which involves examining the phenomena under study through the prism of information as a category.

In addition, the authors made use of a methodology for the qualitative-quantitative study of the content of texts via content analysis.

Worthy of particular note is the use of the material selection and systematization general research method, which was implemented by way of techniques and procedures from the register of media resources. Certain qualitative and quantitative samples of material related to information-based influence on people were obtained using content monitoring.

Specifically, the authors monitored the following media outlets: British Medical Journal, The Lancet, Frankfurter AllgemeineZeitung, Arztezeitung, Spiegel, Die Welt, Die Zeit, La Stampa, Českénoviny, Lidovénoviny, Fakt, Rai News 24, Rzeczpospolita, The Sunday Times, El País, The Observer, Marketing Media Review, Sostav.ua, The Village Ukraine, and a few others. The monitoring of media content from the above sources helped summarize information relating to COVID-19 and information that has all attributes of an infodemic.

3. Discussion

Issues related to facilitating effective communication within the systems of specialized medical awareness raising and ensuring people's security have been on the agenda for quite a long time. This figures, as historically people's attitude toward medical information has not changed – it is all about seeking help in fighting a disease.Research indicates (Sadivnychyi, 2015) that the provision of medical information tends to have greater relevance in times of epidemics, pandemics, and zooanthroponoses, which are common to both humans and animals. This was the case throughout the period of the first 20 years of the 21st century, with the world fighting epidemics such as SARS, MERS, Ebola, bird flu, and swine flu.

The current situation with COVID-19, an acute respiratory disease caused by the SARS-CoV-2 coronavirus, has brought into clear view the need for an effective, scientifically well-founded model of communication in the systems of specialized informing of the public and ensuring people's information security.

In the scholarly environment, research on people's information security is conducted in several interrelated areas, including the following: journalism, communication science, philosophy, sociology, psychology, history, pedagogy, jurisprudence, and the security sciences. In different years, researchers have addressed the issue from several viewpoints, which are as follows: issues of the global information society (Bangemann, 1994; Bell, 1999; Castells, 2019; Drucker, 1969); laws governing the development of media and information technology in their projection on mass and individual consciousness (Blumer, 1980; Blumer, 1986; Kara-Murza, 2015; McLuhan, 1992; Mikhaylov, Skudalova, 2017); transformation of consciousness under the influence of information campaigns and impacts (Levitskaya, Fedorov, 2020; Pocheptsov, 2020; Saridakis, Tuninga, 2017; Volianska, 2020; Zharkov, Onischuk, 2015); general issues of information and media literacy in the context of the development of systems and critical thinking skills (Lebid, Shevchenko, 2020b); issues of people's information security (Zolotar, 2018).

Over the years, researchers exploring databases and databanks, information flows, and structural elements in information dissemination have come to understand that the information space is an environment where there takes place the production and circulation of information and interaction as part of joint activity. That is, it can be viewed as an aggregate of information, information infrastructure, entities engaged in the production, collection, storage, dissemination, and use of information, and territory across which information is disseminated, i.e. a collection of information resources.

Today's realities relating to the pandemic have spurred extensive research on the information and media component of our understanding of global and national focuses in fighting against the coronavirus and combating manipulations associated with it (Alemayehu, 2020; Anumudu, Ibrahim, 2020; Cifuentes-Faura, 2020; Sarfo, Ansah, 2020).

At the same time, it is to be noted that issues of information security and security within the information environment tend to be a concern mainly among lawyers, economists, and IT specialists. The primary focus is on the security of the state, companies, and organizations. There is keen interest in issues of protection of information in the cyberspace, with the focus on the latter being so substantial that some have substituted the latter for the general concept of 'information space'. Research is also conducted into issues of creation and dissemination of source and derived information, regulatory-legal support for the operation of the information sphere, religion and religiousness in the present-day information space, etc.

There is currently a lack of research that addressesin a broad, comprehensive, and fundamental way issues of protecting people from information-based impacts as a whole and such impacts within the medical information segment in particular. This is why any social disruption is fraught today with unstructured information dissemination and a large amount of fake news, which may be conducive to infodemics.

A significant role in the conduct of the present study was played by the authors' personal and professional experience. In addition, the authors drew upon works by the scholars mentioned in this paper as its theoretical-methodological base and a source base that can help gain a better insight into the issue of people's information security during a pandemic and in the post-pandemic period.

4. Results

Based on the findings from research by the scholars mentioned in this paper and their own research, the authors suggest viewing a person's information security as a systemic phenomenon in terms of their protectedness, one that implies safeguarding their vital interests. This also includes learning to withstand information-based manipulative impacts – information-based influence through the organized and purposeful use of information means and technologies fraught with destructive alterations in consciousness.

For a better insight into the ongoing processes, the authors identified several groups of threats to a person's information security. Group 1 can be termed 'living sources' – another person, groups of people, collectives, masses, and social institutions. Group 2 includes programming and technical means and information-telecommunications systems. Group 3 includes structured channels for dissemination of mass information – mass media, social media, and means of mass communication. Each group has its own essential and qualitative features and typological characteristics, functional parameters, forms of influence, categories, and properties.

Worthy of particular note is that impacts on one's information security during a pandemic and in the post-pandemic period tend to occur for the most part at the level of the specialized medical information space. This segment of the information environment can be defined as an environment in which there takes place the production, collection, storage, and dissemination of thoroughly checked, documentarily confirmed, reliable, accessible, and valid medical-biological information, as well as information interaction between agents of information exchange for the purposes of meeting people'sindividual information needs and informing epidemiological research, statistical measurements, medical-preventive activities, or scientific inquiry (Sadivnychyi, 2015).

To explore some of the more substantial impacts on a person's information security within the specialized information space segment, the authors introduced a third group of threats - structured channels for dissemination of mass information. It is these channels that "impose stereotypical thinking and preprogrammed decision making" (Zolotar, 2018). Furthermore, scholars V. Mikhaylov and O. Skudalova view "infrastructure for the functioning of social information" as a crucial characteristic of mass media. The two researchers argue that "only the media are capable of reaching each and every person, thus performing the key function of mediating between information-communications flows: an ordinary person may not read scholarly journals but somehow still knows about a new scientific discovery... The language of the media is a commonly used and commonly comprehensible language for mass public communication (which is its key merit), while at the same time some of it may be viewed as too light and simple (which is a downside)" (Mikhaylov, Skudalova, 2017).

All this leads to news related to COVID-19 being spread faster and with a greater degree of consumer loyalty by structured channels for dissemination of mass information (mass media, social media, and means of mass communication).

However, not all information that is circulated by these channels is useful. Infodemics have gained so much momentum that even the WHO has joined the fight against them – in March 2020, the organization has started to work with major companies that provide information to Internet users, including Facebook and Google. There have come out communication recommendations regarding the monitoring of social media and reacting to fake news.

The danger of information threats lies, above all, in that people tend not to realize that they are being faced with one. And even later on, when the consequences become obvious, they are not always able to establish clearlywhat kind of information impact they were exposed to. In this regard, whattakeson added importance is issues related to conscious consumption of information,

the ability to critically assess information flows, and the ability to assess facts at the level of consciousness rather than emotions (Lebid, Shevchenko, 2020; Levitskaya, Fedorov, 2020).

The authors' exploration of information flowing across multiple media channels helped them gain a better understanding of the need for and utility of verifying and fact-checking information to ensure the meeting of information needs and proper performance of relevant roles in society (Lebid et al., 2020), with the following key characteristics of good information identified: value, relevance, objectivity, reliability, completeness, comprehensibility, and adequacy.

Value. The value of information is determined by the degree to which it is useful to resolving a particular issue. Being under the influence of various information flows during a pandemic, not very many people, no matter their age, occupation, or education level, are capable of extracting valuable messages and arranging them in an integral fashion.

When it comes to pandemics, the value of information to a person depends on the role they perform or chose to do: an outside onlooker; someone a patient knows; a relative of a patient; a relative of a person who passed away from the disease; a patient; a general practitioner; an infectious disease physician; a hospital administrator; a health minister; a life scientist; a microbiologist; etc. The role and information needs are what shapes a person's indicators for the selection of valuable information. It is specifically based on this that we acceptas valuable or reject asworthless information about the need to wear a medical mask, SARS-CoV-2 antibody testing, or treatment protocols. Depending on the role, in travelling from one end of the continuum to the other, all types of individuals will be encountered, from through-and-through skeptics to zealous proponents of vaccination and prevention.

Relevance. Information is considered relevant if it is of importance at a certain point in time. Essentially, here information is selected at the level of a person in a similar way as described in the previous section.

Objectivity. Information can be objective or subjective, depending on whether it is in line with one's judgements. For instance, information in the statement that all residents of Ukraine have had COVID-19 is subjective, whereas information derived from specific statistical data from the Ministry of Healthcare on the number of patients is objective.

Reliability. Reliability is determined by the ability of information to objectively reflect processes and phenomena taking place in the world. For instance, if during a news broadcast or a talk show an expert mentions a prediction by a well-known futurologist that by 2035 the Earth's population will have achieved great progress in treating incurable diseases, this piece of information will definitely be viewed as unreliable, as it cannot be verified.

At the same time, a study of relevant information flows indicates that for greater reliability and cogency the characteristics of creation and absorption of the text of the WHO's recommendations are governed by the special nature of the actual texts and the conditions for their operation. The creation of this kind of texts is governed by the following factors: result-orientedness; absence of two-way communication (hence, the need for a detailed parametrization of the prospective recipient); insufficient time to absorb the recommendations and space restrictions.

The main objective behind the WHO's recommendations for the population is to provide truthful information and urge the recipient thereof to perform an action. A vividly emotional type of sentence is the imperative infinitive sentence, which is aimed at urging a person toward action.

Completeness. Information is complete when there is enough of it for the consumer to be able to draw proper conclusions and make proper decisions. For instance, during a pandemic people are expected to analyze large arrays of media messages to be continually cognizant of the role and essence of the latest information contexts - a person will either recognize them as useful or, on the contrary, regard them as being of a manipulative nature. A person may take note of certain statements, take heed of advice from their relatives, analyze new media content on a regular basis, turn to the academic literature, or consult with specialists in an attempt to compare and conceptualize things. And only on the basis of such actions does a person develop a certain vision of the subject in order to make decisions afterwards.

Comprehensibility. This implies the absence of additional, clarifying information about something. For instance, first-grade students are hardly likely to comprehend formulae for biologically active substances. However, after a few years in school they should become more comfortable with this kind of information.

Adequacy implies an image matching a real object, phenomenon, or process. For instance, when they announce major quarantine-related activities in the country, the filling of the information space with other kinds of information may only hinder proper perception. An example of inadequacy in disseminating information is speeches by politicians on the importance of preventing COVID-19 in which they share information about their own major achievements and participation in social projects and blame others for inaction.

A good example of inadequacy are evaluative judgements from experts, analysts, officials, famous figures, and opinion leaders, i.e. well-informed people of high social status who can influence the views of others by just offering their own take on things.

When it comes to opinion leaders, it is worth noting the phenomenon of authority being used as a substitute for professionalism. Information may be provided on behalf of an anonymous authoritative source (e.g., a researcher or an analyst), a sociological company, or a social group. With that said, it is hardly possible to verify the reliability of such information.

An example of using manipulative technology in informing the public about COVID-19 is regularly covering sensationalist facts and putting together controversial topics and then having expressive politicians discuss them. In general, an information policy of this kind may engender a large amount of useless information and divert attention from really important issues during pandemics or in times of other societal disruptions.

"The diversity of variants of each aspect of life makes choosing an ever-present state in the life a present-day individual. In global civilization, nothing is predetermined and everything is subject to mandatory choice: place of residence and citizenship, form of family, form of occupation, items of consumption, and spiritual values. The only thing that comes without choice is the actual situation of choice"(Belyaeva, 2007).

In a climate of information pluralism, the choice of priorities is governed by the level of critical thinking, the need to harmonize diversities, moral behavior, qualitative characterizations of the alternatives proposed for selection, and cognizance of the quintessential aspects of quality. But above all of this is the role that a person performs or chose to do.

The pandemic period abounds in examples of destructive propaganda being employed. In particular, active use is made of the information context that the COVID-19 virus is man-made and was manufactured as a major weapon by certain military and political forces. Messages of this kind come out on a fairly regular basis and are always accompanied by facts that can hardly be checked in a few minutes' time. There tends to be an abundance of assumptions from journalists, panoramic videos, commentaries, and negative emotions. The objective is to quickly construct for people the right ideas and visions.

As noted more than once in reports by the European External Action Service (EEAS), misinformation, myths, and content of a clearly manipulative nature continue to spread across the world, which may have and has had harmful consequences for the security, survivability, and health of people and effective crisis communications. In this context, it is important to differentiate between the various forms of malicious misinformation, including fake news, "hit pieces", and other forms of manipulation.

Based on data from the EEAS, the spread of coronavirus infection tends to be accompanied by a rise in the quantity of misinformation and content founded on knowingly unchecked data. This includes statements like the following:

1) Coronavirus is just like the flu.
2) Alcohol-based disinfectants are enough to deactivate the virus.
3) Wireless 5G technology can cause COVID-19.
4) COVID-19 is a biological weapon designed either by the US or China.
5) There are currently American biological labs in Ukraine working on modernizing the virus.
6) There is vaccination terrorism being perpetrated around the globe at the moment.

An effective tool and source for spreading fake newsandmisinformation aboutCoronavirus is social networks. With nearly every inhabitant of our planet using today a smartphone with Internet connection, it may be argued that, in a sense, all of us are like media outlets that can convey and re-convey various ideas, including malicious ones.

An example of disseminating fake newsin social networks isa video posted to Facebook showing packages with food allegedly left on the street in a Turkish town for people in need during the outbreak of Coronavirus.

One was made to believe the above was true through the following message: "In Turkey, people are leaving packages with food for the poor and those deprived of the opportunity to work during the Covid-19 lockdown". Afterwards, the BBC established that, while the video was indeed authentic, it actually was shot and posted to the social network prior to the outbreak of the pandemic and for a different reason- the food packages were intended as aid to the victims of the earthquake that occurred in the Turkish city of Konya on January 25, 2020.

Quite a common practice is appealing to fear, with even constructive ideas being put across by way of intimidation. An example of this is disseminating information that can form in the minds of audience members exclusively negative impressions about pandemic periods in the history of humanity. In this context, one may quote historians as speaking of injudicious measures by the government of a certain country; circulate archive videos and photos depicting the dire consequences of a certain disease; make public negative comments by eyewitnesses, including doctors and ordinary people; circulate official statistics on the fatalities from a disease; etc.

5. Conclusion

A person facing an information threat may unknowingly jeopardize not only their information security but general security too. In this regard, it may help to bring into action an effective socio-communication model designed to ensure people's security in times of epidemics and crises. The model proposed by the authors covers the following principles of informing the public:

1) filling the information space with various conceptual markers to enrich a person's sense of national culture and identity;this should help ensure the proper orientation and preferences of the consumer in the information flow;

2) ensuring proper professional-information interpretation of various phenomena and processes through the engagement of top experts and professional media people capable of shedding an objective light on a particular event or phenomenon; of importance in this context is the development and enhancement of constructive and educational information technology;

3) undertaking the innovative enhancement of the sphere of information production and diffusion through the engagement of opinion leaders, institutions, or personal communicators and arming them with certain specially generated concepts designed to withstand information messages from misinformers that are "masked" as unique and are ultimately conducive to even greater delusion;

4) ensuring a universal individual nature; this implies providing the consumer through information activity with unique guideposts designed to help them set goals and achieve them; this can be getting involved in important public discussions via various feedback platforms and successful people demonstrating positive aspirations in a time of crisis.

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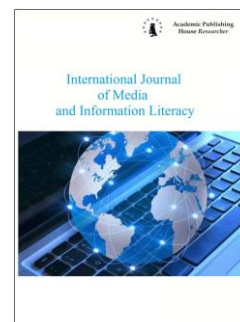
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Health-Related Information Seeking During COVID-19: Testing the Comprehensive Model of Information Seeking on University Students of Pakistan

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Abstract

The study revolves around online health related information seeking. Hypothetically, the use of social media and other internet-based platforms is becoming common. This information seeking behavior further leads to self-medication which can be dangerous, so it requires theoretical attention. While many studies have been conducted to cover this behavior, there was a need to explore this area in the context of Pakistan. Internet is the focus of this study which is further sub-categorized into other media forms like Social Media, Google Search, Online Web T.V./Radio and E-Magazines/Papers. Data was gathered using purposive sampling technique from the intended population (N = 300) and to examine the data. Findings of this study indicated that the relationship of information-carrier characteristics and online health information seeking was significantly mediated by utility of information channel. On the other hand, utility was significantly predicted by beliefs, interest, and information-carrier characteristics. Furthermore, direct experience and salience are not significant predictors of utility of online health information seeking. The study also helped elaborating the extensions of comprehensive model of information seeking, which are helpful in applying this model in context of the latest digital media.

Keywords: comprehensive model of information seeking, internet, online health information Seeking, direct experience, information channel.

1. Introduction

Health being an important and sensitive issue for all, requires a lot of care and negligence, in such issues, can be fatal. The information available on the internet can be questionable specifically when it comes to validity and authenticity. Issues like health, demand great care and internet users need to be more concerned about the validity of such information on the internet. In this time of severe pandemic situation all around the globe, people prefer seeking information by using online platforms rather than physically visiting a medical institute or meeting a medical consultant. The COVID-19 induced lockdowns in different countries around the globe has encouraged people to avoid physical interactions and the information seeking behavior of people has increased as people have been home-locked and are endangered by the outbreak.

