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CONTENTS

Communicating Health: Media Framing of COVID–19 Pandemic in Sub–Saharan African Countries

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Abstract

The issues of health are relevant to the existence of a human being. How can communication hasten containment of a COVID–19 pandemic is crucial to mitigate its impact on human lives since issues relating to health are considered vital to all strata of persons in the society regardless of their socio–economic and political status. This study is to investigate how *Addis Zemen* newspaper covered and framed news stories concerning Coronavirus health concerns in Ethiopia. Using the quantitative content analysis method, the newspaper was analyzed along the lines of its news report; feature stories, editorial, opinion as well as interviews. Findings show that much coverage has been given to the spread of coronavirus, and the issue was considered prominent in the newspaper. On sources of information, about one–quarter of the stories have used government officials as its sources; on the other hand, about one–five of the reports on Coronavirus were substantiated by health experts and health organizations. Ten types of frames were found prominently emphasized in the reports while two were made salience in almost half of the total reports on the pandemic. Containment and effect frames were by far the most frequently appearing frame in the media.

Keywords: framing, COVID–19, coronavirus, pandemic, media, Africa.

1. Introduction

COVID–19 is an incident of huge magnitude and pertinence. Its effect has influenced various social, political and economic domains, including how the media depict the outbreak. It is having profound and significant impacts in several spheres of the entire world. The purpose of this study is to investigate how *Addis Zemen* newspaper framed news stories concerning Coronavirus issues in sub–Saharan African countries, Ethiopia. The research chose the newspaper as it is the only daily and widely circulated Amharic newspaper in the country and can influence other media outlets.

Background. The current novel Coronavirus pandemic, which originated in China in December 2019, becomes a substantial challenge for the entire world. COVID–19 has turned the world upside down. "Everything has been impacted. How we live and interact with one another, how we work and communicate, how we move around and travel" (ESCAP et al., 2020: 3). Every part of our lives has been influenced. The pandemic is a disaster experiencing enormous damage on humanity disrupting lives and livelihoods (Gates, 2020). The scale and severity of COVID–19 are unprecedented. This pandemic has, therefore, impressed strong media attention. It is becoming a sensitive issue of intense public interest and discourses. For this reason, how the media can play a role in containing COVID–19 and saving lives, can be a big deal to minimize its effect.

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We all face a worldwide pandemic which kills people, spreads human suffering and defaces people's lives. The pandemic is beyond a health crisis. It is vividly a human, economic and social crisis all over the world. It affects all segments of the population. Especially, older persons, and people with disabilities, individuals living in poverty situations, are most vulnerable to situations. When the virus is not properly communicated and handled, the social crisis created by the pandemic might increase inequality, discrimination, global unemployment and the like (Walker et al., 2020; UN, 2020). It has become far more than a health and science story, and more than the concern of health and science journalists (Ataguba, 2020; UNCTAD, 2020).

Disease outbreaks are inescapable, and often erratic, events. The environment surrounding an epidemic is unique in all public health. Uncertainty, confusion and a sense of urgency are the noticed features of outbreaks. By and large through the media, Communication is another component of the outbreak atmosphere. Lamentably, communication failures which have delayed outbreak control, undermined public trust and compliance, and unnecessarily prolonged economic, social and political chaos attributes of the pandemic. The WHO (WHO, 2005$_a$) claims it is presently an ideal opportunity to recognize that communication expertise has become as fundamental to pandemic control as epidemiological preparing and laboratory analysis.

From the experience, infectious diseases make a security threat that the society and the media have recently neglected. The media work as an impression of the public's concern and serve to everyone's understanding of health pandemics. The social and political settings of infectious disease pandemics are caught in the frames mass media utilize to tell stories about emerging diseases. Framing theory proposes that how the media present an issue affects how audiences feel about that issue (Shih et al., 2008; Ungar, 1998). Along these lines, investigating media framing of the pandemic provides a window for understanding public opinion and knowledge.

For one to understand how framing of news issues take place in the media, it is impertinent to draw insights from the Agenda Setting Theory. It is the process through which issues bubble up into public attention through mass media selection on what to cover, thereby causing the public to perceive these issues as salient (Severin, Tankard, 2001). Media narrow the attentions of public to certain issues by laying more emphasis on them at the expense of others to accomplish the agenda. It occurs when mass media present certain issues frequently and prominently with the intent of getting large segments of the public to perceive those issues as more important than others (Mustapha, 2012). Content analyses of media coverage of the SARS epidemic in the early 2000s and Ebola outbreak in 2014 provide a good framework for an analysis that can be applied to the Coronavirus pandemic (Beaudoin, 2007; Luther, Zhou, 2005). The present analysis of media reports about the 2019 Coronavirus mirrored those content analyses and analyzed which of the frames were most prevalent.

Statement of the problem. As the problem rapidly became a global issue, the World Health Organization declared a global health emergency on 30th January, and on 11th March, the pandemic. The case has continued to dramatically escalate; by 6 August 2020, there have been 19,246,679 confirmed cases of Coronavirus, 12,350,433 recovered and 716,745 deaths. As the case is becoming complicated, media can play a pivotal role in providing the public with credible, fact–checked and timely information. Besides, they can facilitate to combat COVID–19 (coronavirus) by committing to transparency, tackling misinformation and promoting health recommendations. Media could be a great way for individuals and communities to stay connected while physically separated. Examining the extent of media's coverage to fight the disease will be essential, therefore (ESCAP et al., 2020; WHO, 2005$_b$).

The COVID–19 pandemic is not only a health crisis, but also a humanitarian and development crisis that is menacing to leave profound social, economic and political scars for years to come, particularly in countries already overloaded by delicacy, conflict and poverty (Ibrahim, 2020). Concerning communication, unreliable and false information is spreading around the world, the fake information about the coronavirus became a second pandemic. Besides, the expected behavioural change to prevent the virus cannot be successfully achieved because of disinformation, economic constraints and other related factors in Ethiopia context. It can be said the fake news become fairly common and is causing severe damage to public health and welfare. Thus, the media should play a crucial role to be a source of verifiable information. Moreover, they can be a tool to fight the virus by confronting fake news, promoting transparency and addressing health experts' advice (Iyengar, Kinder, 2010).

Framing studies (Benefo, 2004; Bloch–Elkon, 2007; Bratić, 2006; Catalán–Matamoros, 2011) have confirmed that the mass media influence public attitudes and decisions. The weight of this influence could be linked to how media structure news stories concerning health issues. It implies that how media frame news items determine the impact of such stories and the likelihood of the corresponding effects. The media play a significant role in the dissemination of information on the 2019 novel coronavirus disease (COVID–19) pandemic. Journalists and media organizations should do their most extreme to stay up with the latest with the outbreak using reliable information from respective health departments and the WHO, and that they should both fact– and reality–check information in order to remain a trusted source. This research draws its foundation from the Framing theory which is an essential tool the media uses to reduce the complexity of issues and ensure understanding among the public (Entman, 1993; Kott, Limaye, 2016).

According to J. Park (Park, 2003:145), "The window does not show the world as it is. People only see the world within the frame of the window." The differences in the reportage are informed by various factors ranging from the objectives and media of motives, the issues involved, the interests of audience; each constitutes a pulling force that shapes the output and influences the effect. The roles of mass media in communicating health related problems are anticipated to be more of social responsibilities that depict media as information guardians for societal development (Li, 2016). How mass media manage health information most often reflects the public health awareness and their sensitivities to health challenges and needs.

As far as concerning the knowledge of the researcher, there is very little research made so far regarding the coverage of the novel pandemic in Ethiopian media. Globally, M.D. Brindha et al. (Brindha et al., 2020) conducted a study to identify the role of social media platform in disseminating information about the Covid–19 outbreak among the people. Besides, C.R. Mejia et al. (Mejia et al., 2020) tried measure the perception of the media and their informative role in the face of COVID–19 pandemic entitled "The Media and their Informative Role in the Face of the Coronavirus Disease 2019 (COVID–19): Validation of Fear Perception and Magnitude of the Issue (MED–COVID–19)". Thus, it is essential to conduct a study with a purpose of finding out how the media report coronavirus health concern in sub–Saharan African countries, Ethiopia.

2. Materials and methods

Research Design. The choice of methods and their application are determined by the objectives of the study, the nature of the phenomenon under examination and the theory of the researcher (Babbie, Mouton, 2001). As known the nature of the research question will shape the Methodology decisions, quantitative approach was selected for its worthwhile in the area of media framing. As quantitative research is structured, logically sequential phases and deduction, a quantitative approach was employed to collect data from the newspaper about themes, sources, and frames used in stories of coronavirus issues (Cohen et al., 2007; Kothari, 2004). According to D. Wilson et al. (Wilson et al., 2008), quantitative research is a type of research designed to yield numerical data. It involves the collection of numerical data in order to explain, predict and control the phenomena of interest.

Meanwhile, so as to assess the framing of coronavirus on newspaper, content analysis has as well been used in the study. As F. Kerlinger (Kerlinger, 2000) defines content analysis as "a method of studying and analyzing communication in a systematic, objective and quantitative manner to measure variables". B. Berelson (Berelson, 1952: 18) had similar perspectives. Besides, according to A.A. Berger (Berger, 1998: 23) content analysis is a method that targets estimating the extent of an issue "in a representative sampling of some mass mediated popular art form." content analysis is also useful to recognize the goals, communication patterns of an individual, group or institution.

Sample and Sampling Technique. Newspaper selection that covered the social, political, health issues of the country and its circulation were taken it to account to choose. As a result, *Addis Zemen* Newspaper was chosen as the subject of the study, and it is the only daily Amharic government newspaper. This newspaper is widely circulated and has the ability to influence other media outlets. Besides, it may give adequate coverage of the pandemic and it is also available in online version.

It would be unreasonable to set a specific time frame for getting a higher number of articles dealing with the pandemic; starting from Ethiopia confirmed its first case on 12 March 2020 up to

11 May 2020 (90 articles of 3 months editions) were taken as a sample. Each article was considered a unit of analysis. All articles that were based on facts (news, features, editorial, opinion and interviews) that deal with the pandemic of any kind were included for analysis.

Instrumentation, Unit analysis and Data Analysis procedures. Document Analysis is the major means of data collection used to extract information and facts (inputs) for the study. Because this method is very convenient and usually means of data collection for researched compiled on media framing (Cohen et al, 2007; Kothari, 2004).

The focus was on both the headline and the body of the news. When the headline of a news story contains issues of COVID–19, it would be selected for the frame analysis. The whole body or part of the body of a news stories contains or describes the coronavirus issue; it qualifies to be included as a unit of analysis. R.D. Wimmer and J.R. Dominik (Wimmer, Dominik, 2013) note that the unit of analysis might be a single word or symbol, a theme or an entire article or story in a written content. The search for related news stories would be done manually by accessing softcopies of sampled newspaper. All stories in the editions of the sampled newspaper within the period already specified would be checked in order not to miss out any story that could add–up to the data. The main angle of a story was determined by referring to the headline, lead sentence, and most at times all elements of the article such as words/vocabularies.

The coding book that I prepared was adopted from the previously made researches and prepared to be able to analyze the dominant frames used; modifications were also made to make it fit for the novel coronavirus issues (Hallahan, 1999; Nisbet et al., 2003; Shih et al., 2008). This coding sheet is of a massive merit to assess the article types, locations, themes, sources, frames and media function of articles about the pandemic. As journalists build stories' content, the most emphasized of the stories' angles then become the central theme or the frame upon which others news angles revolved. The coding of news stories about the pandemic was subjected to some frame typologies, and some of the most salient news angles in the sampled news contents that do not fall within the adopted frames were given new frame codes to ensure that all the news reports about coronavirus issues were treated.

Inter code reliability. The most widely used reliability coefficient was used. Cohen's kappa (ĸ) was run to determine and confirm if there was un agreement between two coders of 10 per cent of the texts data from the sample newspaper (92 news stories on coronavirus). The coders are trained independent coder who has graduate media and communication and the author. Two coders had strong agreement when it came to identifying the type of frame and genres of the story ĸ = .783 and ĸ .949 respectively. The agreement was even stronger when identifying the location of the story ĸ = .982, and size of the story, which had zero disagreement between the coders, ĸ = 1.000. With regards to the sources cited, the two coders had equally strong agreement ĸ = .922. These results show all of variables coded have the inter–coder reliability coefficients that was greater than the minimum value required (ĸ > 0.7) with a percentage of inter–coder agreement (Freelon, 2013). The results fall within the recommended inter–coder reliability coefficient value for the liberal index employed (Lombard et al., 2010).

3. Discussion

Types, Size and Depth of stories. The results indicate that significant attention was given to all types in news, feature, editorial, opinion, and interview articles with high frequency by *Addis Zemen* newspaper in the sampled publication period. News is a significant criterion to identify prominence to an issue in press media (Boukes et al., 2020; Buchanan, 2009). Thus, the newspaper was better in giving prominence to the pandemic. Since Coronavirus outbreak has been an international health issue, it demands the concerns of all nations of the world including their media. The status of the outbreak in any country can be determined the level of involvement of its media. The content analysis of newspaper reports of Coronavirus within the period of the rampage, therefore, shows that much more attention was given. It is an indication of most of the reports in Ethiopia framed the issue as proactive towards the pandemic by comparing the level of managing the situation with other affected countries. There are similarities between how coronavirus reports in the newspaper was covered and framed Ethiopia, and in the globe (Ogbodo et al., 2020).

Moreover, much of the reports on Coronavirus were framed important than other pressing issues (the conflict of Grand Renaissance dam and General Election) in Ethiopian at the time by

the newspaper. More spaces allotted to COVID–19 stories than usual ratio of health reports to allow detail treatment of interest news angles is an indication of framing strategy.

Placement of the story. In the lens of placement, the researcher categorized the location of articles in front, inside and back page in relation to the pandemic in order to examine their prominence (Boukes et al., 2020; Vandendaele, 2018). News placement is another measurement indicator for the degree of prominence attached to newspaper report of an issue (Buchanan, 2009). The placement of articles on Coronavirus indicates the prominence given to the issues in the newspaper. Articles which are placed on the front page of a newspaper are considered as to be the most prominent issues of the edition than those which are placed somewhere in the inside pages. A Coronavirus report appeared on the front page in every edition of the newspaper.

Furthermore, an article placed at the back page of a newspaper is also marked as newsworthy. The number of front–page articles in the *Addis Zemen* newspaper is found to be very high. There are also a number of articles in an inside page. Thus, one can deduce that issues on COVID–19 were prominent to the *Addis Zemen newspaper*. As An editorial is a commentary article that reflects the stand of a newspaper with respect to the present policy, strategies or recent issues, it is assumed to be written by the editor–in–chief of the newspaper. Consequently, the result of the study indicates that the newspaper consistently did place this health issues on its editorial pages. Again, at least one COVID–19 report appeared on the front page in every edition of *Addis Zemen* newspaper during the rampage.

Sources used in producing the articles. In the same fashion, media frame issues by authenticating the news angle they want to emphasis with credible sources, more importantly expert in order to influence the level of importance that audience attach to the report (Gabore, 2020; Jung Oh et al., 2012). The newspaper attempted to use diversified sources in addressing the issues. Health experts, Individuals, NGOs, research findings, and various media agencies were employed as sources.

The more commonly used sources in the *Addis Zemen* are government officials. It may help to provoke the issue and can create an impression that solutions to health problems; however, the over–reliance of authority sources once again underlines the influence of news values in the coverage of news stories. The more prominent a source, the more newsworthy he or she is considered. By relying so much on this approach, journalists covering health stories run the risk of always covering events from the point of view of authorities which may at times be misleading. This further compromises the 'balance' (of information in stories) which is another news value. E. Goffman (Goffman, 1974) also argued that by reporting stories based on frames given by the elite or political class (authorities), the media serve as protectors of the status quo, serving the interests of the ruling class. The findings of this study were consistent to H.J. Gans (Gans, 2004) claims that media frames often tend to favour the elites.

On the other hand, About one–quarter of the reports on Coronavirus were authenticated by health experts including health organizations and research finding to the reports quoting or citing the health experts was also strategic to lay emphasis on some news angles, most often on preventive measures, containment mechanisms as well as on setting the record straight regarding misinformation about the virus and the statistics surrounding its spread and fatality. However, government also constitutes the bulk of the news sources as a justification for the vested interest of the government to overcome the outbreak (Lee, 2013).

On the same token, stories which were not substantiated with any news source indicate it is hard to find trustworthiness, articulateness, and productivity. H.J. Gans (Gans, 2004) claims that journalists should pay attention for source selection and authentication for their news stories production. Having suitable stories in past, ability to supply a lot of information without undue expenditure, keeping reliable sources whose information requires the least amount of checking, making reporter points concise are the element to be considered take while authenticating the sources.

Frames employed in the stories. This study found out that ten major frames were employed by the newspaper, *Addis Zemen*, while reporting COVID–19 pandemic in Ethiopia. The frames are the central news angles through which the newspaper presented and tried to combat the dissemination of the virus. Each of the news angles is regarded as a frame such as: awareness, containment, panic, conspiracy, and political influence (Jo, Chang, 2020). Others are; effect, mobilization, support, misinformation, and boycott frames. Containment was the most frequently used frame which is in line with the countries' health policy to prevent the pandemic and

precaution to be followed towards controlling the crisis (Minister of Health, 2004). Three out of the ten frames (panic, misinformation and boycott frame) identified in the newspaper reports of COVID−19 are newly generated while the remaining seven correspond with framed employed in other health issues by some newspapers of other countries as established in (McComas, Shanahan, 1999). It shows that there is not much difference between how coronavirus reports in the newspaper was framed and how other health issues like Ebola, Cholera, H1N1 influenza, Coronavirus by other researchers were framed in many newspapers across the globe (Bolsen et al., 2020; Gössling et al., 2020; Habersaat et al.,2020; Nisbet et al., 2003; Nwakpu et al.,2020; Shih et al., 2008).

Framing is the way of discarding a few elements of perceived reality and amassing a narrative that highlights connections among them to encourage an interpretation (Entman, 1993). More than one–third of the aggregate news stories on COVID−19 that were published in *Addis Zemen* newspaper under study is on containment frame. It remains the most focus news angle in more than one–third of the news stories; this perhaps was meant to reap the society off the virus. Making the frame predominant in many of the news stories reflects the social responsibility role and the interest of the newspaper towards controlling the outbreak. Many of the stories reported on Coronavirus also focused on the effect of the outbreak on both social and economic facets (Wang et al., 2020). The support and the mobilization frames are the third and the fourth frequently used frames, respectively. The panic frame stands fifth in its frequency.

4. Results

Types of the Story. The articles that were found to have the issue of on COVID−19 published genres of news, features, editorials, opinion, and interviews. Of the total 912 articles were, 441 news, 356 features, 57 editorials formats and 19 were opinions published in *Addis Zemen* newspaper.

As the data portrayed from Figure 1, 441 (48.3 %) fall in to the news genre which is almost half of the total articles, 356 (40.02 %) articles were features and 57 (6.3 %) articles were editorial, 19 (2.1 %) articles were opinion and 39 (4.3 %) articles fall in to the genre of interviews. The news and the feature articles took 88 % of the whole issues. It seems to indicate that issues on COVID−19 were considered as newsworthy in relation to other social, political, and economic affairs. Particularly, issues of the pandemic were found in the most of editorial pages of newspaper. It vividly suggests attention was given in each genres of the newspaper.
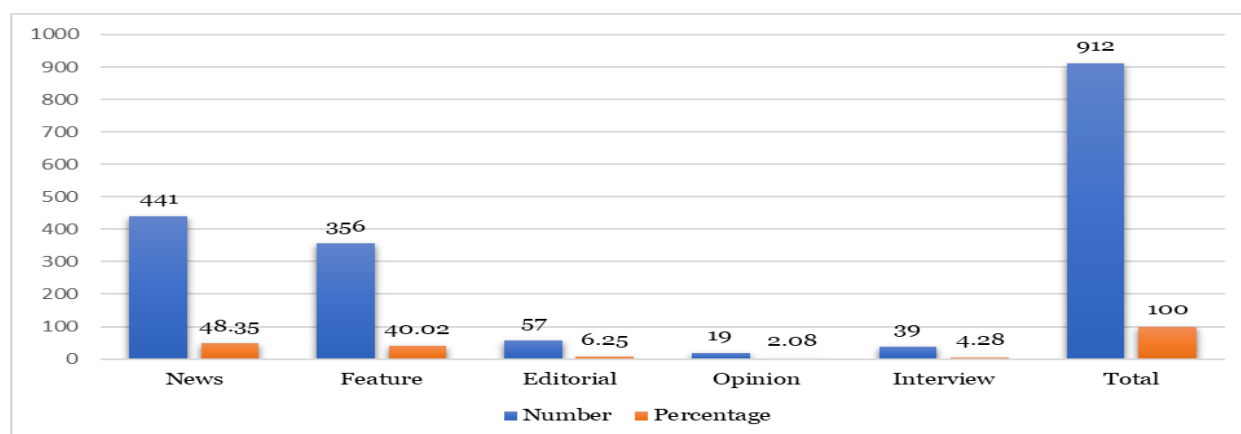
Fig. 1. Genre of Articles on COVID −19

Placement of Articles. The front–page and non front–page articles have got different attention by the target audience. The place where articles are situated in newspaper indicates how much attention is given to the issues.

Moreover, it discloses how the media/press made the issue their agenda, which perhaps aims at making it a public agenda, too. It, therefore, happens that stories which are found to be the most important and have great newsworthiness are placed in the front page; those stories with less important news value, in contrast, are placed somewhere in the inside or back pages.
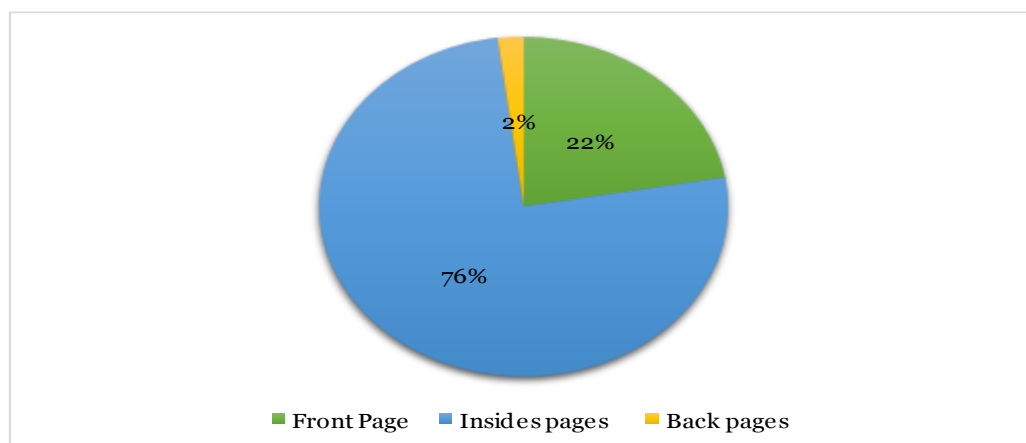
Fig. 2. Placement of the stories on the Newspaper

Accordingly, it is evident from figure 2, out of the total 912 articles, 203 (22.26 %) articles were placed on the front page of the *Addis Zemen* newspaper and 691 (75.77 %) articles were placed in the inside pages; and 18 (1.98 %) articles were situated at the back of the pages.

Size of the Articles. The space given and the length of articles indicate how much attention is provided to the topic. In other words, the number of words of each article was measured and categorized into scales namely short, medium, and large. The word count can indicate the extent to which the articles are long and the depth of coverage given to the topic in question, COVID–19.
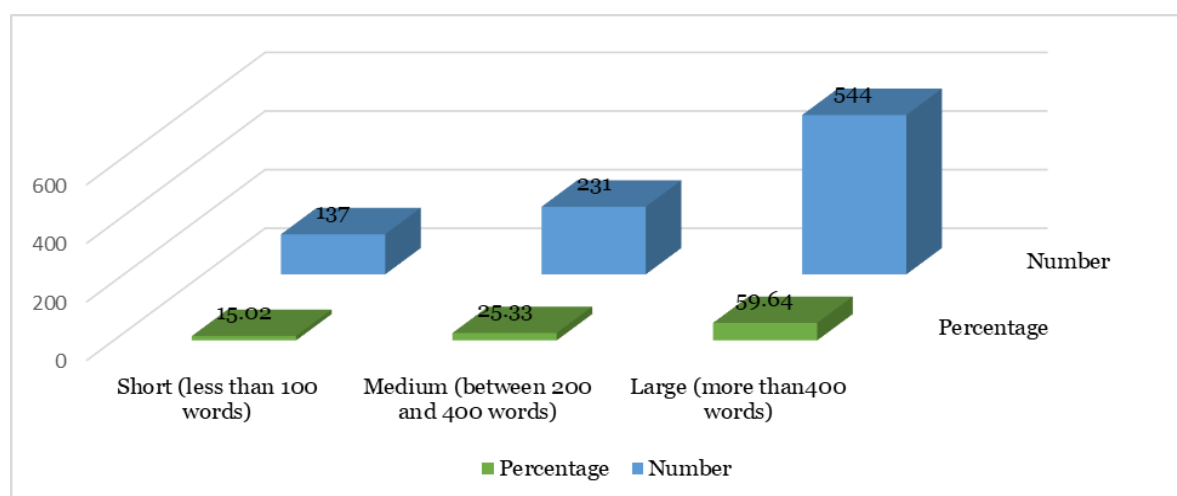
Fig. 3. Length of the Articles

As it is apparent from the chart, about 60 % of the article had large size; 25 % of the articles were medium sized in of the newspaper which used in between 200 and 400 words, whereas only 15 % of them are short stories. These findings revealed that *Addis Zemen* newspaper gave ample space for the coverage of COVID–19 issues.

The researcher believes that articles with large number of words take more space, and they are more descriptive and elaborative than those with short and medium sized articles. Thus, the findings indicate that the novel coronavirus are presented and represented in an elaborative way and high frequencies of the articles published by the newspaper has got extensive coverage. Readers of the newspaper can relatively have a comprehensive understanding of the content of the articles on people about coronavirus better.

News Sources used for coronavirus stories. News source is another indicator of how newspaper framed and making agenda of coronavirus stories.

News sources	Frequency	Percentage (%)
Health professionals/ experts	103	11.29 %
Victims/ Relatives of the victims	2	0.21 %
Government officials	210	23.02 %
News Agency	97	10.63 %
National/ International Health organization	101	11.07 %
Organizations/ NGOs	72	7.89 %
Community members	123	13.48 %
Researchers/ researches	57	6.25 %
No specified sources	147	16.11 %
Total	912	100 %

Fig. 4. News–sources used for Coronavirus stories

What news sources did the newspaper use for the authentication of COVID–19 news stories, and how credible were the news sources? Journalists attribute their stories to sources in order to confirm the genuineness of the stories to media audience. Journalists also quote sources when reporting stories that require the authentication of the experts.

As the data portrayed from Figure 4, about one–fourth of the aggregate of coronavirus stories reported in the newspaper was attributed to the government officials, 210 (23 %) of them found from government officials within the period under study. Unexpectedly, 147 (16.1 %) of the stories were not substantiated with any news–source; much of the stories in this category are not straight news. The individual person (community member) was the third largely used sources which presenting 123 (13.5 %) of the articles. Health professionals/experts also contribute 103 (11.3 %) of the sources used to substantiate or authenticate newspaper stories on the pandemic which is the fourth third largely used sources.

National/International Health Organizations such as Minister of health and Ethiopian public health Institute, World Health Organisation (WHO), and Centre for Disease Control US, CDC) contribute 103 (11.3 %) of the sources while news agencies and NGOs contribute 97 (10.63 %) and 72 (7.9 %) respectively. Besides, 38 (6.3 %) articles were identified from research and research findings, and 147 (16 %) of the stories were not acknowledged any of specific sources, however.

Frame of COVID–19 in the Newspaper. Frame relates to the way/how something is presented to the reader. Frames are supposed to impact the perception of the news by the audience. Three major variables (News–angle, News prominence, and News credibility) with numbers of constructs under each were used to examine how *Addis Zemen* newspaper framed the coronavirus pandemic stories.

On the basis of the data collected, the news items show that ten major frames are identifiable in the newspaper reportage of COVID–19 issue. The frames are considered in the coronavirus stories based on the most emphasized angle (salient) of each story.

Accordingly, the dominant frame used throughout the analyzed articles is containment frame. News stories within educative and precaution frame category discuss how the virus could be prevented from spreading, and the level of its containment. This frame dominated the stories since the first case confirmed in Ethiopia. More than one–third (34.9 %) of the total stories reported by sampled newspaper within the period under study. Some of the stories that focus on the frame addressed various efforts to be made by the people and health experts, precaution to be followed towards controlling the pandemic.

Effect frame, as the data portrayed, the second most frequently used frame in the articles. It comprises reports on the effect of the pandemic on economy, social and cultural interactions, education, health, international relations and diplomacy, sporting activities, entertainment industry and other areas of human development. Out of the total stories on the pandemic, 171 (18.75 %) of the stories emphasized the effect of coronavirus. More attention was given on economic consequences of the outbreak both within and outside the county. A lot of allocation from the supplementary budget which could have been used for other developmental purposes was spent on combating the virus. Moreover, the effect on education, socio–cultural and religious activities were highly emphasized in the newspaper coverage of COVID–19 pandemic.
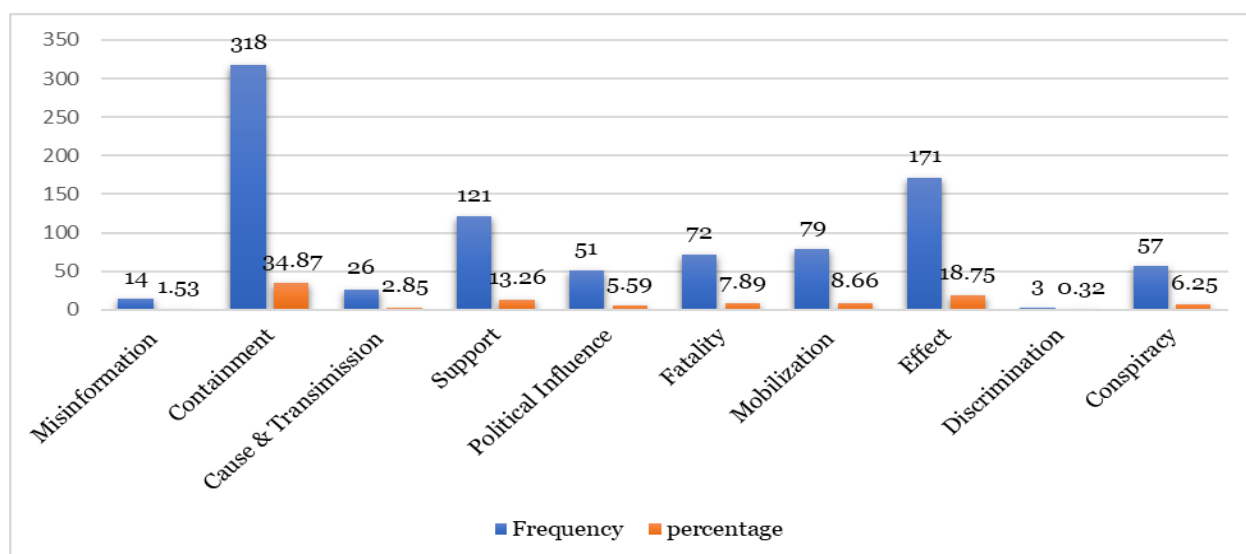
Fig. 5. Frame Typology used in articles by the newspaper

Stories under support frame which was reported 121 (13.3 %) of the total articles discuss the financial and material aids towards the containment of the pandemic. Stories on either financial or material support towards the fight against coronavirus were very common. The proportion of newspaper reportage of various supports (from individuals, industries, professional bodies, Non–Governmental Organizations, and international bodies) to curb the spread of the virus signified that many hands were on stretch for early containment. Besides, mass media acted as the central coordinator of the various efforts; prioritised the most significant aids needed and linked the consequences of various health. Stories on monetary donation were more uncontrolled while stories on material donation and voluntary health services also constitute stronghold themes of the frame.

As the data portrayed, mobilization frame comprises stories that were reported to educate the public. The stories were also reported with the intent to drive people towards the prevention of the virus which is ranked the fourth most salient news angle 79 (8.7 %) among the ten major frames identified in the coronavirus stories reported in the newspaper. Some of the newspaper reports of the pandemic were deliberately used to stimulate public cooperation and intensive effort towards combating this novel pandemic.

As it is apparent from the figure, 72 (7.9 %) of news stories that raised tension as a result of number of infected cases as well as the rise in the Coronavirus death toll and consequences it generated from members of the public were comprised in the category. This panic can be managed by mass media not to make the pandemic aggravate tensions or contacting the virus appear a death penalty. The frame was not given much as mass media attentions to containment.

Conspiracy frame comprises 57 (6.25 %) of the total news stories. The contents focus on individuals, bodies or government activities (local or foreign) that disrupt the efforts towards containing the outbreak. It also includes reports that lay emphasis on unwholesome way of benefiting from the spread or effect of the outbreak. In addition, Political influence frame that centers on reports concerning government activeness through its policies, political rivalry, and its international diplomacy or bilateral relations with other governments/countries on coronavirus issue like a state of emergency has got attention. It shows that governments were more proactive before it gets worse. Political influence frame articles took 51 (5.6 %) of the whole issues. The reports seemed to show that the government played some corresponding roles until the virus has been contained.

As it is evident from the chart, 26 (2.8 %) of the news items that fall within this category of the frame discuss the origin and mode of transmission of COVID–19, its signs and symptoms as well as alerting members of public the unknown nature of the pandemic. Majority of the stories that featured this frame were meant to alert the public of the epidemic and to prepare them for the challenges that the epidemic tagged along by framing coronavirus stories around public awareness. It is reasonable to claim *Addis Zemen* newspaper ringed the news stories in the early stage of the

pandemic in Ethiopia more around awareness creation about the virus and how it spread than other frames or other themes by taking lesson from other countries.

It can be seen, Misinformation frame 14 (1.53 %) of the total stories that expose the lies, rumours, myths, and all forms of information mismanagement about the spread, treatment, or effect of the virus, either from social media or from unscrupulous individuals and set the records straight. Making this theme center of discussions is not significant perhaps because rumours concerning the outbreak were less. Another frame that contains news stories on stigmatisation and discrimination against victims and their relations or reports on the boycott of the affected communities, states or countries. The least proportion of newspaper stories emphasized this theme. Only 3 (0.32 %) of the aggregate newspaper stories considered in this study focused on the frame. It seems to indicate the theme is not as significant as others.

5. Conclusion

In consistent with the findings of the study, conclusions were drawn. Much coverage was given for the issue of media and the crisis is frequently placed on the editorial pages of the newspaper. It implies that the issue is newsworthy more than other topics. This helps to significantly shape people's understanding of the pandemic. Regarding placement, the pandemic occurred in its front page as a news first or second lead story. This shows newsworthiness and prominence of the pandemic. As a result, the newspaper gave a high level of prominence to the novel pandemic.

On sources of information, about one–five of the reports on Coronavirus were substantiated by health experts and health organizations to the reports. Quoting the health experts was also strategic to lay emphasis on some news angles, most often on preventive measures and containment mechanisms. On the other hand, about one quarter of the stories have used government officials as its sources, which is the dominant one, in the *Addis Zemen* publications. Too much focus on government officials involved in most cases outshined the analyses of the health topic, and it can also trivialize the main issue. This leads the focus has been diverted to the reputability of the officials, and affect the trustworthiness the report to combat the pandemic.

One–six of the stories is reported without authenticated any specified source. It is reasonable to say that the coverage of the pandemic may depart from reality to a greater or lesser extent in relation to the reliability of the sources as journalist lack specialized medical knowledge.

In terms of frame types, ten types of frames were found prominently emphasized in the reports while two (containment and effect frames) were made more salience in more than half of the total reports on the pandemic. Thus, it is reasonable to conclude that the much capitalization on containment frame portrayed the newspaper purposive interest to free the society of the pandemic, a reflection of the media social responsibility role. Most of the reports framed to be proactive towards the pandemic by comparing the level of managing the situation before get worse.

The use of effect frame underpins the importance of this element in weighing the economic and social impacts of the pandemic. For this reason, Media frames help people to construct reality about COVI9–19 that developed correlative news by linking different angles of the story to bring the outbreak under control as quickly as possible, with as little social disruption as possible.

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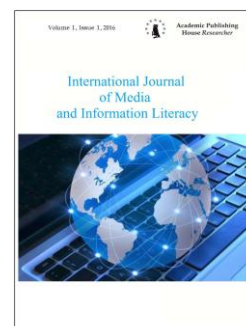
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Susceptibility Awareness Via Media Platforms is the Key for Curbing the Spread of COVID-19 Infections: Evidence from the Health Belief Model Perspective

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Abstract

Since the outbreak of Covid-19 in Nigeria, efforts are made by the government, especially the Nigeria Center for Disease Control (NCDC) towards curbing its spread. Daily updates on new cases and deaths are proving that the efforts so far made toward curtailing the virus have not been effective. Employing the Health Belief Model approach, the study through the quantitative method evaluated the impact of perceived susceptibility on self-efficacy and perceived severity toward cues to action in curbing the spread of Covid-19 infections in Nigeria. Key findings showed that only 12.4 % of the respondents had a high level of Covid-19 susceptibility. Moreover, the two independent variables were able to contribute small and medium variance effect sizes on perceived susceptibility and cues to action. Perceived susceptibility also had partial mediation effects on the relationships between self-efficacy, perceived severity, and cues to action respectively. Therefore, it is recommended that the levels of Nigerians' Covid-19 perceived susceptibilities need to be raised to strengthen the effectiveness of self-efficacy and perceived severity for cues to action toward curbing the spread of the Covid-19 infections in the country. This study further contributed to the domain of cognitive behaviors and health information literacy strategies for curbing infectious diseases.

Keywords: COVID-19, Nigeria, health information literacy, mediating effect, self-efficacy, media health literacy.