The initial reports about the coronavirus prompted people to seek more information on the internet and news of first COVID-19 cases had a significantly great effect on people's information seeking behavior. The initial news about the outbreak led people to search on the internet about the coronavirus, its symptoms, and precautions. As such, it can be concluded that the COVID-19 news made people to attempt to educate themselves about the disease (Bento et al., 2020).

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A study examining exposure of misinformation about COVID-19 in the US, South Korea, and Singapore, suggests that the internet users has been demotivated due to exposure to misinformation. But this study also argued that in early stages of COVID-19 pandemic, exposure to general information regarding the lesser-known hazard might have made people feel less-informed, as to prompt them to seek more information (Kim et al., 2020). A similar study based in China advised that people significantly use internet-based sources for seeking information regarding health and specifically about COVID-19. Therefore, internet is seen as an important tool for searching such information in China (Zhao et al., 2020).

The internet being the only global-level platform of multi-type communication has become the need of everyone and its biggest product, the social media, has become the world's most agile form of communication. Therefore, it can be said that inventing the internet is breakthrough, especially in field of communications. Individual-level usage of the internet and the social media is increasing day-by-day, and there can also be seen a factor of dependency in this common behavior, as social media has become a major part of today's everyday life (Dutta-Bergman, 2005). Internet is a platform of communication where people can connect and discuss anything from any part of the world, that too with such ease of access. With all these features, social media has also become a major source of health of health communication (Zhou et al., 2018). Studies suggest that the internet and social media are a potential cause of the increase in support groups, and support groups are responsible for connection between a wide range of people from far distances and diverse cultures (Houston et al., 2002).

Contemporary studies also acknowledge the involvement of patient or medicine consumer in the search of health-related information that goes beyond doctor's consultancy (Dutta-Bergman, 2005). Studies that revolve around the OHISB (Online Health Information Seeking Behavior), considered demographic factors like age, gender, and education (Hartoonian et al., 2014; Johnson, Meischke, 1993; Robinson et al., 2006; Ruppel, 2016). Some studies concluded that the demographical factors do not share a significant relationship with utility of health-related information (Brodie et al., 2000; Tustin, 2010). In this digital where people are connected, they are supposed to make smart and wise decisions specifically when it comes to medical or health related problems. The sensitivity of such problems requires carefully acquired and reliable information (Dutta-Bergman, 2005).

The latest interactive form of communication, social media is a user-centered, user-friendly medium of communication. This unique aspect of social media proved to be the most essential one. The popularity of this interaction providing platform has led "social media" become a part of the dictionaries around the globe. Socialization has also changed its form to a much vibrant and dynamic one, all this due to social media (Murray, 2014). Along with the many opportunities it offers, social media has its own limitations. For instance, one of the essential features that it is a platform for everyone to share and receive information, which can be questionable, as everyone is free to share thus, authenticity of the information cannot be guaranteed. The validity of the content available on the social media requires attention, specifically when it comes to health. Past studies also show that validity of information sources can affect the behavior of seeking information online (Houston, Cooper, 2002). Such studies have addressed major topics of heath communication, decision making in the context of medication and general information seeking regarding health (DeLorme et al., 2011).

A study conducted on female individuals suggest that the information seeking pattern of medical help seeking individuals depend on their characteristics (Han et al., 2010). This study also revealed that female individuals who have low-income rates and are less tech-friendly or do not have much exposure to technology and internet, are more likely to use internet-based platforms in order to seek information if provided with internet-connected system.

Literature suggests that large-scale consumption of internet-based information by individuals suffering from depression are more likely to go towards self-medication when offered such information (Houston et al., 2002). A review of a previous study showed that studies examining the information seeking behaviors reflect some unexplained variation. Furthermore, such studies also helped establishing that the activity level of individuals regarding their participation in the use of internet for information seeking purposes had insignificant variance in the results. Along with the lack of variance in these results, the urge for seeking information online caused by efficacy was also indicated as insignificant. The study also revealed that people who lack the interest in seeking information online, are not necessarily uninformed. As such, it can be

established that individuals who do not seek health-related information online, are possibly the ones who are already aware of the medical problem they are encountering. This further creates the possibility of relationship between non-seekers of information and aware or informed individuals (Grasso, Bell, 2015).

The comprehensive model of information seeking (CMIS) is a model that covers many factors that are likely to predict the online information seeking behavior in context of health. The model provides a framework which helps understand the trends of online information seeking behavior (OHISB) (Johnson, Meischke, 1993). Among these possible factors lies, demographical factors, direct experience, salience, and beliefs, and along with these factors there are attributes of information source/channel and its utility. Direct experience, salience and beliefs are considered as health-related factors while information carrier characteristics (ICC), interest in exchanging health information online and utility of information channel (UIC) are the information-carrier factors (ICF).

The model was first conceptualized by J.D. Johnson and H. Meischke (Johnson, Meischke, 1993), with a perspective of the usage in context of conventional media forms. However, in a previous study, it has also been applied in context of online/digital media and this study showed that the OHISB is more of a complex model as compared to the original CMIS (DeLorme et al., 2011). As suggested by an existing study (Hartoonian et al., 2014), in its original form, CMIS is not an effective model. As such, there was a need for an additional variable in order to enhance the fitness of this model in context of OHISB. On the other hand, in specific type of studies where explanation of information seeking behavior is required, CMIS proved to be an effective model (Han et al., 2010). In a study by J.D. Johnson and H. Meischke (Johnson, Meischke, 1993), it was explored that the CMIS is a fit model when health-related information seeking behavior is to be tested.

Past studies suggest that the CMIS has helped in indication of factors that would possibly influence the information seeking behavior in individuals belonging to various backgrounds (DeLorme et al., 2011). In another study, it was argued that the CMIS is a utile framework for studies discussing or examining the health-related information seeking behaviors (Han et al., 2010). These studies also suggested that the CMIS has been applied in numerous research-based studies. For hypothetical model (Comprehensive Model of Information Seeking) see Figure 1.
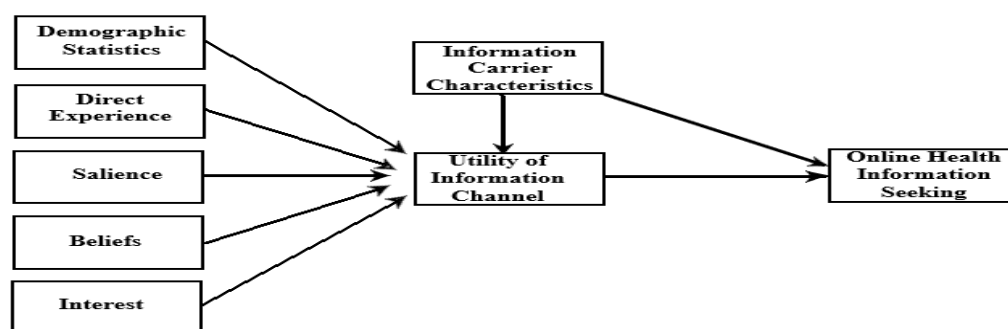

Fig. 1. Illustration of the hypothesized Comprehensive Model
of Online Health-Related Information Seeking
Note. Interest = Interest in exchanging health information online. Demographical factors such as age, gender and qualification are control variables, which is not reflected in this figure.

Demographics. Many past OHISB-centered studies have considered the demographical factors of individuals, for instance gender, education, economic status are most common factors considered (Hartoonian et al., 2014; Johnson, Meischke, 1993; Robinson et al., 2006; Ruppel, 2016). Although some studies did not suggest any direct influence of demographics on the utility of information channel (Johnson, Meischke, 1993).

Direct experience. J.D. Johnson and H. Meischke (Johnson, Meischke, 1993) defined direct experience as the suffering of a disease or an encounter with a medical or health problem by an individual directly or by someone from their social circle i.e., family, friends etc. In some studies, health has been considered as a measure for direct experience (Hartoonian et al., 2014; Oh, 2015). J.D. Johnson and H. Meischke (Johnson, Meischke, 1993) suggested that like the influence of

demographical factors, direct experience also reflected trivial effects in CMIS, specifically when testing its effect on the utility of information channel.

Salience. J.D. Johnson and H. Meischke defined this health-related factor as "the significance of health-related information to an individual, which is associated to the degree of perceived medical threats that an individual may feel" (Johnson, Meischke, 1993: 347). As such, the subjective probability and fear regarding any medical threat can be regarded as salience. Hence, salience is one possible factor of motivation that might encourage an individual to seek medical and health-related information online.

Beliefs. Any individual's health-related beliefs are referred as beliefs in studies like J.D. Johnson and H. Meischke (Johnson, Meischke, 1993). This behavior is directly related to HISB (Health Information Seeking Behavior), individuals who believe that they can help their medical condition by seeking such information online are more likely to use such platforms for information seeking purposes as compared to those who do not believe so. Some studies have suggested differently, arguing that the CMIS is neither predicted nor influenced by an individual's personal beliefs (Hantoonian et al., 2014; Robinson et al., 2006).

Information-carrier characteristics. A past study argued that the information-carrier characteristics influence the HISB in two ways, directly and indirectly through the utility of information channel (Johnson, Meischke, 1993). Various tests focusing the CMIS model showed that the strongest effect was found between the information-carrier characteristics and utility (Johnson, Meischke, 1993). Information-carrier characteristics in the CMIS was taken in the context of online information seeking behavior. In a study focusing OCIS (Online Cancer Information Seeking), an indirect influence of information-carrier characteristics via utility was found, although there was no insignificance or direct relationship (Hartoonian et al., 2014).

Utility of information channel. Some studies also oppose the findings of previous studies and argue that the utility of information channel has influence on the use of such sources (Hartoonian et al., 2014). It is advocated that the utility plays a significant role in the context of CMIS because it induces the effects of health-related factors and information-carrier characteristics on the HISB (Johnson, Meischke, 1993). Utility, as conceptualized by J.D. Johnson and H. Meischke (Johnson, Meischke, 1993), is the degree to which information in a channel or source satisfies the need of information seeking individual. On the other hand, in a previous study, it has been operationalized as belief in an information channel and the perceived capacity to approach or access the information (Hartoonian et al., 2014).

Interest in health information exchange online. With the use of CMIS framework, some past studies have focused the prediction of OHISB. Along with the process of information seeking, studies added another additional variable of satisfaction, and this framework has also been used in the context of online health-related information scanning (Robinson et al., 2006; Ruppel, 2016). Following hypotheses are constructed with the help of above literature.

H1: (a)Demographics, (b) direct experience, (c) salience, (d) beliefs, and (e) interest are significant predictor of utility of online health information.

H2: Characteristics of Information-carrier are significant predictor of utility of online health information.

H3: (a) Characteristics of Information-carrier and (b) utility are significant predictor online health information seeking (OHIS).

H4: Utility is a mediator between the relationship of all independent variable (demographics, direct experience, salience, beliefs, and interest) and one dependent variable.

H5: Utility is a mediator between the relationship characteristics of information-carrier and online health information seeking (OHIS).

2. Materials and methods

Study Design and Participants. Correlational research design was used to measure the health information seeking behavior among university students of Lahore. Correlational research design is a useful technique to measure the opinion of the respondents on a topic. Moreover, this technique provides the data which can be empirically analyzed by a software in a quantitative manner. In the questionnaire, it was inquired whether the respondents use internet and social media or not. The purpose of this question is to ensure that the respondents are internet users and do access social media every now and then. Purposive sampling technique was used to select the sample. This helped the study to be conducted involving the intended population.

Different Lahore based universities, including University of the Punjab, University of Central Punjab, and Lahore Leads University, and University of management and technology students were approached through online google survey. A total number of three hundred survey questionnaires were distributed among the respondents with the help of their respective teachers. After final distribution of the questionnaires, the data was downloaded and was then entered into the software of use i.e., SPSS and then relevant tests were run in order to analyze the collected data statistically. The demographical factors like gender, age and education were included to this research, as these factors have been considered as a part of studies in previous research (Hartoonian et al., 2014). Adapting the instrument from previous study (Hartoonian et al., 2014) age, gender and education were inquired using general and categorized questions. The first demographic factor here, age, was inquired with simple and open-ended question and the respondents were to mention their age in years.

Descriptive analysis was applied for analyzing the demographics of the respondents with other variables and that ages of respondents were found to be M = 21.87 and SD = 2.951. The gender of respondents was, Males = 57.7 % and Females = 42.3 %. More than half of the respondents were undergraduate, 182 (60.7 %), while the remaining respondents 75 (25.0 %) were graduates and postgraduates were 43 (14.3 %).

Online health information seeking (OHIS) during COVID-19. To collect data related to online health information seeking behavior during COVID-19, a measure was adapted from a previous study (Stee, Yang, 2017). The question was asked for 5 different information sources, and for each of them they had to select one of the 5 points of the Likert-type scale. The sources for health information were internet/google search, social media, online web TV, E-Magazine/E-Paper and online radio.

Direct experience. The measure of direct experience was adapted from a previous study (Hartoonian et al., 2014) and included (1) "In general, would you say your health is?" where a 5-point Likert-type scale was used which had responses from 1 (*poor*) to 5 (*excellent*). The direct experience was also inquired by asking "Have you ever been diagnosed as having major or minor flu/cough?" and "Have any of your family members ever had major or minor flu/cough?", here option ranged from 1 (*yes*) to 2 (*no*).

Salience. The scale of salience was adapted from a previous study (van Stee, Yang, 2018). For inquiring about the salience questions related to worry about health and chances of getting a disease were included, with a 5-point Likert-type scale.

Beliefs. Belief's scale was also adopted from a previous study (van Stee, Yang, 2018). For this part of the research, to inquire agreement or disagreement, on a Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

Interest, Utility, and Information-carrier characteristics Scale. Respondents' interest was inquired in different types of health-related information providing platforms. Three constructed questions were used for inquiring the utility. Three questions with a 5-point Likert-type scale was used to inquire the information-carrier characteristics. All these scales were adopted from the previous two studies (Basnyat et al., 2018; van Stee, Yang, 2018).

Data Analysis. The Pearson correlation coefficient was used to analyze the correlation between the variables. Smart PLS 3.2.9 was used to analyze the direct and indirect effects.

3. Discussion

This study investigated the hypotheses and proposed relationships between the variables in which few were rejected. The utility of information seeking was the first dependent variable, and it was measured with salience and direct experience which showed an insignificant and negative relationship. May be, salience is not directly associated with the utility of information seeking because generally people who are highly concerned with their health are over-cautious and do not prefer the use of internet and other such sources for seeking information and advisably tend to consult a general physician. In COVID-19 exposure to misinformation led people towards avoiding the available information. These findings are similar to a recent study (Hameleers et al., 2020; Hossain et al., 2020; Islam et al., 2020; Kim et al., 2020; Roy et al., 2020; Soroya et al., 2021). However, this indicates that the significance of health information in individuals was not found to be a potential reason for utility of information seeking. The utility of information seeking was also analyzed it with all other variables i.e. beliefs, interest and it showed a positive and significant

relationship while it showed negative relationship with demographic variables and information-carrier characteristics.

These results imply that seeking information from online sources can occur due to a personal experience or a medical problem experienced by anyone from an individual's peer group or family member involving a disease or a medical problem. These findings are supported by a recent study conducted in Wuhan, China (Zhao et al., 2020) and with some other studies (Ali et al., 2020; Capone etl., 2020; Avery, Park, 2021). The study found that most people turned to internet to know about virus, medication, online support and managing self-quarantine. Beliefs about the information seeking from internet sources and health can be another possible factor which might develop tendency of such information seeking behavior. Similarly, interest for sharing or exchanging information from/on such sources can serve as such another factor. Analyzing direct experience with the other variables showed certain results, for example, with salience, it has shown a positive but insignificant relationship. This suggests that the direct experience of an individual may not serve as a potential or significant role-player in having an importance of health and medical issues. Possibly, this is because an individual who had an experience with a certain disease would be careful about practices that cause that specific medical problem and do not tend to learn or realize the importance of health in general.

Running the tests helped measuring variables and their relationships were analyzed which have been mentioned in the above discussion. However, results also suggested statuses of the proposed hypotheses of the study, most of them were qualified to be referred as accepted, after the analysis. While, against a few, evidence showed that some of the hypotheses did not qualify for the acceptance and were thereby rejected or nullified. As per the H1, the demographics would serve as a significant predictor of utility of information channel. However, this did not get justified as the results suggested the otherwise i.e., demographics did not predict the utility of information channel. These findings are supported by previous studies which argued that people consider television, health ministry, United nation organization (UNO) and newspaper as authentic source during pandemic (Islam et al., 2020; Mohamad et al., 2020; Reintjes et al., 2020; Tangcharoensathien et al., 2020). The hypothesis —suggesting that salience would be a significant predictor of utility of information channel (H3) — was also nullified, as salience did not predict the utility of information channel.

Beliefs were also proposed to be a predictor of the utility of information channel, and the tests concluded that it did serve as a predictor of the utility of information channel. In a recent study, health beliefs are found to be a significant predictor of willingness to receive vaccines (Wong et al., 2020) adherence to guidelines (Clark et al., 2020; Nowak et al., 2020; Tong et al., 2020). Similarly, interest was, hypothetically, said to be a predictor of utility of information channel. After the results were drawn from the analyses, it showed interest also acted as a significant predictor of the utility of information channel (Ali et al., 2020, Chan et al., 2020).