1. Introduction

Health literacy is vital in curbing transmittable diseases, especially in this critical moment the world is facing the menace of Covid-19. Therefore, there is a need to enlighten the public through salient social media platforms to embrace behavioral factors that may reduce the spread of Covid-19 infections. Covid-19 is a coronavirus disease that began in 2019. It is one of the novel pneumonia contagious diseases belonging to a bigger family of positive-strand of Ribonucleic Acid (RNA) viruses, namely Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) (Raoult et al., 2020). Evidence showed that the virus emanated from Wuhan city in the Hubei Province of China from December 2019 and subsequently spread within the whole of Hubei Province and other China's provinces as an epidemic (Zhue et al., 2020). It was later declared a pandemic by the World Health Organization (WHO) on March 11, 2020, because of the rapid and continuous escalation of the cases of COVID-19 in 114 countries (then) and across all the continents (Star Health Report, 2020).

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Evidence shows that the etymology of COVID-19 began in late December 2019, when some of China's local health services reported a group of patients who had pneumonia cases of unfamiliar causes that were later attributed to a seafood and pet animal public market in the city of Wuhan, Hubei Province, China (Mackenzie, Smith, 2020). Consequently, a collaboration of the Chinese Center for Disease Control and Prevention (China CDC), Hubei Provincial authority, and Wuhan health authority was deployed to conduct epidemiologic and etiologic investigations. Their study eventually identified the roots of the pneumonia-like infection to a new strain of Coronavirus, which was named Coronavirus Disease in 2019 and medically termed COVID-19 (Clustering..., 2019). As of the time of this study, COVID-19 has spread across 215 countries and territories and has so far infected 17,498,822 and universally caused 677,165 deaths, with 10,956,381 recoveries (Worldometers 30th of July, 2020).

However, since the outbreak of the novel Coronavirus in China in late December 2019 and other parts of the world from January 2020, the impact of the virus infection was never felt in Africa until in early February 2020 when it was first identified in Egypt and, subsequently, the second case was recorded in Algeria on February 17, 2020 (WHO, 2020). At present, statistics have shown that Africa has 874,638 confirmed COVID-19 cases, 18,512 deaths, and 524,835 recoveries (Coronavirus African Summary, 30th, July 2020).

Nigeria, the location of this study, witnessed its first case on February 27, 2020, from an Italian man who returned to the country from his trip to his home country (Nigerian..., 2020) and has currently recorded 42, 689 confirmed cases, 19,270 recovered cases and 878 deaths (Nigeria Center for Disease Control, 30th July 2020). Since then, the country's health sectors and the Nigeria Center for Disease Control (NCDC) have been emphasizing the need for observing the universally approved preventive measures to curtail the spread of the virus. Some of these measures include frequently washing hands with soap, wearing face masks, the use of hand sanitizers, restrictions on public gatherings and social events, etc. (Nkengasong, Mankoula, 2020).

Because Covid-19 is a novel disease, available literature from the Nigerian context appeared to focus on descriptive studies. Hence, there is a theoretical gap that needs to be filled. Besides, since the efforts made by NCDC and other international aid agencies and non-governmental organizations toward curtailing the spread of the virus have failed to yield the expected results within the shortest possible time as achieved in some African countries (e.g., Madagascar and Senegal) (African Arguments, 30th August 2020). Thus, this study aims to explore the Health Belief Model (HBM) theoretical perspective to evaluate the applicability of the model's variables toward explaining health behaviors capable of helping in minimizing a further spread of COVID-19 infection. Hence, the study was guided by the following objectives:

1. To determine the levels of perceived susceptibility to COVID-19 among Nigerians.
2. To determine the individual contributions of self-efficacy and perceived severity on perceived susceptibility and cues to action toward curbing the spread of Covid-19 among Nigerians.
3. To determine the mediating effect of perceived susceptibility on the relationship between self-efficacy and cues to action toward curbing the spread of COVID-19 among Nigerians.
4. To determine the mediating effect of perceived on the relationship between perceived severity and cues to action toward curbing the spread of COVID-19 among Nigerians.

2. Materials and methods

The key materials for this study were the previously published media studies and health-related articles and archives. This study employed the health belief model to ascertain the behavioral health factors that would induce the public to embrace health literacy for curbing the spread of Covid-19 infections. The quantitative method was applied for the aim of hypothesizing the impact of the health behaviors in curbing the spread of Covid-19 infections. Consequently, Statistical Package for the Social Sciences (SPSS) was used and analyzed the descriptive studies' part while Structural Equation Modeling (SEM-AMOS) and parametric statistics were applied in the inferential analyses part because the data was found to be normally distributed. However, the 3 stages of (SEM-AMOS) analyses which comprised Confirmatory Factory Analysis (CFA), measurement, and structural model analyses were previously run to ascertain if the models fulfilled the goodness of fit indices criteria. Thus, the outcomes of the analyses proved they all satisfied the criteria. In terms of the sample size used for the study, R.V. Krejcie and D.W. Morgan (Krejcie, Morgan, 1970) sampling technique was utilized to determine the sample size of the study from the

targeted population of 205, 649,180 Nigerian estimated population (Nigerian population, May 2020). Thus, the 384 sample size was determined out of the targeted population. The sample was subsequently increased by 17 % with the addition of 66 respondents, thus yielding a larger sample of 450 to comply with the statistical principle which requires a larger sample size to decrease errors and enhances results (Maleske, 1995). The research instrument was administered to 450 respondents online. However, only 388 were filled and returned. Accidental/convenience sampling was used to share the link to the e-questionnaire through social media contacts. Regarding the survey used in measuring the study's variables, the questions were adapted from (Mohamed et al., 2019; Soleymanianet al., 2014; Wang et al., 2016). Nonetheless, self-efficacy and perceived severity were the independent variables, perceived susceptibility was the mediating variable while cues to action were the dependent variable.

3. Discussion

Media platforms are indispensable for disseminating health research findings, especially in this digital age that people easily get across to any content uploaded on social media. Therefore, to curtail the spread of Covid-19 infections, social media platforms such as twitter, need to be maximized for propagating the scientific health-related-findings across to the targeted audience; because the medium has been identified as one of the populated media for such information (Kimmons, et al. 2018). Similarly, Social media is deemed as one of the valuable sources for promoting health literacy awareness, this is because social media users tend to quickly dispatch a piece of important health information to their acquaintances who do not have access to social media. Therefore, social media also enhances social interactions outside the media (Hall, 2018). R. Fletcher and R.K Nielsen (Fletcher, Nielsen, 2018) further augmented the impact of media by establishing that, it provides opportunities for the users to accidentally get exposed to news, especially the young ones who were not inclined to read news through social media. Thus, dispatching health research findings on Covid-19 relate-issues through social media may accidentally instigate the users to embrace behavioral factors that might help to reduce the spread of the virus.

A subsequent study by K. Quinn (Quinn, 2018) also conceptualized a correlation between social media usage and inhibitory regulation. Consequently, the study demonstrated that the use of social media did not only have an influence on cognitive functioning but also helps older adults on information regarding preventive control. Therefore, spreading health literacy information that may assist in curbing the spread of Covid-19 infections, could help to inspire older adults' social media users to adopt the factors. A. Oeldorf-Hirsch (Oeldorf-Hirsch, 2018) also identified that the aim of establishing social media was not just for knowledge gain but for the capability of engaging users who will passively consume news content without the intention of doing so. The scholar similarly demonstrated that social media such as Facebook and twitter were greater avenues for getting people engaged in current affairs. Therefore, it is expected that engaging the masses on health research findings through these two platforms would make a great impact in curbing the spread of Covid-19 infections.

However, embracing datafication on social media calls for deconstructing of the contents since numerous data on the Covid-19 pandemic are flaunted on the web. Thus, absorbing data on health literacy from social media requires ascertaining the ethical justification of the source (Couldry, Yu, 2018). Hence, news literacy is a prerequisite to engrossing information through media (Vraga, Tully, 2019). This could also be extended to other internet users who are not familiar with media literacy (Tully, Vraga, 2017). In line with this, G. Dworznik (Dworznik, 2016) emphasized the need to examine the contents of social media and waiting for the information to be fully divulged before ascertaining the authenticity.

Furthermore, enlightenment on how to curb the spread of Covid-19 infections cannot be limited to the social media domain. It is also essential to get the targeted audience engaged in health related-research findings through television. This is because the audience dynamism to media data could be influenced by the media culture, the statuesque of the platforms, and the particular media companies' strategies (Moe et al., 2016). G. Doyle (Doyle, 2018) also proposed that television could serve as a better avenue for reaching a larger audience if it is configured and res-structured in such a way that it could be used for propagating health related-findings for socio-cultural behavioral changes in curbing the spread of Covid-19 virus.

Thus, to intensify the curb of Covid-19 infections, this study conceptualizes health behavioral factors that could help in curbing the spread of Covid-19 infections by adopting the Health Belief Model's concepts. However, before reviewing the literature on studies that applied these HBM's concepts, it is essential to define them. Perceived susceptibility is the possibility of believing that one could contract contagious diseases that are perceived detriment to ones' health. In other words, it implies perceiving first that contracting contagious disease will endanger one's health and that requires the need to take all precautionary actions to control it. Whilst perceived severity is the belief of how dreadful contagious diseases are and the effects of contracting them. Self-efficacy is the belief of one's ability to effectively implement all the necessary actions that would prevent one from contracting the diseases. Cues to action, the last concept, is engaging in the event, programs, and experience that will propel one into taking actions. Therefore, cues to action are when individuals see the need of taking essential actions after believing that they are capable of doing so (Groenewold et al, 2006; Resource Center, 2007).

About these behavioral concepts, A.K. Jeihooni et al. (Jeihooni et al., 2019) found that perceived susceptibility, perceived severity, and self-efficacy had significant effects on cues to action toward encouraging precautionary behaviors for nosocomial contagions. Contrarily, A.K. Jeihooni et al (Jeihooni et al., 2018) through a quasi-experimental study, found no significant influence of perceived susceptibility, severity, self-efficacy, and cues to action toward applying oral cancer preventive measures after having controlled the respondents. Whilst B. Yu (Yu et al., 2020) established that self-efficacy mediated the effects of perceived benefits and barriers toward sticking to heroin-dependence among patients undertaking methadone addiction treatments. However M. Kamal et al. *(*Kamal et al., 2017) found positive significant effects of knowledge, self-efficacy, perceived susceptibility, severity, and benefits on hygienic cues to action among the mothers of hospitalized children; nonetheless, the perceived barrier had a negative significant effect on cues to hygienic actions.

A study has shown that self-efficacy and perceived risk jointly mediated the relationships between predicted intentions, planning and action controls toward wearing of face mask for health behavioral changes and that women that have ever been screened for cervical cancer showed greater significant perceive benefits, self-efficacies, perceived threats, and net benefits which made them engaged in preventive actions than women who have never had cervical cancer screening before (Zhou, 2015). In other words, prior screening experience motivated more women into taking preventative actions than women that have never undergone screening.

A. Gamma (Gamma, 2019) reported from the doctoral thesis that risky perceptions, perceived severities, factual knowledge, response beliefs, and self-efficacy were the main predictors that prevented the respondents from touching people who were suffering from the Ebola outbreak. Furthermore, research has also shown that risk perceptions had mediating effects on the relationships between mass media exposure and the intentions to partake in social and economic events at the time of the Middle East Respiratory Syndrome (MERS) outbreak in South Korean, which implies that public health vulnerability perceptions made the public to dissociate from all social and economic activities (Choi et al. 2018).

Based on the previous discussions, the current study derived the following hypotheses:

H1: Perceived susceptibility has a mediating effect on the relationships between self-efficacy and cues to action in curbing the spread of COVID-19 among Nigerians.

H2: Perceived susceptibility has a mediating effect on the relationships between perceived severity and cues to action in curbing the spread of COVID-19 among Nigerians.

In line with the previous Health belief Model related studies' reviews, the conceptual framework in Figure 1 was developed.
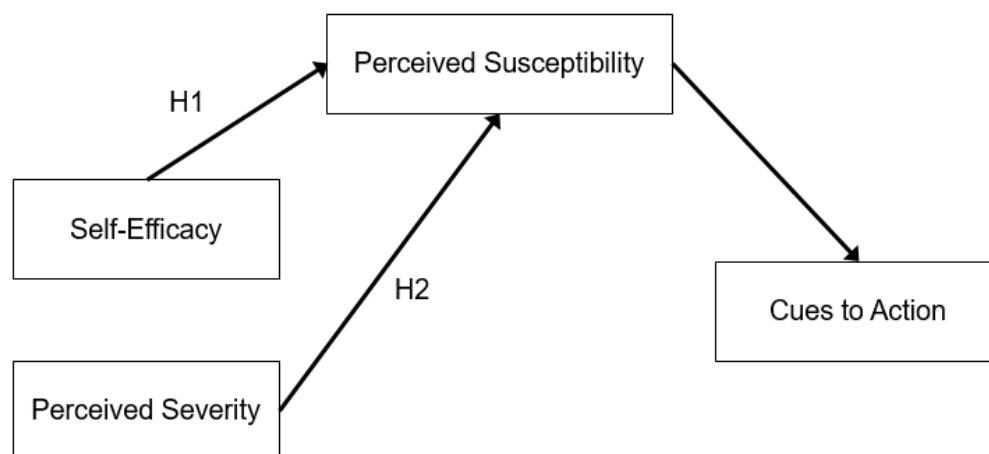
Fig. 1. Conceptual Framework

4. Results

The findings of the four objectives of the study and the demographic factors of 388 respondents were discussed here. Table 1 on the profile analyses of respondents showed that that (57.2 %) of them were men and this represented more than half of the respondents that participated in the study. Regarding their age bracket, (45.4 %) of the respondents' age fell between 31 and 40 years and this amounted to less than half of the study's respondents. The profile analyses also illustrated that (28.6 %) of the respondents' ethnicity was from Igbo and this represented less than the one-third of the respondents. In terms of the marital status of the respondents, it presented that (57.2 %) of them were married. In other words, more than half of them that participated in the study were married. Finally, the respondents' highest academic qualification demonstrated that (36.6 %) of them had a bachelor's degree and this represented more one-third of them.

Table 1. Academic Staff Descriptive Profile (n=388)

Profile	Frequency	Percentage (%)
Gender		
Male	222	57.2
Female	166	42.8
Age		
<20	10	2.6
20-30	95	24.5
31-40	176	45.4
41-50	81	20.9
>51	26	6.6
Ethnicity		
Hausa	89	22.9
Igbo	111	28.6
Yoruba	83	21.4
Others	105	27.1
Marital Status		
Married	222	57.2
Single	166	42.8
Highest Academic Qualification		
Bachelors	142	36.6
Masters	124	32.0
PhD	86	22.2
Others	36	9.2

Objective 1: Levels of Covid-19 Perceived Susceptibility among Nigerians.

Table 2 on the levels of the respondents' Covid-19 perceived susceptibility showed that (46.6 %) of the respondents' Covid-19 infection perceived susceptibility level was moderate and this indicated more than half of them. It also presented (41.0 %) of them had a low Covid-19 perceived susceptibility and this represented more than one one-third of them. While only (12.4 %) of them had a high level of Covid-19 perceived susceptibility. In other words, the majority of the respondents were not having a high level of Covid-19 infection perceived susceptibility. Therefore, this paper suggests that Nigerians' levels of Covid-19 infection perceived susceptibility need to be enhanced toward minimizing the spread of the virus in the country. These findings, however, contradicted V.O Dunleavy et al. (Dunleavy et al., 2019), who established that the respondents have a high level of perceived susceptibility toward preventing the spread of HIV as one of the contagious viruses. Nonetheless, the context of the study differed from ours.

Table 2. Descriptive Results of the Respondents' Levels of the Perceived

Susceptibility to COVID-19 (n=388)

Levels of COVID-19 Perceived Susceptibility	Frequency	Percentage (%)
Low (3-6)	159	41.0
Moderate (7-10)	181	46.6
High (11 and above)	48	12.4

Objective 2: The individual contributions of self-efficacy and perceived severity on the perceived susceptibility and cues to action.

Objective 2 was realized from the structural equation model in SEM-AMOS. Before this, the researchers ascertained that both the measurement and structural models fitted the data by ensuring that their outcomes respectively met up with at least one goodness of fit index from absolute, incremental, and parsimonious fit indices as showed in Figure 2. The findings on the individual contributions of the two independent variables on the perceived susceptibility and cues to action were subsequently presented in two tables. However, Figure 2 below was the analysis of the fit indices where the further findings were generated.

Fig. 2. SEM-AMOS Structural Model
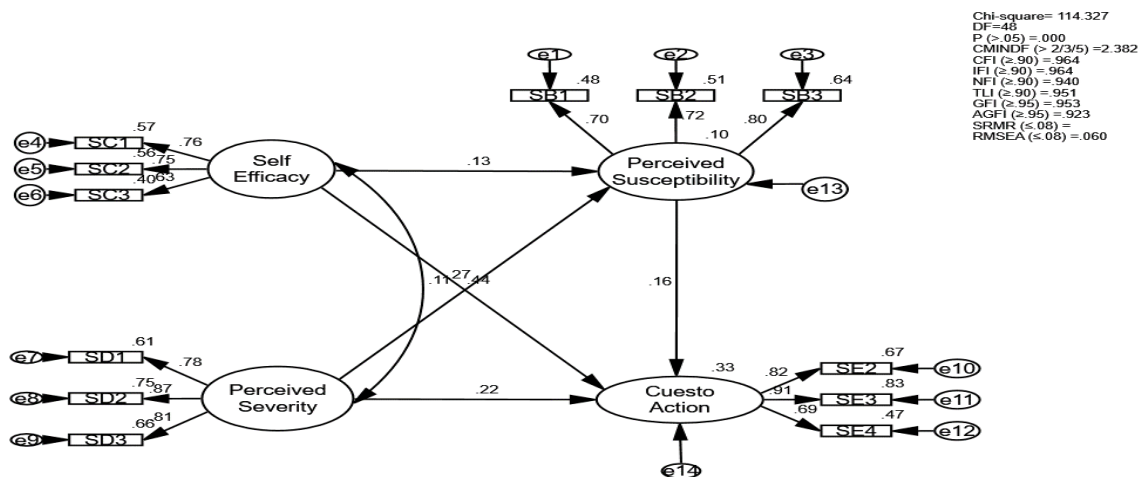
Consequently, Tables 3 and 4 showed the individual causal paths' contributions of self-efficacy, and perceived severity on perceived susceptibility; and cues to action. The outcomes in table 3 showed that self-efficacy and perceived severity were able to explain (9.5 %) of the variance in perceived susceptibility (as the mediating variable). However, perceived severity contributed

most to perceived susceptibility. Whilst, Table 4 established that the two independent variables were able to explain (32.9 %) of the variance in cues to action (as the dependent variable). Nevertheless, self-efficacy contributed most to cues to action. Regarding their effect sizes, the two independent variables contributed a small effect size on the mediator while they contributed a medium effect size on the dependent variable as J. Cohen (Cohen, 1988) effect size rule of thumb stated. This paper, therefore, recommends that the combination of the models should be adopted towards predicting the impact of these behavioral health factors in curbing the spread of Covid-19 infection in Nigeria.

Table 3. Causal paths Contributions on Perceived Susceptibility

Causal Paths	b	Beta	CR	P
Self-efficacy-Perceived Susceptibility	.134	.126	1.953	.051
Perceived Severity – Perceived Susceptibility	.234	.268	4.264	.000
R^2=.095				

Table 4. Results of the Contributions of the Causal Paths on Cues to Action

Causal Path	b	Beta	CR	P
Self-efficacy-Cues to action	.452	.438	6.984	.000
Perceived Severity- Cues to action	.189	.225	4.040	.000
R^2=.329				

Objective 3: The mediation effect of perceived susceptibility on the relationships between self-efficacy and cues to action in curbing the spread of COVID-19 among Nigerians.

Regarding Objectives 3 and 4, the bootstrap mediation test analyses were first conducted to identify if perceived susceptibility had mediating effects on the independent and dependent variables as shown in Figure 3.

Therefore, regarding objective 3, the study hypothesized that:

H1: Perceived susceptibility has a mediating effect on the relationship between self-efficacy and cues to action in curbing the spread of COVID-19.

The data in table 5 implied that perceived susceptibility had a partial mediation effect on the relationship between self-efficacy and cues to action. This was because the direct model outcome was (β=.457, p<.05), the result of the mediation model was also (β=.438, p<.05), and the standardized indirect effect (SIE), which mostly determines the mediation effect decision in SEM-AMOS were (β=.020, p<.05). Hence, H1 was supported. The Kappa squared (K^2= 0.008) indicated that the mediating effect was a small-sized one (Preacher, Kelley, 2011). The finding somewhat supported D.H. Choi et al. (Choi et al., 2018) who found that perceived risk has a mediation effect in preventing infectious disease. Therefore, this paper recommends that Nigerians should first, perceive they could be susceptible to Covid-19 infection, which could help them to strengthen their self-efficacies toward cues to action in curbing the spread of Covid-19 infections in the country.

Objective 4: The mediation effect of perceived susceptibility on the relationship between perceived severity and cues to action in curbing the spread of COVID-19. Regarding this objective, the study hypothesized that:

H2: Perceived susceptibility has a mediating effect on the relationship between perceived severity and cues to action toward minimizing the spread of COVID-19.

Chi-square= 114.327
DF=48
P (>.05) =.000
CMINDF (> 2/3/5) =2.382
CFI (≥.90) =.964
IFI (≥.90) =.964
NFI (≥.90) =.940
TLI (≥.90) =.951
GFI (≥.95) =.953
AGFI (≥.95) =.923
SRMR (≤.08) =
RMSEA (≤.08) =.060

Fig. 3. SEM-AMOS Bootstrap Mediation Model

Table 5. Mediating Effect of Perceived Susceptibility on Self-efficacy and Cues to Action

			95 % Bootstrap	BC CI
Hypothesized Path	Beta	*p*	LB	UB
Direct Model Self-efficacy-Cues to action	.457	.000		
Mediation Model Self-efficacy-Cues to action	.438	.000		
Standardized Indirect Effect (SIE)	.020	.044	.000	.055

The data in Table indicated that perceived susceptibility had a partial mediating effect on the relationship between perceived severity and cues to action. This was because the direct model result was (β=.265, p<.05), the mediation model result (β=.225, p<.05), and the standardized indirect effect (SIE), which mostly determines the mediation effect decision in SEM-AMOS was (β=.042, p<.05). Hence, H2 was supported. However, the Kappa squared (K^2= 0.052) specified that the effect was a small-sized one as K.J. Preacher and K. Kelley (Preacher, Kelley, 2011) stated. Therefore, this paper recommends that Nigerians should first, perceive that they are susceptible to Covid-19 infection; by first perceiving it, it can help them to understand the severity of the virus towards engaging on the necessary cues to action to curb the spread of the virus. This finding is somewhat in line with M. Tavakol and R. Dennick (Tavakol, Dennick, 2011) who established that enhanced perceived susceptibility instigated a significant effect on perceived severity toward diabetic patients' adoption of self-care behaviors. However, their study did not evaluate the mediating effect of perceived susceptibility on perceived severity and cues to action toward curbing an infectious sickness.

Table 6. Mediating Effect of Perceived Susceptibility on Perceived Severity and Cues to Action

Hypothesized Path	Beta	*p*	95 % Bootstrap BC CI	
			LB	UB
Direct Model				
Perceived severity – Cues to action	.265	.000		
Mediation Model				
Perceived severity – Cues to action	.225	.000		
Standardized Indirect Effect (SIE)	.042	.004	.013	.090

5. Conclusion

This study examined the levels of perceived susceptibility of Covid-19 infection and the contributions of self-efficacy and perceived severity on perceived susceptibility and cues to action in curbing the spread of Covid-19 infection among Nigerians. The study also evaluated the mediating effect of perceived susceptibility on the relationship between self-efficacy and cues to action. The mediating effect of perceived susceptibility on the relationship between perceived severity and cues to action in curbing the spread of Covid-19 infection was also examined. Regarding Objective 1 of this study, it was found that only (12.4 %) of the respondents had a high level of Covid-19 perceived susceptibility. Hence, this paper recommends that Nigerians' Covid-19 infection perceived susceptibilities levels need to be improved toward curbing the spread of the virus. Regarding Objective 2, the study found that self-efficacy and perceived severity contributed to a small-sized effect on perceived susceptibility as the mediating variable. We also found that self-efficacy and perceived severity contributed to a medium-size effect on cues to action as the dependent variable. Hence, this paper recommends that the combination of the models should be adopted toward minimizing the spread of Covid-19 infections and in curbing the outbreak of similar contagious diseases. Thus, the outcomes of the study have helped and expanded the existing Health Belief Model (HBM) from the Covid-19 study's perspective since this study was guided by the model.

Objective 3 demonstrated that perceived susceptibility had a partial mediating effect on the relationship between self-efficacy and cues to action in curbing the spread of Covid-19 infection. Hence, it is recommended that Nigerians should first, perceive that they can be vulnerable to Covid-19 infection; once they can do that, it is expected that it could strengthen their self-efficacies to embrace cues to action that are capable of minimizing the spread of the virus.

Furthermore, in Objective 4, we found that perceived susceptibility also had a partial mediating effect on the relationship between perceived severity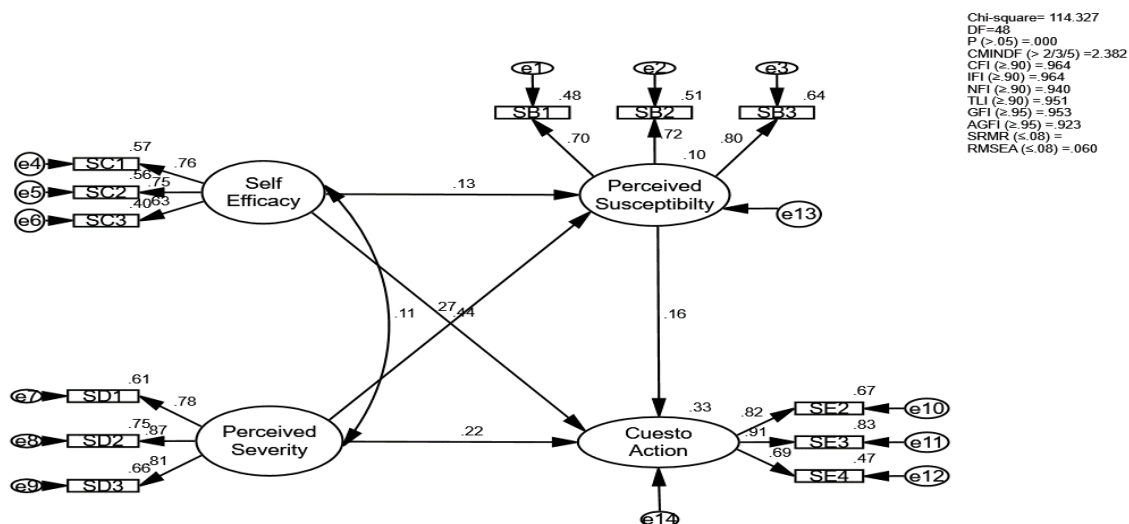 and cues to action toward minimizing the spread of Covid-19 infection. Once again, Nigerians need to increase their perceived susceptibilities to Covid-19 infection toward strengthening their awareness of the severity of the virus for more cues to action in curbing the further spread. The need to do so could be enhanced through organizing health campaigns and using various media platforms such as Facebook, Whatsapp, Twitter, and television for enlightening the public to embrace these health behavioral factors towards reducing the spread of the virus. Additionally, propagating the outcomes of this study through various media platforms might make a great impact in curbing the spread of the virus in Nigeria. Moreover, various media studies that were explored in the discussion part of the study emphasized on the efficacies of media platforms in getting current affairs across to the targeted audience. Therefore, they would be valuable means to dispatch the findings of this study to a larger audience.

Conclusively, our study has some study limitations. One of the limitations of our study was that we only evaluated four Health Belief model variables out of the numerous factors. Perhaps that was why self-efficacy and perceived severity contributed only small and medium effect sizes on the perceived susceptibility and cues to action. Thus, we recommend that future scholars should consider integrating other Health Belief model's variables in the prospective studies towards enhancing the contributions' effect sizes. We also recommend that prospective scholars should

consider conducting a qualitative or mixed-method study in subsequent studies towards improvising the preventive measures since Covid-19 is still a novel disease.

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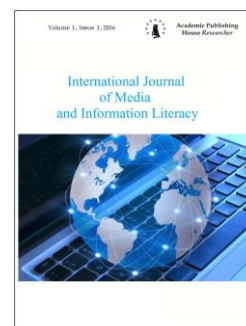
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Research of the Informational Needs of State and Municipal Employees in the University Environment

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Abstract
The study is devoted to the problem of the formation and development of informational needs of state and municipal employees in the university environment. Needs are a necessary prerequisite for any activity. Taking into account the increasing role of media literacy and improving the informational and communicational competencies of state and municipal employees, the task is to study various aspects of media literacy of students in the training direction 38.03.04 – "State and municipal administration" ("GMU") and working employees in this area of professional activity.
In the course of the analysis of scientific sources reflecting aspects of the formation of media literacy of state and municipal employees, a deficiency of empirical research in this area was found. This led to the organization and conduct of a questionnaire survey of students in the direction of training 38.03.04 – "GMU" and current state and municipal employees. As a result of processing and analysis of the data obtained, it was found that the level of informational needs and the range of media resources used by students is much lower than that of working specialists. The conditions for the formation and development of informational needs in the university environment are not enough, and they do not fully meet the requirements for the level of development of "digital competencies" of a modern civil servant. Acting employees regularly use media resources in their professional activities and understand the importance of developing media literacy at the earliest stages of professional training. Based on the results of the scientific interpretation of the results, the paper identifies a mechanism for the formation of a student's personal sense of mastering media literacy, which is able to form a stable tendency towards further self-study and professional development. Content filling of the proposed mechanism with specific teaching tools is considered as a prospect for further research.
Keywords: state and municipal employees, media literacy, information literacy, informational needs, informational resources.

1. Introduction
In all spheres of social and economic development, the intensity of information processes is steadily increasing; the range of application of information and communication technologies is expanding. They are becoming the fundamental factor in the transformation and optimization of management activities at all its levels. The transition of Russia to the digital economy in accordance with the federal program creates the need for the formation and development of a unified information space for state and municipal government, within which state and municipal

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authorities can introduce new forms of organizing their activities, modernize public administration procedures. Therefore, there is an urgent need to develop the competencies of state and municipal employees in the field of information and communication technologies. In particular, the study by E.V. Vasilyeva et al. showed that advanced competencies and skills in the field of information and communication technologies (ICT) should include the following:

1) skills in working with systems of interdepartmental interaction and electronic document management;

2) the ability to work with state information resource management systems;

3) skills in working with information and analytical systems that allow the collection, processing, storage and analysis of data;

4) the ability to work with regulatory information systems;

5) knowledge of the basics of information security in relation to personal data, storage and processing of official information, as well as the use of the Internet for official and personal purposes (Vasilieva et al., 2018).

In the context of digitalization, the need for the formation of these and other similar competencies, starting from the university bench, is reflected in the latest, pleasant in 2020, Federal State Educational Standards in the direction of preparation 38.03.04 - "State and Municipal Administration" (bachelor's degree, OPK-5) and 38.04.04 – "State and Municipal Administration" (Master's degree, OPK-4). In particular, the standard provides for the formation of skills in the use of e-government technology and the use of state and municipal information systems (Order..., 2020). However, in order to implement these and similar requirements of the Federal State Educational Standard, the educational community itself requires a wider range and quality depth of educational communication skills in the information and digital environment (Moran et al., 2011). This requires on the part of teachers and students the awareness and development of their own information needs, which are a necessary prerequisite for any activity.

Interest in the problem of the formation and development of information needs in scientific literature is actively growing (Naumer, Fisher, 2017; Sevignani, 2017). According to the definition of Finnish scientists S. Tuominen, S. Kotilainen, information needs are the needs of a particular user (or a group of users) for information on a particular topic (Tuominen, Kotilainen, 2012). In this case, one should take into account the opinion of psychologists that a need is an internal state of a psychological or functional feeling of insufficiency of something. In accordance with the position of S.L. Rubinstein, a person's awareness of what he needs or is interested in, gives rise to an orientation towards the corresponding subject. A rather vague dynamic tendency that arises at the same time turns into an aspiration. As such a tendency becomes objectified, it becomes an increasingly conscious motive of activity, which prompts one to take concrete actions. Consequently, the educational environment should purposefully create conditions for the formation and development of the information needs of the future specialist, especially if the profession is related to the management of society and the state (Sevignani, 2019).

Considering the above, it seems very relevant to conduct a sociological study of the information needs of state and municipal employees, where the respondents would be working specialists and students studying in the direction of training "State and Municipal Administration".

2. Materials and methods

The assessment of the information needs of state and municipal employees and students enrolled in the 38.03.04 "State and Municipal Administration" training direction was carried out in two stages using the author's questionnaire posted on the basis of the digital resource "Google-forms", which contained filter questions.

Stage 1 – identifying the information needs and media literacy of students in the direction of training 38.03.04 "State and Municipal Management" of the private educational institution of higher education "Taganrog Institute of Management and Economics" (https://forms.gle/ZiAhfNHa7itifhgw7). The purpose of this stage of the research is to determine the actual needs in the field of using digital resources in mastering the future profession and to understand the priority areas of improving the educational process of students of the specified direction of training, including through the processing of programs for the direction of training 03.03.04 "State and Municipal Administration". The respondents were students of the Taganrog Institute of Management and Economics, studying in the direction of "State and Municipal

Management" (respondents age 18-24 years). In total, 125 students of various courses took part in the survey, including 28.8 % – male students, 71.2 % female students.

Stage 2 – determination of the information needs of state and municipal employees. 92 state and municipal employees of the Rostov region took part in the survey, including men – 12 %, women – 88 %. As for the age of the state and municipal employees we surveyed, slightly less than half (46.2 %) are respondents aged 36-45; 26.9% – 26-30 years old, 15.4 % – 46-55 years old. The respondents were asked 15 questions to determine the current level of media literacy of modern state and municipal employees and to identify difficulties in the implementation of information needs for the effective performance of professional activities (https://forms.gle/uVUwxyzAXftiNfzK9).

3. Discussion

The rapid digitalization and the rapid development of social media have led to an avalanche and uncontrolled spread of inaccurate information, which indirectly and directly affects all spheres of society. The widespread prevalence of fake news is partly a consequence of the changing business models of media and technology companies in the era of digital capitalism. As D. Buckingham correctly noted, "the democratic political process depends on the dissemination of reliable information. If the information can no longer be trusted, citizens have little basis for making political decisions (Buckingham, 2019).

Based on this, the development of information needs and media literacy of students enrolled in the direction of "State and Municipal Administration" is of particular importance. To avoid terminological confusion, the concepts of media literacy and digital literacy should be clarified.

Traditionally, media literacy has been defined as a critical thinking skill that is applied to the source of most of the information - mass communication channels. This critical thinking skill enables people to identify messages that are conveyed in the media (Silverblatt, 2018).

Taking media literacy in a broader context involves taking into account the economic, social, technical and intercultural consequences of the "information society" (Tuzel, Hobbs, 2017). Media literacy is seen as a requirement for an adequate understanding of media communication, it allows the user to confidently handle new information processing capabilities, participate in progress and navigate it (Stix, Jolls, 2020).

Digital literacy is interpreted as "knowing how and when to use certain technologies, as well as knowing which forms and functions are most suitable for your purposes" (Greenhow et al., 2011).

Also, media literacy can be considered as a component of soft-skills. As E.A. Dagaeva, the key to success in the development of students' soft-skills, and, consequently, to increase their competitiveness, is the formation of a special educational environment of the university, which makes it possible to ensure the implementation and support of "flexible skills" in practice, including in the digital environment, starting from the first year (Dagaeva, 2019).

There is no doubt that a civil servant must have a well-developed critical thinking that allows him to navigate the media environment and filter out inaccurate information. However, in our opinion, this is a too narrow interpretation of media literacy. We offer an expanded understanding of the media literacy of a civil servant, relying on the definition of digital literacy given by R. Hobbs and J. Coiro (Hobbs, Coiro, 2016). By media literacy of a civil servant, we mean a set of competencies: and creating credible and consistent media messages in a variety of forms.

In addition to the skills of working with systems of interdepartmental interaction and electronic document management; ability to work with state information resource management systems; skills of working with information and analytical systems that allow collecting, processing, storing and analyzing data; ability to work with regulatory information systems; knowledge of the basics of information security in relation to personal data, storage and processing of official information, as well as the use of the Internet for official and personal purposes (Vasilieva et al., 2018), a civil servant, as a public person, is directly responsible for providing accurate information to the public, in including through the media.

Review of sources on the research topic allows us to state the lack of methodologically grounded empirical research. There are only a few works, one way or another touching on this topic. In particular, individual authors have studied the motives for using digital resources, as well as the actual use of interactive media by young people (Den Beemt et al., 2011). From the point of

view of the authors, these aspects should be the subject of attention of educational practice, both at school and at the university.

The analysis of scientific literature on the research topic showed that the problem of the formation of such an important component of the professional competence of a civil servant, as media literacy, was out of sight of researchers. Only a small fraction of publications partially cover this issue. So, in the work of K.A. Karakovsky and L.A. Obukhova aspects of the management of professional development of civil servants in the digital economy are considered (Karakovsky, Obukhova, 2020). Also in the work of Vasilyeva E.V. and others analyze the development of digital competence of civil servants in the Russian Federation (Vasilieva et al., 2018).

An empirical study devoted to the study of the formation of media literacy of Russian students enrolled in the direction of "State and Municipal Administration" is undertaken for the first time.

4. Results
An analysis of the answers to the question identifying the most preferred type of education showed that the traditional type of education, namely classroom lectures and seminars, is preferred by the majority of the students we surveyed – 68 %. 19 % of respondents are inclined to a combined type of training (a combination of online and offline), 11 % choose the distance format, and finally, 2 % – distance learning led by a teacher (webinars).

In this distribution of answers, the tangible prevalence of the traditional teaching format over the modern, distance learning format does not look unexpected. It can be assumed that the results were influenced by the fact that the survey was conducted at the very beginning of the resumption of the offline format after a long period of distance learning associated with the epidemiological situation of COVID-19. At the same time, students' clear preference for the traditional teaching format in the context of the problem under study can be considered more a "minus" than a "plus", since this does not stimulate students to develop media literacy skills. The way out is seen in the expansion of the media competence of the teachers themselves, who, in the conditions of a sharp transition to distance learning, have not yet mastered a wide arsenal of media technologies in the educational process. This clearly requires a systematic approach to professional development and motivation of teachers in the development and application of media competencies.

Distribution of answers to the question "What publications of electronic media are useful for you?" shows that most often students turn to reference and information (66.1 %) and regulatory (54.2 %) sources. The least popular among students are historical (28 %), analytical (32.2 %) publications of electronic media (Figure 1). The results obtained indicate that the range of sources that future state and municipal employees turn to in the context of studying at a university is rather wide and diverse.
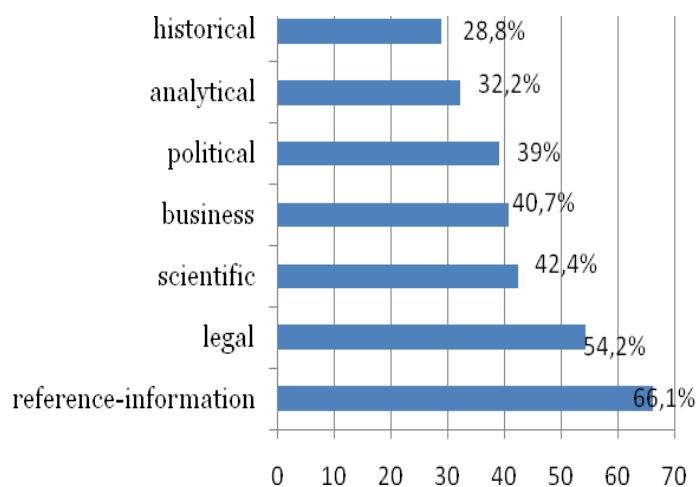
Fig. 1. Distribution of respondents' answers to the question:
"What electronic media publications are useful for you?"

Analysis of the distribution of respondents upon registration on the portal of state services of the Russian Federation: registered – 74.5 %, not registered – 26.5 % also confirms the fact of active use of reference and information sources by the respondents.

Continuing to study the formation of students' media skills, we found out what problems students solve mainly using digital technologies. According to the results obtained, these are, first of all, communication tasks (communication – 79.7 %) and financial (payment for services – 69.5 %). Educational tasks with the help of digital technologies are solved by only 52.5 % of the students we surveyed, which, of course, needs to be corrected (Figure 2).
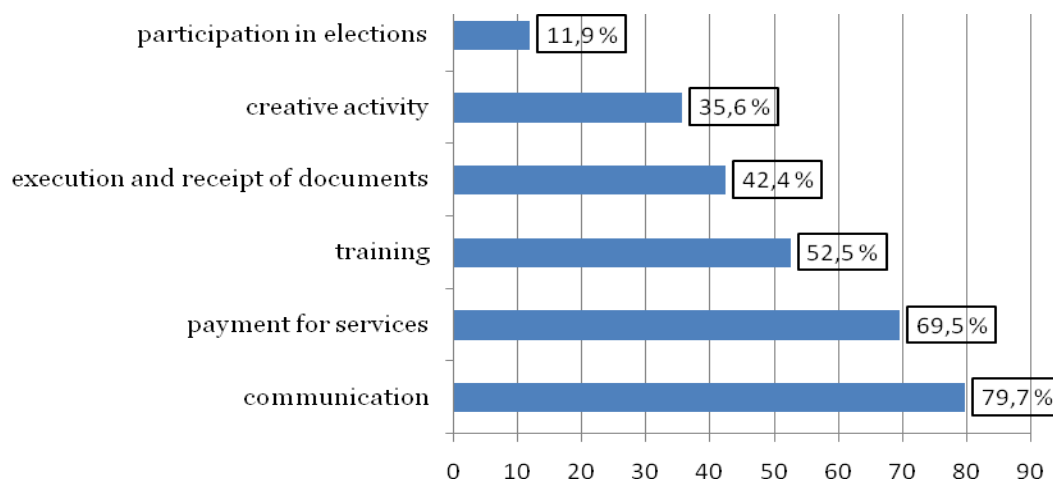
Fig. 2. Problems that students solve using digital technologies

An analysis of the frequency of using media resources to search for information in the framework of training in their specialty requires dividing the respondents into 2 large groups – those who use them daily (43.1 %), and those who use them from time to time (48.3 %), moreover, the second – more (Figure 3).
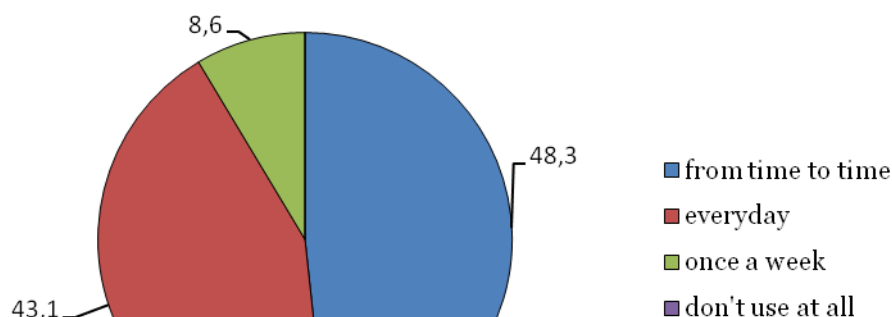
Fig. 3. Frequency of using media resources to search for information within the framework of training in your specialty

It should be noted that among the resources that students turn to solve educational problems, the leading place is taken not by a digital source, but by a competent person (teacher, specialist) – 84.7 %. At the same time, among the digital resources that students use for educational purposes, there are webinars (11.9 %), blogs (20.3 %), forums (20.3 %), as well as the electronic educational environment of the institute (72.8 %) (Figure 4).

Consequently, the carrier of educational information, experience of professional activity in the minds of students is still the teacher. Digital resources are considered as additional, auxiliary, optimizing the process of interaction in the teacher-student system.

Going deeper into the topic, it was found out in what disciplines of the curriculum future state and municipal employees turned to Internet sources most often. In the sample of answers to this question, the leading disciplines are legal and economic disciplines of both the basic and variable parts of the curriculum ("Legal system of the Russian Federation", "Economic theory", "Management of purchases and contracts", "Office work and interdepartmental document flow" ", etc.) The results obtained indicate that the teachers of these courses stimulate the media activity of students and thereby participate in the development of students' media literacy skills.
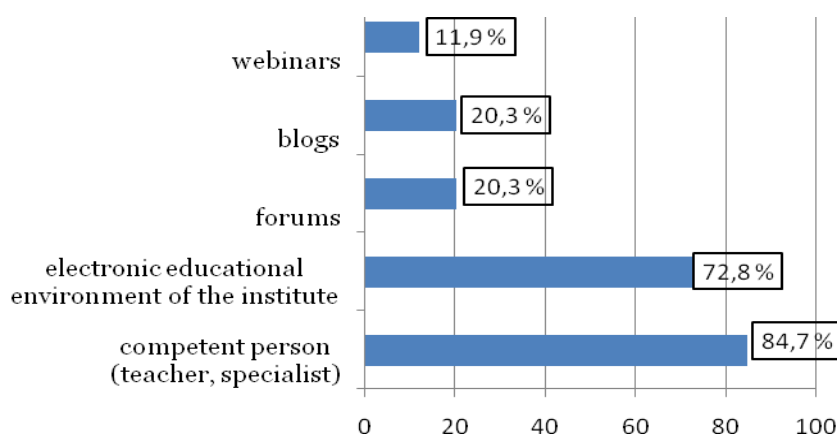
Fig. 4. Resources, that students turn to solve educational problems

However, on a par with this, the results of the survey indicate that less than half of the students (48.5 %) turn to state and municipal information systems as part of their specialty training. Among the state and municipal information systems used by students in the framework of training their specialty, there are: the Unified portal of state and municipal services (76.9 %), as well as the Unified system of interdepartmental electronic interaction (23.1 %), the National platform for distributed data processing (23.1 %), Information system of the head certification center (3.8 %) (Figure 5). Obviously, these specialized professional databases are not included in the educational process for active use.
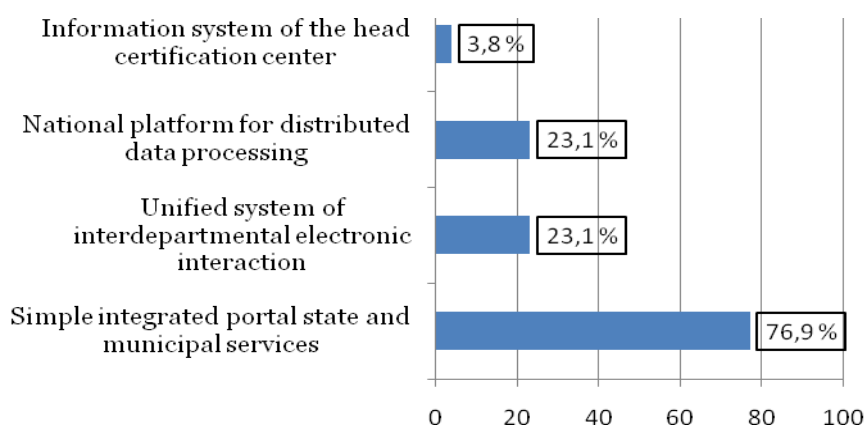
Fig. 5. State and municipal information systems used in the framework of training in the direction of training 38.03.04 – "GMU"

Assessment of students' satisfaction with a variety of types of information resources for the implementation of the educational process, as well as the degree of informing about the forms and possibilities in the process of implementing the educational process showed that student contentment in both cases is quite high (Figures 6, 7).

On the one side, this indicates that in the university environment, work is underway to form the media competence of students in this area of training, new information resources are being introduced, students will learn about the possibilities of digital technologies, the principles of their application in future professional activities. But apparently this work is not yet systematic and purposeful. Taking into account the above results that only 52.5 % of students solve educational problems using digital technologies, only 44.5 % daily use media resources to search for information within the framework of their specialty education, and at the same time, the most desirable source of information is actually the teacher and the university electronic educational environment, where the same teachers posted information in the most adapted form, we can conclude that the students' own activity in the digital environment is very low. How can you explain their satisfaction with the existing situation in the formation of their media literacy?
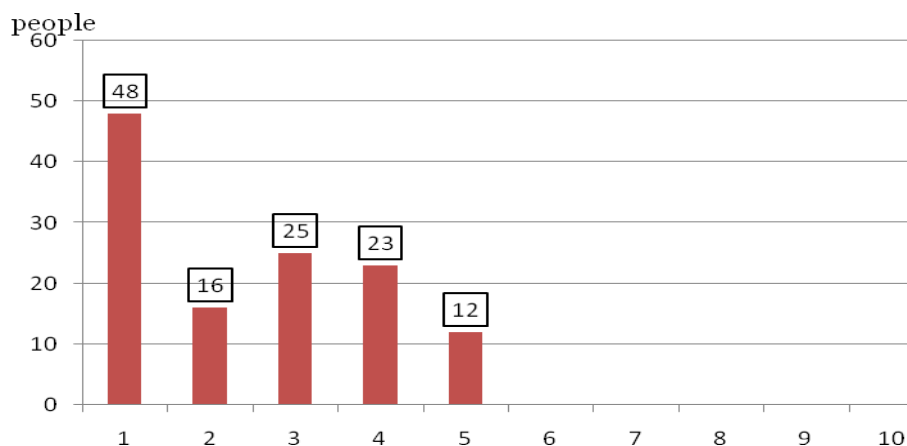
Fig. 6. Contentment of respondents with a variety of types of information resources for the implementation of the educational process
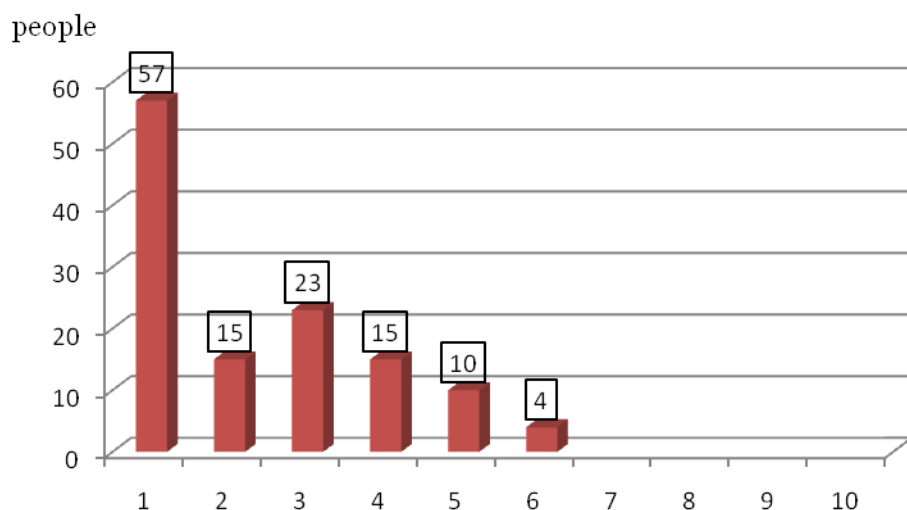
Fig. 7. Contentment of students with the degree of informing about the forms and possibilities in the process of implementing the educational process

A high level of satisfaction with something indicates a balance in the emotional-needs sphere of a person between what is expected and what is received. Those with a low level of information needs, the poor representation of media resources in the educational process will not be perceived as something critical, causing discomfort among students. Therefore, the satisfaction of students with those aspects of the media space and the possibility of using it in the educational process that are currently offered in the university environment does not yet indicate its richness and qualitative originality. Consequently, a natural question arises, to what extent this state of affairs is

adequate to the requirements for the level of media literacy in professional activities in the field of state and municipal administration.

In the scientific literature, it has not yet been possible to obtain an unambiguous answer to this question due to the weak representation of such studies in the sample of state and municipal employees. Therefore, at the second stage of this study, a questionnaire was conducted among the current state and municipal employees. The geography of respondents' coverage was quite wide, it includes the following cities of the Rostov region: Azov, Bataysk, Volgodonsk, Gukovo, Donetsk, Zverevo, Kamensk-Shakhtinsky, Rostov-on-Don, Taganrog. Among the organizations, whose representatives took part in the survey, are: the Government of the Rostov region, MAU MFC "My Documents", as well as the municipalities of the above cities of the Rostov region.

The survey results showed that the overwhelming majority of respondents (96 %) use the Internet resources in their professional activities. Distance learning technologies were mastered by 84.6 % of the respondents and actively participate in webinars, videoconferences held by state and municipal authorities in order to improve their skills and timely search and replenish professionally significant information.

As can be seen from Fig. 8, among the media resources that survey participants most often turn to in their professional activities, the most in demand are state and municipal sources (77 %), official sites of the constituent entities of the Russian Federation (73 %), as well as corporate sites and portals (61 %)
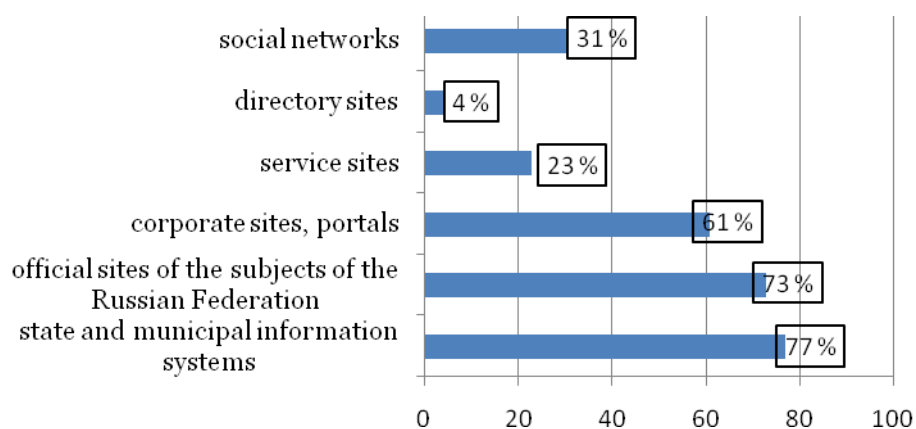
Fig. 8. Types of media resources that state and municipal employees
most often use in their professional activities

As for the state and municipal information systems, which are most often referred to in their professional activities by the respondents, here the undoubted favorite is the Unified Portal of State and Municipal Services (76 %), the Unified System of Interdepartmental Electronic Interaction (50%) is slightly less in demand. The third most popular resource is the Unified Identification and Authentication System in the Infrastructure, which ensures the interaction of information systems used to provide state and municipal services in electronic form (15 %) (Figure 9).

As part of the survey, the participants were asked to evaluate the work of the authorities in the field of increasing the media literacy of state and municipal employees. The answers were distributed as follows: 44.5 % – fully satisfied, 27.5 % – rather satisfied than not satisfied (Figure 10).

The data obtained indicate insufficient satisfaction of employees (as opposed to the data obtained on a sample of students) with the measures that the employer offers to improve media literacy. Consequently, the available insignificant training resources do not reflect the high demands of employees for the development of professional media competence. Therefore, it is necessary to improve this direction in the work of state and municipal authorities.

Analysis of answers to the question "How important, in your opinion, is the development of media literacy of a state and municipal employee during his studies at a university?" indicates that the majority of professionals working in this field, based on their own experience, emphasize the importance of the purposeful formation of this competence among students studying in the direction 38.03.04 "State and municipal administration" (Figure 11).
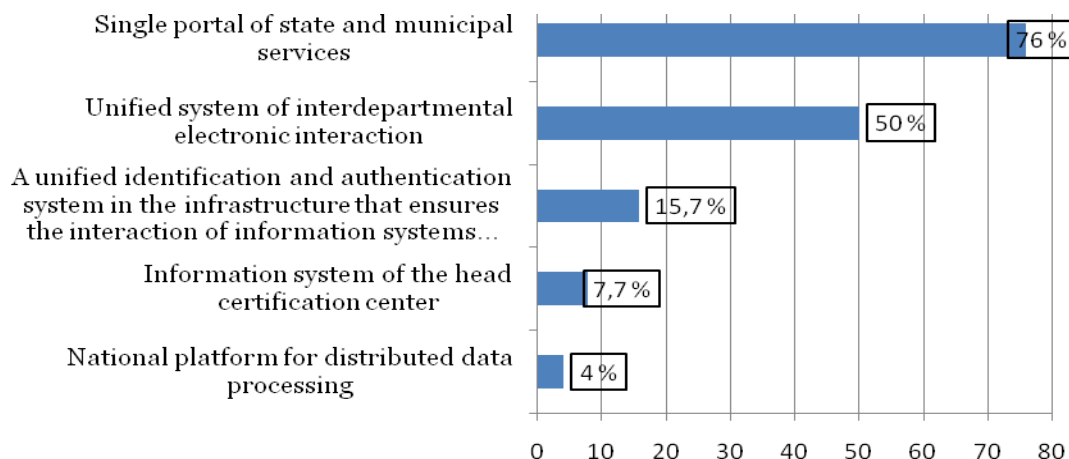
Fig. 9. State and municipal information systems used in the professional activities of state and municipal employees
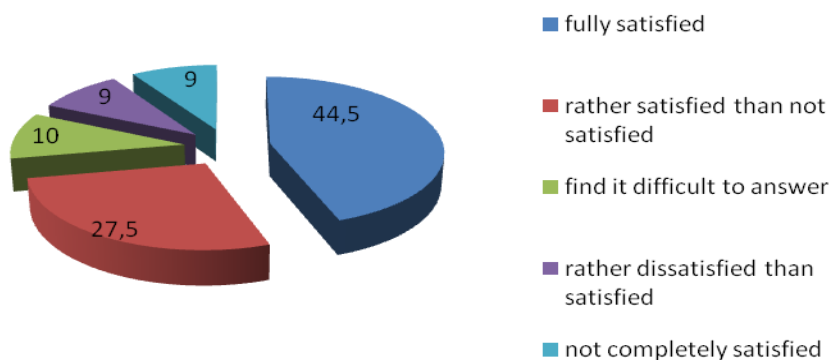
Fig. 10. Assessment of the work of the authorities in the field of increasing media literacy of state and municipal employees
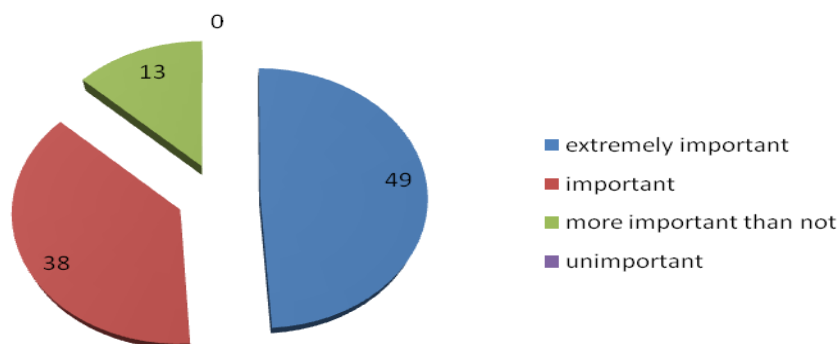
Fig. 11. Assessment of the importance of developing media literacy of a state and municipal employee during his studies at a university

Among the priority areas for training graduates of the specialty "State and Municipal Administration" in the formation of media literacy, the respondents named the following: the ability to work in specialized information systems (73 %), the development of search skills, systematization and analytical processing of media information (58 %), participation in training

and conducting communication activities of state and municipal bodies (36 %), increasing the general level of information culture (moral, ethical aspects) (35 %) (Figure 12).
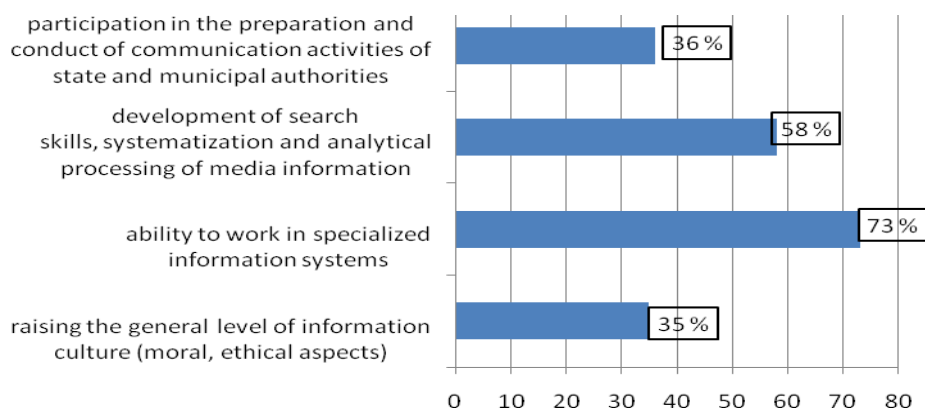
Fig. 12. Priority areas of training for graduates of the specialty "State and Municipal Administration" in the formation of media literacy

As the results of the survey shows, a high level of formation of media literacy skills is an integral condition for the effective performance of state and municipal employees of their official duties. Consequently, the development of forms and methods of increasing the media literacy of students studying in the direction of "GMU" is not a tribute to current trends, but an urgent need.

5. Conclusion

Interpretation of the results obtained on a sample of students allows us to conclude that high satisfaction of students with a variety of types of information resources and the degree of information about the forms and possibilities of using media resources in the process of implementing the educational process, with their objectively insufficient representation in the university environment, indicates a weak expression of the respondents' needs to the formation of media competence. Actualization of this type of needs becomes an important task in the system of formation of educational needs in general. Need is the original source of activity. Therefore, the development of media literacy in the university environment should begin with the actualization and expansion of the subject content of information needs, and then objectify the emerging needs through specific information technologies and resources. At the same time, it is important to emphasize in an emotional context the professional significance and socially useful effect of their future application in the field of state and municipal administration.

Nevertheless, it should be taken into account that digital technologies are developing so quickly and penetrating into human life that the task of the educational process becomes not so much to teach how to correctly use the resources and technologies available today, but to form a willingness to constantly self-learn, improving their media competence.

Therefore, on the basis of modern psychological research in the field of the formation of motives and meanings of activity (Leontiev, 2007), the following can be proposed. The educational process in the university environment should, firstly, form information needs as a source of activity in the media environment. Second, in order to objectify these needs (i.e., to form motives for mastering media literacy), offer a wide range of professional media resources and digital technologies. Thirdly, the regulation of the dynamics of students' activity should be carried out through emotional support of educational activities, providing an opportunity for social reflection of subjective emotional experiences in relation to new information. The implementation of this sequence makes it possible to form in the student a personal meaning of mastering media literacy, which is able to form a stable tendency towards further self-study and professional development in this direction. Content filling of the proposed mechanism with specific teaching tools is considered as a prospect for further research.

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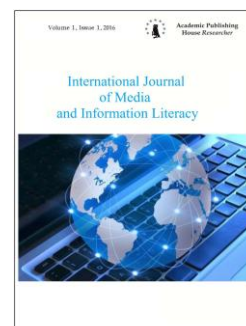
COVID-19 and Infodemics: How to Solve this Problem

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Abstract

COVID-19 has not only caused an unprecedented health crisis; it has also caused an infodemic with the spread of false news. The role of the media is crucial in trying to reduce the spread of these hoaxes. Infodemics can cause citizens and political institutions to make bad decisions. Some of the fake news that authorities are most concerned about are those related to remedies to prevent contagion or cure symptoms, as these deceptions can lead to increased contagion or worsening of the disease by coronavirus. The media can play a positive role during the Covid-19 pandemic by promoting effective strategies to help people prevent the spread of the pandemic. They have the ability to convey a sense of unity by reaching large numbers of people, but can also provide grounds for misinformation and discrimination. This article reviews some of the major hoaxes that have spread during the coronavirus crisis, and provides guidelines for citizens to detect the false information that is being disseminated. In addition, useful recommendations are established for content creators and information disseminators, with the aim of promoting effective and truthful communication during this crisis.

Keywords: Covid-19, infodemics, social media, fake news, population, media.

1. Introduction

A new coronavirus, known as Covid-19, emerged in late December 2019 in China, and has spread rapidly worldwide, causing millions of people to be infected and thousands to die. The World Health Organization (WHO) declared this situation a health emergency and classified it as a pandemic at the international level.

However, not only has the disease itself had to be combated, but also a new phenomenon of "infodemics" or epidemics of false information has had to be dealt with.

The term infodemic (Zarocostas, 2020) has been coined to describe the dangers of misinformation phenomena during the management of virus outbreaks (Mendoza et al., 2010, Starbird et al., 2014) as it could even accelerate the process of the epidemic by influencing and fragmenting the response (Kim et al., 2019).

Currently, an enormous amount of unverified information is being disseminated about various aspects of coronavirus disease, methods of control and prevention of the disease, and its consequences through different media and social networks.

The development of social networking technologies is influencing network communications and the way in which human beings interact. Information users are simultaneously information contributors (Popescu, 2015) due to the advance of new technologies in information and communication. News generated in a crisis can be distributed quickly without the intervention of

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journalists, reaching millions of people (Popescu, 2016). The media can stimulate the preparation, knowledge and participation of citizens (Bratu, 2016; Pera, 2015) in the reaction to crises. Engaging the media during the crisis can expand information possibilities and reduce the disorder and inaccuracies that can occur during the crisis (Veil et al, 2011).

In times of emergency, urgent questions arise that require an immediate response. However, there is a tendency to rapidly disseminate unverified claims through the media, rather than disseminating valid scientific and medical facts. In this paper we review some of the fake news that have been spread during the Covid-19 crisis. We also establish a series of guidelines to be followed so that citizens can detect untrue information and the hoaxes spread. Finally, some recommendations are set out for any communicator, journalist and content creator.

2. Materials and methods

In order to carry out this work, a revision of the literature of the last years has been carried out, regarding the media, the information and the way to spread it. Based on this review, the author has drawn up a series of guidelines and recommendations to deal with the fake news that emerged during the COVID-19, to be able to detect them and to guarantee that the information transmitted is truthful.

3. Discussion

The media can play a positive role during the Covid-19 pandemic by promoting effective strategies to help people cope with social alienation, prejudice, discrimination and inequalities. They have the ability to convey a sense of unity by reaching large numbers of people, but can also provide grounds for misinformation and discrimination. People can use the flexibility and pervasiveness of social media technologies to increase public support for the safety measures suggested by health organizations to combat the spread of Covid-19. Different media industries and mass communication channels promote adaptive responses to encourage positive health attitudes and adherence to preventive measures.

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. Most people who see misinformation about Covid-19 may think that what they are reading is true and some of them may cause panic. Many social network users are inclined to share misinformation and fuel fear of something that is not necessarily true. Thus, hoaxes are spread through social media, such as that the coronavirus was genetically engineered in the bioweapons lab in Wuhan and then released worldwide.

Social networking technologies can help create innovative and faster ways of exchanging information (Popescu, 2016). Citizens can be self-sufficient in information and have access to more information, but this can be a difficult task for government regulation and information synchronization. People may prefer, through better personalization of their media or social networks, to use only information that matches their own opinions (Constantin, 2015), thus acquiring a restricted world view, regardless of the accuracy of the information they obtain. New technologies and social networks make it easier for information to be available and distributed quickly through both established and unofficial channels. Social media compress a new trend of digital communication and content distribution among people and entities (Branicki and Agyei, 2015).

Mobile technologies are a key component for social media to have importance in crisis management. Working with reliable sources through social media can harmonize the ability to reach and gain the trust of a wide audience (Nica, 2015).

With the current Covid-19 health crisis, the circulation of fake news has grown rapidly (Chakravorti, 2020; Taylor, 2020). This type of news not only encourages some racist attitudes and behaviour (Aguilera, 2020) but also puts the health of populations and the capacity of governments to implement prevention measures at great risk. Faced with this situation, the WHO, in addition to declaring the health alert, warned of the generation of an infodemic due to the accumulation of fake news and the difficulty of classifying the true information from the false (World Health Organization, 2020a). To combat this, the WHO has created a section on its website to debunk myths and discredit false information (World Health Organization, 2020b).

Some of the rumors that most concern the authorities are those related to remedies to prevent contagion or cure symptoms, since these hoaxes can lead to increased contagion or worsening of the disease by Covid-19.

The best sources for health information on Covid-19 are the websites of the Ministry of Health of each country and the WHO website. In addition, primary sources are generally better than news articles.

The term fake news has been widely used in recent years (Guess et al., 2019; Lazer et al., 2018). There is talk of fake news, or information manufactured in imitation of media content, but also of "disinformation" and "misinformation". Disinformation is the deliberate creation and dissemination of false information (Bakir, McStay, 2018), while the term misinformation is the practice of those who disseminate it, without being aware of it. The difference between misinformation and disinformation would be intentionality, and both behaviours are very possible in today's society due to new technologies (Rubin, 2019). Social networks and online communication would be mainly responsible for the dissemination of fake news (Blanco-Herrero, Arcila-Calderón, 2019).

False information describes any form of misrepresentation, including rumours, deception, myths, conspiracy theories and other misleading or inaccurate content, whether or not it is shared on purpose (Wang et al., 2019). Fake news and inaccurate information can spread more quickly and have a greater reach than news based on real facts (Vosoughi et al., 2018).

The overabundance of data and knowledge is one of the characteristics of current information. The power no longer lies in having access to information but in managing it. The advent of the Internet and the media has facilitated the dissemination and access to information, opening up the possibilities for users to interact and produce content (Del Vicario et al., 2016). This situation has led to a democratization of the relationship between knowledge and citizens. However, the media have also become the main platforms from which false and misleading information is disseminated (Lazer et al., 2018), as they allow a rapid and large-scale exchange and lack the traditional mechanisms for quality control and reliability (Lewandowsky et al., 2012).

Humans are generally quite inefficient at detecting fake information. This is because fake news often resembles real news, and we believe we recognize a pattern.

Fake news also has an advantage when it comes to sharing information. When we share information online, we examine things very little. We are also more inclined to share bad news, and much of the news related to Covid-19 is not good news.

It is important for people to avoid this false information, as it can affect their actions or decisions (Sharot, Sunstein, 2020). The dissemination of information can strongly influence people's behaviour and alter the effectiveness of measures deployed by governments.

Social networks provide direct access to an unprecedented amount of content and can amplify rumors and spread misinformation (Kulshrestha et al., 2017). Generating misinformation has a profound impact on the construction of social perceptions (Schmidt et al., 2017) and influences policy formulation, political communication, as well as the evolution of public debate (Schmidt et al., 2018; Starnini et al., 2016) especially when the issues are controversial (Del Vicario et al., 2016). In fact, users tend to acquire information by adhering to their world views (Bessi et al., 2015) in order to ignore dissident information (Baronchelli, 2018; Zollo et al., 2017).

The increase in false information is encouraging the denial of scientific evidence and could potentially be a threat to democracy and citizens (Allcott et al., 2019), as the dissemination of this type of content has been shown to encourage cynicism, apathy and extremism (Lazer et al., 2018).

In this way, fake news can lead individuals and institutions to make choices that end up being counterproductive to their own interests or against the needs of society (Merino, 2014).

This negative effect of fake news can be found widely in the health field, especially in the field of vaccination and infectious diseases (Fung et al., 2016; Hotez, 2016; Wang et al., 2019). The spread of fake news can have serious public health consequences (Scheufele, Krause, 2019).

People are more likely to accept information that is consistent with their pre-existing attitudes and beliefs (Del Vicario et al., 2016; Lazer et al.,2018; Lewandowsky et al., 2012). In addition, the more exposed they are to fake news, the more likely they are to accept this type of information (Del Vicario et al., 2016). To try to make the population aware of the majority of these fake news, in the following section we establish a series of guidelines to follow.

4. Results

From the revision of the works that deal with this subject, it has been possible to establish a series of guidelines to detect the fake news, and from here, we have elaborated a series of recommendations for the diffusion of information on COVID-19, that will be very useful, so much for the citizens, as the professionals of the mass media, as for the political institutions.

In order to detect whether a news item is fake, it is important to question different aspects. First of all, one must have a critical spirit in reading the information and be aware that society's immense interest in the Covid-19 gives rise to this dissemination of news. In addition, we must take into account:

- The source: it will be necessary to verify the source of the information and check if it matches the information offered on the official websites. It is important to check if there is any other news source that reports the same thing or if sources are cited in the story and the type of sources involved. If the message you receive does not link you to an official source, it may be a hoax.

- The logo: It is important to check whether the logo of any organization used in the message is identical to that of the official website.

- The formal aspect: you should be suspicious if spelling mistakes have been made or if it contains many exclamation points. If it is difficult to read, spelling mistakes or bad syntax is a good indicator that the news is fake.

- If there is excessive encouragement to share or if the message presses to share it could be fake news.

- The date of publication: some media re-publish old publications or promote old news as current stories. Check the date of publication of the article and whether the timeline it refers to makes sense.

On the other hand, if the news is very recent and not published by any professional newspaper, you should be wary. Similarly, if information comes to us through an audio, we should not give it veracity.

All this infodemics has forced international organizations to act also against the virus of disinformation. The World Health Organization has set up a web page in which it debunks all the myths that have been circulating on social networks since the last few weeks.

There have been several hoaxes that have circulated through the network during the crisis of Covid-19, which have had to be denied because of their rapid spread. Here are some of them:

• Sodium chlorite does not cure coronavirus, it's dangerous and illegal.

• The European Union is not handing out food cards to all its citizens.

• Eating pineapple, lemon, avocado or garlic does not protect against the coronavirus.

• Holding your breath for ten seconds does not indicate that you are free of the virus.

• Mosquitoes do not transmit coronavirus disease.

• Young people are just as likely to get it as adults.

• There is no evidence that the spread of the coronavirus was intentional or that the virus was created in a Chinese laboratory.

• Drinking bleach does not kill the virus; on the contrary, it causes poisoning in humans.

• "Do not go out on the balcony" is not included among the recommendations and prevention measures of the World Health Organization.

• Consuming hot drinks such as infusions, broths or hot water does not eliminate the virus, as it has not been proven that the virus cannot withstand high temperatures.

• The coronavirus does not die when exposed to the sun, nor does drinking a lot of water stop the coronavirus.

• To verify real, current, and reliable information about Covid-19, citizens should consult sources such as their country's Ministry of Health, the World Health Organization, the European Centre for Disease Prevention and Control or the Centers for Disease Control and Prevention. In addition, the world of journalism and communication should help to minimise confusion among citizens and provide quality and totally accurate information.

Recommendations for the dissemination of information on COVID-19

The public needs to be properly informed to avoid panic and confusion, and to keep the population together to comply with pandemic containment measures. Today's journalism also plays a key role in avoiding this misinformation, and in denouncing any kind of hoax.

It is important to remember that in the era of social media, you can make money by standing out in the crowd, and it is easier to attract followers and advertisers by being outrageous than by contributing rational things. The role of journalism should be to provide people with the information they need to build strong and healthy societies, even more so in times of crisis.

To make communication as effective as possible, avoid confusion and minimise the creation of fake news, a series of recommendations are set out for journalists, communicators and any content creator to follow.

• Make the content easily understandable: simple language should be used, accompanied by graphics that make the content easy to understand. It is important to find simple, attractive and truthful ways to convey the information and inform about the steps that people can take.

• Avoid speculating about possible worst-case scenarios. Focus on what you know and understand, and don't panic the reader.

• Provide readers with specific actions they can take. It is important to rely on recommendations made by experts to prevent the spread of the virus.

• Avoid disparaging language: anxiety, fear and worry are quite common in the face of uncertainty, so it is advisable to address false beliefs with empathy, without disparaging people who echo unfounded fears.

• It directs readers to consult official sources of information to avoid the spread of hoaxes. The media must be reliable and indicate the websites and the opinions of expert professionals to the readers, so that they can address them to keep themselves informed and enhance any consultation.

• Be responsible and avoid sensationalist language. Avoid spreading fear unduly and avoid terms such as "confusion" or "catastrophe". Alarmist headlines cause panic and bewilderment in the population.