Hypothetically, information-carrier characteristics would predict the utility of information channel and viewing the results from the tests, it showed that information-carrier characteristics functioned as a significant predictor of the utility of information channel. This predicting role of information-carrier characteristics with the utility of information channel have also been supported by a previous study (van Stee, Yang, 2017). It was also proposed that the direct experience would be a significant predictor of the online health information seeking. It was proposed that the direct experience did not serve as a significant predictor of the online health information seeking in the condition.

Utility of information channel, on the other hand, was also confirmed by the tests to be a significant predictor of the online health information seeking i.e., this hypothesis was accepted. Moving on to information-carrier characteristics, which according to tests and as stated in the hypotheses significantly predicted online health information seeking. The prediction of information-carrier characteristics to the information seeking has been found in a previous study (i.e., van Stee, Yang, 2017) as well. Lastly, it was also proposed that the utility of information channel would serve as a mediator of the relationship between information-carrier characteristics and online health information seeking. The tests suggested that utility mediated the relationship between information-carrier characteristics and online health information seeking.

Limitations. This study considered population of general internet-using individuals. However, a research on this area can also be conducted using different methods and for obvious reasons, with different theoretical directions. For example, this area can be studied by using

stratified sampling, which will be required if the population has criteria to qualify for being respondents of the study i.e., ascribing certain attributes/characteristics to the supposed respondents. Such type of a research can be conducted if a researcher intends to test the CMIS on a different type of population i.e., other than just internet users or students.

Future Research. In the future, studies should explore this area further by examining the validity of the health-related information that can be found on the internet. With this being studied, researchers shall be able to understand whether the health-related content on the internet is valid or not. Also, studies to be conducted in the future, should investigate the online health information seeking behavior with a different population older aged people. And their behavior and tendency towards self-medication should be examined. With such theoretical direction, a study can help develop further understanding of the behavior and factors that predict such behavior in the older-aged people will also be testified.

Since the information seeking behavior can lead to self-medications, future studies should revolve around the self-medication behavior which can be considered as an extension of the CMIS, as it precedes online health-related information seeking. Researchers should analyze the extensions of CMIS while adding up more variables to the study, which can help investigate the usefulness of this model. Also, studying the self-medication behavior would help understand the complications of this issue at a greater level and would play a vital role in practices of health organizations that provide remedies for certain health issues and spread awareness about health in general.

4. Results

Preliminary tests were run to avoid any possible violation in the assumptions of analysis. Smart PLS 3.2.9 was applied to test the hypotheses. The results of direct effect show that he demographic variables (β = -.30, $p<.05$) and information carrier characteristics (β = -.54, $p<.01$) have negative and significant effect on utility. On the other hand, the direct effect of beliefs (β = .22, $p<.05$) and interest (β = .18, $p<.05$) on utility was positive and statistically significant. The remaining two independent variables (direct experience and salience) was not statistically significantly related to utility. In addition to this, information carrier characteristics (β = .46, $p<.05$) and utility of information seeking (β = .23, $p<.05$) was positively and significantly related to online health information seeking. These results are supporting the hypotheses H1a, H1d, H1e, H2, H3a, and H3b while H1b and H1c are not supported by data.

Mediation Analysis. Bootstrap approach was used to find the significance of indirect effect and 95 % bias-corrected confidence interval was used. This approach is most useful and superior from other approaches (MacKinnon et al., 2004). The indirect effect result indicates that utility only played mediating role between interest and online health information seeking (β=.18, 95 % CI = .026 to .18). Thus, hypothesis H4a, H4b, H4c, H4d were not supported by data and only H4(e) was accepted. In addition to this, the relationship between information carrier characteristics and online health information seeking was mediated by online health information utility (β=.45, 95 % CI = 1.93 to .124). So, H5 is accepted.
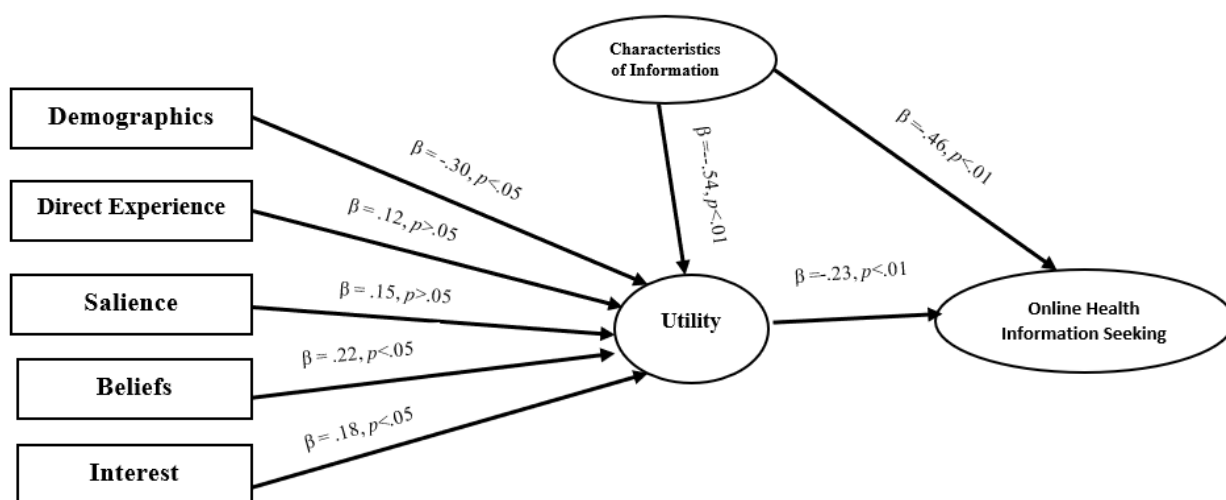

Fig. 2. Structural Model

5. Conclusion

This study has helped to develop a better understanding of the online health information seeking behaviour during COVID-19 pandemic. People with access to the internet and those who are tech-friendly can be bearers of this behaviour which leads to self-medication. However, when a layman is on the receiving end of the health-related information, self-medication can prove to be dangerous. With this level of understanding about this matter, healthcare providers and health organizations can work in a much better way to let people avoid this behaviour. It is because now, it is known what type of sources are used for health-related information seeking and why is this behaviour becoming a common thing in the technological era.

With all the factors that has been explored in this study, it is now known which of the factors play a significant role in exciting the aforementioned behavior, government-level measures can also be taken to run awareness campaigns. Such campaigns would spread awareness among people and would influence them to consult a doctor instead of seeking information over the internet or mobile applications regarding corona virus or other diseases. This study and its results related to the information-carrier characteristics offers implications for medical and health-care practices. The patients and affected individuals of any medical problem can be encouraged to receive health-related information provided by government or health organizations approved systems or health-related information-carrying platforms or portals. These platforms should be with the ease of access to general public and should carry authentic and relevant information only. This could help patients to find and understand the relevant information only. Health literacy should also be considered here, and the awareness campaigns should attempt to make people aware about the health and medical issues.

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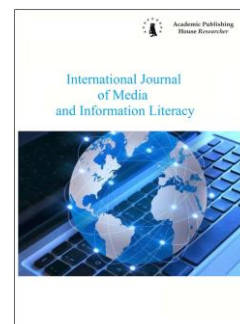
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The Effect of Social Media on Financial Literacy

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Abstract
What makes the issue of financial literacy relevant to various social groups and the State as a whole today is the dynamic development of the market for financial services, the rapid and extensive digitalization of such services, and changes in the structure of the market caused by the emergence of new segments and new actors. A financially literate consumer will make well-informed, responsible decisions in relation to services provided by financial institutions. Financial literacy has a direct effect both on the wellbeing of a particular individual and on wellbeing across society and the State as a whole. It tends to take on particular significance at a time of certain crisis situations. The recent COVID-19 pandemic situation has brought into clear view both the significance of requirements for the establishment of effective forms of disclosure of information in the market for financial services and the need to expand the information instrumentarium intended to improve the financial literacy of the population.

Many countries have in place comprehensive legislation on protecting the rights of financial consumers, as well as relevant case law. However, that alone does not resolve most of the quite specific objectives for enhancing financial literacy – and, consequently, does not protect the population from various risks and unjustified financial losses. The authors argue that it is the use of social media – as the more sought-after and mass way to spread information in today's world – that will help expand the audience of recipients of financial education.

The paper analyzes a set of factors that influence the process of boosting the role of social media channels inimproving the financial literacy of the population and examines a set of relevant resources and tools employed in various countries to build an infrastructure for financial education. The authors also discuss the need to devote attention to the arrangement of educational activities for financially isolated and undereducated strata of the population and, in this context, focus on the right choice of media channels and means of financial education to ensure equal access to financial products and services.

Keywords: financial literacy, media channel, social media, social networks, financial education, national information-communications strategies for financial education.

1. Introduction
Financial literacy can be defined as a person's ability to comprehend the various aspects of finance, including financial products offered by financial institutions. Financial literacy is vital to a person's capability to make the most optimal financial decisions. There are empirical data

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demonstrating that poor financial literacy may lead to incompetence in using financial products and an inability to assess properly the financial prospects of certain actions, plan for retirement, etc. That being said, higher levels of financial literacy improve a person's chances of preserving their savings, settling their debts, and optimizing their expenditure within the limits of their budget (Komara at al., 2019: 80).

In response to a call by the G20 Finance Ministers and Central Bank Governors to the Organisation for Economic Co-operation and Development (OECD) in February 2011, the institution developed the High-Level Principles on Financial Consumer Protection. One of the key principles facilitating the protection of the rights of financial consumers is Financial Education and Awareness. It implies that financial education and awareness ought to be promoted by all the interested parties, while clear information on consumer protection, rights, and responsibilities ought to be easily accessible by consumers. In particular, there is a need to develop appropriate mechanisms to help existing and future consumers develop the knowledge, skills, and confidence to appropriately understand risks, including financial risks and opportunities, make informed choices, know where to go for assistance, and take effective action to improve their own financial wellbeing. There is also a need to promote the provision of broad-based financial education and information to deepen consumer financial knowledge and capability, especially for vulnerable groups. In addition, taking into account national circumstances, financial education and awareness ought to be encouraged as part of a wider financial consumer protection and education strategy, delivered through diverse and appropriate channels, begin at an early age, and be accessible across all life stages. Specific programs and approaches related to financial education ought to be targeted for vulnerable groups of financial consumers (G20 principles, 2011).

While the OECD does not name specific channels for financial education, it thus leaves the choice thereof up to an entity that is focused in its activity on boosting financial literacy in society. In this context, speaking of the era of digitalization, worthy of particular note is the significance of using Internet resources, including Internet media and social networks, which play today a key role as sources of financial information.

On one hand, these sources of information offer great potential for the management of individual finances. On the other hand, consumers must be careful in using them and should not rely on them too much. Although it, normally, is difficult to control consumer access to financial information on the Internet, use can be made of practitioner recommendations - in particular, in the area of teaching a person to conduct proper analysis and critical assessment of financial information. This is especially important for senior consumers, many of whom are not particularly good atfinding their way around the online space (Sabri, 2019). In addition, in light of ever-increasing boosts in the range and volume of digital financial services, it may be worth devoting separate attention to enhancing people's digital financial literacy and their digital financial culture as a whole.

The key objectives for the present study were to investigate the factors influencing the process of boosting the role of social media channels in improving people's financial literacy, examine some of the key resources and tools employed around the world to build an infrastructure for financial education, and determine some of the more effective media channels taking into account the special nature of the target audience with a view to ensuring equal access to financial products and services. The authors argue that it is the use of social media – as the more sought-after and mass way to spread information in today's world – that will help expand the audience of recipients of financial education.

2. Materials and methods

The authors drew upon statistics on the use of social media around the world (Most Popular, 2020; Social Media Usage, 2019), materials from public and private Web platforms dealing with financial literacy, national strategies for financial education adopted in certain developed countries, and relevant working materials and guides used by certain international organizations. In addition, the authors invoked theoretical insights from a number of scholars researching financial education and social media (Bochkova, 2018; Cazzoli, 2016; Komaraet al., 2019; Nikitina et al., 2020; Oya Pinar, 2011;Sabri, 2019; Slavko et al., 2020; Smith, 2015; Voskanyan, 2018; Zheludev, 2014, etc.).

The use of comparison and analogy helped summarize and systematize the approaches featured in the national strategies for financial education and existing practices on the financial education of financial consumers. The use of the formal-logical method, analysis, and synthesis

enabled the authors to draw a set of conclusions regarding the factors influencing the level of people's financial awareness and those governing the need to boost the role of media resources (e.g., the Internet) and propose a set of recommendations on the use of sources of financial information and communications channels.

3. Discussion

Mechanisms for protecting consumer rights in the financial services industry are developed as products become more complex and increasingly more people rely on financial services. An effective consumer protection system includes three additional aspects. Firstly, it is laws and regulations governing relations between service providers and users that ensure fairness, transparency, and recourse rights. Secondly, there is a need for an effective enforcement mechanism, inclusive of dispute resolution. Thirdly, there is a need to promote financial literacy and inclusion to help users of financial services acquire the necessary knowledge and skills to manage their finances (Oya Pinar, 2011).

In the context of the current pandemic, COVID-19, what will again be of relevance is the strategic aspect of improving the financial literacy of people around the world and their adaptation to the new economic realities. At present, it is difficult to tell how much focus there will be on issues of enhancing a strategy for boosting people's financial literacy after the end of the crisis, while it is, likewise, hard to guess how those issues will be resolved in practice. That being said, what is without question is that the current economic crisis is a rare and unique case that provides an opportunity to identify and explore a set of new factors determining financial literacy (Nikitina et al., 2020).

By expanding access to innovative inexpensive financial tools and applications and increasing the use thereof, digital financial services open up new opportunities for improving the overall level of financial inclusion. They also create various new challenges for governments, financial service providers, and consumers. For consumers, difficulties in accessing digital financial products and services may result from their lack of knowledge about these new tools and/or their poor financial and digital literacy. This, along with the new features of the digital financial services market, may expose consumers to "newer" risks and threats (particularly when compared with traditional financial products), including, in particular, the risk of fraud, misuse of personal financial data, digital profiling, cybercrime, etc. Enhanced, flexible, and complementary consumer protection and financial education policy responses are still needed to address these challenges effectively, as well as to achieve increased financial awareness, financial inclusion, and overall financial wellbeing for all. Innovative tools can be a key part of the solution to supporting and enhancing financial education policies in today's digital age (OECD, 2017: 11).

Today, an increasing variety of digital financial services are available and used globally for carrying out a variety of financial operations, including basic cash in/out, payments, transfers, savings, investments, credit, insurance, and pensions. Mobile banking, Internet banking, and mobile wallets are the most widely employed digital finance channels around the world. Banks and telecommunications companies are the biggest actors in this market. Technology is changing not only the financial system landscape but also the way in which individuals engage with it, thus confronting them with new risks (e.g., fraud, digital profiling, and exclusion from coverage), as well as presenting important opportunities (e.g., financial inclusion and education outcomes) (OECD, 2017: 13).

4. Results

Financial literacy (or financial knowledge) is typically an input to model the need for financial education and explain variation in financial outcomes. Defining and appropriately measuring financial literacy is essential to understanding educational impact as well as barriers to effective financial choice.

There are several good definitions of the term 'financial literacy'. Here are three of them:

1) a collection of notions about the financial market, its operation and regulation, professional participants in the financial market, financial tools, and financial products and services and the ability to use them while being fully cognizant of the consequences of one's actions and prepared to assume responsibility for one's decisions;

2) having enough knowledge and skills with regard to the financial sphere to objectively analyze the situation in the financial market and make rational decisions;

3) the ability to make financially competent and well-founded decisions with regard to the management of household finances (Bochkova, 2018: 54).

In the view of scholar R. Voskanyan, it is impossible to resolve the issue of improving people's financial literacy without identifying a set of key factors influencing its level. Such factors include the following: level of economic education in the country; availability and development level of financial infrastructure in the country; level of confidence in the economy; accessibility of financial services. In designing a policy for boosting financial literacy, it may be necessary to establish which factor has the largest influence and adopt ways to manage it strategically (Voskanyan, 2018: 87).

Financial authorities around the world have defined financial literacy and proposed objectives and ways to boost people's financial awareness (erudition) through various documents, both regulatory and recommendatory in nature. Such documents often have the form of national information-communications strategies for financial education.

A national strategy for financial education can be defined as a nationally coordinated approach to financial education that consists of an adapted framework or program, which:

- recognizes the importance of financial education and defines its meaning and scope at the national level in relation to identified national needs and gaps;

- involves the cooperation of different stakeholders, as well as the identification of a national leader or coordinating body/council;

- establishes a roadmap to achieve specific and predetermined objectives within a set period of time;

- provides guidance to be applied by individual programs in order to efficiently and appropriately contribute to the national strategy (OECD/INFE, 2015:137).

In May 1999, following consultation with consumer groups and the industry, the UK's Financial Services Authority (FSA) published a strategy of its own for the achievement of objectives around boosting financial literacy. The strategy was focused on the following two key areas: (1) providing people with the knowledge, aptitude, and skills base necessary to become questioning and informed consumers of financial services and manage their finances effectively; (2) providing impartial information and generic advice to help enable consumers plan their finances and make informed choices, while not being prescriptive or recommending individual products and services, or telling people to save (FSA, 1999).

The National Strategy for Financial Education in the Netherlands for the period 2014–2018 states that increasingly more parties from different quarters are becoming involved in financial education: lobby organizations, policymakers and information providers, non-profit institutions, and commercial businesses are all offering consumers information and support. Providers of financial products and services are themselves developing more and more information provision instruments. Government authorities, too, are paying more attention to financial education – for example, through debt-prevention projects at the municipal level.

The Strategy describes several trends regarding activity on boosting financial literacy based on an analysis of best practices from six countries (Australia, Brazil, Canada, New Zealand, the UK, and the USA). Of particular interest in the context of the present study is the shifting of the emphasis in recent years from agenda setting to raising awareness and to changing behavior. The focus is gradually shifting from education and information provision to advising consumers or providing them with individual guidance. The majority of countries regard the Internet as the major channel for reaching consumers. Tools and checklists are resources that are being used to an increasing degree. Good examples of this are the websites in New Zealand (Sorted), the United Kingdom (Money Advice Service), and Australia (MoneySmart). Investment in such sites is heavy, not only in name awareness but also increasingly in search engine marketing (Netherlands, 2014).

One of the key objectives facing the authorities implementing the national strategies is the search for ways to change people's financial attitudes and behaviors. To this end, the national strategies include a variety of implementation approaches, both conventional and more innovative. Firstly, it is facilitating access to information and advice through multi-channel delivery (such as websites that seek to become the reference at the national level through consumer-friendly branding, interactive web-based tools, or awareness and communication campaigns). Secondly, it is accounting for timing and location and harnessing existing learning environments and networks, including through life-cycle approaches (addressing consumers in key stages of their professional or personal lives: having a child, buying a first home, retiring, etc.); by choosing the right trusted

intermediaries such as community leaders and public persons; through appropriate learning environments such as the workplace or schools (at least 27 economies have introduced financial education in schools - in some cases, as a mandatory subject). Thirdly, it is supporting individual engagement, motivation and decision-making, by using the findings of behavioral economics and social marketing techniques, harnessing peer pressure and the community effect, or the new possibilities offered by games and social technologies (OECD/INFE, 2015).

 'Financial Education Strategies and Best Practices within the European Union', developed by the European Economic and Social Committee, lists potential channels for imparting financial information such as schools, workplaces, employers' associations and trade unions, consumer associations and other non-governmental organizations, the media, and Internet resources (Best, 2017).

Special attention in the above document is devoted to the findings from an analysis of the activity of Internet resources focused on issues of financial literacy in certain European countries and cooperation organizations within the European Union. It also describes a set of objectives set within the frame of the national strategies for financial education that are to be implemented through a designated resource.

For instance, in Ireland there is in place a special Internet resource (www.consumerhelp.ie) devoted to issues of financial literacy. It is run by the Competition and Consumer Protection Commission (CCPC) with its mission being to make markets work better for consumers and businesses and its vision being for open and competitive markets where consumers are protected and empowered and businesses actively compete. A key focus is on bringing financial education to all segments of the population, including via an easily accessible line for resolving financial consumers' doubts and problems.

The above website features the following sections facilitative of the development of financial awareness: 'Your Consumer Rights', 'Comparing Bank Accounts, Mortgages, Loans, and More', and 'Managing Your Money' (Independent information). Of particular interest are the last two sections, which provide you with an instrumentarium that enables you to compare various financial tools, resources, and services and use special calculators for loans, which is quite attractive to the consumer in that it can boost the potential for them to make well-informed decisions.

In 2008, the Bank of Spain and the National Securities Market Commission undertook the implementation of Spain's first-ever financial education program aimed at a wider audience, with subsequent support from the General Secretariat of the Treasury and International Financing and the Directorate General for Insurance and Pension Funds (part of the Ministry of Economy and Competitiveness). The effort resulted in the launch of a resourceknown asFinanzas Para Todos ('finance for all') (Finanzas). As suggested by the very name of the website, it caters to a wide audience of recipients of financial information. The financial education program is open to all segments of the population and covers all financial products and services. It is intended to accommodate people's needs based on their distinctive characteristics, as well as suggest access channels that suit their individual needs. It promotes ongoing learning.

The Polish experience of developing and implementing Internet resources on financial education is represented by the following platforms: AkademiaDostępneFinanse ('accessible finance academy'), an initiative of the central bank of Poland, Narodowy Bank Polski, which aims to increase awareness among Poles about the benefits and opportunities arising from having a bank account and active use of modern payment instruments, such as credit cards and electronic banking (Akademia...), and My Finances, a financial education program implemented by the Junior Achievement Foundation (Fundacja). While the objectives for both platforms are similar, their target audiences are different. The second platform caters to 15-19-year-olds. Its objective is to expand a person's knowledge about the principles of the financial sector and develop the skills that will enable them to manage their finances effectively and create economically social capital of their own, as well as build their professional future.

Of significant interest in the context of the present study is the European Platform for Financial Education, launched by the European Banking Federation (Financial education) to boost the awareness of the public about financial education and financial literacy via a series of activities at the national and European levels. Ultimately, the platform is aimed at enhancing the level of financial education in Europe, especially among primary and secondary school students.

As evidenced by the above examples, people's financial literacy is among the priorities for national public authorities (at least, in developed countries) and international organizations alike.

The fact that Internet resources are currently a key channel for advancing an information policy of boosting financial awareness must be associated with the fact that the digitalization of economic activity, including in the market for financial services, leads to the need to foster in people confidence in electronic financial services and products provided by financial organizations and the State.

A consideration that is worth looking at is the cultivation of the use of software, applications, and digital platforms to deliver financial services to consumers and businesses through digital devices such as smartphones. Such technology has become recognized as a promising tool to promote financial inclusion. Having said that, improved access to financial services via fintech requires higher levels of digital financial literacy to make effective use of them and to avoid misselling, frauds such phishing, hacking attacks, unauthorized use of data, discriminatory treatment, and behavioral issues such as excessive borrowing (Morgan et al., 2019).

The use of digital financial products is a sort of link between financial literacy and financial accessibility, helping individuals knowledgeable of both the digital and financial aspects navigate their way in an easier and faster manner around the entire spectrum of financial services and benefit from the best ways in which it is provided.

It is to be noted that the above-mentioned national strategies are not the only part of financial education for people. Financial companies and organizations focused on the development of the financial market publish relevant tweets and messages, maintain blogs, and make regular use of social networks to communicate with their customers, staff members, and other interested parties.

A number of research works (Cazzoli, 2016; Smith, 2015; Zheludev, 2014) have noted the growing role of social network platforms in the development of financial markets and their growing influence on financial consumers. Social networks have jumped ahead of the traditional media, providing faster delivery of news, with most news stories sprinkled with opinions, commentary, and perspectives on business activity (Slavko et al., 2020: 205). Today's financial organizations are increasingly setting a special policy with regard to social networks,as thereare important considerations such as the ability to maintain a solid business reputation, respond in a timely and proper manner to the needs of the consumer, and keep track of client complaints that may arise in the online space.

Essentially, social networks imply communication within online communities – discussion as opposed to monologue. They "humanize" customer service, bringing businesses closer to their stakeholders and making information more accessible (Venkateswara, 2014).

A group of researchers have found in analyzing a social network (Twitter) that the financial community behaves similar to a small-world network, and have identified groups of critical nodes and analyzed their influence within the financial community based on several network centrality measures. Using a special sentiment analysis algorithm, they constructed a weighted sentiment measure using tweet messages from these critical nodes and discovered that it is significantly correlated with the returns of the major financial market indices. Essentially, influential Twitter users within the financial community provide a proxy for the relationship between social sentiment and financial market movement. Consequently, the weighted sentiment constructed from these critical nodes within the financial community provides a more robust predictor of financial markets than the general social sentiment (Yang, 2015).

When it comes to the latest promotion technology employed in social networks, worthy of particular mentionare the following two types of information source: 1) bloggers – as opinion leaders in a certain social environment; 2) forum visitors - as individuals who can share theirviews on various issues. The influence of bloggers may well becompared to that of high-coverage, heavyweight media outlets. The role of bloggers is expected to keep growing in the future. It stands to reason that, if somebody's statements in a blog about what is currently going on in life in society or views regarding certain professional issues resonate with those of other blog visitors, any mention by that person of a certain event, company, product, or service is unlikely to go unnoticed by "his/her" audience (Hristoforov, 2010).

Can we consider this type of interaction between providers and consumers of financial services a potential source of financial literacy for the latter? There is no doubt that this kind of channel for promoting financial information is topical today as never before. The use of blogging in social networks and across the Internet is a way for financial companies to not only promote their services but also a way to boost consumer awareness, as it facilitates making a more informed choice of product or service. The Accounting Degree Review online resource provides quite an extensive list of English-language resources, including finance-related blogs. The website states the

following: "Learning about finance is so much easier when you can see first-hand what others are doing to achieve success. That's the beauty of social networks with a focus on finance. [...] Whether you are interested in investing, business, participating in peer-to-peer loans, or personal finance growth, the following social networks are sure to help you make connections with others in the world of finance" (Accounting...).

Social networks provide an opportunity to teach consumers and communicate with them. Financial institutions ought to communicate with people in a language that they will understand, as that helps foster mutual trust. With that said, public authorities and other organizations and communities focused on promoting the development of financial literacy can also use the resources of social networks in addition to the above-mentioned major Internet resources.

5. Conclusion

Digital financial literacy is increasingly becoming a significant aspect of education in the current digital era. Consumers of financial services tend to be more vulnerable in using products and services related to financial technology. This and the other circumstances described in this paper are signaling the need to promote financial knowledge using all means available, especially through the creation of information platforms on the Internet.

With today's high levels of the use of social networks (Most popular, 2020; Social Media, 2019), for the purposes of boosting the financial literacy of the population this type of social media may be employed as a source of valuable practical experience and new ideas and suggestions with regard to financial services and products.

Being aware of various digital platforms and having knowledge of the frequency of their use is considered digital financial literacy.

It is to be noted that resources for boosting financial awarenessought to be adapted to national/regional/local conditions, taking into account certain social and economic trends in society. The educational nature of such platforms ought to be based on best practices and the use of relevant innovative technology for imparting digital financial knowledge. The accuracy, accessibility, and quality of content provided on a website or a resource on the platform of a particular social network are key criteria for the successful achievement of the objectives set before such resources.

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Media Literacy Research During COVID-19 Pandemic: Social Network Screening

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Abstract

The article presents screening of Facebook and Instagram news pages for the degree of media literacy of modern recipients in the perception and further dissemination of information about COVID-19. We state that in most cases modern recipients do not check the information obtained from media sources (as confirmation, we present the results of an electronic survey). Nowadays most respondents do not pay attention to the information provided and are ready to repost the material on their social media pages. The data obtained confirm this thesis: 45.8 % partially 23.7 % fully do not check the information from media sources, therefore, almost two thirds of respondents trust the facts presented in media. We associate low media literacy with the rapid globalization of modern media, due to which the flow of information is uncontrolled, especially in Internet communication. Another reason for low media literacy is the "skill" of journalists to mislead recipients through bright headlines. It is proved that a bright headline, compositionally organized as an interrogative or exclamatory sentence, has a greater impact than a narrative construction. According to our survey, headlines with lexical manipulative resources are the most popular (44 %), while headlines with phonetic manipulative means are less affected by the recipient. Most of the interviewed recipients are still ready to check the factuality of the information in a media text (we emphasize that we have deliberately selected fake news). Some recipients (22 %) pay attention to fake news because of a bright headline (or trusting a verified media resource) and are ready to repost the news without verification. Due to the resonance of the news related to COVID-19 journalists have used not only objective but also fake news as a tool to influence the recipient. The questionnaire clearly indicates that media literacy of modern recipients is influenced by the political orientation of a media source, as well as the recklessness of recipients to verify the facts and trust any information obtained from official sources and interpreted in media.

Keywords: media literacy, media linguistics, language innovations, functional stylistics, COVID-19.

1. Introduction

Back in 2014, a study was conducted to restore public confidence during a pandemic, which was preceded by non-transparent information flows in media to cover these events: "members of the public are not passive recipients of information, but are engaged in active sensemaking, and trust is an important component of this sense making process" (Bangerter, 2014). This includes forming public opinion about an outbreak of different strains of influenza: H5N1 in 2005–2006, H1N1 in 2009. Media institutions which promptly, responsibly and impartially cover information

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about a pandemic should also be involved in solving these problems, "defined linguistic and communicative dominant characteristics of medical terminology in the mass-media, connected with pragmatic and expressive potential of the word" (Syzonov, 2012: 24).

The COVID-19 pandemic has been actively covered in media since the end of 2019 until today (the volume of coverage falls on the peak of the coronavirus incidence in specific countries). The analysis of the information flow on this topic is partially covered in the scientific aspect – this refers to studies in media linguistics, psycholinguistics, sociolinguistics (Garfinet et al., 2020; Hernández-García, Giménez-Júlvez, 2020; Sadykov, Ahmetyanova, 2020) as well as works on psychoanalysis and medicine (Toraleset et al., 2020). Most of this research is devoted to the analysis of correct coverage of events related to COVID-19: scientists give advice on soft presentation of information to the mass audience, develop prospects for correct information of recipients in future. The role of social media during a pandemic is the most authoritative, after all "during a health crisis, the public depends on the media to convey accurate and up-to-date information in order to make informed decisions regarding health protective behaviors" (Garfinet et al., 2020: 355-356). Some media even use the coronavirus pandemic to cover the so-called "fake" news about COVID-19 (Sadykov, Ahmetyanova, 2020: 31) which undermine confidence in the institution of information and freedom of the press. On the one hand, media conduct educational and informative activity, on the other hand, one cannot exclude media manipulation. A recipient must comprehend this information flow developing his media literacy as "media literacy, information literacy and digital literacy are the three most prevailing concepts that focus on a critical approach towards media messages" (Koltay, 2011: 211).

Obviously, the key role in media literacy belongs to globalization processes, which help to cover in media political, economic and business issues (Qureshi, 2011). Some scholars believe that this function has moved today to the Internet space, where it is difficult to find objectivity in the information flow due to the virtuality of the objects of communication and the lack of a transparent evidence base (Akimova, Oleksandrenko, 2019). All that can not but affect the coverage of health issues. Today, journalists do not always have a transparent and responsible approach to the analysis of events related to COVID-19. A German linguist D. Perrin (Perrin, 2006) names media genres the structure of which (especially headlines and leads) is most susceptible to manipulation of human consciousness. Therefore, we will find enough false information in such genres (e.g. genres of authorial journalism) and spheres (e.g. advertising, the Internet).

In the present study we intend to: (a) identify the media that deliberately spread false information about COVID-19 on social networks, b) pay attention to those media that promptly cover the information, but it is not always successfully brought to the potential recipient, (c) investigate the role of recipients in disseminating unverified information, (d) find out which language means are most used to cover truthful information about COVID-19 and which of these tools are successful manipulative remedies in disseminating "fake" news. Thus, our key task is to find out the degree of media literacy of modern recipients who use social networks (especially *Facebook* and *Instagram*) in obtaining, perceiving and further disseminating the information.

2. Materials and methods

For media literacy analysis we used *the method of anonymous questionnaire* using the platform google.com.ua. The total number of respondents is 59 people, which is 100 %. Respondents include Ukrainians, Russians, Poles, British and Arabs. The questionnaire consisted of 15 key questions based on the main purpose of our study - to identify the degree of media literacy of modern recipients. In the questionnaire we also used elements of *the experimental method* to find out the dissemination/non-dissemination of information (primarily false) in media. The analysis of results from an online questionnaire was carried out by a PhD student of the department of stylistics and language communication O. Pliasun (Taras Shevchenko National University of Kyiv).

To check the representativeness of scientific data on medicine, the article includes a professional analysis of an associate professor of the Bogomolets National Medical University V. Shmatko. To analyze the language resource in media texts, we used *the method of semantic and stylistic interpretations*. Comprehensive analysis was carried out by corresponding member of NAS of Ukraine L. Shevchenko and associate professor D. Syzonov (Taras Shevchenko National University of Kyiv).

We partially used *the system search method* (for systematization of sources in media space by communication spheres) and *the method of media monitoring* (Dobrosklonskaya, 2014: 57-58), which allowed to systematize data from information search systems. *The method of cross-sectional research* allowed to explain the local manipulative strategies used in media to cover the news about #COVID-19. It should be noted that the method has already been tested earlier (Zhong et al., 2020: 1746). We have expanded the areas of cross-sectional research by offering for analysis a Facebook network with wide possibilities of reposting media publications with the topic "COVID-19".

Attention is also paid to a hashtag as a special type of communication in social networks (we are talking about #COVID-19 and related hashtags). Therefore, the authors of the article were involved in the methodology of hashtag mapping (Highfield, Leaver, 2014), which was used to find values in social networks (Facebook and Instagram).