• Think about which rumours to address. Not all fake news deserves coverage.

• Hoaxes end up becoming news, and many times the media try to disprove them. However, it is advisable to avoid drawing attention to rumours if they are receiving little participation or are acting in a very specific niche.

• Consider the impact of an image and choose it carefully to accompany a news story. It is important that it is not out of context and avoid photographs that may reinforce stereotypes or fuel panic (supermarkets with a shortage of products).

• Find out what information the population demands about Covid-19 and fill this gap in information. Due to the limited or non-existent relevant data available, it is important that the media act to provide quality and always truthful information.

Given the current scenario, it may not be entirely easy to carry out these guidelines, but it is important to keep them in mind as much as possible if you are going to communicate or share any information about Covid-19.

Because information is created by humans, no information is perfect. But some information is highly credible, some less so, and some not at all. We need to evaluate the information to make informed decisions, especially in a time of crisis like Covid-19.

5. Conclusion

The Covid-19 crisis has generated an enormous amount of unverified information about various aspects of coronavirus disease.

Humans are generally inefficient at detecting false information, because fake news often looks like real news, and when we share information, we examine things very little. You have to look at things like the source, the logo, the shape of the message or the information you have received or are consulting before you spread it. It is essential to verify the information so as not to contribute to the expansion of hoaxes, since the existence of fake news can lead to an increase in contagion or the worsening of the disease by Covid-19.

If we are looking for information to make good decisions, we must use the time necessary to evaluate the information. Most citizens tend to cling to the first information they find and give it undue weight in decision-making.

The role of journalism should be to provide people with the information they need to build strong and healthy societies, especially in times of crisis. For communication to be as effective as possible and to avoid confusing citizens, journalists, communicators and all content creators must avoid speculating about worst-case scenarios, using sensationalist language and spreading fear unduly. In addition, it will be important for them to provide readers with specific actions they can take during this crisis based on the recommendations made by the experts. They should also provide information on the official sources to which citizens can turn for information such as the websites of the Ministry of Health of each country and the WHO website. It is important to always consult official sources, and to trust health professionals and the indications of the Security Forces and Corps, and to urge that unverified information not be shared. In this way, the number of erroneous decisions made due to this news can be minimised, which end up being counterproductive to the interests of citizens and society.

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Current Trends in Media and Information Literacy in Research and Scientific Publications of the early 21st century

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Abstract
This review article presents the current trends in media and information literacy in scientific publications of the early 21st century based on the content analysis of Russian and foreign researches:

– major function of media and information literacy is to provide access to information and knowledge and promote free, independent and pluralistic mediated social environments (UNESCO);

– media literacy as a vital, survival skill for an individual;

– minimizing online risks and expanding online opportunities in media literacy education;

– information or digital literacy in the educational and professional contexts;

– focus on studying human behaviour in social computer-mediated interactions and challenges of global cross-cultural communication;

– promoting people's media and information literacy for active social change;

– media literacy and digital literacy as critical instruments against various online risks and manipulations;

– media and information literacy integrated into the school curriculum and university syllabus;

– media literacy education aimed at students' applying their critical thinking skills to media messages and creating media texts;

– focus on media language and representation analysis in media and film studies;

– national peculiarities of promoting media and information literacy in different countries;

– international media literacy based on the effective strategies used in different cultures.

Besides, the authors emphasize the following problem zones in media literacy education for further research and development: training and education programs for media studies for all levels of education; teacher training courses in media education; increasing media awareness of all stakeholders and organizations in the social sphere; international collaboration and research in media education and a wide exchange of research findings; practical application of media literacy education for various social groups.

Keywords: media and information literacy, media message, media text, media culture, mediation, critical thinking skills, media literacy education, media studies.

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1. Introduction

Contemporary understanding of media and information literacy in the global context is based on the presupposition that its basic and major function is to provide access to information and knowledge and promote free, independent and pluralistic mediated social environments: "Media and information literacy recognizes the primary role of information and media in our everyday lives. It lies at the core of freedom of expression and information – since it empowers citizens to understand the functions of media and other information providers, to critically evaluate their content, and to make informed decisions as users and producer of information and media content" (UNESCO, 2020).

Traditionally, media literary and information literacy have been treated as separate fields of research, but at the present stage, sometimes for convenience of reference, they tend to be combined into a broad field with some common objectives and competences that are vital for people's everyday life, work or study. Thus, the range of challenges emerging within this field is rather wide and concerns our everyday access to information, our ability to critically assess, productively contribute and use information both in the online and offline communication types. This set of issues is accompanied by a much wider range of relevant problems such as ethical, sociocultural, political, commercial, intercultural, moral, interethnic, interreligious and other essential aspects surrounding the access and use of information in modern society.

On the other hand, some leading media experts, though identifying points of convergence between media literacy and information literacy, emphasise the idea that they actually remain distinct areas of study: "UNESCO, the education wing of the United Nations, has advocated combining Information Literacy with another discipline: Media Literacy. The most obvious point of convergence between these two disciplines is the application of critical thinking skills to their particular areas of focus. But although these disciplines are clearly related and, in some instances, overlap, they remain distinct areas of study: 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). Such approach, in our opinion, is certainly scientifically justified and logically proven.

In light of this, we would like to dwell upon some current trends in promoting media literacy and information literacy as separate research lines in scientific publications of the early 21st century.

2. Materials and methods

Materials of our research are academic books and articles on media and information literacy. 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 aspects in cognition. The research is based on the content analysis and comparative approaches. The following methods are used: data collection (monographs, articles, reports) related to the theme under study, analysis of academic literature, theoretical analysis and synthesis; generalization and classification.

3. Discussion and results

In recent years, UNESCO (Grizzle, 2018; Perez Tornero, Varis, 2010; UNESCO, 2011; 2013; 2015; 2020) has made serious efforts to bring together scientists, often working separately earlier in the fields of information literacy and media education. *Nordicom* is moving in the same direction (Carlsson et al., 2008; Carlsson, 2019; Feilitzen, Carlsson, 2004). The problems of similarities and differences and of combining the tasks of media and information literacy in the 21st century have become increasingly important in the research of American scientists (De Abreau et al., 2017; Hobbs, 2010; 2016; Hobbs, Jensen, 2009; Jolls, Wilson, 2014; Kubey, 2001; Mihailidis, 2014; Potter, 2016; Rosenbaum et al., 2008; Share, 2009; Silverblatt, 2014).

Research by European scientists is also increasingly addressing similar issues (Bordac, 2014; Buckingham, 2014; Frau-Meigs et al.., 2017; Frau-Meigs, Torrent, 2009; Gálik, 2019; 2020; Gálik, Gáliková Tolnaiová, 2020; Kačinová, 2018; Livingstone, 2018; Petranová et al., 2017; Ranieri, 2016; Reineck, Lublinski, 2015; Šupšáková, 2016).

Several European and Asian countries have active media and information literacy promotion programs supported by *Deutsche Welle* (Braesel, Karg, 2018).

Speaking of media literacy, it has become a vital skill for an individual to survive in modern digital environment: "media literacy education is the key to understanding the modern information society: today, a person is simply obliged to be media-competent, otherwise he or she will not only become an easy victim of numerous media manipulations, but will not be able to fully enter the differentiated world of media culture" (Tselykh, Fedorov, 2020: 104). Here, media literacy is seen as a protection tool against various kinds of media risks, thus lessening the harm which a person can suffer in the global media environment. An additional point to emphasize is that media literacy opens up great prospects for a person to get acquainted with media culture and media creation, particularly through media literacy education. In other words, media literacy education fulfils at least two major functions – protection through minimizing the media harm and development through maximizing sociocultural media opportunities for media users.

The problem of minimizing online risks and expanding online opportunities is widely recognized nowadays, especially in the context of educating children and adolescents. In this regard, it is worth mentioning the well-known European project called "EU Kids Online 2020" aimed at fostering media and information literacy of the younger generation. In particular, this report analyzes such issues as online aggression and cyberbullying, harmful digital content, sexting, data misuse, sharenting, digital ecology, online opportunities and others. As a result, the authors offer a holistic approach to children's well-being in a digital world – the goal that, unfortunately, still remains hardly achievable: "It is still the case that most researchers and policy-makers concentrate either on the opportunities of a digital world – concerned with education or civic participation or creative expression, for example – or on the risks of harm to children – concerned with e-safety, parental mediation or internet regulation. Achieving a holistic approach – whether at the level of a country or culture, or for an individual child – remains difficult. Those excited by digital opportunities still tend to neglect or postpone thinking about the ways in which increasing opportunities tend to go hand in hand with increasing the risks of the digital world for children. Those who prioritise child protection and safety may struggle to realise that their interventions could also serve to limit children's civil rights and freedoms" (Smahel, et al., 2020: 135).

Besides, the report actualizes another challenge of current media literacy education – teachers' and parental mediation, or social mediation in the broad meaning. Its educational target is enabling children's positive use of the Internet: "Enabling mediation is associated with increased online opportunities but also risks. This strategy incorporates safety efforts, responds to child agency, and is employed when the parent or child is relatively digitally skilled, so may not support harm. Restrictive mediation is associated with fewer online risks but at the cost of opportunities, reflecting policy advice that regards media use as primarily problematic. It is favored when parent or child digital skills are lower, potentially keeping vulnerable children safe yet undermining their digital inclusion" (Livingstone et al., 2017: 82).

That is why, it is no coincidence that information or digital literacy is usually analysed in the educational and professional contexts, as part of research work (Bulger, Davison, 2018; Tselykh, 2019), part of traditional skills such as reading competence (Čábyová et al., 2020), part of general learning skills (Ko-Wai Tang, 2018), or part of basic and professional competencies (Lebid, Shevchenko, 2020). In this meaning a media-competent student or employee has better chances for getting a prosperous job, career promotion or professional growth than a media-illiterate person. On the one hand, media literacy is based on the person's ability to access, analyse, evaluate and create media texts of various forms and genres. And, on the other hand, it enables a person to comprehend the role of media and communication in society: "Media literacy is one of the key competencies nowadays. The rapid development of information and communications technology has brought about a number of issues regarding the way people become aware of, perceive, and reconceptualize information, which very often takes on the form of a manifestly manipulative narrative that can produce misleading discourses. When people misunderstand or have a distorted idea of reality and are unable to assess objectively what is going on in society and certain forces are artificially creating conflict and stressful situations, this may give rise to the threat of reality getting dehumanized. Accordingly, in today's climate of information overload, there appears to be a need to cultivate and develop the cognitive skills of analytical, critical, and systems thinking and foster the skills of media hygiene" (Lebid, Shevchenko, 2020: 61). To crown it all, it gives a citizen a certain feeling of freedom in a democratic society through participation in media creation where media users can express themselves and contribute to national or global media production.

Since media literacy is inevitably connected to social, political and cultural life in the modern media environment, a great number of present-day scholars and researchers focus on studying human behaviour in social computer-mediated interactions and challenges of global cross-cultural communication (Buckingham, 2014; Chelysheva, Mikhaleva, 2019, 2020;Frau-Meigs et al.., 2017; Frau-Meigs, Torrent, 2009; Gálik, 2019; 2020; Kačinová, 2018; Kazakov, 2017; Khuhro, Shoukat, 2020; Livingstone, 2018; Mikhaleva, 2016; Petranová et al., 2017; Ranieri, 2016; Reineck, Lublinski, 2015).

Moreover, there is an increasing tendency to promote media and information literacy for social change: "Life story is a really useful skill in the design of programs to training the use of technology and media literacy, which is based on psycho-educational settings that encourage young people to use it in a positive way, and among other aspects, there is the personal contribution of those who will want to develop their interactive projects, yet as an opportunity to make the world a better place" (Camarero, Varona, 2016: 10). A similar experience is described by S. Goodman, the founding director of the educational video centre in New York. For 35 years now, he has been holding documentary seminars on social justice for students from low-income communities and for teachers. S. Goodman writes a lot about youth media, critical literacy, civic activism and educational reform in his publications (Goodman, 2018).

Media literacy education of citizens in the social context is aimed at protecting people from negative media effects and at creating a tolerant mood in society: "Working with media texts of different types and genres contributes to the development of students' analytical skills in dealing with media information, activates creative skills of all the participants, improves their argumentation skills. Moreover, it improves the ability of the audience to take collective decisions by analysing the problem from different points of view which, no doubt, acts as an important means of promoting interethnic tolerance of the student audience" (Chelysheva, Mikhaleva, 2019: 388). Another, no less important trend is practical media work which in the present format stands for active participation and media production by citizens, especially young people. The content of such videos or films is based on real stories of people who suffered from social injustice, fought against discrimination, defended their rights, helped other people in trouble, gained success in professional life, etc.

Very often media and digital literacy are considered to be a critical instrument against various present-day online risks and manipulations (Cortoni, 2017; Karuchit, 2016; Levitskaya, Fedorov, 2020). In order to resist the negative media effects, it is necessary to develop people's media literacy and digital competence. But it "is highly complex to analyze and apply as a sociocultural intervention in a socialization setting, for a number of reasons: first of all, this concept is still too generic, and has to be broken down into dimensions and subdimensions, so as to make it observable and analyzable in terms of type and intensity of manifestation; secondly, indicators observable in the behaviours of individuals within specific contexts must certainly be identified; and lastly, digital competence proficiency levels capable of categorizing the type of digital behaviour on an assessment scale must be constructed" (Cortoni, 2017: 69). And this is not only the question of digital access, risks and opportunities, but it seems to be a bigger challenge concerning the media user's digital culture and ecology that should be developed from an early age.

And this may be one of the reasons why media and information literacy is increasingly integrated into the school curriculum and university syllabus (Braesel, Karg, 2018; Cheung, Chau, 2017; De Abreau et al., 2017; Frau-Meigs, Torrent, 2009; Grizzle, 2018; Hattani, 2016; Hobbs, 2010; Hobbs, Jensen, 2009; Khlyzova, 2019; Kubey, 2001; Livingstone, 2018; Mikhaleva, 2019; Petranová et al., 2017; Potter, 2016; Share, 2009; Silverblatt, 2014; Šupšáková, 2016; UNESCO, 2011; 2013). It goes without saying, that this trend is positive in itself, but some leading media experts urgently warn us against the substitution of concepts and approaches that used to occur in the past decades when authentic media literacy education was replaced by mere computer or information studies in schools and universities: "media education itself needs to adopt a stronger and more critical stance towards the celebration of technology in education, and the kind of market-driven techno-fetishism that is mistakenly seen by some as the cutting edge of educational change. There is a risk here that media education might be seen as just another way of importing computer technology into schools – or indeed as a sexy alternative to the wasteland of spreadsheets, file management and instrumental training that constitutes most "information technology" courses in schools. There is an opportunity here, but it should not involve abandoning

the traditional critical imperatives of media education – which are about much more than practical skills, or the sentimental appeal to "creativity" (Buckingham, 2015: 12-13). Nowadays this danger is becoming more and more impending in this country and abroad.

Hence media literacy education should be associated with students' applying their critical thinking skills to media messages and creating their own media texts: "Media education provides the knowledge and skills necessary for students to use media products like weblogs for personal reflection and critical thinking which they share with others. Blogs can thus provide students with challenging alternatives to the traditional teaching and learning environment. They create excellent opportunities for students to discuss, reflect, analyse and evaluate different perspectives and construct their own meanings through the feedback of their peers in the blog. Feedback can even be extended to participants in other schools or learning institution and even on a globalized level" (Wright et al., 2015: 70).

Media studies and media practice are based on contemporary theoretical and methodological researches that analyse and suggest various approaches, principles, strategies and methods applied in cotemporaneous media literacy education (Fedorov, Levitskaya, 2017; Silverblatt, 2016). In this regard, is would be reasonable to refer to the theoretical background of modern understanding of information literacy, its principles and characteristics: "Information literacy focuses on the following Lines of Inquiry:

1. Identifying patterns of data in ways that previously have been impossible to detect.

2. Information literacy examines the association between a body of information and its intended audience(s).

3. Information literacy can furnish insight into the function of information.

4. Historical context.

5. Cultural context.

6. Information literacy provides ways to ascertain the legitimacy of information.

7. Understanding the capacity of a medium to convey particular kinds of information" (Silverblatt, 2016: 55-67).

The description of current approaches to promoting information and media literacy would be incomplete and one-sided without mentioning critical media and film studies that found reflection in some researches devoted to film critics (Fedorov, 2016, 2017; Kayal, Seena, 2019; Naeem et al., 2020; Nedelcheva, 2018; Salny, 2019; Szíjártó, 2017). The issues of critical film comprehension and film analysis practice are increasingly discussed in the context of changing interpretation strategies of both school and university students: "Since it is palpable that the language use of blogs affect movie analysis of the so called serious news, and also film analysis practice of secondary and university students, it is worth dealing with the topic in media-language and art pedagogical context as on the one hand we are witnesses of the transformation of the language of film critics, on the other hand schools have to adapt pre-knowledge and the interpretation strategies of students formed by blogs. In my opinion, blogs influence the audience but they have not renewed the language about motion picture and have not increased the standard of film comprehension of the recipients" (Szíjártó, 2017: 103).

Focus on media language and media representation analysis is still dominant in media and film studies, and it mainly concerns present-day social contradictions and ills (i.e. gender stereotyping, racial discrimination, intolerance, culture or religion conflicts, consumerism, etc.): "Gender inequalities are the social embarrassment and it has its profound derivation in our social organization. In the Golden Era of technology advancement, people come in contact with media constantly throughout their daily lives. Being continuously bombarded with messages, the media has a powerful and tremendous influence on their thought processes as individuals and as a worldwide society. Gender stereotyping always has and still exists in our society. However, this issue is getting evidently solemn as gender stereotyping has now reached the young masses, which are much more habituated to the effortless, apparently easy influence of the mass media in today's society; media is a foremost persuader in shaping stereotypes and attitudes" (Kayal, Seena, 2019: 6).

Our analysis of scientific publications of the early 21st century dedicated to media literacy education has shown that a significant number of articles and reviews focus on researching national peculiarities of promoting media and information literacy in different countries (Buckingham, 2014; Chelysheva, 2019; Chelysheva, Mikhaleva, 2017; Cheung, Wu, 2018; De Abreau et al., 2017; Frau-Meigs et al., 2017; Frau-Meigs, Torrent, 2009; Hobbs, 2010; 2016;

Hobbs, Jensen, 2009; Kačinová, 2018; Kubey, 2001; Levitskaya, Seliverstova, 2020; Livingstone, 2018; Mihailidis, 2014; Petranová et al., 2017; Petranova, Vrabec, 2016; Potter, 2016; Ranieri, 2016; Reineck, Lublinski, 2015; Rosenbaum et al., 2008; Share, 2009; Silverblatt, 2014; Wilson, 2014). For instance, in Russia the following modern trends in media and information literacy can be identified: "Contemporaneous researches focus on studying media culture, various media effects and forms of media addiction, Internet safety and digital competences. Media culture as a vast layer of human culture is also in the focus of media researches. The solution to these problems depends both on teaching the younger generation basic computer skills for digital safety and on elaborating strategies for developing children's media competence, spiritual and moral values, critical thinking and analytical skills, social skills in the world of media culture" (Chelysheva, Mikhaleva, 2017: 3).

The issues of international media literacy actually concern cultures rather than merely certain countries, since representatives of different cultures tend to construct, comprehend, interpret and evaluate media tests differently. That is why it is necessary to take into consideration the following lines of inquiry to be applied to promoting media literacy across cultures:

– "Applying a country's preferred media literacy principles, concepts, and approaches to interpret media presentations produced in that country.

– Considering other media literacy approaches that might offer a fresh perspective into that country's media and media presentations.

– Analyzing the "habits of thought" in media presentations can provide insight into cultures in transition from one stage of cultural sensibility to another.

– Considering whether the approaches commonly employed in one country could be applied to the analysis of media presentations of another culture in order to provide perspective into that culture.

– Considering whether media literacy approaches employed in other countries might provide fresh insight into the media presentations of one's own country of origin" (Silverblatt, 2018: 7).

Despite some national peculiarities or cultural differences there are still some common global problem zones in the current media literacy education: "In accordance with UNESCO recommendations, it is necessary: to develop comprehensive programs for media education at all educational levels; training teachers in the field of media education and increasing awareness of media literacy of all stakeholders and organizations in the social sphere; conducting research in the field of media education and the wide dissemination of their results; international cooperation in the field of media education; and most importantly – the wide practical implementation of media education of the population at various levels" (Fedorov, 2018: 6).

4. Conclusion

Our analysis of contemporary research papers concerning the issues of media and information literacy, media literacy education, film and media studies has enabled us to identify the following current trends in media and information literacy in scientific publications of the early 21st century:

– modern understanding of media and information literacy in the global context is based on the presupposition that its basic and major function is to provide access to information and knowledge and promote free, independent and pluralistic mediated social environments (UNESCO);

– media literacy has become a vital skill for an individual to survive in modern digital environment;

– the challenge of minimizing online risks and expanding online opportunities is widely recognized nowadays, especially in the context of educating children and adolescents;

– information or digital literacy is usually analysed in the educational and professional contexts, as part of research work, part of traditional skills such as reading competence, part of general learning skills, or part of basic and professional competencies;

– a significant number of present-day scholars focus on studying human behaviour in social computer-mediated interactions and challenges of global cross-cultural communication;

– there is an increasing tendency to promote media and information literacy for active social change;

– sometimes media literacy and digital literacy are considered to be critical instruments against various present-day online risks and manipulations;

– media and information literacy should be increasingly integrated into the school curriculum and university syllabus worldwide;

– media literacy education is supposed to be associated with students' applying their critical thinking skills to media messages and creating their own media texts;

– focus on media language and representation analysis is still dominant in media and film studies, and it often concerns present-day social contradictions and woes;

– researching national peculiarities of promoting media and information literacy in different countries;

– international media literacy actually concerns cultures and should be based on analysing effective strategies used in different cultures, since representatives of different cultures tend to construct, comprehend, interpret and evaluate media tests differently.

In addition to the above-mentioned trends of inquiry we would like to emphasize the following current problem zones in media literacy education for further research and development: training and education programs for media studies for all levels of education; teacher training courses in media literacy education; promoting media awareness of all stakeholders and organizations in the social sphere; international collaboration and research in media literacy education and a wide exchange of research findings; practical application of media literacy education for various social groups.

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Competences in Digital Online Media Literacy: Towards Convergence with Emergency Remote EFL Learning

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Abstract

With the emergency shift to remote learning due to the spread of COVID-19 and the advent of communication technology, developing digital online media literacy (DOML) has become necessary for Saudi English as foreign language (EFL) students. Media literacy empowers EFL students to access, analyze, evaluate, and produce digital online media texts. The preparatory year (PY) is a bridging year that links school outcomes to university demands. This study examines the competences in DOML among students in PY at Saudi University. It also examines whether any differences can be attributed to gender. To accomplish this, a four-dimensional survey of 36 items was adapted from T. Hallaq's (Hallaq, 2016) to serve EFL context. The simple sample consisted of 170 respondents (85 males and 85 females). The results showed that the respondents are competent in DOML (m=3.73), and that there were no statistical differences between females and males. This result indicates that the respondents are ready for the emergency remote learning. Both males and females are subject to the same homogeneous educational system. The paper concludes with some pedagogical implications for emergency remote EFL learning.

Keywords: media literacy, online digital media, EFL students, media access, media production

1. Introduction

English-language teachers are interested in students' use of online media for language learning (Dashtestani, Hojatpanah, 2020; Khlyzova, 2019; Murray et al. 2020). However, educationalists are suspicious about the effects of the ideological choices in media messages on students. In fact, the Internet plays a vital role as an open resource for life-long learning. Students and teachers alike spend a significant amount of time on the Internet, which is a new phenomenon in human history (Akcayoglu, Daggol, 2019). Young students have become native digital users. The advent of communication technology extended the notion of literacy to the deconstruction and reconstruction of media messages. Accordingly, students need to have media multiliteracy, including the literacy necessary to access the Internet, awareness literacy, evaluation literacy, and literacy to produce media messages. These various forms of multiliteracy bring the issue of media literacy to the fore.

Media literacy is considered to be a tool for empowerment in educational settings. It emphasizes that young people should be competent, flexible, and dynamic in their choices, not

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only as media consumers, but also as creative producers of media (Akcayoglu, Daggol, 2019). With the advent of emergency remote learning due to the spread of COVID-19, developing DOML has become essential for Saudi EFL students. Media literacy has been introduced into the gender-segregated Saudi education system. However, there are stringent calls to enhance media literacy in higher education. Researchers have indicated that EFL students suffer from digital online media illiteracy. Although EFL students have open Internet access to the rest of the world, they need to be aware of media messages. They need not only to analyze media messages, but also to produce media texts, primarily on social media networks.

DOML can be incorporated into teaching and language-learning skills. In general, the English language is the most efficient tool for accessing media texts. As receptive skills, reading and listening coincide with evaluating media texts. On the other hand, speaking and writing, as productive skills, coincide with producing media texts. Functional grammar overlaps with the language skills for analyzing media texts. N. Khlyzova (Khlyzova, 2019) studied media literacy among Russian EFL students and concluded with the significance of media literacy to enhance EFL communicative competence. R. Dashtestani, S. Hojatpanah (Dashtestani, Hojatpanah, 2020) found low to moderate level in digital literacy among Iranian EFL school students. S. Alaleeli, A. Alnajjar (Alaleeli, Alnajjar, 2020) found that the Arab students had a lower frequency of engagement with digital devices. T. Ko-Wai (Ko-Wai, 2018) assessed the internet-based information literacy skills of undergraduate freshmen in Hong Kong.

Some studies have problematized the segregated education of Saudi females. R. Adham, et al. (Adham, et al., 2016) stated that gender segregation deprived Saudi females of online learning. R. Baki (Baki, 2004) emphasized females' limited access to work, and highlighted the need to re-evaluate the education system. Binsahl et al. (Binsahl et al., 2020) found that female Saudi students who pursued higher education in western countries lacked online search skills and language fluency. S. Aldayel (Aldayel, 2020) reported on some Saudi sociocultural factors that prevented the use of technology by female students.

Media literacy is an important area for interdisciplinary research. While the term media is associated with media studies, literacy is associated with educational studies. Language connects these two areas. Moreover, technology has changed traditional mediums into digital forms, and the Internet has transformed face-to-face interaction into online interaction. Therefore, DOML reflects a contemporary shift from the protection to the preparation of students (Schilder, 2013) to deconstruct and reconstruct digital online media messages due to changing views of technology, of the media, of young people, and of teaching and learning (Buckingham, 2002). Media has been expanded from being a one-way tool (as in traditional media) to two-way communication (such as the Internet and social media networks). The media is no longer a simple tool for distributing educational content, as media education is about the ideological choices of media. Students spend much more time on media outlets than they do at school or with their parents. Traditional learning has shifted to student-centered e-learning. These changes emphasize the need for educationalists to empower students via DOML.

DOML involves different yet crucial competencies. Various researchers have identified five (Hobbs, 2010), four (ABEGS, 2013; Calvani et al., 2008), or three (Buckingham, 2005; Celot, 2009; UNESCO, 2013) competencies involved in media literacy. For example, UNESCO (UNESCO, 2013) discussed three competencies necessary for DOML, namely access, evaluation, and creation. These competencies are divided into twelve sub-competences, which are manifested in the form of 113 key performance indicators (KPIs) distributed over three levels. Similarly, the European Commission identified the three primary competencies of use, critical understanding, and communication. These competencies are divided into nine sub-competencies with thirty-six KPIs (Celot, 2009).

The Arab Bureau of Education for the Gulf States (ABEGS, 2013) has paid attention to DOML. It introduced a media literacy program for school education in the Gulf States, including Saudi Arabia. The program initiated many portfolios, such as a conceptual framework, educational media principals, a curriculum, competencies, and a teachers' training portfolio. ABEGS covers four competencies: access to media, comprehension and critical thinking, media evaluation, and creative production. These competencies are further divided into 68 sub-competencies and 384 KPIs distributed over four levels in the school education system. Elementary schools incorporate levels one and two, and intermediate and high schools involve

levels three and four. These competencies are distributed across different subjects, such as languages and computer science.

This study operationalized media literacy as EFL students' ability to access, analyze, evaluate, and produce English-language online media texts. Media access involves EFL students' ability to solve technical problems, connect their digital devices, surf the Internet in general and online English-language texts in particular, access various cultures, and adapt to changes in English-language teaching and online learning technology. Media awareness includes EFL students' ability to identify the purposes of implied messages, intercultural topics, and representations transmitted in online English-language mass media. Media evaluation involves EFL students' ability to determine and analyze biases, creditability, quality, legality and ethicality of intercultural messages disseminated via online English-language mass media. Media production is manifested in the EFL students' ability to participate actively in online English-language mass media by writing, chatting, creating content, uploading and sharing information.

Several approaches have been used to measure DOML. G. Ptaszek (Ptaszek, 2020) identified three different types of measurements for competencies in DOML. The first, occasional assessment, measures knowledge, skills, and attitudes separately. The second, selected measurement, explores the perception of bias or perceived realism. The third, holistic measurement, links the outcomes of DOML to specific media such as social media networks. M. Bulger (Bulger, 2012) used testing and refined criteria for European students. D. Akcayoglu, G. Daggol (Akcayoglu, Daggol, 2019) employed a mixed-method research design to measure media literacy levels among Turkish EFL students in PY. They used a five-scale Likert questionnaire for the quantitative analysis and open questions for the qualitative analysis. T. Hallaq (Hallaq, 2016) designed a digital media literacy assessment scale for five competences, namely media awareness, media access, ethical awareness, media evaluation, and media production. Four competences in this questionnaire coincide with the four competences recommended by the ABEGS. Media awareness and ethical awareness are included under the single category of media awareness.

In Saudi Arabia, the root of media literacy can be traced to the first international conference on media literacy held in Riyadh in 2007. The conference recommended introducing media literacy into the Saudi education system, and suggested a course on media literacy for university students. It also recommended strategies and programs on media literacy in line with national Saudi ethics and values. The conference also recommended that authorities should encourage initiatives for media literacy. This aspect would benefit from having had international experiences.

To date, no study has examined the status quo of media literacy competences in the Saudi EFL context. However, a few studies have investigated elements of media literacy, such as access to information for blind Saudi students (AlOshan, 2013). A. Albawardi (Albawardi, 2017) found that social media encouraged female Saudi's interaction through new media outlets for entertainment, the sharing of information, and allowing them to communicate with others. N. Bin Dahmash (Bin Dahmash, 2019) found that female Saudi undergraduate students used social media outlets to protect their identities and feelings expressed in English. R. Kabooha (Kabooha, 2016) examined the attitudes of female Saudi EFL students regarding the incorporation of English movies in their language classes in PY. It was found that students had positive attitudes toward the use of movies for language learning.

Other studies have scrutinized the use of and attitudes toward media among male Saudi students. A. Altawil (Altawil, 2019) studied male Saudi high-school students' use of digital media for enhancing the intentional and informal learning of EFL. The results showed that the respondents were highly engaged with digital media and used it for language learning. M. Kadwa (Kadwa, 2012) found positive attitudes toward online communication among male Saudi EFL students in preparatory programs. A. Hazaea, A. Alzubi (Hazaea, Alzubi, 2017) investigated critical reading skills among male students in PY at Saudi University, and recommended further research on multimodal media texts used by Saudi EFL students.

In fact, DOML has become a pressing need as a twenty-first century soft skill for undergraduate students. This need has become even more urgent as a result of emergency remote teaching and learning due to the outbreak of COVID-19. Thus, there is a need to assess competencies in DOML among PY students who have completed their schooling.

PY is a bridge that links school outcomes to university demands. This study aimed to measure the competences in DOML among PY students at Saudi University. The research objectives were as follows:

1)   To measure the competences in DOML among EFL students enrolling in PY.
2)   To examine the differences in DOML between female and male students.

Accordingly, the study posed the following research questions:

1)   What is the extent of competences in DOML among EFL students in PY?
2)   Can any differences in DOML be attributed to gender?

2. Materials and methods

This study employed a quasi-experimental design in which the data were collected from PY students at Saudi University through simple sampling. Quantitative data were collected, after taking the proper consent, via a questionnaire (see the appendix) adapted from T. Hallaq's (Hallaq, 2016) study. To facilitate the data collection, an Arabic translation was provided along with the English version before the online questionnaire was distributed via Google Forms to male and female students in PY at Saudi University.

In many Saudi universities, PY is compulsory for new students who plan to enroll in some competitive undergraduate programs. At a Saudi University, PY consists of two semesters and two levels. Students are enrolled each semester in September and in January. However, the number of regular EFL students in January is less than is that in September. In January 2020, there were approximately 400 regular students in level one (197 males and 204 females). These students had similar characteristics, including age, and linguistic and cultural backgrounds. This study's questionnaire targeted these regular male and female students.

This article adapted a questionnaire from T. Hallaq's (Hallaq, 2016) work. The questionnaire was validated and considered reliable by three experts, including T. Hallaq himself. The questionnaire consisted of two parts. The first part sought demographic information about the respondents (gender and age). It also collected information about the time at which the respondents preferred to access the Internet, their preferences in terms of data type, and preferred social media networks.

The second part aimed to measure the competences in DOML among EFL students across four dimensions of media literacy, namely access, awareness, evaluation, and production; these competencies coincide with those that were recommended by the ABEGS. The focus was on intercultural interaction. This section also used a five-Likert scale that ranged from 'strongly agree' to 'strongly disagree.' To obtain accurate data when using Google Forms, one statement was added to the questionnaire. This statement was: "For this statement, select neutral" (see the appendix). The idea behind this statement was to ensure that students paid attention to the items on the questionnaire while responding. In other words, any response that did not select 'neutral' for this statement was deleted before the data analysis. As 196 students responded to the questionnaire, this indicates that 49 % of the targeted population responded to the questionnaire.

The collected data were analyzed using SPSS 20 software. To answer the first research question, the analysis concerned four categories of the items in the questionnaire (media access, media awareness, media evaluation, and media production). To answer the second research question, a paired-sample t-test and a one-way ANOVA were used to compare the means and standard deviations between males and females.

3. Discussion

This study aimed to identify the Saudi PY program students' competences in media literacy, and to determine whether any differences could be attributed to gender. Media literacy was operationalized in the form of the four competences of media access, media awareness, media evaluation, and media production. In other words, media literacy involves the students' ability to deconstruct and reconstruct the ideological messages in the media.

The analysis showed that media has become a powerful and flexible tool that is increasingly encouraging students to learn a language. About half of the respondents preferred to learn English online in the evenings. This result can be attributed to the effect of quarantine because of COVID-19 during the period in which the data were collected. Students stayed at home during quarantine and used online media as an alternative platform for learning a language. Twenty-four

percent of the respondents preferred videos for language learning. This result indicates that online learning would be beneficial for language learning especially listening and speaking skills, as students could benefit from video recordings. Similarly, about twenty percent of the respondents preferred multimedia texts, and twenty six percent preferred YouTube for learning the English language. Instagram and Twitter are used widely in Saudi Arabia and have the potential to be used for language learning. These results coincide with previous findings. For example, U. Abdullah, I. Rahman (Abdullah, Rahman, 2017) and T. Bahrani (Bahrani, 2015) reported that watching movies could improve learners' listening skills. This increased use of media for language learning brings the issue of students' ability to access, analyze, evaluate, and reproduce media messages to the fore.

The respondents reported high levels of access to online English-language mass media (m = 3.8). This finding suggests that the respondents were able to remedy technical problems, connect their digital devices, and access online English-language classes. This finding coincides with previous research. A. Altawil (Altawil, 2019) found that Saudi students engaged with digital media content to improve their language in intentional and in informal settings. Students viewed the Internet as a universal library (Aydin, 2007), and as a platform to socialize and learn (Almarabeh et al., 2016). K. Ayyad (Ayyad, 2011) also reported that the Internet and the new media had a much more powerful effect on students than did traditional media. Although A. Al Khateeb (Al Khateeb, 2017) found that Saudi EFL teachers were not digitally competent, their students seemed to be competent in this regard. However, this finding is not in agreement with M. AlOshan (AlOshan, 2013), who found that poor access to online media excluded blind Saudi students to a significant degree. This finding is attributed to the nature of the respondents in that study who are in special need.

With regard to other media competences, the respondents reported similar levels (3.7) for media awareness and media production, and 3.6 for media evaluation. These findings coincide with T. Koltay (Koltay, 2011), who suggested that more attention should be paid to elaborate between media awareness and media production. T. Almarabeh et al. (Almarabeh et al., 2016) also found that students mainly used the Internet to access social websites, for chatting, and for gathering information. L. Lim, Y. Theng (Lim, Theng, 2011) found that Singapore secondary school students were aware of and confident about media consumption, but they lacked skills in media production. S. Pereira, P. Moura (Pereira, Moura, 2019) described basic knowledge of media access and use among Portuguese students. This discussion shows that Saudi students are not lagging behind in terms of media literacy level.

On the contrary, the findings of the present study do not coincide with other studies. For example, L. Murray et al. (Murray et al., 2020) found that EFL learners were unaware about the distractive nature of technology and its effect on language learning. R. Dashtestani, S. Hojatpanah (Dashtestani, Hojatpanah, 2020) found low to moderate level in digital literacy among Iranian EFL school students. S. Alaleeli, A. Alnajjar (Alaleeli, Alnajjar, 2020) found that the Arab students had a lower frequency of engagement with digital devices. T. Ko-Wai (Ko-Wai, 2018) indicated that the EFL students in Hong Kong have difficulties in identifying, locating, evaluating and synthesizing internet information. N. Khlyzova (Khlyzova, 2019) reported lack of activities to construct media knowledge, abilities and attitudes among Russian EFL students.

With regard to the demographic variable of gender, males and females did not differ in their competences in media literacy. This finding coincides with previous research. M. Kadwa's (Kadwa, 2012) study showed that male PY Saudi EFL students had a positive attitude toward online communication, while female Saudi EFL students and teachers had a positive attitude toward the use of movies in English classes (Kabooha, 2016). S. Aldayel (Aldayel, 2020) found that online learning helped female Saudi students to overcome the shyness they experienced in traditional classrooms. S. Binyamin et al.'s (Binyamin et al., 2020) findings revealed that gender had very little effect on the use of e-learning tools in Saudi public universities.

However, the present findings are not in line with some other findings. H. Binsahl et al. (Binsahl et al., 2020) claimed that female Saudi international students lacked online search skills, while S. Aldayel (Aldayel, 2020) argued that some sociocultural attitudes minimized the use of technology among female Saudi students. Similarly, R. Adham et al. (Adham et al., 2016) reported that the segregated educational system prevented female Saudi students from benefiting from online learning, and they decreased their opportunities to access work. This view was also

held by R. Baki (Baki, 2004). Y. Alhareth et al. (Alhareth et al., 2015) reported that gender and living circumstances had a distinctly negative effect on students' access to and use of mass media and the Internet. K. Ayyad (Ayyad, 2011) reported that students' genders had an obvious effect on the use of mass media and the Internet. S. Park, S. Burford (Park, Burford, 2013) found that females tended to have lower levels of digital media literacy, while H. Binsahl et al. (Binsahl et al., 2020) reported imperfect online search skills among female Saudi international students.

4. Results

One hundred and ninety-six students responded to the questionnaire. Twenty-six responses were deleted before the analysis because the participants had not responded correctly to the neutral statement. One hundred and seventy responses (85 males and 85 females) were analyzed. The Alpha analysis was 0.82, which indicates that the questionnaire was reliable in terms of internal consistency.

The analysis of the first part of the questionnaire showed that the participants ranged in age from 17 to 22 years of age. The data analysis showed that 44.82 % of the respondents were interested in learning English via online mass media in the evening, while 31.04 % preferred mornings, and 24.14 % indicated that afternoons were most suitable for them. The data analysis also showed that 23.95 % of the respondents were interested in video data. Other types of data (multimedia, pictures, sounds, and texts) had similar levels of interest at 19.73 %, 19.51 %, 18.63 %, and 18.18 %, respectively. With regard to the respondents' preferences for social media networks, 25.92 % were interested in using YouTube to learn English. Preferences for Instagram and Twitter were found to be similar, as 14.91 % and 13.30 % of respondents, respectively, learnt English via these platforms. WhatsApp was considered an exciting platform on which the respondents could learn English (11.93 %). Telegram and Snapchat were reported to have the same preference (10.55 %). Blogs and Facebook were least preferred by the respondents, with 3.90 % and 0.46 %, respectively.

A data analysis was then conducted based on the four types of competences of the questionnaire to achieve the first research objective, which was to measure the competences in DOML among EFL students in PY at Saudi University. Table 1 shows the results of the one-sample (t-test) for DOML among the respondents (n = 170).

Table 1. Competences in DOML among EFL Students

DOML	Mean	Std. Deviation	Theoretical mean	t-test value	Sig. (2-tailed)
Access to digital and online English-language mass media	3.8046	0.61794	3	80.276	0.000
Awareness of online English-language mass media	3.7144	0.67913	3	71.311	0.000
Evaluation of online English-language mass media	3.6346	0.72296	3	65.550	0.000
Production on online English-language mass media	3.7856	0.79129	3	62.377	0.000
DOML	3.734804	0.566832	3	85.9088	0.000

Table 1 shows the theoretical mean, the reported means, and the standard deviations for the four competences of media literacy. The theoretical mean was standardized based on the target level/ criterion for success in PY; students pass a course once they have obtained at least 60 % in a course assessment (3 out of 5). The analysis showed that the means for the level of DOML among the respondents ranged from 3.80 to 3.63. The overall mean for the level of DOML was 3.73. When comparing this mean to the theoretical mean (m=3) using the one-sample t-test, it becomes clear that the overall mean, as well as the four competences in media literacy, were higher than the theoretical mean. The t-test values for media access, media awareness, media evaluation, and media production were 80.27, 71.31, 65.55, and 62.37, respectively. These values

had a high statistical significance at Sig =0.000. These results indicate that the competences in DOML among the respondents were high.

A data analysis was then conducted to address the second research question. The null hypothesis posited that there would be no difference between the mean average of the respondents' answers and the demographic variable (gender). To examine the validity of the hypothesis, two essential steps were conducted. The means and standard deviations were calculated first (Table 2).

Table 2. Means and Standard Deviations

Gender	N	Access to digital and online English-language mass media		Awareness about online English-language mass media		Evaluation of online English-language mass media		Production on online English-language mass media		Level DOML among EFL students at Saudi University PY	
		Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
M	85	3.8013	0.6519	3.7124	0.7321	3.6654	0.6932	3.7712	0.9003	3.7376	0.623
F	85	3.8078	0.5858	3.7163	0.6261	3.6039	0.7545	3.8000	0.6699	3.732	0.503

The validity of the hypothesis was examined after measuring the variation in homogeneity by analyzing the 36 items of the four competences in DOML. The variation in homogeneity was determined using a one-way ANOVA to measure the mean differences of each item and competency in the questionnaire based on gender. Table 3 shows the gender differences for each competency in DOML.

Table 3. One-way ANOVA analysis for the means of items pertaining to the four competences in DOML based on gender

DOML		Sum of Squares	Df	Mean Square	F	Sig.
Access to digital and online English-language mass media	Between Groups	0.002	1	0.002	0.005	0.945
	Within Groups	64.530	168	0.384		
	Total	64.532	169			
Awareness of online English-language mass media	Between Groups	0.001	1	0.001	0.001	0.970
	Within Groups	77.946	168	0.464		
	Total	77.946	169			
Evaluation of online English-language mass media	Between Groups	0.160	1	0.160	0.306	0.581
	Within Groups	88.171	168	0.525		
	Total	88.332	169			
Production of online English-language mass media	Between Groups	0.035	1	0.035	0.056	0.814
	Within Groups	105.782	168	0.630		
	Total	105.817	169			
Competences in DOML among EFL students at Saudi University in PY	Between Groups	0.001	1	0.001	0.004	0.949
	Within Groups	54.298	168	0.323		
	Total	54.299	169			

Table 3 shows that there were no statistical differences among the means of the items in the questionnaire for each competency in DOML based on gender. The significance values for media access, media awareness, media evaluation, and media production were 0.945, 0.970, 0.581, and 0.814, respectively. These values were higher than the significance level (0.05) based on which the test was conducted. These results indicate that there no statistical differences could be attributed to gender. The results could be because both males and females are exposed to the same Saudi education system. In other words, these respondents represented a homogenous society and a unified educational system despite gender segregation.

5. Conclusion

The present study explored the competences in DOML among EFL students in PY at Saudi University in Saudi Arabia. It also examined whether any differences in media literacy could be attributed to gender. The participants in this study reported that the online new media has become an important open library for EFL students. These students were aware of the messages disseminated via online English-language mass media, and they stated that they could produce media messages via online English-language mass media. Therefore, millennials desire to immerse themselves in the digitalized community in order to be part of today's media-literate society. Males and females had similar levels of media literacy. The results show that Saudi students do not lag behind in terms of twenty-first century DOML. Instead, they reported balanced competences in media access, media awareness, media evaluation and media production.

The paper concludes with some pedagogical implications for emergency remote EFL learning. Saudi EFL millennials show their competencies in DOML. Now, it is the university's role to enhance these competences through creative media literacy that meets students' learning demands at university level. In their remote classes, for instance, EFL students can deconstruct and reconstruct media messages on worldwide timely issues (such as misinformation about COVID-19). Although this paper reported balanced competences among the respondents, other EFL contexts may reveal lack in media access, media awareness, media evaluation or media production.

Language teachers and action researchers can adopt this survey as a guideline for more in-depth investigation for each competency. For example, media awareness can be introduced into an EFL reading remote class where students are expected to critically read timely and controversial online issues. Similarly, media production can be enhanced in an EFL writing remote class. Students can be encouraged to share their writings, recordings, and videos in various media outlets such as the social media.

This study has some limitations. The first is that it only used a survey to collect data. The respondents may report hyperbole representation about their competences in DOML. Other tools, such as semi-structured interviews and observations, could be used to provide more qualitative evidence. Students' competences in DOML can also be evaluated via the analysis of media texts and tests. The second limitation is that the present study focused only on online English-language media messages with specific attention to the intercultural dimension of media communication. Media is a general, ill-defined term that involves other dimensions, including the economy, politics, and advertising. Further research could extend the scope to include these dimensions. The competences in DOML among faculty members is another potential area for further investigation.

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Appendix (Survey)

Demographic Information
Gender
Male
Female
Age:
17-19
20-22
23-25
Choose your suitable time(s) to learn English language through online mass media (you can indicate if more than one)
In the morning

In the afternoon

In the evening

Choose the data type(s) that you use to learn English (you can indicate if more than one)

Texts

Sounds

Pictures

Videos

Multimedia

Choose social media network(s) that you use to learn English language (you can indicate if more than one)

Email

Blogs

Twitter

Facebook

WhatsApp

Youtube

Telegram

Instagram

Snapchat

Scale: Five scale

Strongly agree   agree   neutraldisagree   strongly disagree

Access to digital and online English language mass media

I am able to…

1.   encounter technical problems by using more than one device (computer, smartphone, tablet or iPad) at the same time.

2.   connect my digital devices using wired and/or wireless internet.

3.   surf the Internet through a variety of internet browsers (Google Chrome, Mozilla Firefox, Microsoft Internet Explorer, Microsoft Edge).

4.   access an online English language class.

5.   log in to several English language social media sites.

6.   use the Internet to access English language mass media of various cultures.

7.   determine English language media channels appropriate for me..

8.   adapt to changes in English language teaching and online learning technology.

9.   block contact from specific individuals or specific content on my social network sites.

Awareness about online English language mass media

I am able to…

1.   identify the implied messages transmitted in online English language mass media.

2.   identify intercultural topics such as climate change and global citizenship in online English language mass media.

3.   identify the political, economic, cultural and social priorities of online English language mass media.

4.   identify for what purposes the media messages were formed (such as volunteer work and health awareness etc.)

5.   For this statement, mark the "neutral" checkbox.

6.   identify the positive and negative sides of cultural representations in online English language mass media.

7.   represent my culture positively in online English language mass media.

8.   learn new things about other cultures from online activities (i.e. surfing the Internet, playing online games, participating in online communities or forums, etc.).

9.   use the Internet to improve my English language skills.

10.   decide on my own whether the messages in online English language mass media are correct or incorrect.

Evaluation of online English language mass media

I am able to…

1. determine whether online English language mass media perform biased reporting.
2. examine the credibility of cultural content in online English language mass media.
3. examine the quality of students' interaction in an online English language class discussion.
4. critique the messages introduced in online English language mass media.
5. analyze the intercultural messages in online English language mass media.
6. analyze how online English language mass media influence individuals.
7. protect my culture against the negative representations in online English language mass media.
8. react appropriately to the intercultural messages in online English language mass media.
9. examine whether media representations comply with my country's legal and ethical rules.

Production on online English language mass media

I am able to…

1. write sentences or paragraphs in English language to a web forum.
2. chat with my English language teacher during virtual classes.
3. positively promote my country's culture through blogs, online forums, or other social media formats.
4. create my own online English language mass media projects such as blogs and videos.
5. upload online English language mass media projects to YouTube or other similar sites to represent my country positively.
6. upload my online English language assignments, quizzes or tests on Blackboard.
7. share with my friends my personal online English language media projects through social media.
8. share English language documents through online applications such as Google Drive, One Drive or others.
9. participate with multicultural students through English language e-learning.

Legal Ways to Counteract Institutional Deformations in Advertising in the Media Space

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Abstract

This article examines the phenomenon of advertising as one of the activities, without which it is impossible for society to move along the path of progress in the conditions of transformation and modernization of all spheres of human life and society. The influence of advertising on the active sphere of life is indistinct, since it not only boosts production, consumption and services, but also manipulates public consciousness and shapes certain behavioral models. A goal of advertising as an information technology is to influence the individual, group or mass consciousness. On the other hand, law as a general social regulator can interfere in the sphere of advertising. In this context, law as a regulator of public relations in general and advertising in particular is aimed at ensuring that consumers receive reliable information about the advertised goods, services or works. The law establishes requirements for the content of advertising, as well as the methods, forms of its placement and distribution. The study of the relationship between advertising and law is aimed at searching for areas of lawful and illegal behavior in order to determine the legal ways to counteract institutional deformations in advertising.

Keywords: advertising, advertising activities, legal regulation of advertising activities, media.

1. Introduction

The current development stage of advertising activity in Russia is distinguished by the appearance of new forms of its implementation, a variety of types, methods and genres. On the one hand, acting as a marketing tools, on the other hand, being an independent branch of the economics, advertising fosters competition, encourages the sale of goods and services, thus making social production more efficient. However advertising is frequently challenged due to the unethical aspects and their impact on the consumer.

Endowing the advertising object with a special semantic load and turning it into a kind of fetish, referring it to a certain type of behavior or attitudes, thereby advertising activity participates in the formation of social reality. At the same time, the idea inherent in advertising is often potentially a socially risky phenomenon, which leads to deformations of the basic foundations of advertising activities and may entail not only property losses, but also social disorientation of its consumers. The danger of advertising activity is associated both with the inability to accurately predict the possible reaction of consumers to the figurative and symbolic series of an advertising product, and with the fact that the use of various creative and marketing technologies often leads to the emergence of effective forms of advertising, but not fully compliant with legislation, which can

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lead to destructive consequences for a person, his psyche, as well as for society as a whole. These problems require effective legal regulation and determine the relevance and social significance of this study.

This research is relevant because there is a need to clarify and introduce into scientific circulation a number of fundamental theoretical definitions and positions. Also, the presented scientific work is of an applied nature, focusing on the search and identification of special risks of advertising activities, and, in addition, on the disclosure of legal methods to counter negative institutional deformations in advertising.

2. Materials and methods

The methodological basis of the study is the concept of a neoclassical metaparadigm, based on a combination of principles and attitudes of classical and non-classical science, in addition, activity, riskological, structural-functional approaches and the theory of creativity are used. The use of a risk-based approach to identify possible social risks in the implementation of advertising activities has become necessary, since in modern pro-Russian society, in the world as a whole and in the media space, advertising activities are often associated with potential threats.

The definition of key research concepts became possible thanks to the use of the activity approach. To study more deeply the functional side of advertising, its dysfunctions that cause destructive risks, perhaps with the help of functional and structural analysis.

The possibility of using a set of heterogeneous concepts and theories in the study of the legal regulation of advertising activity made it possible to apply the principle of scientific historical objectivity, as well as to test the methods of comparative and structural-functional analysis, theoretical modeling.

3. Discussion

To study the essence and concept of risk as a sociological category, the theoretical studies of V.I. Zubkov were used, who determined the penetration of social people into all social relations. In connection with this feature, the legal regulation of risky public relations should be carried out taking into account the coordination of the significant interests of all subjects (Zubkov, 2005: 23-24).

The theoretical basis of the study was the conceptual developments of scientists in the field of advertising, including in the digital space (Buckingham 2019: 14-16).

The object of this study was the possibility of the existence of society in a deformed information and communication space, as well as ways out of this situation.

The purpose of the study is related to the settlement of two conflicting processes: firstly, with the need to ensure freedom of speech, press, access to information, its use and distribution, and secondly, with the exclusion of unreliable and unfair advertising as a risk factor influencing subsequent deformations in advertising (Martínez-Costa et al., 2019: 19-28).

Advertising is a complex and multifaceted study, it is viewed as art, industry, communication, product of professional activity, organizational structure, the process of selling a product or broadcasting information to a consumer, etc. (Perlado-Lamo-de-Espinosa et al., 2019: 103-112).

The concept of advertising is studied and determined by scientists from various fields of humanitarian knowledge, therefore its content differs depending on the goals and specifics of a specific branch of science. The definition of the general concept of advertising, with which all researchers will agree, is difficult, since it is reflected in the diverse studies of economists, sociologists, philosophers, marketers, lawyers, culturologists, philologists, linguists, psychologists.

Russian researcher Shvecov I.V. believes that "from all the variety of scientific approaches, one can single out a pragmatic approach that emphasizes the economic importance of advertising, and a cultural approach, when advertising is viewed as a socio-cultural phenomenon associated with a variety of areas. human activities" (Shvecov, 2009: 52). Currently, the definition of the concept of "advertising" from a socio-cultural and economic standpoint prevails.

In modern science in various sources, the concept of advertising is investigated in the narrow and broad sense of the word.

In a narrow sense, advertising is perceived as information with specially defined characteristics, distributed in the form of a specific advertising product. Advertising in a broad sense is not only information, but also a multifaceted, diverse activity that unites its subjects, objects, actions of subjects, within which the creation, publication and broadcasting of advertising

information is carried out. That is, through the dualistic nature of the main categories - communication and activity – advertising can be defined not only as a result of creative activity aimed at attracting consumers, but also as a synthetic activity (Sedlakova, 2017: 114-128).

The essence of advertising as active communication is reflected in the creation of an aesthetic valuable product, and the implementation of the principle of productivity within the framework of the activity approach pursues the goal of economic efficiency (Tkachenko, 2009: 5). In this regard, the terms "advertising", "advertising information", "advertising activities" are often used as close in meaning or equivalent.

Today advertising has begun to be actively used as a tool for social and political technologies, focusing the attention of society on certain urgent problems and shaping the attitude of society towards these problems. Advertising assists in the diffusion of cultural values, national priorities and, as an element of the environment, permeates all fields of public life. However, at the same time, advertising can have both a conscious and subconscious influence on members of society using the emotional, sensual, irrational sphere of the consumer, without taking into account the arguments, logic and existing attitudes (Hobbs, Tuzel, 2017: 1-11).

In order to obstruct freedom of choice, manipulate public consciousness, human behavior when creating advertising, unfair methods and techniques of influence can be used. These include various forms of hypnosis, suggestion, imitation, psychological and social attitudes, infection, persuasion (Hobbs et al., 2018: 152-168).

Such not completely honest methods of influence include the effect of "25 frames", show technologies, neuro-linguistic programming, psychological stereotypes, etc. (Koszembar-Wiklik, 2016: 18-31).

The use of theoretical works made it possible to conclude that in the modern communication media space of Russia, advertising is a complex phenomenon, multifaceted in function and structure, it is possible to define it as a social institution, a method of communication, art, technology and as a special type of social activity.

Increasingly, modern advertising technologies are evaluated as a tool to influence public and personal consciousness in order to manipulate it. To achieve this goal, virtual images can be created that are actively introduced into the consumer environment using dubious social models, while universal universal values can be destroyed.

It should be borne in mind that advertising opportunities include not only direct impact, but also changes in traditional stereotypes of behavior, ethics and culture. As a result of the influence of Relama, there is a transition from satisfying various needs to the formation of these needs, while advertisers do not always comply with generally accepted ethical standards. With the use of the latest technologies, influencing the physiological needs of a person, relying on violence, advertising can have a destructive effect on the norms of traditional morality, disorient subjects in social reality. Accordingly, there is a need for the correct legal regulation of advertising that harms public interests and socially significant relations. Today there is a special legal regulation of advertising activities, which is maximally aimed at protecting society.

The definition of law as a source of social regulation of advertising activity is based on the scientific works of M.V. Baranova (Baranova, 2010: 65), E.G. Belousova and I. Vasilenkova (Belousova, Vasilenkova, 2006: 231). Other works investigate the features of regulatory and legal regulation and self-regulation of advertising activities in the markets of the corresponding product. (Kirillovykh, 2013: 48; Ovchinnikova, 2008: 129; Pankratov, 2008: 254).

The works of E.A. Mamonova, I.V. (Mamonova, 2008: 174), Nekrasova reflect the main forms of advertising information, features of their legal regulation (Nekrasova, 2007: 54-57). Separate studies analyze different forms and types of legal liability of subjects of advertising activities for violation of advertising legislation (Pimenov, 2006: 75).

Among the existing public regulators of advertising activities, legal norms (law) occupy a special place along with the norms of morality, religion, traditions, customs, aesthetic prescriptions, linguistic rules, sanitary and technical norms, since it is the legal impact that presupposes the presence of authoritative principles, the obligation to fulfill and coercive influence with punishment if necessary.

It is legal norms that determine the specifics and form special requirements for the content of certain types of advertising, methods of placement and broadcasting, establish the specifics of the legal status of subjects of advertising activity (advertisers, manufacturers and distributors). These

norms presuppose the possibility of state control, self-regulation rules, as well as a mechanism of legal responsibility. A particularly valuable element of normative acts is the establishment in them of the fundamental principles of advertising activities aimed at preventing and suppressing unfair competition and unreliable advertising.

The modern legal system has the property of formal rationality and consists of logically related legal norms. Based on this system, the circumstances of objective reality correlate with the norms of legislation and their legal qualification is carried out.

This methodology makes it possible to identify in Russian law general approaches to advertising, including:

- the inadmissibility of the presence in advertising of materials that promote enmity and hatred for national, political, ethno-confessional and other reasons;
- provision of unfair competition and monopolistic activity;
- protection of political, economic and social interests of the state, society, individual.

The law as a social regulator of advertising activity is aimed at obtaining reliable information about the advertised product by consumers. The legislation, acting as a guarantor of the observance of the rights of subjects, ensures a balance of diametrically opposed interests of customers, manufacturers, distributors and consumers of advertising, defining requirements for content, methods of placement, forms of advertising. In accordance with the principle of freedom to receive and disseminate information, the requirement to improve legislation based on dynamically developing public relations, the need to suppress unfair competition and unreliable advertising, the role of law as a universal social regulator of advertising is determined. It is the legislation that is able to restrict the freedom of advertising and ensure the impossibility of its use for the purposes of information extremism and terrorism, protecting national interests and ensuring the security of the state. In this regard, the law on advertising contains specific goals and objectives of the legal regulation of advertising activities (Russian Advertising Law, 2006: 2).

At the same time, the situation on the advertising market is not fully controlled, since certain aspects of advertising activities are still outside the scope of legal influence. This gap is filled in by judicial practice, which is forced to also regulate advertising. The subjects of litigation, reflected in the judicial practice, most often become disputes between advertisers and persons distributing advertising, about agreements concluded between them that contain violations of the law. Quite often, the courts are considering disputes about the protection of the rights of individuals and legal entities, their business reputation from violations due to the dissemination of advertisements in the media containing defamatory information that does not correspond to reality. In the practice of arbitration courts, disputes are widespread about the violation of the terms of contracts between the subjects of advertising activities, about the dismantling of advertising structures in respect of which the term for their placement under contracts has expired. Such a variety and complexity of disputes presupposes a high level of legal practice on the part of judges, which implies real lawmaking by the judiciary in the decision-making process.

In accordance with the law on advertising, the subject of its regulation includes both social relations arising between participants in advertising activities (advertiser, advertising producer, advertising distributor) related to the production, placement and distribution of an advertising product, and those relations that arise as a result of its impact on consumers of advertising. Since the images shown in advertising are aimed not only at stimulating interests in personal items, but also at forming attitudes towards public goods, the rights and interests of citizens and organizations, the relations arising in this connection should also be subject to legal regulation (Russian Advertising Law, 2006: 2).

Unfair and unreliable advertising is prohibited at the legislative level, however, in the modern Russian media space, examples of just such low-quality advertising are widespread, which demonstrates the presence of institutional deformations in advertising. These factors have a negative impact on the participants in advertising activities, which leads to their financial losses, the emergence of risks of negative perception of the advertising product, aggression of consumers of advertising images, etc.

The following can be singled out as examples of the possible appearance of institutional deformation:

- application of methods of manipulation of consciousness, psyche and subsequent behavior of consumers, as well as latent negative impact on their subconsciousness;

- violation of the causal relationship between the displayed image, the further model of behavior and the result obtained as a result of the consumption of the advertising product;
- unjustified endowment of an advertising product with additional properties that characterize its advantages in relation to other similar goods;
- justification of unethical advertising content by originality, creativity, creativity, etc.

In the cases under consideration, legal regulation is necessary in order to prevent the creation of conditions that can become a factor in the deformation of advertising activities.

The correct distinction between bona fide and credible advertising from inappropriate advertising product is often the subject of controversy and disputes between lawyers and advertisers. Deception in advertising is understood as unreliable images that mislead the consumer about the properties and characteristics of the product, as well as manipulate his mind, form beliefs that do not correspond to reality. Also, an advertisement that contains: a plausible statement about the advantages of the advertised product relative to other similar products, however, not being such, will also be referred to as unreliable; knowingly incorrect information that generates erroneous beliefs, etc.

It should be understood that the presence of these institutional deformations in advertising can cause not only moral harm, but also quite tangible material harm, therefore, for example, the law only allows advertising of medicines and medical services, and an indication of any medicinal properties of other products is prohibited.

Legal regulation of advertising has a number of specific functions, among which the following can be distinguished:
- streamlining relations between subjects of advertising activities, protecting the rights and interests of advertisers, advertising producers, advertising distributors and consumers of an advertising product;
- Establishment and enforcement of regulatory grounds for the dissemination of information, excluding violations of the law, or their suppression;
- promotion of the norms of business turnover and protection from unfair competition in the field of advertising;
- creation of conditions for receiving reliable and bona fide advertising, protection from inappropriate, hidden advertising;
- ensuring the activities of self-regulatory organizations in the field of advertising, etc.

These functions are legislatively consolidated in the form of established prohibitions on use:
- foreign words and expressions that can lead to distortion of the meaning of the advertising message;
- swear words, as well as obscene and offensive images;
- images of medical workers, if this advertisement is not related to the provision of medical services;
- content that demonstrates the attributes and the process of smoking, drinking alcohol;
- indications that the object of advertising is approved by state authorities, etc.

In order to prevent institutional deformations in advertising activities, the Federal Law "On Advertising" also provides for bans on:
- placement of advertisements in textbooks, notebooks, diaries intended for schoolchildren;
- posting information prohibited for distribution in childcare facilities or at a distance of less than 100 meters from them;
- interruption of information content by advertisements with increased volume;
- distribution of hidden advertising, which has an unconscious effect on the consciousness of consumers.

The use of official state (coat of arms, flag, anthem), religious symbols, objects of cultural heritage of the peoples of the Russian Federation and included in the World Heritage List is also regulated by the law on advertising. At the same time, all the above provisions do not apply to censorship, since they do not imply total state control over advertising activities. Note that according to the Constitution of the Russian Federation, censorship in Russia is prohibited.

4. Results

Thus, in order to counteract institutional deformations in advertising, the production, placement and distribution of advertising must comply with the requirements of Russian

legislation. However, advertising producers in pursuit of vivid, memorable images, the original embodiment of a creative idea, violate the established prohibitions, ignoring legal restrictions or using legislative gaps. The following are examples of such deformations:

- the use of special writing techniques (small print, original style) when specifying essential information;
- deliberately misleading consumers by substituting concepts, distorting images, incorrect comparisons used in advertising;
- the use of destructive appeals, obscene images that attract the attention of consumers with extraordinary formulations and images;
- an indication of imaginary scientific research, clinical trials, testifying to the advantages of the object of advertising;
- the use of creative technologies, which are essentially unethical advertising.

Determining the legal ways to counteract institutional deformations in advertising, it is necessary to highlight the general directions of improving the legal regulation of this area and propose specific measures for optimizing advertising legislation that contribute to the leveling of potential risks. The general directions include:

- combination of interests of subjects of advertising activity and the state, legal and moral norms, cultural and historical traditions;
- protection of professional rights of advertisers, advertising producers, advertising distributors and the creation of a civilized advertising market;
- taking into account the communicative essence of advertising while ensuring the interests of all participants in advertising relations;
- active promotion of the norms of business turnover in the field of advertising;
- participation of subjects of advertising activities in the development and implementation of draft laws regulating the advertising business;
- development and protection of business interests and contacts of specialists in the field of advertising, marketing and public relations at the national and international levels;
- ensuring the proper implementation of the rules for collecting and disseminating information on cases of violation of the law on advertising;
- timely optimization of legal support in accordance with the trends in the development of new advertising technologies while maintaining freedom of creativity.

As specific measures to optimize advertising legislation in order to counteract its institutional deformations, the following can be distinguished:

1) advertising must be distributed in Russian or the language of the peoples of the corresponding subject of the Russian Federation and only for goods and services that have passed licensing or certification; be recognizable and understandable without special knowledge;

2) advertising must not be inauthentic, knowingly false, unfair, unethical, hidden; encourage consumers to engage in unauthorized, dangerous and criminal activities; violate someone else's exclusive rights; apply to goods that are prohibited for circulation;

3) it is necessary to strictly observe the regulatory requirements and established prohibitions governing the features of advertising in accordance with its types, methods of distribution in various media, as well as specific content for certain categories of consumers (minors);

4) establish a ban on indicating that the advertised object has additional characteristics of the preferential property, if they are a mandatory requirement for these goods;

5) it is necessary to legislate the provision on the inadmissibility of references to the conduct of scientific, laboratory research as a factor demonstrating the advantages of the advertised object (except for medical services and medicines), if the conduct of these studies is a prerequisite for their introduction into circulation;

6) the legalization of the concept of "unethical advertising" by returning the corresponding norm to the law on advertising, as well as the creation and regular updating of a single dictionary of abusive and obscene words and expressions in the Russian language, will help to level the practice of replacing creativity with unethical advertising product;

7) extend the effect of the law on advertising to information that is placed on a product or its packaging and can be perceived as advertising when using mosaic technology in the design of goods;

8) private prohibitions on referring to images of minors in advertising do not apply to the prohibition of their textual, visual or sound use when advertising goods and services not intended directly for them. Therefore, in order to minimize the risks of manipulating the minds of consumers with the help of children's images, we propose to establish a complete ban on the use of images of minors in advertising.

5. Conclusion

Citizens' confidence in legal institutions allows public authorities to ensure the effectiveness of the functioning and improvement of social relations in the media space, including in the field of advertising. The socially regulatory role of law, which constantly needs updated information on the state and trends in the development of legal awareness and behavior of the population, promotes the use of legal mechanisms for making practical management decisions.

The modernization of the Russian advertising legislation cannot be considered unsuccessful, proceeding only from the presumption that not all the gaps and shortcomings have been eliminated, while new risks and institutional deformations in advertising have emerged. Just as it is impossible to satisfy simultaneously the interests of all persons, it is impossible to provide an example of an ideal normative legal act that equally suits representatives of all strata of society, nationalities, professions, races, genders, etc.

In addition, a normative act that corresponds to the current state of social relations, the development of state and legal institutions, the theory and practice of its application, after a certain time may become unacceptable. However, this does not mean that scientists can not take part in improving the legislative framework, on the contrary, they should actively contribute to the search for solutions to emerging problems, challenges and threats, which is one of the main tasks of science.

The implementation of the legal methods of counteracting institutional deformations in advertising activities indicated in the study is aimed not only at eliminating them, but also at optimizing the practice of consumers receiving reliable, conscientious, ethical advertising, with the aim of its adequate impact on public relations in the media space.

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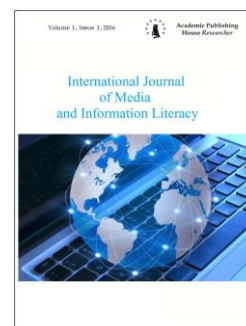
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A Study into the Skills of Using Data Verification Tools as a Media Information Literacy Instrument for University Students

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Abstract

Amid information wars and growing populism, when manipulation, propaganda and disinformation appear to be a natural focus, when officials, opinion leaders and media communicate unsafe and unverified information, when only up to 20% of messages can be marked as veracious, it becomes essential to develop critical and meaningful information consumption. The self-explanatory statistics, provided by fact-checkers, speak volumes and inspire those who have command of the investigation method in the fact check format to fully leverage it both in their professional activities and in daily lives.

The paper structures and classifies the key aspects of fact-checking, identifies its specific characteristics and effects, and sketches out the future outlook for its use as a new media trend. The work defines central objectives of fact-checking investigations and what differentiate them from conventional investigations. It has been revealed that fact-checkers are gradually shifting their field of activity to the plane of the so-called "unofficial sources" of information, such as social networking websites, public narratives and discourses, media materials of diverse origin, etc.

The findings of the study conducted demonstrate a correlation between the general media literacy, which respondents evaluated as rather low – average and below average and the need for its end-to-end improvement, including through interactive media practices, trainings and projects. The study concludes that respondents are actually ignorant of the fact-checking and data verification tools available. We believe the fact is also immediately linked with the overall level of media maturity and respondent information literacy, levels of critical and analytical thinking, and the ability to work on information and its sources.

Keywords: media literacy, fact-checking, data verification, fake, post-truth, manipulation, media trend.

1. Introduction

Over a relatively short span of time, fact-checking has evolved from an investigative journalism tool into a media trend with its one-of-a-kind features, structure and data verification methodology. The change can be confirmed by the fact that nearly 150 media worldwide operate exclusively as fact-checkers. Their cumulative effort generates a tremendous volume of fact-check investigations so that they are able to compete with conventional media (in news, analytics and other), have a constant audience outreach and maintain the status of an expert medium.

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Significantly, most of the global fact-checking resources are concentrating their energy on verifying facts and information contained in official statements, news reports, public narratives, etc.

To consolidate and support the activity of fact-checking resources, the Poynter Institute established the International Fact-Checking Network based in the United States, the country where the media market is serviced by the bulk of fact-checkers.

The progression of fact-checking resources has been greatly boosted as today's digital technology is increasingly pervading our lives, multiple unstructured and structured databases and data sets are becoming available, and registers and libraries are going digital. This has substantially simplified and accelerated both their search and data verification, and contributed to a broader range of better information verification and identification tools that can be utilized without a required special qualification.

Speaking of Ukraine, the domestic media landscape is currently featuring several fact-checking platforms – BezBrehni, VoxCheck, StopFake, Slovo I Dilo. Some media, e.g. DW Ukrainian, run regular fact-checking sections; others launch a dedicated fact-checking block for specific events, for example, elections, COVID-19 action and more.

Importantly, despite a fairly large number of fact-checking resources, the aligned work rules and principles and the general fact-checking methodology is unique to each country and is determined by policies, social environment, culture, mindset, values and other factors.

2. Materials and methods

When writing the manuscript, we conducted student surveys designed to find out how the group assesses their general media literacy, knowledge of main fact-checking principles and skills in handling data verification tools. Answers were received via the group chats polling system on Telegram and online polling platform on Google-forms. The results obtained were compared with the findings in the study we carried out in the 2020 spring semester.

The methods employed include statistical analysis of quantitative research data, statistical data processing methods, notably the calculation method for the Pearson correlation coefficient.

3. Discussion

Today's politically and economically unstable world produces a plethora of information that needs verification. This will help put the situation in perspective and prevent the spread of falsehoods (fakes). Issues related to various aspects of fact-checking techniques are taking center stage in the academic community.

For example, M. Amazeen examines structural factors influencing the global emergence of fact-checking. She understands fact-checking techniques as a democracy-building tool. The very emergence of fact-checking is linked with a decline in journalism, easy access to technology for the masses, and socio-political strife (Amazeen, 2017).

American and Israeli researchers N. Walter, J. Cohen, L. Holbert, Y. Morag looked into how fact-checking affected political beliefs. They undertook a meta-analytic review to estimate the effectiveness of fact-checking in correcting political misinformation. The researchers' conclusion is that fact-checking has a significantly positive overall influence on political beliefs (Walter et al., 2020).

P. Mena examined the fact-checking-related issues as illustrated by the activity of political journalists in the United States. He studied the most widely accepted principles of fact-checking and topics of misinformation dependence on the activism of partisanship of politicians (Mena, 2019). Another facet of the above issue was reviewed by J. Jarman. He investigated into the influence of political affiliation and criticism on the effectiveness of political fact-checking (Jarman, 2016).

D. Margolin, A. Hannak, I. Weber chose to target the research lens at the political fact-checking on Twitter. They explored the social contexts in which truth may be more or less preferred, as well as the social connections between fact-checkers and rumor spreaders (Margolin et al., 2018).

A. Levitskaya, A. Fedorov analyzed the controversy of manipulation in the modern media landscape, showing that the manipulation techniques became more sophisticated and include mixing reliable and fake information. This, in turn, implies the use of more complex mechanisms to ban or remove false media information (Levitskaya, Fedorov, 2020).

E. Humprecht proceeds in her research from the argument that fact-checking can only be successful if it wins the trust of the audience. She carried out a comparative analysis of a number of

European organizations and agencies engaged in debunking false information. The researcher in particular discusses the implications of successful fact-checking to combat online disinformation (Humprecht, 2020).

P. Brandtzaeg, A. Følstad, M. Domínguez, as part of a three-year European Union research project (REVEAL), tried to investigate how journalists and the public perceive the services for verifying fact accuracy and countering the spread of fake news in social media (Brandtzaeg et al., 2018). The researchers' new contribution was the finding that most journalists and social media users, while generally judging such services as potentially useful, still viewed them with a certain degree of ambivalence. W. Lowrey analyzes the emergence and development of news fact-checking websites. According to the researcher, such websites embrace elements of both traditional journalism and digital network logics (Lowrey, 2017).

Fact-checking practices, as a crucial component in a magazine's success, have been reviewed by S. Currie Sivek, S. Bloyd-Peshkin. The researchers suggest that the practices help magazines retain loyal readers, protect them from litigation related to falsehood publication, and bring other benefits (Currie Sivek, Bloyd-Peshkin, 2019).

British researcher J. Singer considers fact-checkers as innovators and entrepreneurs. Her findings indicate that many of them see their role not only as extending traditional journalism, but also as correcting some of its drawbacks (Singer, 2019).

N. Krause, I. Freiling, B. Beets, D. Brossard linked the march of the 2019 coronavirus (COVID-19) to a surge of misinformation that poses a risk in its own right to people as its subject is associated with the pandemic. In this connection, the researchers have discussed implications of the COVID-19 misinformation fact-checking (Krause et al., 2020).

The study by U. Ecker, Z. O'Reilly, J. Reid and Chang Ee Pin should probably be defined as more applied research. Their paper "The effectiveness of short-format refutational fact-checks" made an attempt to pinpoint a specific most promising approach to fact-checking (Ecker et al., 2020).