3. Discussion

Analyzing the current state of media literacy in the global media space, researchers often shift the emphasis of the flow of news from the print media to the Internet space motivating it by virtual globalization. In this context, we investigate the role of social networks and modern messengers which gain popularity among communicators and recipients (Fletcher et al., 2020; Kligler-Vilenchik, Tenenboim, 2020; Renninger, 2015). In the context of the psycholinguistic impact of the news flow on modern social groups (Manca et al., 2021; Riles, 2019; Spears, 2021), we find quite interesting discussions aimed at seeking factual truth not in the original source, but in the news feed and social media posts. We should also mention here the analysis of global media as a new critical view of the media industry (Kraidy, 2018): social networks as today's global media have actually become leaders in the information world.

The search for the necessary information about COVID-19 also moved into the plane of Internet systems: the recipient will receive the necessary information from the Internet rather than from a specialist. This is what negatively affects the flow of information, which must be true and reliable: "journalists should pay attention for source selection and authentication for their news stories production" (Gans, 2004). Expanding this thesis, we focus on changes in information standards under the influence of new media in modern times - both on television and visual-virtual platforms (Shimpach, 2020). And in new media (including social networks) the standard of truthfulness of information should be in the first place. This is especially true of the top topics that the COVID-19 pandemic has become, after all "at a time of severe political, economic, environmental, security, technological, and identitarian challenges, global media studies can make important contributions to an improved understanding of our current situation" (Kraidy, 2018: 337). Analysis of the relationship "COVID-19 → infodemics" (Cifuentes-Faura, 2020; Zarocostas, 2020) is also offered in modern research, which helps the recipient to place the right emphasis in the search for news about COVID-19 and further avoid errors in interpretation events during the infodemia. In our study, we try to understand whether modern recipients trust social networks in the flow of information about COVID-19, as "most people who see misinformation about COVID-19 may think that what they are reading is true and some of them may cause panic" (Cifuentes-Faura, 2020: 146).

Manipulation through provocative headlines, unverified facts, ambiguous wording and misinformation are just some of the problems that should be the subject of analysis of recipients' media literacy during a pandemic. The impact of the media on the mental health of society (Riles, 2019) should be especially careful in the pandemic period. We have another problem – a way out of the so-called post-pandemic information syndrome, when trust in the media will not be undermined in the coverage of real events, when social networks will come to the fore in expert opinion and authority and the news will not be perceived as "fake" in advance.

Due to the lack of relevant research on media literacy in social networks, as well as the comprehensiveness of social networks, we consider it appropriate to use the "contextualized approach" (Manca et al., 2021) in the study of social media. That is why the flow of news during social changes or political drunkenness should be treated with caution (Kilgo, Harlow, 2019), as every opinion expressed can become key in the further dissemination of news (sometimes even "fake"). At the same time, researchers emphasize the emergence of new words and phraseologisms in times of socio-political, economic change, revolutionary events, pandemics, etc. (Shevchenko, Syzonov, 2019: 8), which becomes the so-called "donation" for language innovation in the languages of the world. The COVID-19 pandemic is no exception to the emergence of neology –

from narrow medical terms to lexemes with new semantic nuances. We consider the role of social networks in the popularization of neologisms to be one of the key ones.

This key role also applied to news related to the global COVID-19 pandemic. It is noticed that "applications such as Facebook, Instagram, Snapchat, Twitter, WhatsApp, and YouTube are great sources of news and information dissemination today, but can sometimes create panic due to the spread of misinformation or false news" (Cifuentes-Faura, 2020: 146). It is during a pandemic that there may be information flows that are difficult to control. In fact, along with the virus, "viral news" is spreading, which harms the modern recipient in the perception of the so-called COVID news. We are convinced that "the traditional media has a key role in providing evidence-based information to the general public, which will then hopefully be picked up on social media" (Zarocostas., 2020: 676). However, in practice, informational truthfulness and factuality are not key in the news flow on social networks (as can be seen from our research *Results*).

4. Results

Verification of factuality in media communication

The problem of factuality in media is especially relevant in the works of researchers in those countries where the degree of trust in media is the lowest. It is obvious that media which seek to convey truthful information will rely on factuality. However, today most countries are subject to dissemination of both true and false information on the Internet (Vosoughi et al., 2018). The news about natural and social disasters were the most untrue: "falsehood diffused significantly farther, faster, deeper, and more broadly than the truth in all categories of information, and the effects were more pronounced for false political news than for false news about terrorism, natural disasters, science, urban legends, or financial information" (Vosoughi et al., 2018: 1146). Ukrainian news also falls under the influence of "fakes", which negatively affects the information image of the country (Shevchenko 2013).

We note that most respondents today do not pay attention to the information provided and are ready to repost the material on their social media pages.

Our data confirm this thesis: 45.8 % partially 23.7 % fully do not check the information obtained from media sources (Figure 1), which means that almost two thirds of respondents trust the facts presented in media.
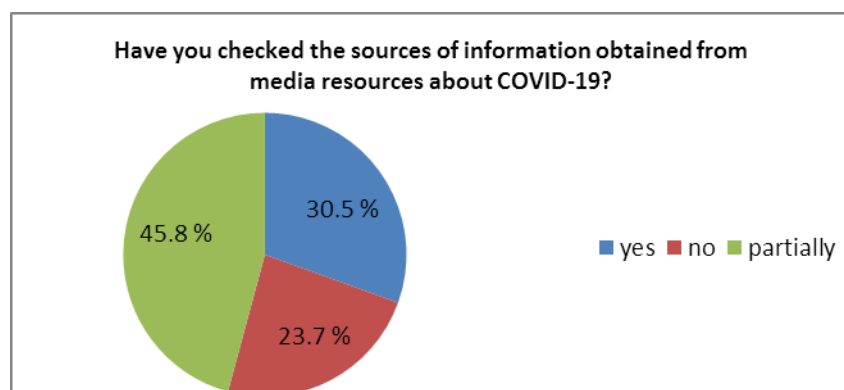

Fig. 1. The degree of verification of factuality in media resources

Factuality as the main characteristics of media should be "necessarily checked for accuracy, comprehensive disclosure of the topic, ... reflection of information reality" (Shevchenko et al., 2014: 177). In addition, the key role in this process belongs to language, by means of which factuality will be achieved: syntactic constructions (e.g. a headline *"Business will suffer during a pandemic"* differs in factuality from the headline *"Will business suffer during a pandemic?"*), lexical means (e.g. *pandemic* and *epidemic* have different semantics, which journalists manipulate when creating media contexts), word-formation tools (e.g. when creating a new word related to COVID-19 *(COVID-positive, COVID-dependent, COVID-transformation etc.)*.A journalist can manipulate the consciousness of a mass recipient by introducing these language units without checking the facts. Obviously, the recipient is involved in the verification of factuality. "Media correctness is to develop the results of language influences on the recipient, who should correctly and objectively perceive

the material" (Shevchenko et al., 2014: 93), and the recipient should not only copy the information, but also analytically representit to other communicators. Unfortunately, nowadays journalists skillfully use manipulative means in language to convey not objective but "correct" opinion to the mass recipient. The situation with COVID-19 coverage is still incomplete in today's media stream.

We conducted a survey using the method of experiment to check the degree of respondents' trust in the news. The questionnaire included "fake" headlines, the essence of which is false information about COVID-19, e.g.: *"COVID-19 was invented to intimidate the public", "Effective drugs from COVID-19 were invented", "China is making money from the Covid-19 outbreak", "COVID-19 helped to boost our immune system"*. Each of these news is not confirmed by doctors and others specialists working in media communication (see *Fig. 2)*.

Cf. in media resources:

(1) *Atlantic alliance and coronavirus: "NATO seeks reasons to exist by meddling in everything"* (Sputnik France, https://youtu.be/osQvLW5Z_Yw, 06/02/2020)

(2) *Eco-fascists want to reduce the population of the Earth. They are ready to kill and hope for help from the coronavirus* (Lenta.ru, https://lenta.ru/articles/2020/05/17/eco/, 17/05/2020)

(3) *The fairytale Three Seas Initiative: Donald Trump's Europe bis* (Sputniknews Pl, https://pl.sputniknews.com/opinie/2020052712477394-bajkowa-inicjatywatrojmorza-europa-bis-donalda-trumpa/,* 27/05/2020)

(4) Who and why is experimenting in humans? (Mejdurecie.md, https://mejdurecie.md/v-mire/kto-i-zachem-stavit-jeksperimenty-na-ljudjah.html, 26/05/2020)

(5) *Everything is at stake: Soros sees great opportunities after the Covid-19 coronavirus 'endangers our civilization'* (News Front - Spanish, https://es.news-front.info/2020/05/12/todo-esta-en-juego-soros-ve-grandes-oportunidades-despues-de-que-el-coronavirus-covid-19-ponga-en-peligro-nuestra-civilizacion/, 12/05/2020)

(6) *Coronavirus is not worse than the flu, but it masked the economic crisis. This is good for politicians* (MC.today, https://mc.today/blogs/koronavirus-ne-strashnishij-za-grip-ale-nim-zamaskuvali-ekonomichnu-krizu-tse-vigidno-politikam/, 27/07/2020)
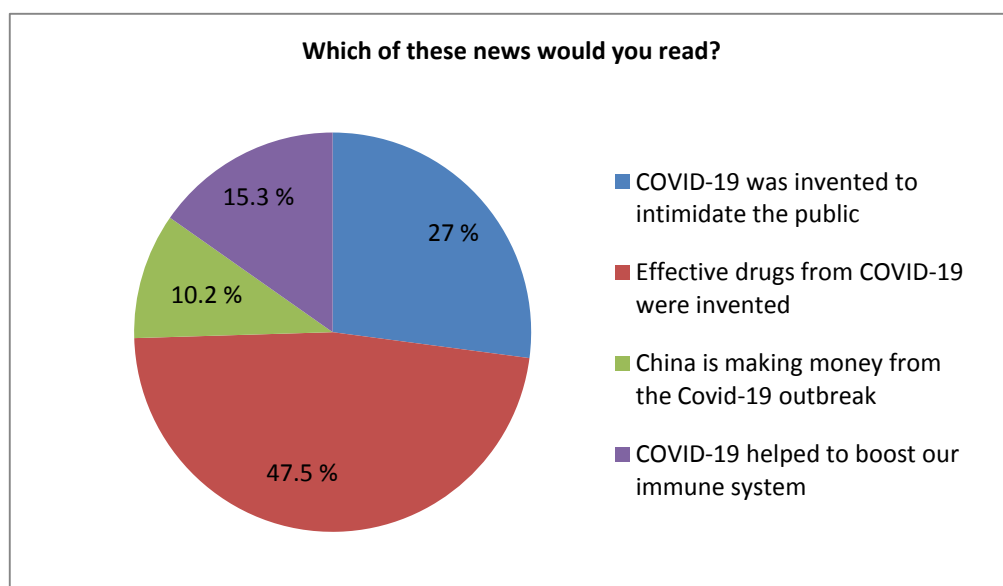

Fig. 2. Checking the perception of "fake" news by recipients

We emphasize that in medicine to confirm any data, medical argumentation is used, which is based on facts: experiment, systematically processed facts, figures, confirmed scientific hypotheses, analogies in the course of the disease in different regions etc. Unfortunately, medical institutions are not always ready to rely on medical facts, which leads to the spread of fake information.

The majority of respondents are ready to read the article without checking its accuracy and factuality, and 25.4 % are ready to repost the material on their page in social networks (see Figure 3). It is noteworthy that almost half of respondents (47.5 %) are ready to read positive "fake" news about the invention of effective drugs from COVID-19. On the one hand, it testifies to positive

attitudes among recipients, on the other hand, it encourages journalists to manipulate the recipients' consciousness by creating "correct" and "positive" news. Often the psychology of the recipient is such that he will repost unverified, but perceived as "correct" news despite the degree of real veracity of the information in it. Factuality thus remains the main source for media objectivity, on the one hand, and the main manipulative tool for journalists, on the other.
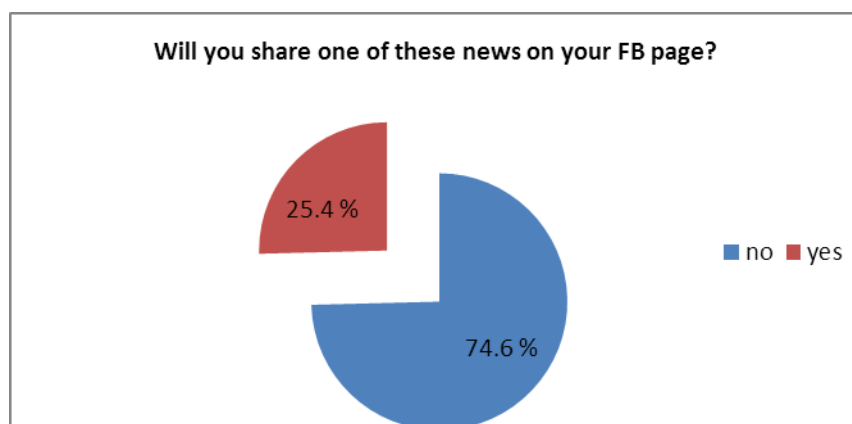
Will you share one of these news on your FB page?

25.4 %

74.6 %

■ no ■ yes

Fig. 3. Number of recipients ready to repost "fake" news

At the same time, most respondents trust only those editions which they constantly read on the Internet. Therefore, they treat them complimentary when covering any news. Thus, among the media sources used by respondents are *the Guardian, WHO, YouTube podcasts, BBC, CNN, Korrespondent.net, Hromadske, Suspilne, Reuters, Kyiv post* etc. In relation to those who are not trusted *(Znaj.ua, gazeta.ua, HB, Apostrophe, TSN, NewsOne, 5 channel* etc.)there are sources that are associated with their owners (and, accordingly, political preferences). That is why opinions about publications that are trusted (and at the same time not trusted) by recipients are sometimes debatable. These in our case in clued *1+1, 112.Ukraine, Inter, Unian.* Respondents also expressed distrust of abstract impersonal media sources (Russian, American, Chinese). As a result, even official sources of certain countries (Ukraine, Russia, USA, China) fall into the zone of distrust. We can conclude that media literacy of modern Ukrainians often depends on political sympathies rather than on the objectivity of information or factuality. We also emphasize that "media literacy has become a center of gravity for countering fake news" (Bulger, Davison, 2018: 1). This can be observed in Figure 4, which shows the level of trust in media among Ukrainian respondents regarding the information flow about COVID-19.

The result of the information flow which catches up with the recipients *(on the street, among acquaintances, in advertising)* is also interesting. Most of those who were not interested in the news of the COVID-19 pandemic still learned about it from other sources, in which advertising plays a key role (see Figure 5). Therefore, we conclude that media literacy of Ukrainians largely depends on the environment (a recipient is more likely to trust information from an acquaintance as a verified source than a fact in media which must be verified).
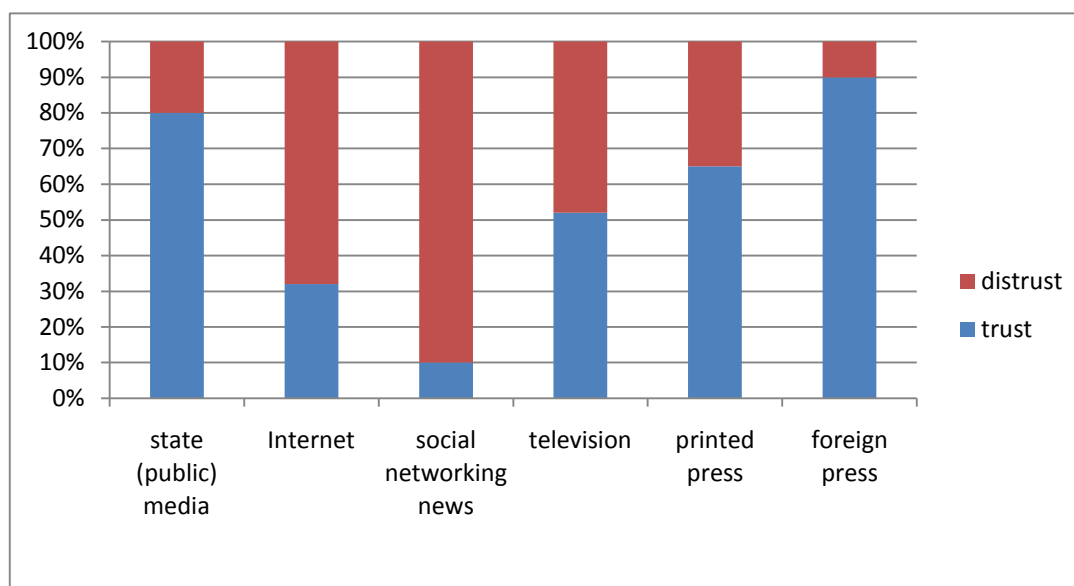
Fig. 4. Degree of trust in media among respondents

There can be two reasons for not checking unknown material from a known source: either there are no trusted media resources, or trust in a known source is higher than trust in a media fact (a psychological factor wins: information that is spread between communicators as a virus may not always be a fact). Realizing this, media can become the first pseudo-source of information that will pass it to a specific recipient, who will pass it on again: either to other communicators verbally, or to friends on the social network through repost.
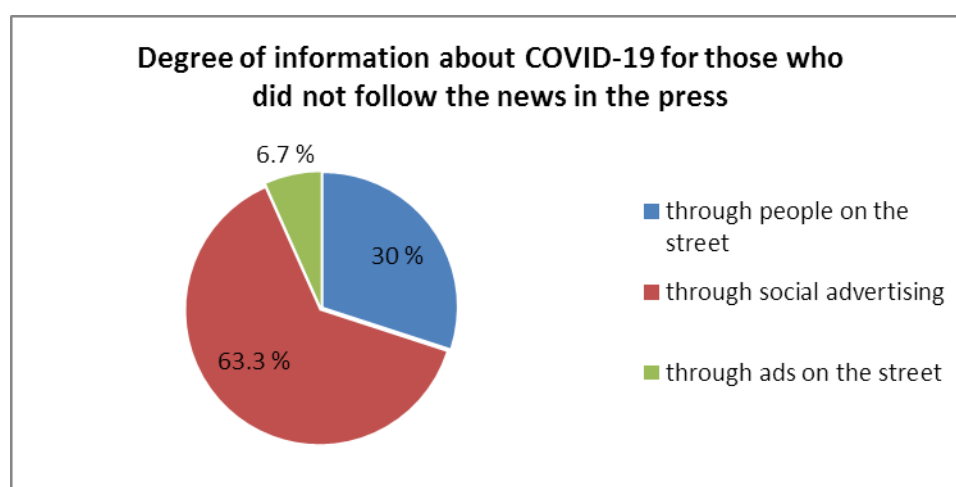
Fig. 5. Degree of information about COVID-19 for those who did not follow the news in the press

Manipulative role of media headlines
It is known that headlines are "a graphically selected part of a media text, ... the main idea and intent of a media text" (Shevchenko et al., 2014: 55). In the context of information competition, a brightly chosen headline helps a media text to be noticed and read by a potential recipient (especially when it comes to Internet communication).

Recently, the attention of scientists is drawn to the problems of language tools to maintain "the originality of publicist text titles and enhance their advertising content" (Abuzalova, 2020: 451), and therefore in the pursuit of ratings and advertising media lose the ethical standards of journalists in text factuality. Especially these standards are absent in Internet communication, control over which is minimal. This is often used by journalists to relay false information through headlines. Thus, in social networks, in order to repost a media material, it is necessary to use:

(*a) a provocative headline* (according to L. Duskaeva, journalists today lose the "aesthetic assessment of the message" (Duskaeva, 2010: 61), which is often realized through an unaesthetic headline, that is rather intriguing, fascinating, shocking, but not factual); *(b) a headline in the form of a rhetorical question* that forms the recipient's interest in reading the material; *(c) a headline with an innovative language unit* (e.g. neolexeme or neophrase). For instance, a headline such *as "To be or not to be a covidiot: how not to succumb to COVID panic"* is much better perceived than a headline *"Panic during a pandemic"; (d) analytical headline instead of informative headline* that will encourage the recipient to read the material and repost it*; (f) a headline with an interesting stylistic resource* – figures that will decorate a "dry" headline (see Figure 2 with "fake" headlines, which the respondents are ready to share).

In fact, a headline is "a guide between the reader and the journalist, in which the actualized meaning and idea are embedded" (Duskaeva, 2010: 86). It should be noted that a headline (if considered as an informational whole) is the first setting for the recipient in the perception of the material. Further reading and understanding of a media text actually depends on this setting. The results of our study have shown that the reaction of respondents through reposts on their social pages also depends on a headline. For instance, more than 80 % of respondents are ready to repost positive news headlines (even if they are fake), while negative news headlines are less repostable. It can be concluded that a journalist would rather choose a positive headline which is easier to manipulate the recipients' consciousness.

Language resource as a manipulative tool

The manipulative function of a media headline can be proved with the help of effective language means, i.e. certain dominants of mass communication which are characterized by emotionality and expressiveness and act as certain verbalizers of the essence of a media message.

Language means that function in a media text (e.g. in Facebook and Instagram posts) are a bright manipulative tool which is not always perceived positively by recipients. Therefore, the influence of such language means on the consciousness of the mass recipient is quite high. According to our observations, the most frequent language resources that "help" to convey false (or unverified) information are units of different language levels (primarily lexical and syntactic). Thus, for instance, the most manipulative units are recorded at the lexical (44 %) level. For correct analysis, we took those posts from Facebook and Instagram that were not confirmed by World Health Organization. According to our survey, recipients have been found to repost news with provocative headlines, which in world media linguistics is understood as a key tool of a media text (Perrin 2006). Obviously, our study is representative of Ukraine, as the data presented are processed from Ukrainian Facebook and Instagram pages. See Figure 6 which indicates the rating of the stylistic resource in the headlines of the posts for March-April. We emphasize that in 34 % of cases, the recipients are ready to repost unverified facts on their pages (respectively – every third).

All language changes associated with COVID-19 appear in order to see the real picture of language system evolution, the changes in its composition, the axiological dominants that form modern linguistic communication as well as trace the "life" of a linguistic unit in relative time.

See "fake" news in the media:

(7) *More than 1,500 military personnel of the 59 APU brigade in the Donbass are infected with coronavirus* (News Front, https://news-front.info/2020/05/04/bolee-1-500-voennosluzhashhih-59-brigady-vsu-na-donbasse-inficzirovany-koronavirusom/, 04/05/2020).

(8) *Opinion: I still think COVID-19 is being overhyped* (Public Opinion, https://www.publicopiniononline.com/story/opinion/2020/03/19/coronavirus-still-think-covid-19-being-overhyped-dwight-weidman/2874667001/, 19/03/2020).

(9) *UK refuses 5G, Huawei will no longer be able to carry out infrastructure works* (Qartuliazri Reportiori, http://qartuliazri.reportiori.ge/inside.php?menuid=8&id=54128, 25/04/2020).

(10) *"The virus no longer exists": a doctor made a shocking statement about the coronavirus in Italy* (Site News, http://www.sitenews.biz.ua/virusu-bilshe-ne-isnuye-likar-zrobyv-shouyuchu-zayavu-pro-koronavirus-v-italiyi/, 15/10/2020).
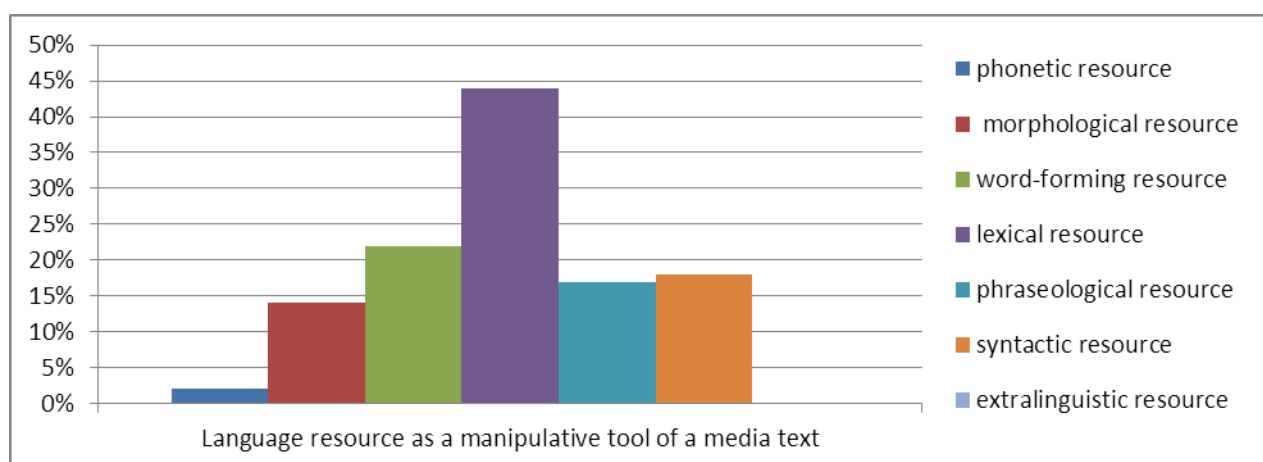
Fig. 6. Using a language resource as a manipulative tool in the news

It should be noted that neology is an important tool in manipulating the consciousness of the recipient. Nowadays neology is rapidly invading the language system and just like "virus" can invade the media space. Social networks have the function of blocking a participant for providing inaccurate information. But what if this information is new and difficult to verify by source?

At the beginning of the pandemic, according to our observations, almost no language innovations were detected in the media, which is motivated by the popularity of the barbarism COVID-19 and its counterpart coronavirus in the Ukrainian-speaking realities. At the same time, from the metaphorical nomination for the similarity of the virus to the crown, graphically designed in quotation marks *("coronavirus"),* journalists moved to the commonly used word without quotation marks *(coronavirus).*

Such dynamics can be explained by the resonance of the language unit for conversational communication, just as it once was with the nominations *"trampism" – trampism* (in American realities), *"Maidan" – Maidan* (in Ukrainian realities), *"newcomer" – newcomer* (in Russian realities) etc. All these nominations are firmly entrenched in the media realms not only of certain countries in whose language the units were distributed, but also became interesting for world communications.

Another situation is with the new words for COVID-19, which appeared and function as internationalisms. It often turns out that these words affect the mass consciousness and can be the subject of analysis from the standpoint of media literacy.

Therefore, the path of the new word (and meaning) is represented schematically: *COVID-19 → "coronavirus" → coronavirus → death virus → n + 1* (infinity of words and expansion of meanings). That is why in the mass consciousness the coronavirus nomination is used more widely and rapidly than COVID-19 (Figure 7). Therefore, the frequency of derived words from "crown-" will also be higher.
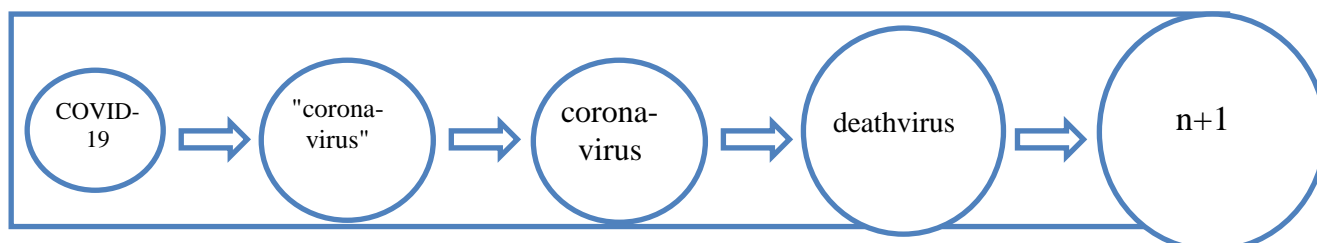
Fig. 7. Stylistic gradation of the appearance of a new semantic nuance associated with COVID-19

New words also appear in the lexicon of Europeans (we have even noticed a certain universalization in this matter regarding the English language as an international donor of new words). Thus, in the e-dictionary of slang *Urban dictionary*, the first and most popular among recipients media neologisms such as *covidiot* (a person who stores goods during quarantine) or *coronabrain* (coronavirus brain) appear in mid-March (Figure 8); British scientists have even

invented a special definition that denotes a special language during the COVID-19 pandemic - *coronaspeak*.

These language innovations were picked up in the Ukrainian media in April. This tendency is a natural process for the language and is associated with "the dynamics of the Ukrainian word in mass communication, ... maximum objectification of the real picture of the life of the Ukrainian language in media communication" (Shevchenko, Syzonov 2019: 5).

Fig. 8. Slang frequency of new units associated with COVID-19
Source: https://www.urbandictionary.com/

We see the impact of new words related to COVID-19 on the formation of the image of modern Ukraine (Pliasun, 2019). Today's media image of Ukraine is quite contradictory due to the infamous COVID-19, which has different effects on Ukrainian economy, medicine, education, science, tourism etc. And if in some areas we are trying to find a way out of the problem situation, reformatting the educational process in the direction of digitalization and developing domestic tourism, in other areas - especially economic, medical, social etc. - we face many serious challenges.

Obviously, in these conditions, the priority of a journalist should be timely, truthful and impartial informing the recipient about current events, focus on axiological and ethical principles, information hygiene and respect for recipients. After all, the perception of the image text by 50 % depends on the author's intention, modality, etc., that is why professional analysis of the meanings laid down by the journalist, image-forming markers and ideologues is one of many topical issues for researchers in linguistic imageology.

It is in social networks that we notice a certain trend in the flow of news, which makes social networks leaders of public opinion and an authoritative source (Holmgreen 2020), which is not always positive for the recipient who does not check the source of information by reposting fake news.

5. Conclusion

We conclude that in most cases modern recipients do not check the information obtained from media sources (as confirmation, we present the results of an electronic survey). Medical issues especially fall into the zone of weak verification (according to our data, the recipient trusts the authorities and any information that is expressed officially). On the one hand, society is most concerned about health problems, on the other hand, journalists manipulate on the topic of health (Syzonov, 2012: 9). We associate low media literacy with the rapid globalization of modern media (Claire, 2019), due to which the flow of information is uncontrolled, especially in Internet communication. Another reason for low media literacy is the "skill" of journalists to mislead recipients through bright headlines. It is proved that a bright headline, compositionally organized as an interrogative or exclamatory sentence, has a greater impact than a narrative construction.

According to our survey, headlines with lexical manipulative resources are the most popular (44 %), while headlines with phonetic manipulative means are less affected by the recipient. Most of the interviewed recipients are still ready to check the factuality of the information in a media text (we emphasize that we have deliberately selected fake news). Some recipients (22 %) pay attention to fake news because of a bright headline (or trusting a verified media resource) and are ready to repost the news without verification. Due to the resonance of the news related to COVID-19 journalists have used not only objective but also fake news as a tool to influence the recipient. As evidenced by our survey, even because of the possible decline in the popularity of the news or media sources about the coverage of the COVID-19 pandemic, journalists "artificially" resort to the inclusion in the text of the topic "COVID-19", to which recipients actively respond. We state that the presented factual news in different media sources can be perceived by the recipients with the

opposite semantics. The reason is in the reflection on media due to their politicization (any information, even official, can be perceived primarily through sources that are trusted / distrusted). Consequently, media literacy of modern recipients depends on political orientation of a media source, as well as a recipient's refusal to verify the facts and trust any information obtained from official sources and interpreted in media.

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Twitter and Social Movement: An Analysis of Tweets in Response to the #metoo Challenge

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Abstract

Twitter as a social tool is helpful to measure the sentiments of people, be it the death of any personality, a mass protest, epidemic or natural calamity. The current study observes how effective Twitter to assess the sentiments of people amidst the #metoo campaign. Twitter users were found to be very vigorous and highly responsive during #metoo campaign. There has been overwhelming participation of media and online websites as well as individuals on this movement. With the participation of diverse Twitter handles, #metoocampaign was conversed in 400 tweets during study period. Along with these hash tags #withu, #resist, #womenpower, #believewomen, #womensmarch, #womeninstem, #feminism, #imwithher also used. All these hash tags convey messages related to women empowerment and feminism. The major sentiment involved in the movement is related to sexuality. Rehab, abuse Justice and harassment are also the most common emotion shared in these tweets. There is not much tweets about Men and kids.

Keywords: Twitter, social media analysis, metoo campaign, social media metrics, sentimental analysis, NVIVO, hashtags

1. Introduction

"Social media gives public a platform to share in real time their experiences, views, information, or to express their opinions on specific subjects, political issues or social events. Facebook and Twitter, the most popular social media platforms with huge user bases have remained instrumental in this regard" (Gul et al., 2016).Twitter.com is a popular micro blogging website. Tweets are generally used to express a tweeter's sentiment on a subject or an issue. There are organizations which surveys twitter for studying sentiment on a particular subject. The challenge is to collect all such significant data, identify and encapsulate the overall emotion on a topic. "Twitter as a social tool is helpful to gauge the emotions of people, be it the death of any personality, natural calamity or activities of political figures during different political processes" (Gul et al., 2018).

Hash tags helps in identifying the relevance by identifying the degree of activeness to particular context or incident and thus gives hints to reader's inferential process. Me too campaign started in 2017 when allegations raised against the Hollywood producer Harvey Weinstein. Later personal stories started reporting from women in all industries around the world. The hashtag #metoo came to front page as rallying cry against the Sexual harassment and assault (The Guardian, 2017). The movement commenced on social media after a call to action by the actor Alyssa Milano, one of Weinstein's most vocal critics, who wrote: "If all the women who have been

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sexually harassed or assaulted wrote 'Me too' as a status, we might give people a sense of the magnitude of the problem" Within hours, millions of women and men too disclosed their harassment story through twitter, Facebook and Instagram. People started talking about the abuse they have confronted in their lives.

Fig. 1. The first tweet with regarding to the metoo challenge

Around 68,000 people have until now responded to Milano's tweet and the #MeToo tag has been used more than 1million times in the US, Europe, Middle East and outside. The French people used #balancetonporc, the Spanish #YoTambien, and in Arab countries the hash tags وأنا_كمان# and وانا_ايضا# were leading. Facebook reported that 4.7 million people around the world engaged in the #metoo conversation, with over 12million posts, comments, and reactions inside 24 hours. Social media open a large platform for people especially women for democratized feminism, it helps women to share the trauma of sexual violence. The hashtag also inspired some other hashtags used by men such as #IDidThat and #HowIWillChange, in which men have admitted inappropriate behavior' (The Guardian, 2017).