There is little doubt a fact-checking process cannot be up and running without critical thinking skills. Earlier, we have made a series of efforts to analyze some aspects of the concern (Lebid, Shevchenko, 2020; Zavhorodnia et al., 2019), as the ability to think in a critical and system way empowers individuals to identify incongruities and interdependencies in media texts and media messages.

4. Results

Hence, fact-checking is a pre-requisite component and a fundamental principle of media and information literacy for every person who are conscious about the information they consume. A fact checker is inherently a motivated party of sorts, and therefore, it is his responsibility to verify information for manipulations, populism and inaccurate facts in statements and announcements of officials, public figures, opinion leaders, the media and others.

Based on this, the mission of fact-checking is more than mere revelations of falsehoods in public statements, it is also about establishing the veracity of the facts on which the statements are built, as well as uncovering manipulative tactics and populist claims.

To validate the veracity of such statements, fact-checkers should at all times utilize information from official government channels, acknowledged international organizations and expert comments with reference to original sources. No "insider information", biased opinions, forecasts, or estimates may appear in a fact-checker's reasoning and evidence.

A fact-checking resource should formulate and adopt clear rules for processing arguments, methods of collecting evidence and the logic of the investigation itself. The established public statement verification criteria should, in turn, be subject to civic scrutiny and oversight.

Depending on the statement area and topic, the fact-checker independently traces the information sources that provide data used to assemble the body of evidence. In the course of investigation, the fact-checking resource may engage international organizations and professionals and create working expert groups by inviting representatives of other information or analytical organizations.

The information accumulated and structured this way can be instrumental in delivering ratings of public figures, political parties, government officials, etc. Dissemination of such

information and ratings in the public space should be maximized to illuminate the real picture of manipulations and misinformation contained in government and public discourses.

Considering the above, it should be noted that any fact-checking resource has the right to scrutinize the statements of public figures as part of an open investigation using public sources. In this case, the basic qualities of fact-checking should be its targeted action, special approach to the use of sources, objectivity and non-partisanship. The targeted action implies not only answering the questions What? Where? When?, but also necessarily to the question – Why? What potential implications are there?

In essence, fact checking objectives can be boiled to the following:
— verifying facts and debunking their inaccuracy;
— establishing cause-and-effect relations between them;
— spotting indications of any manipulations;
— reconstructing and demonstrating a real picture of events;
— expanding knowledge and skills, improving the general culture of media and information literacy.

Importantly, revealing true cause-and-effect links, as well as manipulations around this efforts, is as equally significant as checking the facts themselves. Publications, messages, public statements very often announce real facts (or information as close to them as possible), but causes and effects between them are intentionally tampered to shape desired perceptions.

Fact checkers using data verification systems have many tools available to deliver quality investigations. Their toolbox features numerous sources of information to confirm or refute facts – ranging from technical means, insider contacts and official inquiries to open data sets and bases.

Unlike a typical investigation, a fact-checking action verifies data only by using open official sources, filing official inquiries and developing its own documentary database. It should be noted that drawing on open official sources completely prevents fact checkers themselves from manipulating facts and data, minimizing potential accusations of bias and partisanship.

On the other hand, the use of open sources for fact verification has certain constraints in terms of promptness as the process of formulating an inquiry, registering it, receiving a response from officials and so on may imply various procedural aspects. In addition, the information in possession of its owner is categorized as being restricted, and as a consequence its publication can be limited if at all allowed. Moreover, the disclosure can put another person's life or national security at risk. In such cases, you the cannot release the information.

Digital technology has substantially scaled up both the channels to promote information and the possibilities of its verification. This, as a result, has immensely augmented the consumer audience, as the growing number of people gain access to various sources of information, comparison opportunities and analysis tools. The negative implications of the trend can include the wider opportunities for abusive practices, influence techniques and public opinion manipulations.

The array of instances being reviewed has been extended over the recent time as fact-checking resources are increasingly focusing on:
— public statements made not only by officials, but also by opinion leaders;
— messages published not only in the media, but also on social networks;
— programs, strategies, plans, etc., released by power entities and officials;
— social narratives, stereotypes and myths;
— photo, video materials and more.

The methodology to check the instances has few variations with only difference in fact-checking mechanisms and tools.

Taking into account the above points, we carried out a survey among students of the Sumy State University (SumDU), to learn more about the situation around the skills the student-age population develops to work with data verification tools. The poll total coverage was 216 1-4 year students in all academic programs.

The purpose of the study is to measure the general level of students' knowledge of fact-checking and examine how they understand the principles of fact-checking application in educational and research work. In this context, we believe it will be revealing to compare the results of the current study with the findings of our earlier analysis of the level of student media and information literacy (Lebid, Shevchenko, 2020).

We developed control questions to compare the results obtained previously, and new questions to render the results more concrete (Table 1):

Table 1. Dynamics of respondents' general level of media literacy (SumDU)

	Spring semester, 2020		Fall semester, 2020	
	No. of people	%	No. of people	%
Evaluate their media literacy level as rather low	301	91.5	175	81
Do not know what fact-checking is	189	57.5	103	48
Do not verify information at all or hardly ever verify it	190	58	135	62.5
Believe it is necessary to develop and improve skills of media information literacy	311	94.7	204	94.5

Based on the control survey results, we suggested the following hypothesis: H_o is the number of respondents who believe the skills of media information literacy are a highly relevant asset, directly proportional to the number of respondents with below average media literacy. In statistical testing of a hypothesis, a null hypothesis is a type of hypothesis that proposes, for example, there is no relationship between groups or correlation between observed results.

With the χ2 calculator, we determined the number of degrees of freedom as equal to 3. The value of the χ2 chi-square was 3.418, and the critical value of χ2 at a significance level of $p < 0.05$ was 7.815. Significance level p=0.33 (Figure 1). The correlation between factorial and effective features is statistically insignificant with the significance level being $p > 0.05$. The result is not statistically significant as there are not enough arguments to reject the null hypothesis.
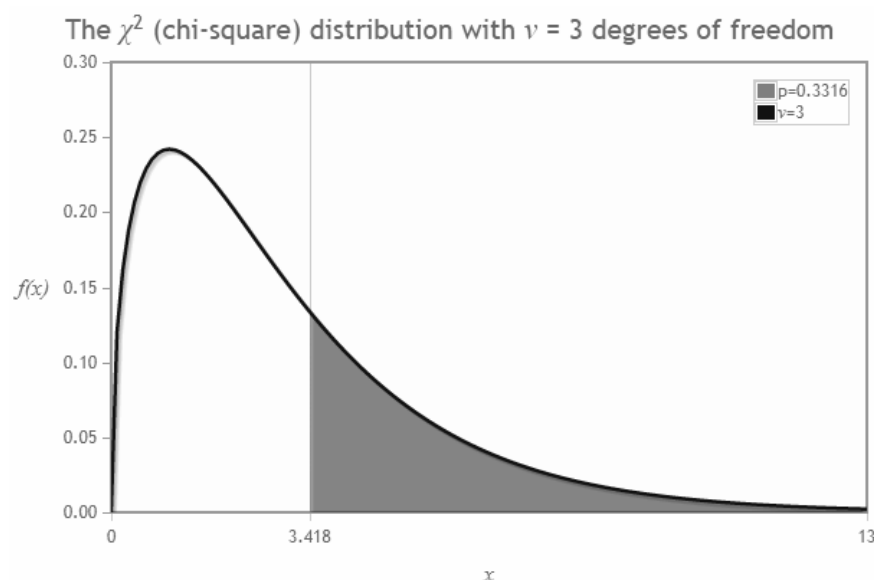
Fig. 1. The χ² distribution plot for calculated values

P-In statistical hypothesis testing, value (probability value) is a value used to determine the significance of the results obtained. Calculating the p-value helps determine the actual extent to which the observed results are likely to deviate from the null hypothesis. The smaller the p-value is, the greater the significance is and the more evidence exists that the null hypothesis should be rejected in favor of the alternative hypothesis. Typically, with $p \leq 0.05$, the value is considered as

being significant and the null hypothesis is rejected, while p > 0.05 indicates that there is not sufficient evidence against the null hypothesis to reject it.

When asked about their trust in the media, most respondents (57.9 %) answered that they gave more credit to the state-run media outlets (Figure 2), although the type of the media has a small share in the Ukrainian media market – the overwhelming majority of the media resources are private businesses.
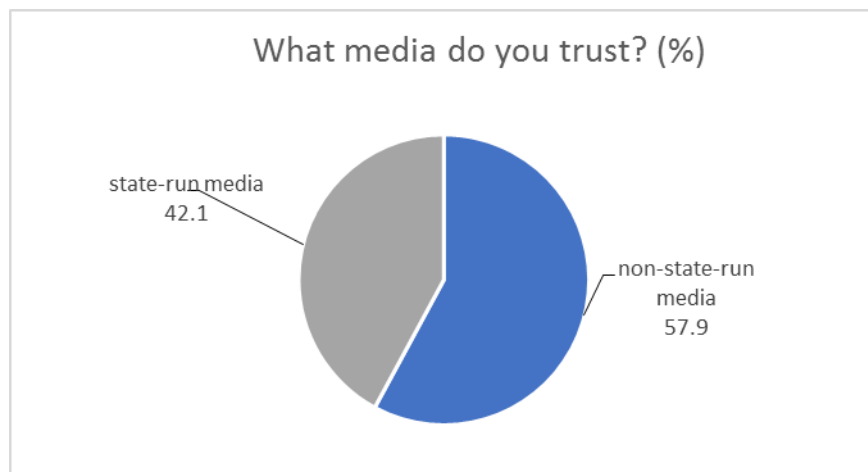
Fig. 2. Which media do you trust? (SumDU)

When asked about their reliance on certain sources of information, the students engaged in the survey pointed out that they had confidence in major online media outlets that, again, are mostly privately owned (Figure 3).
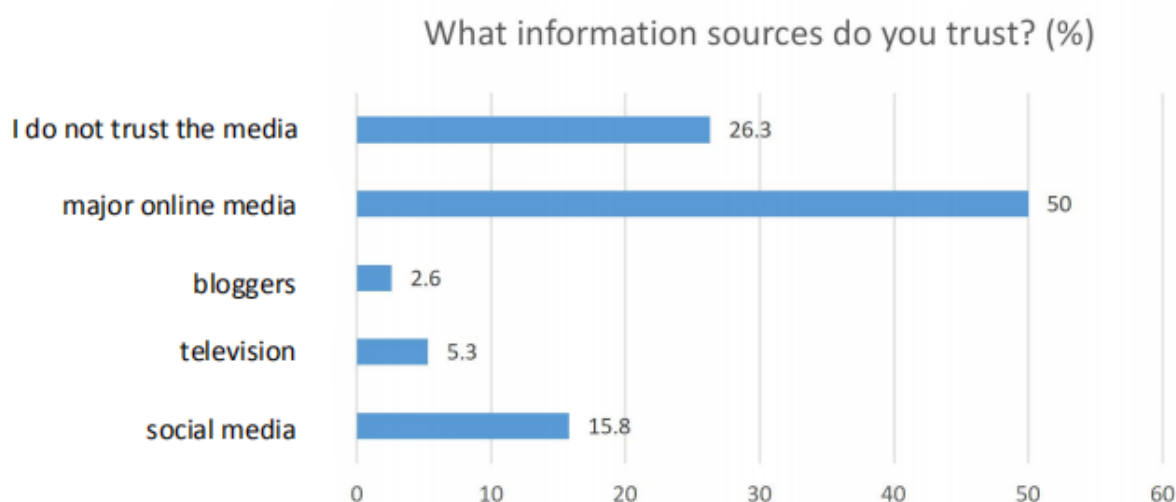
Fig. 3. What sources of information do you trust? (SumDU)

The figures show that the essential fact-checking rule – "Don't trust media" – is only followed by 1/4 of the respondents, which is in fact quite little. The situation is hardly surprising, given the number of those who are actually aware of the fact-checking procedure and verify information and its sources – these are about 1/3 of the entire respondent group.

5. Conclusion
Based on the above, we can postulate not only the fact of rather poor critical and analytical thinking skills, which one cannot overestimate in the information age, but also the low level of general media and information literacy. The finding is especially frustrating, as it characterizes the younger generation that has rather a low opinion of their knowledge and skills in the area.

In view of this, we should emphasize the need for systematic, targeted efforts to enhance the basic culture of media literacy and media hygiene, introduce fact-checking and data verification elements into academic courses, work with arrays of information and analyze its sources. We set the goal after we obtained the research results in the spring semester, and managed to fully accomplish it from the start of the new academic year, when after 5 months of intensive training, (April-May, September-November 2020) tangible results were achieved – the number of those who rated their media literacy rather low, as well as those who did not know how and could not work with fact-checking tools, albeit insignificantly, wend down.

On the other hand, the number of those who were not critical and did not verify information and its sources, increased although the growth was insignificant. This is an alarming signal that, in principle, can be explained by individual psychological and age qualities. An optimistic lesson learned is that the number of those who consider it necessary to develop and improve the skills of media information literacy is invariable, moreover, the number is invariably large. This inspires our confidence in the positive outcome of our work.
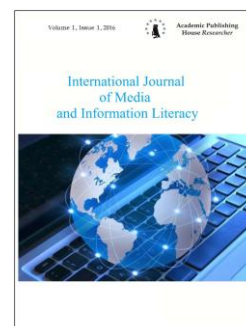
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Persuasive Strategies and Video Games: An Insight into *Age of Empire III*

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Abstract

This study investigates the role of visual signs and modes in the meanings interpretation of visual depiction and also the ideology behind this visual manifestation. It also explores various persuasive strategies through the semiotic manifestation of the video game *Age of Empire III*. This study reflects the way of meaning making in which video game has been designed to incorporate itself in the virtual world. So, multimodal semiotic analysis of video game: *Age of Empire III* has been undertaken in the light of G. Kress, T. Leeuwen's (Kress, Leeuwen, 2001) theory of multimodal communication and S. Littlejohn's (Littlejohn, 1999) concepts of elements, environment, game design, and gameplay, and storyline and action outcome interactions. It is a qualitative type of research. The multimodal framework and concepts of various terms have been used as an eclectic approach in the study. The study reveals that this video game's manifestation is an indirect programming of the player in the game who plays and follows the instructional pattern whereas the game introduces the semiotics in form of game choices and gives players the thought of free will. This dual potential has manifested to persuade and provide entertainment to the player or viewer.

Keywords: multimodal semiotic discourse analysis (MSDA), social semiotics, age of empire III, video game, visuals, modes, signs.

1. Introduction

Multimodal semiotic discourse analysis (MSDA) is an approach which aims to analyze the communication of modes and signs in video game visuals (Kruspe, 2004). Visuals represent modes in different contexts such as actions, visual, written, verbal, gestural and three dimensional aspects of video game in an interactive way. Meanings of modes and signs in video games are interrelated with social semiotics (Schaden, Patin, 2018). This study focuses on the cooperation of modes and signs in visual manifestation. The sign level analysis of video game depicts the ideology or strategy behind the visual construction. The semiotic elements analyzed in the video game are non-verbal and verbal signs, written words and sentences, appearance, color, music and framing. These elements are in form of modes and signs.

Age of Empire is the game which invokes the discourse of video game the form of history representation. *Age of Empire III* is point of focus in this research studies. This video game has been developed by the Microsoft Corporation's Ensemble Studio and published by Microsoft Game Studios. The computer PC version of this videogame was released in 2005. *Age of Empire III* is the

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advanced sequel of the first two sequels. In this video of *Age of Empire III the Industrial Age* represents three civilizations: Napoleon Bonaparte for the French colonial Empire, Suleiman the Magnificent for the Ottoman Empire and Ivan the Terrible for the Russian Empire (Oberdörfer, Latoschik, 2018).

Video games integrate persuasion and mind controlling by the manifestation of their dual nature, constructive visualization and participative role of viewer (Oberdörfer, Latoschik, 2018). This study critically explores the strategy of sign and mode makers behind the visual depiction of the video games. This study answers the question: How do the persuasive strategies of signs and mode makers depict in the video games visualization? This study reflects that this video game appeared to be the most interested, vital and favorite literature for researchers in the field of video games multimodal semiotic analysis.

2. Materials and methods

This study employs the application of more than one frameworks of multimodal semiotic analysis and has involved the general application of meaning interpretation of various multimodal semiotic analytical studies, hence, claimed as using *eclectic* approach. An eclectic approach became necessary for the study as the complex nature and structure of video game renders (Perry et al., 2009). Especially, the examination of the signs, modes and medium of the videogame visuals necessitated *multi-interpretive strategies and multi-theoretical* multimodal semiotic analysis. Paradigms, parameters and practices of *qualitative* research have thoroughly been used for the accomplishment of this study.

Primary resource of data is video game *Age of Empire III* in form of video visuals. The secondary resources are books, internet etc. This study has selected the video game *Age of Empire III*'s only five video visuals from amongst many videos of it. The selected video reflects the video representation of Industrial age that proceeds to Imperial Age in the video game *Age of Empire III*. This video has been obtained from the following website: http://youtube.com/.

3. Discussion

Semiotic interaction between game visuals and audience are different from other media, TV and films. Game design, delivery and manifestation circulate different sign interaction. Moreover, modes, signs and rules define the game play. In this process the semiotic design explains the process of decision making for users. Sign is the device which directs the players as well as the virtual world of video games. The fun making signs and signifiers in form of gender and social representations (Adams, Dormans, 2012).

Each video game involves implicit and explicit persuasive strategies with different modes and signs. These signs and modes provide artificial intelligence to the players in the form of design patterns of video games. The game choices in game play are the semiotic loops which define change meanings with change choices. L. Freina and M. Ott (Freina, Ott, 2015) elaborate on video games as the plot oriented manifestation in which player is the author of game event rather than the designer. Player creates his own story by availing choices in the game play.

Through this semiotic design in the game play, the player gains consistent embedment in the game. Video games are changing organic entities that have specific designed semiotic software with some marketing strategies. For marketing purposes more innovative and players' satisfactory semiotics are used as game play of every video game (Oberdörfer et al., 2019).

J. Bezemer and G. kress (Bezemer, Kress, 2008) define multimodality as "inter-disciplinary approach that understands communication and representation to be more than language". C. Jewitt (Jewitt, 2013) defines this communication and representation as it is manifested on variety of modes that contribute in meaning making process of visuals. These meanings are socially shaped over time. People make meanings through construction of these modes in visual manifestations. Set of rules are introduced in form of signs in the games. Players use these signs or modes appropriately to complete the game levels. The semiotic textures of the video game are the structural game design which is experienced by player. The video game is a process aswell place symbols generate cognitive resonance in players (Schaden, Patin, 2018).

M. Danesi (Danesi, 2007) has defined goals of semiotics. According to him the ultimate aim of semiotics is to build meanings as human product in the form of symbols, narratives,

symphonies, paintings and comic books based on some scientific theories and mathematical theorems.

R. Barthes (Barthes, 1957; 1964; 1968; 1972) defines semiotics as it is the semiotic development of science. The science of interaction of signs into text is to create further signs which are in more complex form. E. Brown and P. Cairns address the importance of implication of multimodal approach in the sign system science (Brown, Cairns, 2004).

In 1960, the founder of International Association for Semiotic Studies (IASS) has continued Saussure's conceptual framework in their works. Semiotics as 'science of sign' J. Bateman (Bateman, 2007) has used the term 'semi sphere' and gives philosophical basics on this multimodal semiotic analysis approach.

G. Kress and T. Leeuwen (Kress, Leeuwen, 2006) claim about semiotics. According to them main school of semiotics are crossing the boundaries and developing the theoretical frameworks and applications including all semiotic modes and all fields. In the Modes and Media of Communication C. Jewitt and G. Kress (Jewitt, Kress, 2003) describe the 'multimodal' perspective in Barthes's famous work of mythic sign as an analysis on static visual image and Barthes interprets this visual image with reference to his personal first experience. These static visual images were repeatedly viewed and part of the most dynamic audio-visual media in those days. His work on static visual image has limited semiotic system (sign resource system) i.e. one visual mode or one expression sign system.

Multimodal dynamic semiotic resources make multiple meanings interpreted in the form of analysis. Advertisement discourse differs in culturally determined interpretations of audio-visual multi dynamic media. W. Arens (Arens, 2002) has talked about corporate television advertisement or associative connective advertisement. This advertisement communicates name and depicts some philosophy of the company. R. Arnheim (Arnheim, 1974) claims about corporate advertisements that these advertisements seldom show direct marketing of the company product rather more on the persuading audience through intense emotions and values depiction in the advertisement (Adams, Dormans, 2012).

R. Hodge (Hodge, 2009) claims that visual text has qualities and techniques which resemble more to the concept of metaphor construction through the associative connectedness with audience and persuasive rhetoric forms within images. M. Bakhtin's (Bakhtin, 1981; 1935; 1986) takes a notion of amalgamation of different techniques of hetero-glossia and intertextuality. Amalgamation of different ideological concepts, myths, beliefs, values, inviting multiple readings, mixing multiple genres and changing voices are different techniques for interpretation of visuals images and videos.

R. Hodge and G. Kress (Hodge, Kress, 1988) have given the theory of multimodal communication. They have given the multimodality view in which common semiotic system operates in form of different modes. According to their observation in the theory of multimodality, digitalization creates different modes and material realization and these different modes technically have the same level of representation. Their theory is about the relationship between conceptual and material level realization in multimodal communication. The top level is common semiotic principle level. This defines the action, emotions and framing. Framing is the common semiotic principle in which the boundary structure of gameplay is different depending on different modes. Multimodal refers to the combination of modes and different semiotic principles at the same time. Modes are the methods used for representation of message. This multimodality and semiotic principle have been conducted in methodological framework of Kress and Leeuwen (Kress, Leeuwen, 1996) by using theory of multimodal communication. Images and sound are hardcore of multimodal discourse and hearing and sight are the "public senses (Baldry, 2007; Freina, Ott, 2015; Russell, 1921; Sterne, 2003).

S. Littlejohn (Littlejohn, 1999) defines four elements of the game system. The four elements are objects, attributes, internal relationships and environment. Objects are the variables in the system and can be physical or in abstract form depending upon the nature of the system. Attributes are the qualities of the objects in the game system. Internal relationship is the relation among objects of the game system. This includes strategic interaction as well as the player's relation. Whole game system has an environment that is a game context in the form of game surroundings. It tells what kind of system it is and also describes the interaction between the objects and gameplay. Appearance includes overall role of objects in the game. This includes direct meanings,

characters, artifacts, color, non-verbal and written expressions. Environment includes basic system of the game and the area occupies enemies and objects in the game visuals. Space tells how big the area is and how denser the environment is. Vagrant perspective is in which player examines different parts of the field without any type of strategic movement. Typological and geometrical perspectives are there in the video games. Geometrical aspect means that the player moves in all directions in the game filed continuous freedom of movement whereas the typological means the players have discrete and non-overlapping position to move. Environment of the video game is both static and dynamic. Static environment remains unchanged with the player's activities in the game world and the dynamic one remains changing or modified by the player's activities. Realtime environment allows the players to be active and independent to the adversaries in the game world whereas turn based environment allows players to play in turns. Teleology perspective is in which the game setup is finite and infinite. Finite is in which some games reaching a clear winning point and infinite has not a clear ending point. Action and consequence interaction establishes a system of meanings in the game world. Framing is all about the structural, visual and conceptual aspects. Furthermore, primary deals with pictures and visuals framings and secondary deals with the contextual framings of the visuals. Color has also signified role. Story of the game reveals through the relationships of agents and objects in the game world. These actions and consequences of agents and objects proceed as well as reveal storyline or context of the game.

4. Results

While analyzing whole video game the most considerable thing is to make sense of the video game. Game design is the important thing to make sense of video game. Game design includes all instances such as visual appearance, signs, images, physical objects and system of environment. Game design is necessary for the initial understanding of the video game. Through this picture the physical objects in their visual appearance are the specific building structures, red flag , cropping by the settlers, grassy ground, domes and minarets in building structures, lighted area with shadowed invisible area, wind power generators, artifacts of settlers, smoke from certain building, at the top industrial age in the game *Age of Empire III*. All these things give the viewers and players unique aesthetic sense. Flag represents the power and authority of one's territory. This is the flag of Turkish Muslim country now a day and in this video game its name is Pour Paris the Ottoman. Building structure, especially, dome and minarets show Muslim culture. Monumental two slopes with bricks construction buildings also show culture of this territory. Color of settler's artifacts relates with the flags color i.e. red and white, shows the nationhood and individuality in the three civilizations. The smoke from chimneys depicts industries and factories indicating the development of this civilization.

Bottom of the visual design represents the game pattern instructions. These instructions appear throughout the game and are same for each civilization. At bottom left side map of the game facilitates the player to reach certain point of territory area. Lighted area is the discovered area and shadowed the invisible undiscovered area. Red dots and lines show the presence of Pour_ Paris on the map. The arrow in the game is the agent or the representation of the player in the game. Agent takes action producing consequences. Completion of these consequences are communicated in form of written and verbal signs. It means game communicates in written and also in verbal and non-verbal signs. The yellow inked written English sentences are the completion of player's activity in the game. White inked sentences are the communication of instruction guide when player's arrow comes to any block in the instructions bar. Green line below the flag in the instruction bar indicates the lifeline of specific civilization. On the instruction bar values of meat, wood and gold are mentioned with its iconic representation and values for players to know how about the economy status of each civilization. Likewise written expression of arsenal shows the placement of military equipment and weapons with its non-verbal sign or iconic representation of hammer and stone slab. This also shows old historical era and its weapons manufactured by hammer. The wooden and iron representations in instruction bar are also a temporal depiction of design pattern. Temporal depiction means that at the specific historical era wood and iron were the most useable things for construction.

On the first sight picture of the *Age of Empire III* represents the minute features of the game. Critical analysis of this picture shows the game theme and whole game itself. The title of the game is written in capital letters with larger font size of the letters "E" and "S" are written in bigger in size in the written sequence of the title. This reflects that the game deals with empires and also that

more than one empire. As in *Age of Empires* three civilizations are introduced in form of Empire structures. This is the reason behind foregrounding of alphabet "E" and "S". The written words "AGE" and "EMPIRE" are foreground because in the game temporal representation of historical era enforces historical time period. "AGE" and "EMPIRE" words show the power authority and introduce civilizations in the game. Both words have signified conception. Roman number III shows third sequel as well as the signified conception of three "I" as three autonomies and power of empire ship. Second interpretation is the three capital letters "I" show the use of first person in the title page is a deliberate representation depicting three separate civilizations i.e. Pour Paris, Elizabethans and Napoleons and culture patterns with power of their own and authority. Moreover, three "Is", represent three different warriors different artifacts depict different civilizations and empire ship. The representation of warriors only depicts the war theme of the game. The scary mark shape in framing the three "I" marks the war and the aggression theme representation in the game. The background of these three "I" shows the war field, flags, warriors, sea boats and grassy grounds these are all about theme representation. Grassy grounds, cropping and fishing show specifically the old historical depiction.

Macro level analysis of this game deals with the actions and outcome. It deals with what is happening in the game and how the game is proceeding through the representation of the actions and outcome in form of signs. In the picture the player Pour Paris has given the action of attack through archers. The red marked line on the set of archers represents command of action to attack on the Napoleons by the player. The red and white cross shows the war situation in the game. This flag is also used as signifier and gives the signified conception of war. The fire at Napoleon houses represents the consequence of the action taken from the player Pour Paris. These all are signs and represent the happening.

At micro level, the analysis of the game sign represents the game elements and modes. These game elements and modes are to be considered in deep observation of the visual signs in this picture. Game pattern and game instructions are the denotation of the hidden game representation. Like in the picture the instruction bar tactics has signifiers in form of iconic representations. Shoot bombard, bombard movement with two red arrows, open doors with entering arrows, skull as killing and death signifier and archer with red arrows are the iconic representations of the actions that are taken through the player. The red and blue dots on the map are also the signified representation of the people of Pour Paris and Napoleon civilizations. All commands have been depicted in the picture in grey curtains with commands images. The hammer and slab in the middle of the instruction bar shows that these commands are from arsenal the set of military equipment. The scene of the great bombard in the game is about the war. These commands and instruction pattern make the sense that the player is free to do anything in the game giving the player signified conception by taking action and consequences procedure in the game. This procedure provides the pleasure through the semiotics of the game to the player.

One visual of the game focuses more on the instruction bar. It is the representation of design pattern and rules the player is supposed to follow. Through these rules or design patterns player performs actions and in result consequences happen. This procedure precedes the videogame with its understanding of context and meaning. The player is taking action for settlers to construct power house in the picture and these actions and outcomes communicate in verbal and written words with the construction of completion sound in the game for player's guidance and acknowledgement. The instruction bar provides the action pattern for the players. In it there is a further choice for the player to choose freely. Building power house as field requirement in the game strengthen the resources and civilization. There is a game of strengthening power, authority, resources, economy and food. For this process each civilization has to make possible strategic actions and outcomes within instructional bar and game design. These actions and outcomes build up the meanings and context of the game. These actions are presented on the instruction bar in an iconic representation with written signs. For example in the instruction bar "build" word leads to building structures in iconic representations such as first one is of manor housing, second one is of market, third one is of mill, fourth one is of planation, fifth one is of fishing, sixth one is of frontier outpost, seventh one is of trading post, eighth one is of mosque, ninth one is of boundary wall, tenth one is of barracks, eleventh one is of stable, twelfth one is of artillery foundry, thirteen one is of arsenal, fourteenth one is of capital. The vocabulary used for these building structures is also temporal representation of historical era. In the middle there is a representation of settlers with

depiction of male and female with their color and artifacts. In the instruction bar the two iconic representations are red marked showing that these two building actions i.e. mosque and frontier outpost have been constructed in the game. In this picture the settlers and crops give meanings of raising food production and economy of the Pour Paris as well as strengthening of its civilization. This strength leads towards individual power and victory of civilization in the game.

In another visual of videogame, the objects are huts, cooking utensils, fire, wooden caned boundary of trading post, great bombards with horses, warriors on horses and guard janissary. All these objects are the representation of concrete visuals. Attributes of these objects are the performance of these objects in the game. Like hut represents the nomadic settings because it is a trading posts of anyone civilization in the game. As nomadic setting the utensils, fire and wooden caned boundary are be like the historical era. Great bombard depicts its initial representation of war history and in the game it bombards through the instruction of player for defense and war purpose. The attributes of horse rider and warriors guard janissary perform wars following instructions in the game. These clearly depict the representation of old historical era and war theme in the game. Internal relationship of these objects represents that the nomadic setting, trading post, warriors and bombards are instructed to attack on trade post. Environment is the representation of nomadic and war theme. The visualization of objects in the game system such as the bombards, guard janissary, trading post and horse riders are depiction of the old historical era.

In the game the objects are Pour Paris houses, mill, power houses, plantation, settlers and flags. All these objects are the representation of concrete visuals. Attributes are the performance of the objects. Houses are the representation of Pour Paris civilization and culture. Mill is working in exhausting the smoke and fans are in front of the wall. The settlers are cropping and coining the crops. Power houses are working and wings are moving. The setting is of Pour Paris's home civilization. Internal relationship is the objects relation in the game. Mill and power house are working and settlers and the inhabitants are cropping. Building structure is in accordance with the historical representation of this era and civilization. Flag represents the Pour Paris's civilization. According to S. Littlejohn (Littlejohn, 1999) game system has two types i.e. open and close. The open system has interchangeable quality of mass and energy between environment as well human interaction. In close system, it has nothing interchangeable. Game system has three frames: formal, cultural and experiential. Formal system is the close and self-contained system of the game system. Cultural system is the open system and game intersects with other contexts such as society, language, history etc. Experiential system is bit tricky. It understands game as either open or close. Some parts of the game are internal in the system and are considered close.

According to the definition of S. Littlejohn (Littlejohn, 1999) of game system, *Age of Empire III* has an open system and cultural system. The objects in the game environment and as well as the interaction with player have the quality to interchange mass and energy. Within game the objects relations, actions and outcomes are transferring mass energy in form of performance outcome process. For example; cropping in the game results in enhancement of resources and economy in the game. Warriors attack in the game results in destruction and fire.

Interpretation

The communication of visual material signs and conceptual signifier's relationships represent the dual potential of the video game world. This video game also represents the dual persuasive strategy. This dual persuasive strategy has been manifested in different ways through the game design. This video game manifestation is an indirect programming of the player in the game as following the instructional pattern by introducing game semiotics in form of game choices and giving them thought of free will. This dual persuasion has manifested to provide entertainment to the player or viewer.

In *Age of Empire III* all modes the instructions, action, outcomes, pattern, environment, game design, gameplay and storyline have designed in descriptive manner. For example, in visuals the action in the instructional bar is fore grounded as white writing in a black block. Outcome completion and communicative writings for players are in yellow color. This representation in the game visual has shown the game designer's deliberate manifestation and has given the importance to actions and its choices than to the completion. This represents the semiotic signs introducing and programming technique of the game designer for the players in the game. All visualization has been done on dual potential and this is the strategy of the game designer for mitigating the virtual effect of the video game world in the video game *Age of Empire III*.

Persuasive strategies are designed to maintain the dual potential aspects in the video game. Direct naturalization or visual realization in the video game has been used to mitigate the virtual aspect of video game. An indirect programming of the player is to follow the instructional pattern by introducing game semiotics in the form of game choices and also gives them thought of free will. This dual potential has manifested to persuade and provide entertainment to the player or viewer. This dual potential strategy has been deliberately manifested in different ways throughout the game. In this video game there is the age description at the top of the each visual such as industrial age and imperial age. This has been done by the designer deliberately because in this video game there is representation of historical old era and in history gradual changes happen.

Age description at the top has been done to represent gradual evolution in the game as like history and has been tried to make visual realization by mitigating the virtual aspect of video game. Apparently, the choices provided to the player have manifested to lessen the game complexity and to provide the free will strategy to the player. This has been done for programming of the players to follow the instructional pattern and game semiotics.

Color has represented exclusive role in the whole videogame. This has used to maintain difference within civilizations. Apparently, it has designed to represent the history because in history there is crystal clear difference between civilizations. Indirectly game designer has tried to hide the uniform structural pattern of the game. Music such as bagpipe sound, warriors, sword etc. have apparently manifested for visual communication. It has also been used for instant and immediate programming of players to know game semiotics and instruction pattern.

Representation of the nature in the game such as natural resources, trees, grassy grounds, cropping, animals (deer, buffalos, eagles), fishes have manifested by the designer for old era depiction and mitigating the virtual aspects of the this video game. History and war theme has represented for temporal depiction of old era in a modern world for creating interest in the audience and persuading the player. It enhances the leadership and ruling quality in the viewer or player. Use of three prominent names of the history for three civilizations in the game have represented for visual realization or naturalization process. Pour Paris's flag has represented the Turkish flag, Elizabethan and Napoleon represent the mitigation of the virtual aspect of this video game because these three civilizations have some same era relationship in the history. The use of old era based vocabulary for many objects in the game such as guard janissary, veteran hussar, veteran skirmisher, locomotive, arsenal, fort Ramadi, lokata and barracks etc. is also very significant.

The player in the game world has been represented in the form of arrow. This representation has manifested to empower the player in the game. This strategy has been designed to enhance the ruling and leadership quality in the player by providing the sense of authority in the game world. In representation of architecture and artifacts (weapons, place and clothes etc.) are the active historical elements whereas in real history, these were passive historical elements. Finally, the passive elements of history are represented s active and it has been done deliberately in naturalized manners to mitigate the aspect of virtual in the game.

5. Conclusion

Ideology behind the video game visuals has dual persuasive strategic characteristics. Through direct concrete visual construction, the representation is near the reality or has been naturalized in the virtual world construction. The video game world has indirect integration to provide programming of the players to follow instructional construction by providing choice pattern for making sense of free will. This construction is for the purpose of mind control in the name of free will. War, historical era and power, empire-ship has strategic construction to increase market product demands. The game's semiotic design represents ideology to meet the public needs with the particular strategy of persuasion. In *Age of Empire III* all modes, the instructional patterns, action, outcome pattern, environment, game design, gameplay and storyline have been designed in descriptive manner. For example in visuals the action in the instructional bar has been foregrounded as white writing in a black block whereas outcome complete the communicative writings for players in yellow color. This representation in the game visual has shown the game designer's deliberate manifestation giving the importance to the actions and choices than to the completion. This represents the semiotic of introducing and programming technique by the game designer for the players. All visualization has been done on dual potential and this is the strategy of the game designer for mitigating the virtual effect of the video game world in the video game *Age of Empire III*.
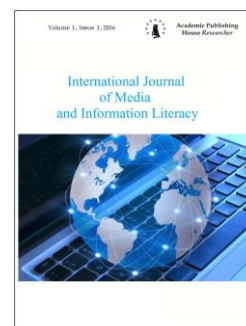
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Fear Experiences of Social Media Users in Ghana During the COVID-19 Pandemic-Lockdown: An Online Survey

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Abstract

The novel coronavirus (COVID-19) pandemic is known to place a burden of fear upon individuals in the affected communities. This is mainly due to the unregulated circulation of misinformation, conspiracy theories, and fear messages on social media. During a three-week partial lockdown of some cities in Ghana, with high rate of COVID-19 cases, many social media users were exposed to the global pandemic of COVID-19 misinformation. As there exists little empirical data on the topic, we used an online survey to explore the lived fear experiences of social media users in Ghana. To understand their experiences, data from 27 persons who lived in Accra, Tema, and Kumasi were collected via a qualitative online survey between 21st April and 10th May 2020. Using Colaizzi's 7-step analytical approach, we conducted a phenomenological analysis for participants' (29.6 % males and 70.4 % females) text data until we reached data saturation. We observed that respondents shared varied fear experiences during the lockdown. Participants' fears included (1) fear of risk for COVID-19 infection, (2) fear of using a health facility, (3) fear of impending scarcities of essential home commodities, (4) fear of economic crisis, and (5) fear of the unknown about the pandemic. We recommend that the government, regulatory bodies, and other stakeholders regulate the large volume of misinformation coming through social media platforms. Furthermore, much effort is needed by Ghana's Ministry of Health and Ghana Health Service to provide adequate health education on COVID-19 to promote public mental health.