Kouloumpis and Wilson (Kouloumpis, Wilson, 2016) published a paper on Twitter sentiment analysis and examined the helpfulness of linguistic features for identifying the emotion of Twitter messages. The researchers assessed the utility of existing lexical properties as well as features that capture information about the informal and creative language used in micro blogging. In another study by Verger (Vergeer, 2015) on Semantic sentiment analysis of Twitter, presented a fresh method of adding semantics as supplementary features into the preparation set for sentiment analysis. Twitter as a political communication and campaigning tool during the period of Indian election 2014 has been studied by Ahmed et al. (Ahmed et al, 2016).

Gender-Based Violence (GBV) in India was discussed by Tilly, Catherine, and Elyssa (Tilly et al., 2018) based on the English language tweets posted from 3rd September to 1st October 2013. The result shows that women challenged the norm which blamed women for GBV more often than men. Also pointed out the importance to encourage women to participate more in the Twitter discussion. In India, women are facing a significant dishonor related to victim - blaming and treating as behaved immorally than supporting after undergoing GBV (Easteal et al, 2015).

The Twitter analysis was also used to analyze the strategies. The marketing strategy of ten sports gamblers of the UK was examined based on 3375 Tweets posted during 2018–2019. Surprisingly there was no responsible information on gambling in the large majority of these tweets (Killick, Grifths, 2020). Four hundred tweets on '#secondcivilwarletters' were analyzed to find out the authorization, moral value, rationalization, and mythopoesis (Ross, 2019). During the Indonesian Presidential election, Budiharto and Meiliana (Budiharto, Meiliana, 2018) predicted the results based on the tweets gathered from March to July 2018. Analysis using R language gave reliable results. Bruns and Stieglitz (Bruns, Stieglitz ,2013) discussed the importance of standard metrics to improve the comparability across twitter hashtags. Ontology based analysis of hashtags #smartphone resulted in a detailed analysis of opinions related to a topic (Kontopoulos et al., 2013). Analysis of the twitter hashtag #MPNSM shows the diverse mix of terms that include "MPN" (myeloproliferative neoplasm), social media, "pts" etc. (Pemmaraju et al., 2016). Based on demographics, there is a significant difference in the tweets of users on journal articles of psychology and political science (Zhou, Na, 2019). How to use twitter for learning and to connect with people are discussed by Taylor and Weigel. (Taylor, Weigel, 2016). The #NHI related to

"The South African Health Insurance Bill" was analysed by Struweg (Struweg, 2020) indicates the importance of "social media during critical events". Emotion detection on twitter was studied by Strapparava and Mihalcea (Strapparava, Mihalcea 2007).

2. Materials and methods

The study was conducted on the tweets related to #metoo campaign and data was collected from Twitter amidst August 2020. The study was conducted on tweets that were posted in English. Tweets that were translated from other languages were also excluded. The tweets extraction and analysis of the data has been done with the help of Quantitative data analysis software NVIVO. NVivo is the foremost software for analyzing unstructured data. Its powerful terminal helps people conducting research to organize, analyze and visualize qualitative data, so they can spotlight on finding new insights and making better conclusions. NCapture Plug - in was also used to extract the data from Twitter. NCapture enables to rapidly and effortlessly capture content like web pages, online PDFs, Twitter tweets and Face book posts and import into NVIVO 10 for Windows.

Tweets analysis has been conducted in different phases. The diagrammatic representation of the analysis is given in Figure 2. The beginning the input keyword identified and fed into the system and tweets retrieved in the second stage. Data processed using Nvivo. Stop words are removed and noises are avoided. Analysis of the tweets has been conducted in this stage. Tweets were classified in the next stage. Analysis has been conducted after this. The results of the analysis represented graphically in the final stage.
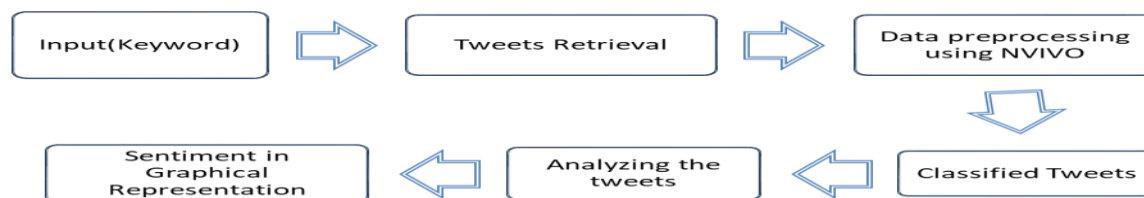

Fig. 2. Diagrammatic representation of the overall tweets analysis

The study was conducted to examine: how Twitter can be used to measure the expressions of public during the #metoo campaign and to determine how people use twitter to express and communicate their opinions, feelings, and experiences with reference to #metoo campaign.

3. Discussion

The present study analyses the use of Twitter to discover how people reacted to #metoo campaign. With 140 - character briefness, Twitter makes posting easier and convenient. In twitter, length is limited to a sentence or a headline (Nakov, 2017). Twitter users were found to be very vigorous and highly responsive during #metoo campaign. Earlier studies show that online forums are considered as a place to securely express viewpoints and experiences (O'Neill, 2018). The study conducted by Andalibi, et al (Andalibi et al., 2016) found that "most posts were from those who had experienced sexual abuse and were seeking support, nine percent of the topics focused on providing support to others". In a similar study Moscatelli et al (Moscatelli et al, 2021) analysed the criticism against #MeToo in Italy. Bogen et al (Bogen et al, 2018) pointed out that Twitter is a platform to describe and discuss to others on "sexual violence experiences". Palmer et al (Palmer et al, 2021) conducted a survey among the students of a private university in U.S. to identify the sexual assault revelation before and after #MeToo. Students from Asia and non LGBQ community are not much interested in revealing the sexual assault.

In order to express his/her view or opinion, users have created 95 different hash tags related to "metoo" in their tweets. There has been overwhelming participation of media and online websites as well as individuals on this movement. The major sentiment involved in the movement is related to sexuality. Rehab, abuse Justice and harassment are also the most common emotion shared in these tweets.

4. Results

If the tweets contain at least one word #metoo, then the tweet is considered as it has some degree of polarity with the subject. The results of the study can be summarized as follows:

Involvement

With the participation of diverse Twitter handles, #metoocampaign was conversed in 400 tweets during study period of 6months. The word cloud exported from NVIVO is given in the diagram. The size of the words represents the frequency of use of the word. #metoo, movement, women, https, times up are some of the most frequently used words.

Fig. 3. Word cloud exported from NVIVO

Top hash tags

With 140 characters, a Twitter user can construct any number of hash tags to express his/her outlook or opinion' (Gul et al, 2016). Other than the studied hash tags, users have created 95 different hash tags in their tweets. The top 25 hash tags are shown in the table. #metoo is the most commonly used hash tag times up is the second most widely used hash tag. Along with these hash tags #withu, #resist, #womenpower, #believewomen, #womensmarch, #womeninstem, #feminism, #imwithher also used. All these hash tags convey messages related to women empowerment and feminism. #womeninstem mention the women in science technology, engineering and math and that is women in higher education. These hash tags can be classified as has tags related to women empowerment and another category if hash tags include #trumplies, #votethemout, #resign, #modiinuae, #impeachtrump can be considered as another category called political category. This shows the impact of #metoo movement in the political circles.

Table 1. The top 25 Hashtags

Hashtag	Number
#metoo	598
#timesup	41
#withyou	8
#resist	8
#incredibleindia	4
#womenpower	3
#votethemout	3
#trumplies	3
#sexualharassment	3
#resign	3
#nobannowall	3
#modiinuae	3
#indivisible	3
#india	3
#imwithher	3
#impeachtrump	3
#feminism	3
#dreamers	3
#democrat	3
#believewomen	3
#art	3

#wonderwoman	2
#womensmarch	2
#womeninstem	2

Tree Map

Text analyses extracts meaningful pattern from unstructured text. This text analysis helps to analyze the sentiments in text. The area allotted for each text is directly proportional to space allotted for the key term.
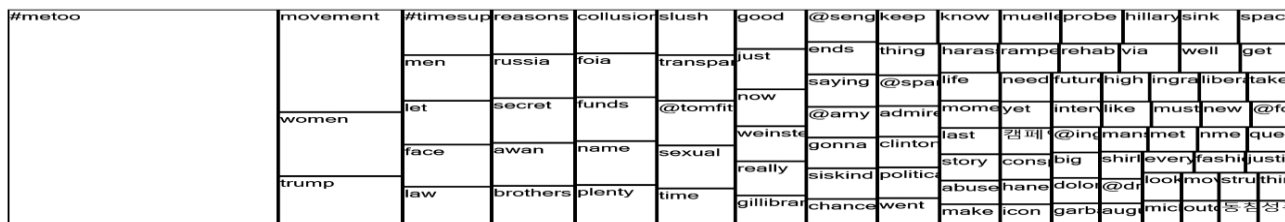

Fig. 4. Tree Map exported from NVIVO

Participation and type of Twitter profiles

There is no limit on creating a Twitter profile. It can be generated by an individual, group, organization, institution, agency, etc. For the purpose of study, we analyzed the individuals who posted more than 10 tweets. As evident from Table, there has been overwhelming participation of media and online websites as well as individuals on this movement. The following groups/individuals posted more than 10 tweets.

Table 2. Groups/individuals posted more than 10 tweets

Word	Length	Count	Weighted Percentage
@tomfitton	10	35	0.35
@sengillibrand	14	23	0.23
@amy	4	22	0.22
@sparklesoup45	14	19	0.19
@ingrahamangle	14	12	0.12
@foxnews	8	12	0.12
@drpyo	6	11	0.11
@realdonaldtrump	16	10	0.10

Expression of tweets

Term frequency extracts the mostly used meaningful words and their count. Sometime the most frequent words are not exactly meaningful. Articles, conjunctions, adverbs etc. in the tweets has to be removed before extracting and counting. These words are called stop words. Stop words removal has to be done at preprocessing stage. Here the software removes the stop words and the extracted words give detailed account on what the content is about. In order to identify the sentiments involved in the tweets, an analysis has been done using some most frequently used terms as the key term. The key terms have been selected after studying the tree map. Abuse, harassment, justice is the most commonly used word along with me too hash tag. It is shows that the hash tag tweets mainly disclose the issues related to abuse and harassment and justice. It's also shows along with the discussion of sexual abasement the tweets also discuss about the rehabilitation process also. Rehab, abuse Justice and harassment are also the most common emotion shared in these tweets.

The most widely used terms are: *Abuse, Harassment, Justice, Men, Movement, Rehab.*
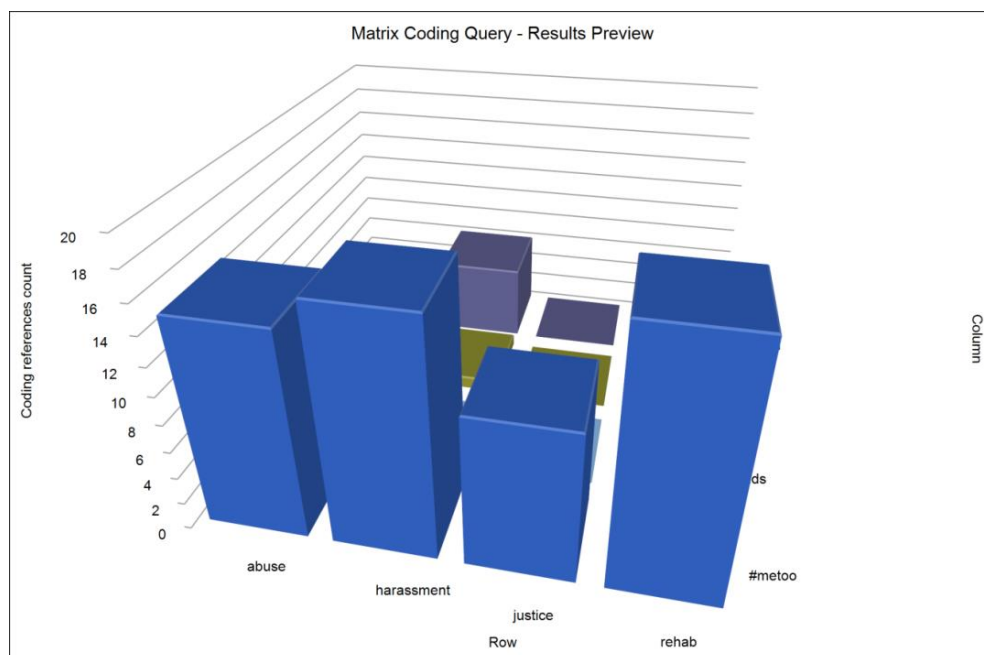

Fig. 5. Most frequently used terms in the tweets

Correlation between the selected Key terms and #metoo campaign

To analyze the content of the tweets in more detail, an attempt has been made to identify the correlation among the mostly used key terms. It is clear from the Table 3 that #metoo is highly correlated with the key terms Abuse, Harassment, Justice, Rehab and the term Sexual. That is #metoo movement handles mainly with sexual abuse and harassment. Men and Kids does not show any correlation with these terms. That does not mean kids or men are free from sexual abuse whereas #metoo movement does cover child abuse or men's sexual harassment experiences. Scope of #metoo movement is beyond that. That's why when it comes to women, it shows a good correlation. Correlation between women and the term Sexual is comparatively high.

The table clearly shows that the major sentiment involved in the #metoo movement is related to sexuality. Rehab, abuse Justice and harassment are also the most common emotion shared in these tweets. There is not much tweets about Men and kids.

Table 3. Correlation between the selected Key terms and #metoo campaign

	Abuse	Harassment	Justice	Rehab	Sexual
#metoo	15	17	11	18	33
Kids	0	0	0	0	0
Men	1	1	0	0	1
Women	1	6	0	0	7

4. Conclusion

Micro blogging has now become a very particular communication tool. Millions of people share their views, opinions on various topics in their sites. Hence twitter is a rich source of opinion and view of different people around the world. The present study reveals how Twitter can be used to assess the sentiments of people. The study can further developed by measuring the sentiments of Twitter users from geographical and gender perspective.

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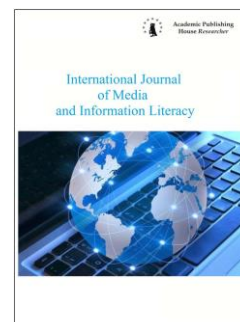
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Forbidden Soviet Cinema (1951-1991): A View from the 21st century

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Abstract

In 2021 the Publishing House SM "Information for All" published a book by Professor Alexander Fedorov "Record holders of the banned Soviet cinema (1951-1991) in the mirror of film criticism and viewers' opinions" (Fedorov, 2021). In this interview with Professor Marina Tselykh, Alexander Fedorov discussed the reasons for which films were banned, shelved or interrupted at various stages of their production in the USSR, how audiences reacted to the release of such "shelf" films during "perestroika," and other aspects of the topic.

After reading this book it becomes clear how difficult was the fate of Soviet film directors, screenwriters and actors. The lives of some of the most talented filmmakers were ruined... For example, Alexander Askoldov was banned from working in the film industry for twenty years after his film "Commissar" was shot. And Soviet many films have been banned from cinemas and television or stopped while they were still in the making. And this despite the fact that many of them had real artistic value, were masterfully filmed.

Keywords: Soviet cinema, banned films, film studies, film criticism, book, Alexander Fedorov.

Marina Tselykh: After reading your book "Record holders of the banned Soviet cinema (1951-1991) in the mirror of film criticism and viewers' opinions" (Fedorov, 2021), I realized how difficult the fate of Soviet directors, screenwriters and actors was. The destinies of the most talented filmmakers were broken. You write, for example, that Alexander Askoldov was deprived of the right to work in cinematography for twenty years after the "Commissar" was banned. How many films were banned from showing in cinemas and on television, or stopped while still filming!! And this despite the fact that many of them had real artistic value, were masterfully filmed and superbly represented by the cast.

Could you, please, briefly describe and systematize the main reasons why films were banned, "sent to the shelf" or interrupted at different stages of their creation.

Alexander Fedorov: The reasons for the ban and the "shelf" fate of a number of Soviet films were, in a generalised form, as follows:

- Ideological reasons (divergence of the concept of the authors of this or that film from the official course of interpretation of historical, political, socio-cultural events). Examples: A. Askoldov's *Commissar*, A. German's *Checking on the Road*, V. Žalakiavičius' *Moment of Truth*, etc;

- Artistic reasons (the author's search for a new form, style that does not coincide with the norms of "socialist realism" approved by the authorities). Examples: S. Paradzhanov's *Kiev*

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Frescoes, Y. Ilyenko's *Spring for the Thirsty*, G. Poloka's *Intervention,* R. Khamdamov's *Unexpected Joys*, and others;

- A changed political situation changed as a result of which films that had been "properly" conceived and initially approved by the directorate stopped being relevant and necessary for the state by the middle or at the end of the shooting process (*Farewell, America!* by A. Dovzhenko, *Conscience of the World* by A. Room, *Always on the Watch!* By E. Dzigan, *Starling and Lyra* by G. Alexandrov and others);

- Too gloomy and problematic, in the opinion of the authorities, portrayal of Soviet reality. Examples: *Thema* by G. Panfilov, *Victor Krokhin's Second Attempt* by I. Sheshukov, *Vacation in September* by V. Melnikov, etc;

- The emigration of a film director or screenwriter to the West. Examples: *The Price* (directed by M. Kalik), *While the Dream Is Mad* (screenwriter V. Aksenov), etc;

Films of a low level of art that, in the opinion of film authorities, had no "box-office prospects" were rarely placed on the "shelf". They were simply given so-called "republican" distribution and/or small print runs...

Many outstanding works (G. Shpalikov's *Long and Happy Life,* M. Khutsiev's *July Rain*, S. Paradzhanov's *Color of Pomegranate* and others) which for one reason or another were deemed undesirable to a mass audience also received a small print.

In the course of writing this book, it turned out that sometimes the well-established information about the total prohibition of one or another Soviet film turned out to be false.

So in many sources (Wikipedia, the portals "Kino-teater.ru", "Kinopoisk", etc.) it is still asserted that the drama of Kira Muratova *Long Farewell* (1971) did not appear on the all-Union screen, since it was banned and lay on the "shelf" until 1987 perestroika. Similar information is contained even in such authoritative publications as "Our Cinema" (Kudryavtsev, 1998: 55), "Home Cinematheque. National cinema 1918-1996" (Zemlyanukhin, Segida, 1996: 127), "Cinema of Russia. Director's Encyclopedia" (Cinema..., 2010: 330).

However, it is not. Here is what Natalya Ryazantseva, the author of the script for *Long Farewell*, writes about this: "The picture came out in a small number of copies. Thanks to Gerasimov. And then she was suddenly removed from the screen in all cinemas by order. It did not last long ... There were more than five hundred copies" (Ryazantseva, 2008).

However, *Long Farewell,* apparently, was at the box office in 1971 not a day or two, but a much longer period, since as a result of a survey of readers of the magazine *Soviet Screen* this picture by Kira Muratova was recognized as the worst film of the year: 27.3 % of the viewers who saw him recognized him as bad, 7.3% – weak, 30.9% – mediocre, 21.8% – good and only 7.2% – excellent (Competition..., 1972: 19).

Thus, *Long Farewell* was in the Soviet film distribution in 1971, and printed in not such a small circulation – over 500 copies (by the way, in the reference book "Home Cinematheque. National Cinema 1918-1996" it is noted that the circulation of this picture was 535 copies, but at the same time, as I have already indicated above, it is erroneously asserted that, despite this, the film was not released in the 1970s) (Zemlyanukhin, Segida, 1996: 127).

But the circulation of 500-535 copies is quite comparable with the circulation figures of such famous films as *Tenderness* by E. Ishmukhamedov (508 copies and 9.3 million viewers in the first year of screening in cinemas), *Girl and Echo* by A. Žebriūnas (501 copy and 5.8 million viewers), *I Come from Childhood* by V. Turov (504 copies and 7.6 million viewers), *I Am 20 Years Old* by M. Khutsiev (535 copies and 8.8 million viewers per episode), *Blue Notebook* by L. Kulidzhanov (483 copies and 8.5 million viewers), *A Plot for a Short Story* by S. Yutkevich (420 copies and 8.1 million viewers), *Steppe* by S. Bondarchuk (552 copies and 3.2 million viewers), *The Woodpecker Doesn't Have a Headache* by D. Asanova (544 copies and 6.6 million viewers), *Flights in Dreams and in Reality* by R. Balayan (502 copies and 6.4 million viewers), *The Fox Hunt* by V. Abdrashitov (499 copies and 5.9 million viewers), *Valentina* by G. Panfilov (496 copies and 5.4 million viewers), *The Voice* by I. Averbakh (533 copies and 2.3 million viewers).

And this is much more circulation of such outstanding films as *July Rain* by M. Khutsiev (164 copies and 3 million viewers), *Long Happy Life* by G. Shpalikov (89 copies and 1.5 million viewers), *Adventures of a Dentist* by E. Klimov (78 copies and 0.5 million viewers), *Andrei Rublev* by A. Tarkovsky (277 copies and 2.9 million viewers), *There lived a Songbird* by O. Ioseliani (320 copies and 2.6 million viewers), *Pirosmani* by G. Shengelai (209 copies and 1.5 million viewers), *Plea* by T. Abuladze's (179 copies and 1.2 million viewers), *Color of the Pomegranate* by

S. Parajanov (143 copies and 1.1 million viewers), *Autumn* by A. Smirnov (261 copies, 9.8 million viewers), *Mirror* by A. Tarkovsky (84 copies and 2.2 million viewers), *Stalker* by A. Tarkovsky (193 copies and 4.3 million viewers), *Funny People!* by M. Schweitzer (215 copies and 1.6 million viewers), *Farewell* by E. Klimov (270 copies and 1.3 million viewers), *Parade of the Planets* by V. Abdrashitov (263 copies and 2.2 million viewers), *My friend Ivan Lapshin* by A. German (118 copies and 1.3 million viewers) (the source is book of film critic Sergei Kudryavtsev "Our Cinema" and in his Internet blog (Kudryavtsev, 1998).

And since 1.7 million viewers watched them during the re-release of *Long Farewell* 1987, it can be assumed that in 1971 the audience for this film by Kira Muratova was not less, but much more. Here I proceed from the fact that O. Ioseliani's film *There Lived a Songbird* (1972), which is equally far from entertainment and also black-and-white, managed to get 2.6 million viewers even with a significantly smaller circulation - 320 copies, and *July Rain* (1967) by M. Khutsiev was seen by 3 million viewers with a circulation of 164 copies…

At the same time, it is clear that ordinary cinemas tried to get rid of such non-entertainment films as *Long Farewell* as early as possible, they went there for a maximum of a week, and then smoothly moved to club halls - for a couple of days, for one or two sessions…

Therefore, we can safely say that even if *Long Farewell* in the all-Union box office ran for only two weeks, they managed to gather their 2-3 million viewers, some of whom later noted this psychological drama as the worst film in the questionnaire of *Soviet Screen* of the year…

A similar example is the usually considered totally forbidden film by M. Osepian *Ivan's Boat* (1972). Having received the so-called fourth category and a circulation of 197 copies, this drama was released in Soviet distribution in 1974 and gathered 1 million viewers in its first year of demonstration.

It is curious that when during the "perestroika" (in 1987) *Ivan's Boat* was released to the all-Union rental again, accompanied by warm reviews in the press, the audience for the first year of the demonstration gathered viewers even in smaller numbers: only 0.9 million (source – Internet blog of film critic S. Kudryavtsev (Kudryavtsev, 1998).

A similar example to the film by Andrei Konchalovsky *The story of Asya Klyachina, who loved, but did not marry,* because this picture, titled *Asya's Happiness* in the late 1960s (again, contrary to numerous allegations of a complete ban), she still visited the Soviet box office.

Here is what the film critic N. Zorkaya (1934-2006) wrote about it: "*The story of Asya Klyachina,* disfigured by amendments and cuts, was released under the ironic title Asya's Happiness and in a ridiculous number of copies" (Zorkaya, 2006). This fact was also noted by the film critic Marina Kuznetsova: "Several printed copies were released on the third screen in the so-called club distribution, renaming it, as if in a mockery, *Asya's Happiness"* (Kuznetsova, 2006).

And here again the question arises, if the screenwriter Natalya Ryazantseva considered the circulation of K. Muratova's film *Long Farewell,* which amounted to 535 copies, to be small, then it is quite possible that the "ridiculous" circulation of *Asya's Happiness* was commensurate with, indeed, small circulations at that time such famous films as *July Rain* (164 copies and 3 million viewers), *Long Happy Life* (89 copies and 1.5 million viewers), *Adventures of a Dentist* (78 copies and 0.5 million viewers) and *Plea* (179 copies and 1.2 million viewers). And, consequently, the film *Asya's Happiness* attracted at least one million viewers in the Soviet film distribution in the end of 1960s.

Marina Tselykh: Well, many films have been returned from oblivion. Can it be argued that today these "shelf" films are able to become loved and demanded by the viewer? After all, the historical, political and cultural context has changed a lot. The media language has changed, the audience attending cinemas has also changed.

Alexander Fedorov: In my book I cite data and calculations by experts in Soviet film distribution, which show that profits in the 1960s-1980s were only realistic for those films that had built up a cinematic audience of at least 14-15 million viewers in their first year. Only Klimov's *The Agony* (18.1 million viewers) managed to overcome this barrier among films released during perestroika.

For example, when, with the triumphant support of the cinematographic authorities and the perestroika press, *The Story of Asya Klyachina, Who Loved But Did Not Marry* appeared on the

screens in 1988 in a repeated (and, presumably, considerable) circulation, then following the results of the first year of showing in cinemas it attracted 1.9 million viewers from cinemas…

In my opinion, this speaks volumes about the fact that there was no significant audience potential for this black-and-white drama based on rural material, outstanding in its artistic merit, but devoid of even minimal entertaining baits - neither in the late 1960s, nor in the late 1980s.

When I tentatively tested the above text on the Internet, but immediately received responses from some fellow film critics, in which, in the spirit of Soviet vocabulary, they accused me of "juggling the numbers" and that all this is far from the "true political and cultural context of that time", "they do not explain anything", "millions of viewers of 1965 and 1988 are completely different millions", and that I, they say, hinted that "since these films were released for hire and turned out to be so unattractive that it was hardly worth reviving them during the perestroika campaign"…

As we can see, a well-known manipulative technique was used, when phrases that did not belong to him were attributed to the "opponent" and then criticized.

Of course, both in the 1980s and now I believe that the prohibited films during the "perestroika" were quite rightly freed from the captivity of the "shelf" and shown to the audience, but this in no way negates the real facts, which clearly indicate that: 1) *Asya's Happiness, Long Farewell* were at the box office in the late 1960s and in 1971, respectively, and at least 1-2 million viewers watched them; 2) in the 1960s, 1970s and 1980s, Soviet viewers watched films like *Long Farewell* and *Ivan's Boat,* in very moderate quantities for those times, as they mostly preferred entertainment / spectacular film production.

The preferences of Soviet viewers in the second half of the 1980s were similar. The audiences of the "perestroika" era enthusiastically watched P. Todorovsky's *Inter-Girl* (44 million viewers) rather than A. Alov and V. Naumov's *A Bad Anecdote* (1.1 million viewers) and K. Muratova's *Long Goodbyes* (1.7 million viewers).

My previous monograph "One Thousand and One Highest-Grossing Soviet Film: Opinions of Film Critics and Audiences" (Fedorov, 2021) is devoted to the preferences of the Soviet mass audience. So I am well aware of the political and sociocultural context of the Soviet era, as well as the fact that as a result of the prohibitions "the most promising trends of Soviet cinema were thrown to the periphery, that the destinies of the most talented filmmakers were broken".

Yes, millions of viewers at different times are different in "weight". But aren't they ten times different? Well, let's say, *Long Farewell* would have been given in the 1970s a circulation not of 535 copies, but 2,000, and would have been released in wide distribution. Would they really have received an audience of more than 3-4 million? No, of course not, since for all its artistic merit, this is a non-entertaining "movie not for everyone"…

Of course, the ideal option was simply to release such films in regular distribution, then there would have been no need to create any commissions in the 1980s for their rehabilitation…

Let me also remind that hundreds of articles and dozens of books have been devoted to the phenomenon of audience success (including Soviet cinema), including such leading Russian film scientists of the past decades and the present as N. Zorkaya (Zorkaya, 1981), M. Turovskaya (Turovskaya, 1979), M. Yampolsky (Yampolsky, 1987), M. Zhabsky (Zhabsky, 1998; 2009; 2020), and many others. And all these studies prove that complex, philosophically filled art-house films never received even a tenth of the audience, relatively speaking, *Diamond Hand* or *Pirates of the XX century…*

Even today, in the 21st century, banned Soviet films of the old days interest mostly a very narrow spectrum of "advanced" viewers, mostly of the older generation.

Marina Tselykh: One cannot but take into account the fact that "bans" stir up public interest in a banned film. Is the excitement around such an "open" film always equal to its artistic merit and significance? How did perestroika mood affect the interpretation of the returned films? Has the opinion of critics changed now?

Alexander Fedorov: As I have already noted above, the hype generated by the perestroika press about the films that were taken off the shelves (and they were of varying levels of professional quality) did little to help their real success in cinemas.

Among the films taken off the shelf (there were over three dozen of them), only *Agony* achieved "profitable" indicators (18.1 million viewers in the first year of demonstration). It can also

be assumed that in the case of the timely release of such potentially spectacular films as *Farewell, America!* (1951), *Rainbow Formula* (1966), *Intervention* (1968), *Literature Lesson* (1968), *Always on the Watch!* (1973), *Starling and Lyra* (1974), *While the Dream Is Mad* (1978), they would also make a profit in the box office. And truly championship fees could await the destroyed film *Moment of Truth* (*In August 44ᵗʰ*) by V. Žalakevičius, based on the sensational novel by V. Bogomolov, if it had been released in Soviet cinemas in 1975 or 1976...

Based on the fact that the most popular Soviet films based on military material (*The Dawns Here Are Quiet..., Shield and Sword, Strong in Spirit*) gathered from 55 million to 66-68 million viewers in the first year of demonstration, it can be assumed that that *Moment of Truth* could even surpass these indicators and reach the level of 70 million viewers...

Of course, the perestroika mood had a more positive effect on the treatment of previously banned films which had been put back into distribution. For example, in the second half of the 1980s Soviet film critics were eager to give good recommendations even to, in my opinion, quite modest in its artistic merits, *Hare Reserve*...

The opinions of contemporary film critics on "shelf" cinema have, of course, become more balanced, these films are usually seen in a broad political and socio-cultural context.

Marina Tselykh: Could a new reading of the film arise because the temporal context has changed? After all, today we know about the heroes and events of the Soviet years, more than the contemporaries of the film knew about them.

Alexander Fedorov: You are right, today the perception of Soviet "shelf" cinema has become different, and this is clearly evident in the books and articles of Russian film historians of the 21st century (O. Kovalov, E. Margolit, A. Shpagin, V. Fomin, etc.). In my book I cite the opinions of many Russian film historians (Fomin, 1992, Fomin et al, 2012; Margolit, 2012, etc.), for whom banned Soviet films became the subject of a multifactorial study.

Marina Tselykh: In your book, you write that our yesterday's spiritual heritage would have been noticeably richer if talented and truthful works had not been "lying" on the shelves. And we cannot but agree with you. But how to determine the real value of a work that came to us from the past? After all, it is impossible to say unequivocally that time kills a film for good and all. And there are many examples of this. Which of them do you consider the most revealing? Of course, if the film is released on time, then the author's allusions are seen more clearly and easier to read. But, perhaps, it is not for nothing that they say that "the big is seen at a distance".

Alexander Fedorov: Film evaluations are always subjective. Both in the past and today, the same film may appear to some critics as a masterpiece and to others as a failure. There are films that become obsolete just a few years after they were made, and then there are examples of many years of cinematic appeal. Sometimes it happens so: in the year of creation a film seems to many film experts a trifle, not worthy of attention (a striking example here is the film adaptation of the novel *Amphibian Man* made in the early 1960s), but even after several decades, the picture remains in demand among the audience. And then, for film historians, the film becomes the material for an in-depth sociological analysis.

Marina Tselykh: What are the most promising trends in Soviet cinema were thrown to the periphery as a result of excommunication? What films testify to this?

Alexander Fedorov: I believe that the Soviet authorities' fight against "formalism" and "modernism" did a great disservice to the development of poetry in cinema. Just imagine for a moment how many outstanding works Sergei Paradzhanov could have directed after *Shadows of Forgotten Ancestors* had it not been for the ban on his *Kiev Frescoes* and the sad fate of *Color of Pomegranate...* To say nothing of the fact I am not saying about the fact that in 1970s this outstanding master, in general, was sent to prison... Certainly, the level of historical truth in cinema about the Great Patriotic War would have been different, if in early 1970s *Checking on the Road*s by Alexey German would not have been shelved...

Marina Tselykh: Which washed-out or lost film do you regret the most?

Alexander Fedorov: Of course, about 99 % shot and then destroyed *Moment of Truth* (*In August'44th, 1975*) by V. Žalakiavičius. I think it was probably the best work of this talented director, author of such a famous picture as *Nobody Wants to Die*... My book included an exclusive interview which was given to me by the performer of one of the main roles in *Moment of Truth* – a great actor Alexander Ivanov. He spoke in detail about the shooting and the reasons for banning the film.

Marina Tselykh: Are there any "shelf films" today, or is it rather high-grossing and elite cinema?

Alexander Fedorov: There is no "shelf cinema" in the Soviet sense in twenty-first-century Russia. But there are quite a few films whose shooting over the last thirty years has been interrupted for financial reasons. Or films that were made but never made it to cinemas, because cinema owners did not see any commercial potential in this kind of production...

In addition, the way the film industry in Russia is organised is that once they receive money from the Russian Ministry of Culture to shoot a film, producers, directors, actors, and other film crew members earn (often a sizable sum) during the filming process, but they have no particular interest in the distribution of the film itself. The overwhelming majority of Russian films today fail to break even at the box office. But after the next failed film at the box office, Russian producers again and again receive money from the state for their next projects, and therefore, again they earn good money...

There are many reasons for the failure of contemporary Russian cinema in the box office (there is fierce competition with Hollywood productions, television and the Internet; there is often a low level of professionalism in the films; and the transformation of a once wide age-range cinema audience into a teenage audience, plus now there is the pandemic, and so on). But the fact remains that dozens of Russian films, originally made as entertainment films, fail miserably in cinemas today. Although there have certainly been some box-office successes for Russian cinema in recent years (*Upward Motion, Holopop*, etc.).

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