Keywords: COVID-19 fear experiences, Ghana, lockdown, pandemic, social media users, media.

1. Introduction

Like most life-threatening disease outbreaks such as "a tsunami of misinformation, hate, scapegoating, and scare-mongering" by the United Nations Secretary-General, Antonio Guterres (Twitter.com, 2020). Caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), COVID-19 first started in Wuhan, China, in December 2019 (Rothan, Byrareddy, 2020). As it began to spread quickly across the globe, many countries including Ghana commenced several public health preventive measures in an attempt to fight the virus (Bamfo et al., 2020; Rothan, Byrareddy, 2020; Wong et al., 2020). The Government of Ghana instituted partial lockdown or restrictions on movement in cities with a high spread of the virus (Bamfo et al., 2020). Like most life-threatening pandemics such as the 2014 West African Ebola epidemic (Maffioli, 2020), there

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has been a spate of extreme misinformation, conspiracy theories, and fear messages about the COVID-19 pandemic on various social media platforms (Gao et al., 2020).

Before Ghana's first two imported cases of COVID-19 infection arrived from Norway and Turkey on 13th March 2020, the Government of Ghana announced several COVID-19 preparedness and response plans, as of 11th March 2020 (Ministry of Health, 2020; MyJoyOnline, 2020). On the 27th of March 2020, the President of Ghana, His Excellency Nana Akufo-Addo in a State Address on COVID-19, placed Accra, Tema, Kasoa, and Greater Kumasi (the four COVID-19 hotspot cities) under a 21-day partial-lockdown starting from 30th March 2020 (Essien, 2020). Since these cities under partial lockdown play critical roles in Ghana's socio-economic development, there were media reports of food scarcity, the privation of revenue, a surge in the prices of goods, and other essentials across the entire country (Knott, 2020). Coupled with the negative socioeconomic implications of the lockdown (Bamfo et al., 2020), some people took advantage of several media platforms to share messages that have the potential to arouse intense fear among people living in these cities.

Notwithstanding the media reports of the fears and worries of citizens in Ghana (Knott, 2020), the lived fear experiences among residents living in these particular cities under lockdown are scanty and ineptly explored by researchers. Therefore, we sought to explore the fear experiences of social media users who lived in Accra, Tema, and Greater Kumasi during the COVID-19-induced lockdown.

2. Materials and methods

We used a cross-sectional design to conduct a qualitative online study using Google Forms as a tool. This procedure is best suitable because of the existing nature of the pandemic, as the approach offers appropriate social distancing and excludes movements of researchers or participants (Gao et al., 2020; Geldsetzer, 2020). The study was carried out in Ghana and limited to people living in Accra, Tema, Kasoa, and Greater Kumasi. During the period of data collection, participants had experienced a range of seven and 21 days of city-lockdown as a result of the COVID-19 pandemic. Twenty-seven social media users, comprising 8 (29.6 %) males and 19 (70.4 %) females voluntarily participated in the study. We adopted both convenience and purposive sampling techniques to distribute the link of our online survey to participants mainly via social media platforms like Facebook and WhatsApp (See Table 1 for participants' details).

Table 1. Socio-demographic characteristics

Characteristics		n (%)	Mean (Range)
Gender	Male	8 (29.6 %)	
	Female	19 (70.4 %)	
Age			32 (20-58)
Education	Postgraduate	12 (44.4 %)	
	Undergraduate	14 (51.9 %)	
	Senior high school	1 (3.7 %)	
Location	Accra	21 (77.8 %)	
	Kumasi	4 (14.8 %)	
	Tema	2 (7.4 %)	
Employment	Accounting and finance	1 (3.7 %)	
	Business and administration	3 (11.1 %)	
	Education sector worker	6 (22.3 %)	
	Healthcare worker	7 (25.9 %)	
	Mechanical engineer	1 (3.7 %)	
	Minister of religion	1 (3.7 %)	
	Publishing	1 (3.7 %)	
	Sports administrator	1 (3.7 %)	
	Student	4 (14.8 %)	

	Writer	1 (3.7 %)	
	Unemployed	1 (3.7 %)	
No. of days in lockdown			21 (7-21)

The opening page of the Google Forms clearly stated that the survey was for Ghanaians who lived in Accra, Tema, Kasoa, and Greater Kumasi during the COVID-19 lockdown. And that, the individual must be 18 years or older to take part in the survey (as inclusion and exclusion criteria). The Institutional Review Board of the University of Cape Coast, Ghana (Ref UCCIRB/EXT/2020/10) granted the ethical clearance for the study. Additionally, the Google Forms containing the survey included a consent form which asked participants to click "yes" or "no" (to agree or disagree to take part in the survey) to fill the questionnaire. The consent form addressed the voluntary nature, confidentiality, and anonymity of the study. Besides, the project was done by observing the principles of the Declaration of Helsinki for human research (6th revision, 2008).

We developed and pretested an online survey using Google Forms, a semi-structured open-ended instrument to seek the participants' fear experiences. The online instrument consisted of two parts; Part A (demographic details) and Part B (COVID-19 lockdown experiences). Part A recorded participants' demographic information like gender, age, education, occupation, and the number of days spent under the lockdown. Additionally, Part B, comprising seven open-ended items included questions like "What are your fears regarding COVID-19 as you stay at home?", "Share some of your fears, worries, anxiety, panic, and other health issues" etc. We shared the link to the online survey via emails and social media platforms such as WhatsApp and Facebook between 21st April and 10th May 2020. Moreover, we pull down the survey at the expiration of the data collection period. This online survey approach has been used successfully and recommended during the pandemic by other researchers (Gao et al., 2020; Geldsetzer, 2020; Gupta et al., 2020).

Initially, we extracted the text responses into Microsoft Excel 2010. Subsequently, we systematically followed the 7-steps in Colaizzi's phenomenological approach where we independently reviewed the text responses to summarize and extract meaningful statements into themes and subthemes (Edward, Welch, 2011). We used several approaches to increase the trustworthiness of the study's results. Specifically, the first author (JOS) did the initial coding where themes and subthemes emerged. Later, author two (EWA) crosschecked the emerged themes and subthemes with the transcripts. Subsequently, both authors discussed and resolved discrepancies that emerged from the analysis. We achieved credibility as participants at their convenience at home, typed their experiences online regarding fear associated with COVID-19 lockdown in Ghana. Furthermore, we shared and discussed the content of the themes to resolve inconsistent and contradictory interpretations. Our themes and subthemes were also cross-checked and validated by an independent counselling psychologist. Colaizzi's phenomenological analysis has recently been used to explore the experiences of participants in different health and psychosocial contexts (Edward, Welch, 2011, Joung, 2019; Sun et al., 2020).

3. Results
This study explored the experiences of people who lived in Ghana in cities which were under COVID-19 lockdown between 21st April and 10th May 2020. Five major themes emerged from the data: fear of risk for COVID-19 infection, fear of using health facilities, fear of impending scarcity of home commodities, fear of economic crisis, and the fear of the unknown. From the results, participants sensed a primary fear of risk for COVID-19 infection during the lockdown in Accra, Tema, and Greater Kumasi Metropolitan areas. This negative emotional distress was felt at both personal and external levels. This form of fear is consistent with the experiences of people living in China during the initial period of the pandemic (Li et al., 2020). Though natural for participants to develop this kind of fear when Ghana's COVID-19 cases began to increase during the lockdown, it is certain from their responses that their fears were rather escalated from reading fear and false messages online. Thus, the insurgence of misinformation and fear messages through social media seems to have doubled their perceived risk levels and fear (Xiang et al., 2020).

Furthermore, it emerged from the findings that participants were afraid of attending a healthcare facility or seeking medical care during the COVID-19 lockdown period. As a result, some of them reported that they had developed medical care avoidance behaviour due to this perceived fear. Critically examining participants' basis for this fear, we realised that their fear centred around the fact that they are either likely to be infected with the virus when they visit these local healthcare facilities or might get quarantined as suspected COVID-19 cases. This perceived fear can have debilitating consequences on persons with life-threatening conditions. A recent study indicated that patients with acute coronary syndrome avoided medical care due to their fear of being infected (Moroni et al., 2020).

Additionally, we observed that some of the participants shared their fear regarding impending scarcities of essential home commodities like food, water, and medicine. This perceived scarcity effect has been linked with excessive panic buying behaviour (Arafat et al., 2020). Likewise, this perceived fear of scarcity was linked to the fear of the unknown as most of the participants wished they knew the day the pandemic will be over. Furthermore, the fear of perceived economic crisis seems to have increased their fear regarding impending scarcities of essential household commodities. Though the Government of Ghana has put in place several measures to safeguard the economic stability of the country, it had been forecasted by experts that the COVID-19 pandemic will have some serious socio-economic implications on the general Ghanaian public, especially among individuals with very little financial opportunities and resources (Wong et al., 2020). As a possible consequence, participants' perceived fear fuelled by social media misinformation and uncertainty could lead to future mental and physical disorders and other health problems.

4. Discussion

We explored the lived fear experiences of 27 social media users who experienced COVID-19 induced lockdown in Ghana, using phenomenological methods. They admitted that they spend between 2 and 6 hours of their day on social media. Five main themes immerged from the data, i.e., fear of risk for COVID-19 infection, fear of seeking medical care, fear of impending scarcity of essential home commodities, fear of economic crisis, and fear of the unknown. Table 2 shows a summary of the themes with their subthemes and respective exemplar quotes.

Table 2. Themes identified from the respondents' transcripts

Themes	Sub-themes	Sample quotations
1. Fear of risk for COVID-19 infection	Self	*"…fake news on some social media platforms is crazy… I'm scared of being infected"* (female, 31 years old) *"… I fear I may contract the disease…"* (Female, 29 years old)
	Others	*"People are not adhering to the safety protocols regarding the Pandemic. My fear is the disease will escalate…"* (Male, 20 years old) *"I worry about the increasing cases of COVID-19 and the rate at which people are being infected in this country …"* (Male, 43 years old) *"…afraid because my little girl can't stay indoors at all"* (Female, 32 years old)
2. Fear of seeking medical care		*"I had a dental problem but feared to go to the hospital"* (Female, 24 years old)
3. Fear of impending scarcity of essential home commodities		*"… fear of running out of food"* (Female, 24 years old)

4. Fear of economic crises	Personal	*"…money running out"* (Male, 41 years old) *"I worry about my unemployed status… I'm afraid it will hinder my chances of getting employed* if COVID-19 continues (Female, 37 years old)
	National	*"…national economic implications of COVID -19 has been my concern"* (Female, 30 years old)
5. Fear of the unknown		*"My fear is not knowing when it would end for life to return to normal"* (Female, 31 years old) *"…not knowing my COVID-19 status as the day passes"* (Female, 46 years old) *"…not knowing how long the lockdown will last"* (Female, 31 years old)

Limitations

Our sample size may not be representative of the people living in cities under lockdown although we reached data saturation. Thus, our results should be interpreted with respect to our scope. Besides, the type of qualitative design we adopted could not permit face-to-face interviews because of the restrictions on movement, as a COVID-19 prevention measure. Therefore, our study is limited to online self-report, which has some challenges of omitting some details like gestures and mannerisms in reporting. Nonetheless, our study offers an in-depth analysis of the nature of fear-experienced by persons who live in Accra, Tema, and Grater Kumasi Ghana, during the COVID-19 induced lockdown.

5. Conclusion

We used a phenomenological approach to explore the fear experiences of social media users during the COVID-19-induced 21-day lockdown in Ghana. We found that people who lived in these cities during the COVID-19 lockdown shared various forms of fear experiences. These fear experiences ranged from risk for infection, fear towards seeking medical care, impending scarcities, economic crisis, and fear of the unknown. Though Ghana's period of lockdown had ended, there is a need for public health interventions by the Ministry of Health and Ghana Health Service to address participants' fears and negative related behaviours like medical care avoidance.

6. Acknowledgements

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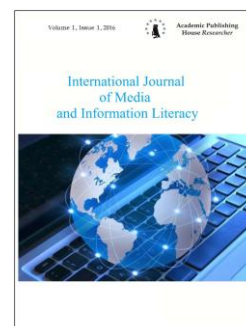
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**Protection of One's Honor, Dignity, and Business Reputation
on Social Networks: Issues and Ways to Resolve Them**

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Abstract

Over the last decade, social networks have become an indispensable part of societal life. Today, they are used not only for engaging in interpersonal communication but also for developing a personal image or business reputation, creating or promoting a brand, building professional or business relations, conducting commerce, or obtaining the latest information about what is going on around the world.

The findings from an analysis of relevant legislation, case law, and user agreements indicate the unique legal nature of social networks. Based on their analysis of social networks' key functions, the authors prove that in many areas social networks have acquired the role of mass media, as they are capable now of delivering the latest news or any other information to the user factoring in their individual tastes and information needs. Given the significant role played by social networks in informing people in today's society, coupled with their key characteristics such as horizontal dissemination of information, lack of preliminary moderation of user comments, and availability of two-way communication, compromising people's honor, dignity, and business reputation on social networks can have quite serious implications for them in various spheres of social life. With that said, it appears to be quite difficult, for now, to counter this kind of attacks, both technically and legally.

The paper provides an analysis of key issues that can arise as part of efforts to counter defamation on social networks (e.g., difficulty of establishing the identity of a respondent, difficulty of proving malice, or having to factor in the special nature of communication on social networks) and ones to develop legal solutions and ways to overcome such issues.

Keywords: social networks, honor, dignity, business reputation, defamation, protection of one's honor, dignity, and business reputation.

1. Introduction

Contemporary life can hardly be imagined without social networks, which are used today for expressing oneself, obtaining or disseminating information, or promoting various goods or services. Social networks have become a salient phenomenon that is playing nowadays a significant role in politics, economics, and mass culture. The explosive growth in the popularity of social networks is attested by statistics. Specifically, in January of 2020 the world's five most popular

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social networks reached a combined audience of 8.5 billion (Most popular, 2020). To compare, in 2008 the figure was not even 500 million (Ortiz-Ospina, 2019).

That being said, the widespread use of social networks has also come with certain risks to the government and society as a whole – namely, in terms of infringement on the rights of certain individuals. Such risks include, above all, the possibility of intrusion into a person's privacy and disruption of the activity of administrative institutions by way of uncontrolled dissemination of false information. At the juncture of such threats are cases of defamation on social networks, with the phenomenon evolving rapidly in scale, unfortunately.

Disseminating false offensive information about a person or a group of people can harm their honor, dignity, and business reputation and have a negative effect on their professional and personal contacts. Defamation can not only undermine the overall level of trust within society but also shatter respect for some of the key institutions that ensure the stable operation of the social system, such as public authorities, mass media, nongovernmental organizations, and business establishments. With that said, it is worth noting that risks that can arise in conjunction with the dissemination of fake news on social networks are of special concern, as communication on them tends to be perceived as something private and information obtained this way, accordingly, as something truthful and highly credible.

Thus, defamation on social networks has certain distinctive characteristics due to which it appears to be difficult to counter it today. This paper aims to identify some of these characteristics and bring forward a set of ways to counter defamation on social networks. The study's subject is the characteristics of defamation on social networks, and its object is developing a set of ways to counter defamation on social networks using legal tools.

2. Materials and methods

Due to the relatively recent history of virtual communication, issues of protection of honor, dignity, and business reputation on social networks have not been given sufficient attention in science, legal practice, and, certainly, law in most contemporary countries. This study's theoretical basis is a set of works analyzing the key aspects of the policies pursued by various countries and international organizations (above all, the European Union and Council of Europe) in relation to social networks (Burkell et al., 2014; Obar, Wildman, 2015; Sarikakis, Winter, 2017; Vicentea, Novob, 2014).

An analysis of the terms of service and rules of conduct of several leading social networks helped gain an insight into the nature of the private-law dimension of the operation of social networks.

To achieve the study's objective, the authors explored relevant legislation and case law in the US and the EU and case law from the European Court of Human Rights. The choice of said empirical material for the analysis was governed by a number of factors. Firstly, the world's major social networks recognize the jurisdiction of the United States – as a country where the companies that run them are mainly registered. Secondly, within the framework of the Anglo-American legal family judges have the powers to render a judgment based on "common sense" and a "general notion of fairness" when there are no direct provisions of law available. Thus, it is American courts that are building nowadays most of the case law in this area, which, due to lack of adequate legal response, is becoming the guidepost for the legal qualification and evaluation of the behavior of people on social networks. The other guidepost for countries signed up to the European Convention on Human Rights (Convention, 1950) is the practice of the European Court of Human Rights, which has been recognized in all member countries of the Council of Europe as legally mandatory for the national judicial agencies.

3. Discussion

Social networking sites are application systems that offer users functionalities for identity management and enable them to keep in touch with other users (Richter, Koch, 2008). The key functions of social networks include the following:

1) Content-oriented functions:

– Information and knowledge management: creating, detecting, receiving, managing, and exchanging opinions, knowledge, and information, e.g. wikis, social bookmarking, tagging, RSS, blogospheres, or special interest sites.

– Entertainment or experiencing virtual worlds: exchanging content for the purpose of entertainment or of experiencing virtual (game) worlds, such as YouTube, certain interactive online games, etc.

2) Relationship-oriented functions:

– Relationship management: maintaining existing and establishing new relationships (e.g. on contact platforms), linking of people with similar interests, and exchanging information, e.g. special interest sites such as Myspace for musicians.

– Identity and reputation management: (selectively) presenting aspects of one's own person, e.g. on personal blogs, podcasts, etc. (Legal Basis, 2011).

In addition, social networks are increasingly becoming an area of study as a tool for electronic learning in the context of cultivation of social skills (Gersamia, Toradze, 2017) and in terms of value-based administration of law (Zavhorodnia et al., 2019).

Possessive of features such as horizontal dissemination of information, availability of instant two-way communication, creation of information "niches" (a sort of information subspaces focused on a certain thematic or ideological area), and simplicity of communication, social networks also appear to serve as today's most efficient mass medium. This fact has been substantiated by research – when it comes both to events of a global scale and to local news associated with the close circle of contacts of a user of a social network (Myers, Hamilton, 2014).

Definitely, of interest is viewing social networks as a communication tool that can be utilized by public authorities (Tappendorf, 2013). On one hand, the economic efficiency of this way to communicate is quite high, as it enables government establishments to spend less time and money on getting necessary information to, as well as targeting it for, a certain audience. On the other hand, social networks enable the public to receive necessary information from government institutions directly, without having to visit them in person, phone them, or make inquiries with them by regular mail. For example, in 2019 Ukraine's National Agency for Ensuring the Quality of Higher Education set up on the social network Facebook a special group (1) designed to inform institutions of higher learning of the accreditation requirements and procedures for accreditation of curricula and (2) oriented toward experts in the area of accreditation selected from among higher education instructors and seekers. Communication within the setting of this group helps come up promptly with solutions to issues that arise during the process of accreditation of curricula, by reference both to the stance of the National Agency and to the experience of several thousand experts concerned with accreditation examination of various specialties and disciplines. It is clear that an online community of this kind offers great potential both for an exchange of ideas and for the study of the regulatory framework for accreditation of curricula. There also occur collisions between representatives of the institutions of higher learning and experts with a negative assessment of their activity, as well as between both of these groups and the staff of the National Agency. Collisions of this kind tend to be of quite a productive nature, as, in the end, they can lead to improvements in the quality of higher education offered by Ukrainian universities. However, as ascertained by research conducted by the authors of this work, there is also the possibility of statements of an untactful nature being made concerning both public interests (e.g., the openness of information about curricula and verification of the knowledge and competencies acquired by the seeker) and private interests (e.g., the honor, dignity, and business reputation of persons involved in the accreditation process). Consequently, issues of protection of the honor and dignity of individuals engaged in communication within the segments of social networks moderated by the authorities need to be regulated too.

It is also worth noting that in recent years professional journalists have increasingly used social networks as a source for creating news and other information materials (Umrani et al., 2019). For this reason, the quality of content offered on social networks and the credibility of information disseminated over them are key components of the personal security of any user.

Researchers have yet to arrive at a clear-cut concept of what principles the government's policy on social networks is to be built upon. Specifically, there has been discussion over whether social networks are to be considered public or personal space (Burkell et al., 2014), how the government could utilize social networks (Vicentea, Novob, 2014), whether the government can (and should) regulate the activity of users of social networks (Obar, Wildman, 2015), and what the content and limits of law on privacy on social networks are to be (Sarikakis, Winter, 2017). Without resolving these issues at a conceptual level, it will hardly be possible to ensure the proper

protection of the rights of citizens and protection from risks associated with the dissemination on social networks of false and destructive information.

4. Results

Social networks in the private-law dimension

From the standpoint of private law, social networks operate based on an adhesion agreement entered into between the user and the social network company. User agreement provisions are established and modified by the company unilaterally, of which it informs the user. With that said, normally there is the presumption of the user having familiarized themselves with and given consent to the changes.

In essence, user agreements are service provision agreements, for the company enables the user to place on the site information about themselves, exchange posts and comments, express their attitude toward something using special symbols, etc. The user, in turn, agrees not to violate the rules of the community (e.g., refrain from disseminating fake information, provide their first and last names during registration, respect the copyright of other users, or refrain from hate speech). The list of obligations may vary depending on the policy of the different social networks.

For instance, in accordance with Facebook's user agreement, this social network's mission is to give people the power to build community and bring the world closer together. The services Facebook provides are subsumed under several categories. This includes the following: (1) providing a personalized experience for the user; (2) connecting the user with people and organizations that they care about; (3) empowering the user to express themselves and communicate about what matters to them; (4) helping the user discover content, products, and services that may interest them; (5) combating harmful conduct, and protecting and supporting the community; (6) using and developing advanced technologies to provide safe and functional services for everyone; (7) researching ways to make Facebook's services better; (8) providing consistent and seamless experiences across the Facebook company products; (9) enabling global access to Facebook's services (Facebook, 2019).

With that said, the user agrees to (1) provide accurate information about themselves; (2) refrain from doing anything that is unlawful, misleading, discriminatory, or fraudulent; (3) refrain from doing anything that infringes or violates someone else's rights, including their intellectual property rights; (4) refrain from uploading viruses or malicious code, or doing anything that could disable, overburden, or impair the proper working or appearance of Facebook's products; (5) refrain from accessing or collecting data from Facebook's products using automated means without the company's prior permission (Facebook, 2019).

Facebook cannot be used if (1) the person is under 13 years old (or the minimum legal age in their country to use Facebook's products); (2) the person is a convicted sex offender; (3) Facebook has previously disabled the person's account for violations of its terms or policies; (4) the person is prohibited from receiving Facebook's products, services, or software under applicable laws (Facebook, 2019). With that said, Facebook does not engage in preliminary moderation of the user's page and does not check the user for compliance with its requirements. However, the company has made provision for the possibility of complaining about offensive or inappropriate content or suspicious user profiles. Complaints of this kind are examined by the social network's local or regional offices. Subsequently, the company decides whether to exculpate the user as they did not violate the rules of the community, ban the user temporarily (for one to three days or one month), or ban the user for good. Facebook also has a special page verification function. Primarily, this is for brands or public persons, and is designed to show that the user has confirmed their identity or brand (Facebook, 2019).

The rules of the social network Twitter are relatively more liberal. For example, it does not require that you provide your real name. To use Twitter, you must be at least 13 years old, or in the case of certain services 16 years old. User names are not moderated. Moreover, protecting your anonymity is one of Twitter's top priorities. With that said, the social network assumes no responsibility for the unreliability and offensive nature of content and lets the user know upfront that any use or reliance on any content or materials posted on Twitter or obtained by the user through Twitter is at their own risk. Twitter reserves the right to remove content that violates the user agreement, including, for example, copyright or trademark violations or other intellectual property misappropriation, impersonation, unlawful conduct, or harassment (Twitter, 2020).

Twitter may suspend or terminate your account or cease providing you with all or part of the services if it reasonably believes that (1) you have violated the terms or the Twitter rules and policies; (2) you create risk or possible legal exposure for it; (3) your account should be removed due to unlawful conduct; (4) your account should be removed due to prolonged inactivity; (5) its provision of the services to you is no longer commercially viable (Twitter, 2020).

The social network LinkedIn positions itself as a platform for establishing work contacts and presenting yourself as a professional. Pursuant to LinkedIn's user agreement, to access its services you must be the "minimum age" (16 years old) or older, have one LinkedIn account, which must be in your real name, and be not already restricted by LinkedIn from using its services (LinkedIn, 2020).

LinkedIn does not offer preliminary moderation of content and will bear no responsibility if you violate the intellectual property rights of others or post offensive content. You are not allowed to create a false identity on LinkedIn, use malicious software, disclose confidential information, and violate the intellectual property rights of others. These actions may result in unilateral termination of the agreement (LinkedIn, 2020).

Another highly popular social network – Instagram – is a product of Facebook. For this reason, its terms of use are similar to Facebook's. For its part, Instagram offers personalized opportunities to create things and communicate and promotes fostering a positive, inclusive, and safe environment. The social network promises you consistent and seamless experiences across the company products (Instagram, 2018).

To use Instagram, you must be at least 13 years old, not be prohibited from receiving any aspect of its service under applicable laws, not have previously had your account disabled for violation of law or any of its policies, not be a convicted sex offender, and not be on an applicable denied party listing (Instagram, 2018).

You are discouraged from impersonating someone you are not and providing inaccurate information over Instagram. Nevertheless, you do not have to disclose your identity on Instagram. The social network does not want you to do anything fraudulent, interfere with the intended operation of the service, collect private information, and do anything that violates someone else's rights, including intellectual property. Instagram also offers an account verification function, which mainly is intended for celebrities and brands (Instagram, 2018).

In fine, user agreements are bilateral service provision agreements. What remains a key condition of user agreements is respect for the mutual rights and obligations of social networks and users. Social networks reserve the right to determine the circle of persons to whom to provide their services and the right to terminate cooperation with users who create risks of litigation for the company and violate the rules of the community.

Social networks in the public-law dimension

In public law, social networks are treated in a completely different way, in terms of both functionality and legal status. While the foundations of the public-law dimension of social networks' operation are still being laid, the findings from an analysis of documents from international organizations and relevant case law indicate that there is an integrated understanding out there of social networks being information platforms with two-way communication.

It was back in 2003 that the Committee of Ministers of the Council of Europe adopted the Declaration on Freedom of Communication on the Internet, which set out such important principles as absence of prior state control, anonymity, freedom to provide services via the Internet, and limited liability of service providers for Internet content (Declaration, 2003). That being said, over the following 10 years, the Council of Europe's stance underwent a number of changes. Specifically, Recommendation CM/Rec(2012)4 of the Committee of Ministers to Member States on the Protection of Human Rights with Regard to Social Networking Services does not only highlight the benefits offered by social networks (e.g., social networks being human rights enablers and catalysts for democracy) but also warns of the risks associated with the use thereof. In particular, the document states that "the right to freedom of expression and information, as well as the right to private life and human dignity, may also be threatened on social networking services, which can also shelter discriminatory practices" (Recommendation, 2014).

The European Union prioritizes, above all, the protection of the personal data of users of social networks. In this regard, there have been adopted a number of documents dealing with the

protection of natural persons in relation to the processing of personal data, free movement of such data (Regulation, 2016), and protection of one's intellectual property rights (Directive, 2019).

In terms of working out policy on social networks, most nations of the world are divided into the following two camps: (1) those willing to disregard or ignore the activity of social networks and (2) those willing to finalize the rules of communication on social networks and monitor all of the content published on them. That being said, a composite version of the relationship between the state and social networks implies cooperation and co-regulation, with the government as a whole and particular members thereof communicating with citizens via social networks and perceiving the behavior of users on the Internet as real actions. Thus, users of social networks will bear legal responsibility for personal data theft, fraud, offensive statements, infringement of one's intellectual property rights, and other wrong deeds committed over the Internet.

Furthermore, social networks are viewed as one of the most significant tools for communication. Of interest in this context is the Packingham v. North Carolina case, one of the first trials to help give a legal assessment of social networks' role, which was argued during the October 2016 term of the U.S. Supreme Court. The legislation of the state of North Carolina used to prohibit registered sex offenders from accessing social networking websites that permit minor children to become members. Based on data from the Court, the state had persecuted more than 1,000 people for violating that law, including the petitioner, Lester Packingham, who was convicted for maintaining a Facebook page in violation of the statute. Having invoked the First Amendment to the US Constitution, Court held that "a fundamental principle of the First Amendment is that all persons have access to places where they can speak and listen, and then, after reflection, speak and listen once more." The Court described cyberspace as the most important forum for the exchange of ideas, with social networks offering "relatively unlimited, low-cost capacity for communication of all kinds" (Packingham v. North Carolina, 2017).

On July 11, 2017, the Knight Institute filed a lawsuit in the US District Court for the Southern District of New York against President Trump and his aides for blocking seven people from the @realDonaldTrump Twitter account based on their criticism of his presidency and policies. This lawsuit resulted in the case of Knight Institute v. Trump.

The lawsuit maintained that the @realDonaldTrump account is a "public forum" under the First Amendment, from which the government may not exclude people based simply on their views. According to the plaintiffs, President Trump established his account, with the handle @realDonaldTrump, in March of 2009. From that time and until January of 2017, when his inauguration took place, no one was in a position to dictate to the user how to run his private account. However, as soon as Donald Trump officially became President, his account turned into a public forum for First Amendment purposes. The plaintiffs insisted that the public presentation of the Account and the webpage associated with it bear all the trappings of an official, state-run account. On top of that, Trump uses the account to announce "matters related to official government business," including high-level White House and cabinet-level staff changes, as well as changes to major national policies. Finally, the plaintiffs noted that the National Archives, the government agency responsible for maintaining the government's records, had concluded the President's tweets to be official records (Knight Institute v. Trump, 2018).

The US District Court for the Southern District of New York found that the "interactive space" in the account is a public forum and that the exclusion from that space was unconstitutional viewpoint discrimination. The US Court of Appeals for the Second Circuit affirmed the district court's holding that President Trump's practice of blocking critics from his Twitter account violates the First Amendment (Knight Institute v. Trump, 2018). On August 23, 2019, the government filed a petition for rehearing en banc.

However, the public forum rule applies to not only the president and other top federal officials. For instance, in its decision in the case of Davison v. Randall, the court affirmed that public officials' social media accounts can be "public forums" under the First Amendment. The lawsuit was brought by Brian Davison, a Virginia resident who was temporarily blocked from the official Facebook page of Phyllis J. Randall, the chair of the Loudoun County Board of Supervisors. The lawsuit maintained that Randall's Facebook page is a "public forum" under the First Amendment, and that Randall may not exclude people from it based on their views. A panel of the Fourth Circuit unanimously held that the "interactive component" of a local government

official's Facebook page constituted a public forum and that the official engaged in unconstitutional viewpoint discrimination by banning Davison from that forum. The court suggested that blocking critical comments about government officials is a substantial form of discrimination from the perspective of the First Amendment. The US Court of Appeals for the Fourth Circuit affirmed the decision, with the defendant's cross-claim failing (Davison v. Randall, 2019). Thus, from the perspective of US public law, a portion of accounts on social networks (i.e., those belonging to public officials) are public forums to which access cannot be restricted.

Note that, while the pages of users who are not a public official are not viewed as a "public forum", they possess the same functionality in terms of disseminating information. Accordingly, "regular" users can independently set their desired level of accessibility of their content in making it available to other users for viewing and commenting on. The possibility of easily disseminating any information among a large group of people makes social networks look like an online mass medium. That being said, users of social networks are not bound by professional ethics requirements and often do not suspect that they can bear responsibility for what they say online.

Thus, when it comes to the pages (accounts) of users of social networks from the perspective of public law, they are to be regarded as either a "public forum", i.e. a platform for the exchange of ideas, including between the government and citizens, or a quasi-mass medium that disseminates information for an unlimited number of people.

Defamation

The term 'defamation' comes from the Middle English 'diffamacioun' ('disgrace', 'dishonor', or 'ill repute'), which is derived from the Latin 'diffamare' ('to spread abroad by ill report' or 'to make a scandal of'). While it is common in the US and certain countries of Western Europe, the concept is not very common in the legislation of most post-Soviet states (Shatiryan, 2014). These nations tend to prefer the cumbrous 'demean one's honor, dignity, and business reputation' to 'defame one'. For the most part, the lawmaker treats defamation as a tort, with a focus on protecting one's honor, dignity, and business reputation by way of court action.

The above is perfectly in line with the standards of the Council of Europe captured in Resolution No. 1577 (2007), 'Towards Decriminalisation of Defamation'. The document states that, while "freedom of expression is not unlimited", "statements or allegations which are made in the public interest, even if they prove to be inaccurate, should not be punishable provided that they were made without knowledge of their inaccuracy, without intention to cause harm, and their truthfulness was checked with proper diligence" (Resolution 1577). A similar conclusion has been reached by the United Nations Human Rights Committee, whose Article 19 ('Freedoms of Opinion and Expression') of General Comment No. 34 states that "consideration should be given to avoiding penalizing or otherwise rendering unlawful untrue statements that have been published in error but without malice" (General comment, 2011).

While different legal systems treat the structure of defamatory wrongdoing slightly differently, the common focus is on how to deal with the dissemination of false information about a person or a group of individuals and the offensive, degrading nature of such information.

For instance, in the US making truthful information (whose veracity can be proven in a court of law) public is not considered defamation. Defamation is construed as consciously injuring a person's reputation by "false and malicious statements" (Black's Law Dictionary). With that said, false information about a person can be disseminated either orally (e.g., during a public argument, a discussion between the victim and a third party, or a face-to-face or phone conversation) or in written form (e.g., via articles in mass media, messages on social networks, letters, or leaflets). In the current climate of the rapid development of digital technology and growth in the popularity of social networks, one is witnessing the second type of defamation becoming increasingly common.

The key components of judicature related to defamation include proving the falseness of the information, proving the consciousness of the falseness of the information, and establishing the size of moral damage inflicted on the petitioner. The size of the compensation the petitioner may be entitled to will depend on the degree to which the information is offensive and how wide the circle of people who have had access to it is.

In some cases, laws on defamation, often in the form of provisions on "calumny", are used to compensate for moral damage without taking account of the fact that in a democratic society a person's notions of their own honor and dignity ought to be juxtaposed with the right of others to freely express their views. The national legislation of most European nations provides parameters

for the "offensive actions and statements" of and exposes to potential legal liability a person who has insulted a public official or a judge. However, practices of this kind are not always recognized as justified. For example, in the case of Lingens v. Austria the European Court of Human Rights suggested that, while the press may not overstep its boundaries, including the protection of the reputation of others, the limits of acceptable criticism by the press are wider as regards a politician as such than as regards a private individual. In addition, the Court suggested that a careful distinction is to be made between facts and value judgments/opinions (Lingens v. Austria, 1986).

In the case of De Haes and Gijsels v. Belgium, the European Court asserted that, while the comments made by the applicants (an editor and a journalist) were, without doubt, severely critical, they, nevertheless, appeared "proportionate to the stir and indignation caused by the matters alleged in their articles." As for the applicants' polemical and even aggressive tone, it was stated that it must be remembered that Article 10 of the European Convention on Human Rights "protects not only the substance of the ideas and information expressed but also the form in which they are conveyed" (De Haes and Gijsels v. Belgium, 1997). Thus, the European Court indirectly acknowledged that Belgium's legislation on defamation is overly punitive toward people who disseminate information.

Defamation on social networks

When information that discredits one's honor, dignity, and business reputation is disseminated over the Internet and social networks, the courts and petitioners may face a number of difficulties that make it highly complicated to protect the petitioner's rights.

Firstly, there is the issue of identifying the person who disseminated false information about the petitioner, i.e. the respondent. As already mentioned above, not all social networks require that you specify your real name when registering the account. Even social networks that do have this requirement (e.g., Facebook and LinkedIn) cannot always guarantee that a certain name, last name, or photo belongs to a real person. While moderators at social networks do have to react to user complaints regarding fake accounts from other users, they rarely conduct checks of their own accord. In the event of numerous complaints about an account, moderators may ask for electronic copies of documents that can confirm the person's identity. Social networks such as Twitter and Instagram do not require that the user's display name match their real name, and even consider ensuring user anonymity to be their priority.

There can be a little more confidence about the respondent's identity in a defamation case when the account is verified (e.g., on Facebook and Twitter this is indicated by a blue tick beside the username). However, in such cases the user is still in a position to deny their personal engagement in disseminating a piece of information. For instance, there have been many cases of users claiming that their account was hacked or stolen, for which reason they could not be held responsible for defamation.

Quite often, offensive information is disseminated from an anonymous account or within an anonymous group. For example, in the case of Layshock v. Hermitage School District a high school student used his grandmother's computer to create a fake profile on the social network MySpace, using for that the name of the school's principal and a photo of the latter, which he copied from the school district's website. The vulgar parody linked the principal to drugs, alcohol, and prostitutes. Justin afforded access to the profile to other students in the District by listing them as "friends" on the MySpace website, thus allowing them to view the profile. Subsequently, a few more similar profiles of the principal were posted, each more vulgar and more offensive than Justin's. Their authors were never found. As a result, school district officials ordered disciplinary actions against the student. To challenge this, Justin's parents went to court. The court acknowledged that the District's punishment violated Justin's First Amendment rights of expression. The decision was affirmed by the court of appeals (Layshock v. Hermitage, 2010).

In investigating punishable offences, the police may try identifying you by your IP address or confiscating your hard drive or telephone, but these measures are often inaccessible to the petitioner during the litigation. What is also obvious is the fact that social networks possess more information about their users than what is provided on their page. For example, a social network knows your email address, phone number, IP address, geotagging data, and much more information that can be used for identification purposes. While this information can be requested by a pre-trial investigation authority in investigating an offence, it is almost never disclosed to private individuals.

The authors are of the view that possible solutions to this problem are to seize the means of accessing the user's profile by way of provisional remedy and to conduct a linguistic examination in order to determine who the author of the defamatory statements is. In addition, to confirm that it is the respondent's account, it may help to request information on the user's profile from the social network's administration. A significant factor that may hinder the efficient handling of cases on defamation on social networks is Section 230 of the US Communications Decency Act, which provides immunity from liability for providers and users of an interactive computer service who publish information provided by others (U.S. Code § 230). It may be argued that such immunity should not be of an absolute nature. It will be recalled that most social networks' user agreements entitle the user to complain about content that violates the rules of the social network. A person who has become the victim of defamation can make a complaint about the corresponding content to the moderator. In the event this content has not been removed although the user who posted it has been warned of a violation of the social network's terms of use, it may help to have the social network's administration joined as a co-respondent to the petition.

The second difficulty in prosecuting cases related to defamation on social networks is associated with proving the consciousness of the falseness of the information.

As already mentioned above, users of social networks who are not public officials are not bound by rigorous standards of conduct on social networks. In addition, they are immune to the rules of professional ethics, unlike journalists for instance. Thus, it is acceptable that they make value judgments, emotional statements, assumptions, etc., as long as that does not violate the required standards of conduct in a community.

Of interest in this context is the case of Gordon & Holmes v. Love. Specifically, celebrity Courtney Love, the widow of former Nirvana lead singer Kurt Cobain, accused her former attorney Rhonda Holmes of bribery. In a series of messages on Twitter, she claimed that her attorneys had been bribed and hinted at their ties to organized crime. Holmes filed a lawsuit in the Superior Court of Los Angeles County, seeking punitive damages for libel. According to the plaintiffs, Love's public comments could "cause irreparable damage" to their business, name, and reputation. The respondent's representatives argued that communication on social networks is very much like real-world communication, so users may sometimes make emotional statements. Since Love's comments did not contain any indication that she had checked the information communicated, it was not possible to apply to them the same standards as those applied to, say, what is published in the media. As a result, the court ruled in favor of Courtney Love based on the petitioner's inability to prove that the respondent had known that her statements were libelous (Gordon & Holmes v. Love, 2016).

The courts tend to assess statements a little differently when a respondent's actions may be qualified as bullying or harassment on social networks. Of interest in this context is the case of Kowalski v. Berkeley County Schools. Specifically, a senior high school student created and posted a MySpace.com webpage called 'S.A.S.H.' ("students against sluts herpes"), dedicated to ridiculing a fellow student as someone with a sexually transmitted disease. For instance, the group uploaded a picture of a female fellow student with red dots drawn on her face to simulate herpes. School administrators received a complaint from several students about this. The victim and her parents filed a harassment complaint with the school's administration. After an investigation of the site and interviews with Ms. Kowalski, the administration concluded that she had created a "hate website" which was a direct violation of the school's policy against "harassment, bullying, and intimidation." The school then punished her with a five-day suspension from school and a 90-day "social suspension" prohibiting her attendance from school events. Kowalski's parents appealed the decision in court, contending that it violated her free speech and due process rights under the First and Fourteenth Amendments. However, both the district court and the court of appeals supported the decision of the school's administration, even though the student's expression took place off campus and outside school hours. According to the district court, the school's administration was authorized to punish Kowalski because her webpage was "created for the purpose of inviting others to indulge in disruptive and hateful conduct," which caused an "in-school disruption" (Kowalski v. Berkeley, 2011).

Thus, proving the consciousness of the falseness of the information is an extremely complex process, just like proving any other component of the subjective side of a wrongdoing. The possible types of evidence include testimony from witnesses pointing to the respondent's intent to commit

the crime, the respondent's past statements and behavior, and even the Web search history on their computer if it is pertinent to the case.

Finally, the third major difficulty is associated with assessing symbols, hashtags, emoji, and other elements of communication on social networks. Communication on social media abounds with all kinds of symbols. The most common of them are emoji, hashtags, and special abbreviations. In addition, communication on social media typically involves the use of metaphors, allegories, and sarcasm. Quite often, because of this, messages are perceived in diametrically different way, which afterwards can be a problem for a court hearing a defamation case (Pelletier, 2016). Of interest in this context is the McAlpine v Bercow case. Specifically, a report broadcast on TV linked an unnamed "senior Conservative" politician to paedophilia claims. Shortly afterwards, the defendant, Sally Bercow, who herself had a high public and media profile at the time, wrote on her Twitter page 'Why is Lord McAlpine trending?', following this with an 'innocent face' emoji. After the allegations against McAlpine proved to be unfounded, the peer threatened Bercow with legal action for libel. As "innocent" as the defendant's tweet seemed on the outside, the court took account of the context.

Specifically, the court stated the following: "People who are not familiar with Twitter may not understand the words 'trending' and 'innocent face'. But users of Twitter would understand. The Twitter website has a screen with a box headed 'Trends'. It lists names of individuals and other topics. Twitter explains that this list is generated by an algorithm which 'identifies topics that are immediately popular, rather than topics that have been popular for a while or on a daily basis, to help you discover the hottest emerging topics of discussion on Twitter that matter most to you. You can choose to see Trends that are tailored for you...'" (Lord McAlpine...).

The court then noted that it is "common ground between the parties that the words 'innocent face' are to be read like a stage direction, or an emoticon (a type of symbol commonly used in a text message or e-mail). Readers are to imagine that they can see the Defendant's face as she asks the question in the tweet. The words direct the reader to imagine that the expression on her face is one of innocence, that is an expression which purports to indicate (sincerely, on the Defendant's case, but insincerely or ironically on the Claimant's case) that she does not know the answer to her question" (Lord McAlpine, 2013).

The court factored in the prevalence of sarcasm on social media and noted that the tweet meant, in its natural and ordinary defamatory meaning, that Lord McAlpine was "a paedophile who was guilty of sexually abusing boys living in care" and that in the alternative it would be found that the tweet bore an innuendo meaning to the same effect (Lord McAlpine, 2013).

Thus, the courts are faced with the objective of assessing the context in which the communication was taking place as thoroughly as possible. In addition, they must take into account the use of technical capabilities such as hashtags, emoji, or reactions that can influence the user's perception of the content. This objective appears to be the hardest to achieve in countries following the Romano-Germanic law tradition, where the judge does not enjoy as broad discretion and cannot invoke "common sense" as freely as in the US and the UK.

5. Conclusion

Social networks are systems that are used today for engaging in interpersonal communication, building relations, and disseminating information. They are also used widely nowadays for advertising purposes, selling goods and services, and creating a "personal brand". Today, increasingly more people are building their picture of the world based on social networks, with many residing in so-called "filter bubbles", niched information spaces that encompass certain information flows but are isolated from others. For this reason, defamation on social networks comes with multiple risks. The special nature of defamation on social networks makes it a lot harder to counter it compared with slander or dissemination of knowingly false information via traditional mass media. This paper has discussed issues in countering defamation on social networks such as difficulty of establishing the identity of a respondent, difficulty of proving malice, and having to take into account the various additional means of communicating on social networks (e.g., emoji and hashtags). Existing statutes and case law, both within specific countries and internationally (e.g., case law from the European Court of Human Rights), provide only certain critically significant points of departure for ensuring the protection of the rights of people who use social networks. It is without question that there is currently a need for thorough research, in terms

of both the scholarly and law-application aspects, into criteria for the legal qualification of the behavior of users of social networks in various contexts (e.g., suppression of defamation, protection of privacy, and protection of intellectual property rights).

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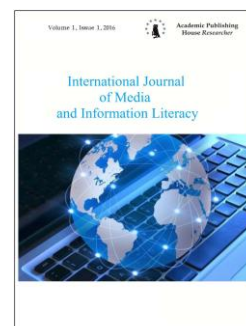
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How Fake News Spreads Online?

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Abstract

Permeating the Internet and reaching millions of users, fake news became a pervasive phenomenon on the public agenda since the US Presidential election in 2016. The term, despite its ambiguity, has been widely used in research to describe false messages created with the intent to mislead. However empirical evidence on how fake news spreads and circulates between individuals and different social groups remains limited.

For this literature review, I collected 21 academic articles published in English between 2016 and 2020 that explore the audience of fake news, patterns of its dissemination, and the role played by average users and bots in this process. The reviewed studies sometimes arrive at contradictory conclusions regarding important aspects of the focal phenomenon: for example, authors differently evaluate the scale of it and reach opposing conclusions studying the influence of bots on the fake news spread. Moreover, I observe certain contextual imbalances: many papers focus on the US political agenda and collect data from Facebook or Twitter, all but neglecting other digital platforms where disinformation can circulate.

In this paper, I argue that future research needs a systematic exploration of users' motivations to share fake news and more precise look into the role of media in misinformation dissemination. It is also important to compare the spread of fake news within different political contexts and media systems to explore how local peculiarities affect its circulation.

Keywords: fake news, misinformation, social media, information behaviour, online communication, disinformation.

1. Introduction

The concept of "*fake news*" is widely used in the media to describe fabricated news or rumors. Despite its ambiguity and negative connotation, the term was adopted by academia as well to describe the modern form of online disinformation. It has been popularized after the 2016 US Presidential elections, although the phrase itself has been known before (OED Online, 2020).

Most scientific interpretations emphasize two crucial aspects of this phenomenon that distinguish it from falsehood in general. First of all, this information is created with the intention to deceive (Allcott, Gentzkow, 2017: 213; Gelfert, 2018: 86). Secondly, it "mimics news media content in form but not in organizational process or intent" (Lazer et al., 2018: 2).

Fake news appears on the Internet in various forms. In studies conducted between 2007 and 2017, this term was conceptualized in six different ways: news satire, news parody, fabrication, manipulation, propaganda, and advertising (Tandoc, Ling, 2017). Authors of this research review emphasize that if traditional news is a product of journalism, fake news is "co-constructed by the

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audience" because its "fakeness" depends on whether the audience believes it or not (Tandoc, Ling, 2017: 148).

However, the concept of fake news has much broader interpretations among the general public than among scholars. For example, the term has been used in reference to tendentious news coverage, partisan rhetoric, or outrageous statements made by politicians (Nielsen, Graves, 2017: 1–2). According to S. Waisbord (Waisbord, 2018: 1868), the fake news phenomenon itself is "symptomatic of the collapse of the old news order and the chaos of contemporary public communication".

Some scholars, like C. Wardle and H. Derakhshan, even refrain from using the term "fake news" and argue that it has become too politicized, as it has been appropriated by politicians to describe media organizations oppositional to them (Wardle, Derakhshan, 2017: 5). To address the problem of informational misconduct online they suggest a different categorization: misinformation (spreading false information without intention to deceive), disinformation (spreading false information with an intention to deceive), and malinformation (spreading true information with an intention to deceive).

In this research review, however, I will settle on the term "fake news" because despite its controversial nature it reflects a particular socio-cultural phenomenon of the contemporary public sphere. Following the definitions mentioned above, I use the term "fake news" for *false information mimicking traditional news that is created and spread with an intention to deceive*. Thus, I do not apply it to the cases where the phrase is used only as a figure of speech or to discredit journalists or politicians.

Some scholars claim that fake news, often tied to conspiracy theories, not only misinforms people but also affects "the overall intellectual well-being of a society" (Lewandowsky et al., 2017: 355). Fake stories often accompany major political events but they spread far beyond just political context. In 2020, fake news became a significant part of the COVID-19 pandemic coverage and contributed to the rise of what the World Health Organization (WHO, 2020) labelled an "infodemic", where true messages circulated alongside false ones. According to the Reuters Institute for the Study of Journalism, fake news about coronavirus has been spread both by average users and by politicians, celebrities, and other public figures (Brennen et al., 2020).

Fake news has been explored from various perspectives. Previous studies looked at the perception of fake news (see, for example, Pennycook, Rand, 2019), its potential political effects (see, for example, Balmas, 2014), and various solutions to fight misinformation such as warning labels (see, for example, Garrett, Poulsen, 2019) or automated recognition (see, for example, Zubiaga et al., 2018; Zhang, Ghorbani, 2018). However, the extant investigations of how fake news interferes with the public sphere (including online social networks) seem to us quite fragmented and heterogeneous.

The goal of this article is to summarize the main research findings on the fake news dissemination online. Here I analyze studies that provide empirical evidence on the following aspects of fake news circulation: actors spreading this content, its audience, mechanisms and patterns of dissemination, and reasons why average social media users are willing to share fake stories. In this review, I aim not only to synthesize existing scholarship but also to highlight gaps that should be addressed by future research to gain a better understanding of the fake news phenomenon.

2. Materials and methods

Fake news dissemination is a complex process. An analytical model suggested by F. Giglietto, L. Iannelli, A. Valeriani, and L. Rossi (Giglietto et al., 2019) divides this process into three levels: micro-level (criteria for news truthfulness judgment and decision to share falsehood), meso-level (possible relations between judgments and decisions), and macro-level (the process of false news propagation). Partly in line with this model, the present paper looks at fake news spread from different angles – from a structural perspective (mechanisms and patterns of dissemination) to individual aspects (reasons why people share fake news).

This review examines 21 papers indexed in the Scopus database that had been published between 2016 and 2020. Selected studies answer one of the following research questions: (1) how fake news spreads online? (2) what are the differences in the dissemination of fake and true news? (3) who spreads fake news? (4) what factors influence users' willingness to share fake news?

On the stage of paper selection, I used search queries based on the following phrases: "fake news dissemination", "fake news spread", "fake news circulation", "fake news diffusion", "fake news sharing", "fake news propagation". Overall 984 search results were obtained. The final selection has been made after narrowing it down on each of several steps: (1) scanning through titles; (2) reading abstracts of the relevant articles; (3) looking through texts; (4) checking some of the bibliographies. The collection of selected papers mostly consists of quantitative studies however there are a few articles using qualitative and mixed-method approaches.

3. Discussion

Fake news spreads through a complex ecosystem of websites, social networks, and bots (Lazer et al., 2017: 7). Some studies made an attempt to estimate the audience reach of fake news. For example, S. Vosoughi, D. Roy, and S. Aral (Vosoughi et al., 2018) collected 4,5 million tweets posted between 2006 and 2017 and found that fake news has been spreading farther, faster, deeper, and more broadly than true information. In this study, scholars examined networks of tweets as information cascades. The number of cascades corresponded to the number of times a story or claim was independently posted by the user; the size of a cascade was equal to the number of retweets, and the depth was quantified based on the number of hops (retweets by unique user) over time. According to this study, at every depth of a cascade false rumors reached more people than true stories, which means that they were retweeted more often. True posts rarely spread among more than 1000 people, whereas top posts with fake news could easily reach 1000–10,000 users.

The observation that fake news spreads more broadly than true news is supported by another study. A. Pal and A.Y.K. Chua (Pal, Chua, 2019) traced the dissemination of 20 false and 20 true posts about the 2016 US Presidential election that made claims looking like news. Tweets were selected randomly and fact-checked. Their analysis showed that fake news had 4.57 times more tweets than true stories.

Nevertheless, other evidence suggests that even though fake news has a significant reach, it is still rather small in comparison to traditional news. Such outcomes were presented in the study conducted by H. Allcott, M. Gentzkow, and C. Yu (Allcott et al., 2019) who investigated the dissemination of nearly 10,000 fake stories on Facebook and Twitter and compared their reach to different sources, including major media outlets. While 569 fake news websites accounted for around 3–4 million retweets a month, 38 major news websites had 20 million shares. On Facebook, false content garnered 160 million engagements a month on its peak (the sum of shares, comments, and reactions) whereas news media had on average 200–250 million. Thus, several dozens of media outlets outperformed several hundreds of fake news websites. Moreover, by the end of 2016 fake news engagements on Facebook decreased by more than 50 %. Scholars believe it to be the result of the measures against misinformation introduced by the social media company. However, I could also suggest that disinformation followed the election and, therefore, dropped after its conclusion.

Scholars who studied Twitter-accounts of American voters during the election in 2016 suggest that the audience of fake news is very concentrated (Grinber et al., 2019). 80 % of fake news was seen by only 1 % of the accounts in the sample and shared by 0.1 % of them. Meanwhile, fake news dissemination was concentrated not only around users but also around sources since seven top fake news websites generated half of the overall exposures. Similar conclusions were reached by J.L. Nelson and H. Taneja (Nelson, Taneja, 2018) who compared engagement (amount of time spent on the website) of 30 news media to 24 fake news websites. Scholars presume that fake news consumers represent the small group of "heavy Internet users" (Nelson, Taneja, 2018: 3721). Real news sites had 40 times more visitors and twice as large engagement rate than fake news sites. Moreover, the research found that fake news sites collectively reached a smaller audience than more than half of the real news sites individually.

One of the distinct features of fake news is the patterns of its dissemination. In the study that was already mentioned (Pal, Chua, 2019), it was found that the volume of real news posts drastically dropped after the first 24 hours, however fake news could actively disseminate for at least four days. Other scholars investigated the circulation of 17 political rumors (13 false and 4 correct) during the year of 2012 Presidential elections (Shin et al., 2018). The study found that false rumors frequently came back to the public agenda and had multiple peaks of diffusion whereas true stories normally had just one spike. Moreover, false rumors changed over time –

for example, they reemerged with a new focus or new details. Researchers conclude that spread of misinformation may involve the same campaign tactics that are employed by some media professionals and activists seeking political power (Shin et al., 2018: 284).

Aside from the dynamics of dissemination, fake news has other specific traits such as message organization. A study of misinformation in Ukraine provides a comparison of four datasets of tweets that contained both fake and true news (Kumar et al., 2020). It found that fake news tends to contain more mentions (presumably for dissemination within the community) and hashtags (presumably for dissemination outside the community). The necessity to mention other users in posts can be related to the fact that fake news is often posted by unverified social media accounts with a small number of followers. A study of a so-called "Twitter-bomb" – an organized effort to spread misinformation about the politician Martha Coakley who ran for a US Senate seat in the 2010 Massachusetts election – revealed that misinformation mostly spread through the replies to other Twitter users (Mustafaraj, Metaxas, 2017). Scholars found that almost 25 % of users who received such tweets retweeted it. They estimated the overall volume of misinformation about the candidate to be nearly 62.000 tweets.

Researchers specify several actors that can be responsible for fake news dissemination. According to one of the classifications these are bots; criminal and terrorist organizations; governments; journalists; activist or political organizations; trolls and paid posters; "useful idiots" (people manipulated by someone else); conspiracy theorists and true believers; and individuals that somehow benefit from misinformation (Zannettou et al., 2019: 3–4). I can divide these actors into two more general groups of fake news spreaders: 1) creators, or those who initially produce false messages to achieve certain goals; 2) "retransmitters", or users who share these messages not necessarily knowing that they are false. Bots, in this case, are not independent actors, but propagation tools.

However, it is not clear whether fake news reaches most of the audience because of trusting users who share it or due to the bot activity controlled by fake news creators. A number of studies made an attempt to evaluate the role of bots in misinformation diffusion, and the obtained results are rather contradictory. A. Bovet and H.A. Makse (Bovet, Makse, 2019) who examined nearly 30 million tweets before the US elections found that automated accounts spread fake news more actively than other types of news which proves the presence of bots in this process. Scholars also determined that fake news has similar dissemination patterns to the extremely biased news (especially extremely right) but different from true and more neutral news. For instance, while top spreaders of center and left-leaning news are mostly journalists, media outlets, and public figures, fake news and extremely biased news are also often posted from unknown and unverified accounts. Despite that, according to the study, fake and extremely biased news spreaders are more active and connected to others than users in traditional media networks.

Nonetheless, previously mentioned S. Vosoughi, D. Roy, and S. Aral came to contrary results (Vosoughi et al., 2018). They found that accounts spreading false news have significantly fewer followers and subscriptions, they are less active and more rarely verified than accounts posting true news (Vosoughi et al., 2018: 4). However, as already noted, fake news still spreads faster, deeper, and more broadly. Trying to explain this paradox, scholars conclude that actual users – and not bots – are responsible for the fake news dissemination in the first place because such stories attract human attention. Bots, according to the researchers, spread false news and true news in similar amounts and with the same effect, thus they cannot explain the wide propagation of fake news.

Another model of fake news diffusion was built on the sample of tweets made during the period of 2016 US Presidential election (Shao et al., 2018). It consists of two segregated clusters – fake news and fact-checking – where nods represent Twitter accounts spreading the news and edges represent connections between two users who exchanged information (through replies, mentions, or citations). The authors found evidence of higher bot activity in the main core of the network than on the periphery. According to the study data, 75 % of the accounts spreading fake news belonged to real users, and the rest was classified as bots. However, researchers conclude that bots also influence the behavior of real users, since 25 % of the retweets in the main core were classified as humans retweeting bots.

Apart from bots, there is another technological factor that is possibly involved in the fake news diffusion: algorithms. Critics fear that suggesting relevant content to social media users, algorithms can create filter bubbles based on a person's interests (Pariser, 2011). However, some

scholars believe that in case of fake news algorithms do not produce filter bubbles per se but rather consolidate users' information behavior (Zimmer et al., 2019), and, therefore, they are not solely responsible for the disinformation diffusion. Thus, as stated by the authors, users and their cognitive patterns remain the key element in the fake news diffusion.

The decision to share news online is influenced by multiple factors, which, according to the existing research, are not limited just to the news trust. In their study based on the 20 semi-structured interviews with college students, L. Wang and S.R. Fussell (Wang, Fussell, 2020) specify three stages of news sharing. Firstly, users assess content in terms of a source, relevance, and perceived interest to others. Secondly, before posting, they think of the appropriate audience for this piece of information. Finally, after sharing, users analyze the feedback. Although, according to the authors, how and if users engage in all of these stages also depend on their level of cognitive processing, motives for sharing, and group or community norms (Wang, Fussell, 2020: 15). Thus, willingness to share news is shaped by three different factors: attitude towards the content, expected reaction, and personal traits of a user.

M. Koohikamali and A. Sidorova (Koohikamali, Sidorova, 2017) point out that risk-taking propensity and enjoyment from information influence an intention to share it. Furthermore, authors of the qualitative study based on 12 focus groups with 88 participants from Singapore found that desire to share news is related to "emotional impact, relevance, and the intention to provide advice or warning" (Duffy et al., 2019: 10). Scholars also mention that people could unintentionally share fake news because of the pressure to engage in social activity, however, it would be perceived as a somewhat risky behavior because accidental posting of fake news can cause negative feedback from other users.

Some studies explored psychological characteristics that may lead to fake news sharing. One of them analyzed data of 1022 WhatsApp users and revealed that sharing fake news is positively associated with online trust, self-disclosure, fear of missing out, and social media fatigue and negatively – with social comparison (Talwar et al., 2019). Scholars explain that users with social media fatigue are less inclined to fact-check information and may share fake news (also unintentionally) because it is an easy way to maintain social media activity. On the contrary, users who have a disposition to social comparison, according to the researchers, are more concerned about their online image and avoid sharing fake news since it can harm their reputation (Talwar et al., 2019: 79). Hence, I conclude that users' actions regarding fake news are shaped by particular norms of social media behavior and personal reasons to participate in online communication.

Trust in information is often considered as one of the major factors stimulating sharing behavior. For instance, this was demonstrated by M.A. Stefanone, A. Vollmer, and J.M. Covert (Stefanone et al., 2019) in an experiment with 207 participants. Scholars found that trust is indeed a strong predictor of the willingness to share information regardless of the political frame of the message or its truthfulness. Nevertheless, there is also research that does not confirm the dependency between trust in fake news and sharing behavior. A survey conducted among 63 college students showed, on the contrary, a negative correlation between the willingness to share fake news and the evaluation of trustworthiness (Leeder, 2019), although the sample of this study should be considered as a limitation.

Another study linked a survey with the participants' Facebook data, which gave an insight into the demographic characteristics and patterns of online behavior of the users sharing fake news (Guess et al., 2019). According to the article, 8.5 % of respondents who gave access to their social media profile shared at least one story from the fake news source during the 2016 election campaign, which authors describe as rather rare behavior. Furthermore, scholars concluded that the more content users shared, the less they were likely to spread stories from fake news domains (Guess et al., 2019: 2). This suggests that higher online activity can be associated with a better ability to distinguish between false and true news. Another finding of the study reveals that the most robust factor predicting fake news sharing is age: users over 65 posted nearly seven times as many articles from fake news domains as the youngest users. I believe that both of these outcomes show the role of media literacy in processing fake news.

Fake news sharing was also explored in experiments. For example, research revealed a positive correlation between an intention to share a false story and previous exposure to it (Effron, Raj, 2020). During four experiments and one pilot study participants (overall number – 2587) were shown fake news headlines (once or multiple times) and then were asked how likely they were

to engage in different forms of social media behavior. It is worth noting that in three of these experiments participants were explicitly told that headlines described false events and in another one, they learned about it only after fulfilling the task. Results showed that people found it less unethical to share the message that they had already seen even if they knew it was fake. Furthermore, those who had seen the headline multiple times were more likely to like it or share it than those who had seen it just once.

Among the factors influencing sharing behavior, scholars tested an effect of comments written by other users. As it was found in an experiment conducted by J. Colliander (Colliander, 2019), critical comments lowered attitudes towards the post with fake news and intentions to share it. Meanwhile, supportive comments led to higher attitudes towards the post, however an intention to share in this group was not significantly higher than in the control group which did not see any comments. This finding does not directly confirm the influence of supportive comments on sharing behavior, although it points to the general role played by other users in shaping opinions about the content.

At the same time, a survey of 2501 respondents from Singapore found that most of the participants (73 %) tend to ignore fake news and do not make comments on it (Tandoc et al., 2020). Apparently, such a tempered reaction is common for true news consumption as well. This claim can be supported by a study that is not directly related to fake news. According to O. Tenenboim and A.A. Cohen (Tenenboim, Cohen, 2015) the most clicked news items often do not intersect with the most commented ones. This means that a news article can reach a wider audience without necessarily having many comments. Hence, one can assume that in real life users would not always leave revelatory comments even to a popular fake news post.

4. Results

The reviewed articles provide several important, but sometimes controversial findings regarding the circulation of misinformation on the Internet.

Fake news can virally spread and attract a wide audience, although generally fake news websites have lower traffic rates and false stories reach fewer people on social media than true ones. Nonetheless, we should not underestimate fake news' detrimental potential based exclusively on the fact that it represents a relatively small part of overall media consumption. First of all, even a moderate number of fake news can result in "second-hand disinformation" when its audience influences the beliefs and opinions of other people (Tandoc, 2019: 4). Secondly, even a media phenomenon of a limited scale may lead to large consequences. For instance, research suggests that when making vaccination decisions parents are influenced by social media and parents' groups in particular (Brunson, 2013). As a result, the group's refusal to vaccinate can cause a disease outbreak, thus affecting significantly more people than those involved in parents' groups. In this sense, fake news can be harmful without reaching the majority of the audience. Furthermore, it should be noted that some of the studies compare fake news sites to the most popular mainstream news media such as *The New York Times, Fox News, The Washington Post*. These outlets have many more visitors not only than fake news sites but also than most of the niche or local media, which, however, does not prove that the latter does not influence the audience or particular community at all.

Fake news differs from real news in its patterns and dynamics of dissemination. For example, it can actively spread during a longer period of time (which is not common for the true stories) and come back to the agenda multiple times. Moreover, while real news is mostly diffused via verified accounts, including those of media organizations, fake news is often posted from unknown accounts. Besides, it can contain direct mentions of other users or hashtags which enable broader reach. This, in my opinion, indicates a sometimes calculated nature of fake news spread. As far as I can judge from these results, patterns of fake news circulation (such as its recurrence and targeted delivery to the users) resemble tactics employed by marketing or political propaganda that are aimed to affect people's beliefs or behavior. I argue that fake news represents a form of disguised propaganda on social media, which, as described by J. Farkas and S. Neumayer, is a "socio-technical phenomena arising at the intersection of social relations and digital architectures" (Farkas, Neumayer, 2020: 10).

One of the tools for misinformation propagation are bots. However, it is difficult to unequivocally assess their role in fake news dissemination based on the existing research. While some scholars claim that bots' activity influences the behavior of real users, others believe that it is

real users who primarily facilitate the circulation of fake news. I argue that bots are involved in fake news transmission to some extent. Nevertheless, this should not be considered a unique disinformation tool, since bots are also used by media organizations to accomplish various goals (see, for example, Lokot, Diakopoulos, 2016). In my opinion, this issue requires further investigation – in particular, the involvement of bots on different stages of fake news dissemination needs to be determined.

Nonetheless, existing research indicates that real users heavily contribute to fake news diffusion by sharing it on their social media accounts. The decision to share content is influenced by a variety of factors. Trust in information is an important factor that can directly or indirectly (for instance, through media literacy or political attitudes) influence the decision to share fake news. However, perception of accuracy is not the only aspect of sharing behavior, which also depends on personal traits, the risk-taking propensity of a user, and expected feedback from the audience.

Furthermore, according to the scholars, users can repost news not only when they believe it but also when they realize it is a lie. For example, people can share fake news if they were previously exposed to it or if they feel pressure to engage in social media activity. Media literacy seems to be another important factor affecting sharing behavior and age is one of the user characteristics it could be related to. Thus, fake news sharing (intentional or unintentional) appears to be a complex phenomenon affected not only by the believability of misinformation but also by patterns and forms of social media activity.

5. Conclusion

In this literature review, I summarized the outcomes of empirical studies that characterize the online dissemination of fake news. However, there are certain limitations in the observed literature, which could be addressed in further studies.

Firstly, existing research seems to be rather narrow in terms of themes and the context, since the majority of quantitative studies focus on the American (or English language) media agenda and many of the crucial papers specifically examine fake news spread during the 2016 US Presidential elections or other national political events. At the same time, fake news circulation obviously has its local peculiarities. For instance, differences occur even in topics that prevail in misinformation in various countries (Humprecht, 2019). Therefore, I find it necessary not only to explore how fake news disseminates in states with different media systems and political regimes but also to conduct comparative research which will provide a better understanding of the way misinformation exists in different contexts.

Secondly, as far as I can tell, the role of media in fake news dissemination remains unclear. On the one hand, media organizations can intentionally or accidentally post fake stories. Some of the studies mentioned in this paper divide information sources to reliable news media (often digital versions of legacy media such as large newspapers or TV-channels) and fake news websites (this group is often constructed based on the data from fact-checking sites like *PolitiFact*, *FactCheck* or *Snopes.com*). However, sometimes legitimately operating media are categorized as fake news websites as well – for example, one of the studies included large Russian outlets *Russia Today* and *Izvestiya* in this group (Kumar et al., 2020). This reflects the blurred line between journalists and news media on one side and fake news producers and misinformation websites on the other. Furthermore, fake news can influence the media agenda to a certain extent (Vargo et al., 2018). Some scholars stress that the number of people consuming fake news does not correspond to the number of people that are aware of this information, which circumstantially suggests that they learn about major fake stories from mainstream media (Tsfati et al., 2020).

Thirdly, unfortunately, none of the studies under review gives an overview of the whole misinformation ecosystem since most of them focus on one or two platforms (primarily *Facebook* or *Twitter* and fake news domains). Meanwhile, messengers or private chats are significant information channels as well. For instance, in Russia, they were used to share fake news about an earthquake in the Far East (Soshnikov, Boyko, 2016) or about coronavirus pandemic (Istomina et al., 2020). Although there is research investigating fake news circulation on *WhatsApp* (see, for example, Farooq, 2018) I am not aware of any large cross-platform study which would have considered fake news dissemination as a phenomenon transcending various communication channels.

Finally, regarding users' sharing behavior I propose more focused research into the perception of different news topics. For instance, scholars found a correlation between an intention

to share medical rumor and personal health anxiety (Oh, Lee, 2019). This suggests that user behavior is affected not only by general factors as news trust or media literacy but also by more specific motivations related to the content of a particular news story.

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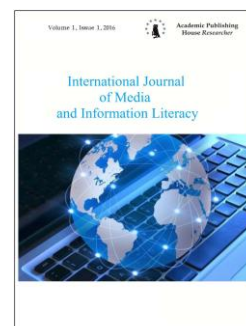
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Media Objectification and Women Clothing Buying Behavior: Social Comparison and Self-Gratification as Mediators

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Abstract

The aim of the current research is to explore the mediating role of self-gratification and social comparison in explaining the relationship between media objectification and clothing buying behavior in women. For this purpose, correlational research design was employed using 400 female participants within the age ranges of 18-29 selected by convenient sampling. The data was collected using developed questionnaire. The results from Pearson Product Moment correlation highlighted that media objectification (MO) was found to be strongly related with self-gratification (SG), social comparison (SC) and clothing buying behavior (CBB) in women. The results from Path Analysis using AMOS highlighted the mediating role of SC and SG in explaining the relationship of media objectification with women clothing buying behavior. The finding from the study highlighted that besides media objectification in predicting women clothing buying behavior, SC and SG also plays significant roles, these results fills the gaps in the literature pertaining to clothing buying behavior.

Keywords: consumer perspective; media objectification, social comparison, self-gratification, women clothing.

1. Introduction

Clothes are our personality; through clothes we communicate; demonstrate our feeling and feeling even others treats us as indicated by our clothes. That why it is appropriately said that "you are what you wear". Right decision of dress can enhance once confidence and other's acknowledgment for his or herself (Easey, 2009). We recognize individuals and their social part through the way they spruce up. Clothes additionally goes about as status, sex, fidelity, social gathering, and identity image (Bialystok et al., 2009).

Media projection of ladies' part additionally has an imperative influence in ladies purchasing conduct exceptionally clothes. Media generally display a cliché thin, reasonable, and respectful, ward and house situated picture of ladies. Clothes are the best approach to exhibit one to others; they are the image of once personality (Otnes, McGrath, 2001). Buying clothes and women go as an inseparable unit. Women thought about looking for clothes as a recreational movement, which fulfill their creative ability as well as help them to convey what needs be (Roy Dholakia, 1999).

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Women have extraordinary buying power since they have control more than 80 % of family spending. That is the reason media battles, daily papers, notices and boards are on the whole plans to pull in women and impact their buying conduct.

Objectification theory (Fredrickson, Roberts, 1997) surmises that different ladies are sexually summed up and seen as a request be respected for its utilization by others. Self-objectification happens when a lady's body or body parts are singled out and she is seen primarily as a physical test of male sexual need (Bartky, 1990). Objectification theory puts that self-objectification (SO) of females is likely going to add to enthusiastic medical problems that lopsidedly affect ladies (i.e., dietary issues, wretchedness, and sexual brokenness). Objectification theory stresses on objectification as a social structure which promotes certain behaviors, attitudes and cognitions that result in the growth of eating disorders. The core principle of objectification theory linked to this study is that learned cultural traditions of objectification normally witnessed in western society and now being witnessed in eastern society as well, encourage individuals to self-objectify. While doing this they internalize the perspective of an external observer towards their physical appearance and learn to view their bodies as an item that should be continuously examined and analyzed to ensure compliance of internalized cultural standards. This consistent body surveillance and body monitoring can result in a multitude of harmful psychological experience as individuals struggle and normally fail to reach such virtually unattainable and unrealistic cultural standards of thinness and beauty (Fredrickson, Roberts, 1997).

The social comparison theory facilitates to understand the bearing of media and socio-cultural factors on body image. It also scrutinizes the behavior of individuals in reaction to friends and additional public classes. The main argument of the concept is that individuals internalize and associate themselves with other people based on those magnitudes who are related to them (Milkie, Peltola, 1999). The evaluation is either downward or upward. In case of ascendant evaluation people equate themselves with others who are loftier to them and these results in depressed mood as well as eating and psychological disorders. In case of descendent evaluation individuals equate themselves with people who are substandard to them in various aspects, and therefore these consequences in the boost of attitude (Lin, Kulik, 2002).

Media is using sexualized clothing to project the image of a woman. Films, dramas, music videos, advertisement, newspapers, magazines even children cartoons are promoting sexualized clothing. Present study is an effort to explore the effect of these sexualized clothing on women clothing buy behavior. Women have a great buying power they control almost 80 % of household spending. Clothes are their favorite item to purchase and media plays an important role in shaping their clothing buy behavior. Pervious literature provides mix finding related to media objectification and women buying behavior, which suggest the role of other mediating factors. However current study would explore the mediating role of social comparison and self-gratification in media objectification and women buying behavior.

Media projection of women has always been unfair, it has portrayed women as a mere object to be shown off, played off and abused. It has also given a new definition of feminine beauty consisting of extreme thinness, which is impossible for average women to achieve. With the use of latest retouching and other Photoshop technologies the difference between the real and media image of feminine beauty is increased (Kilbourne, 1994). Unfortunately, not only women but men also tend to compare women against the beauty standers set by the media. Ultimately women are not only treated by others but also treat themselves as an object (Berberick, 2010). This media objectification of women leads to self-objectification, body dissatisfaction, anxiety, shame and eating disorders (Groesz et al., 2002) conducted a meta-analysis to explore the effect of momentary experience to media images of slender beauty on girls and women's body dissatisfaction. Results revealed a short but persistent influence on women body dissatisfaction.

Clothes are the major tool of media to present women as an object. In media women clothes are used as an icing on a cake which attracts other to her. In media women dressing is used to present women not only for admiration and praise but also for objectification (Swami et al., 2010). It is promoting women clothes which are skimpy, tight fitting and revealing. A content analysis of top five American women magazine suggests that more emphasis is paid on sequestered body parts through clothes such as bare stomach, low cleavage or buttock without focusing on the women as an individual (Kolbe, Albanese, 1996; Rudman, Hagiwara, 1992). Young girls from very early age try to look attractive by wearing fashionable and revealing clothes because this is what they see in

their daily life on media all around them. Even their dolls like Barbie and Bratz dressed up in revealing clothes.

Media has forced the present women to adjust to the new perfect of ladylike excellence which is ultra-thin. That ultra-thin magnificence perfect is difficult to accomplish which wound up as body disappointment, weight concerns and twisted self-perception (Silberstein et al., 1988). Fashion magazines assumed an essential part in advancing the thin perfect (Silverstein et al., 1986). In a substance investigation of 69 US women magazines it has been discovered that 94 % distributed a picture of a thin-glorified model or superstar on the cover (Malkin et al., 1999). These magazines advance slimness as wanted, as well as more deceptively, the dominating standard for women. Any preoccupation far from this thin perfect is anomalous (Kilbourne, 1994). In short, these fashion magazines with their thin-perfect pictures can stir self-perception unsettling influence in girls and women.

N. Wolf (Wolf, 1991) clarifies the definition magnificence and how it has changed. She expresses that despite being an informed and vocation arranged women, the real impediment in total fairness of women in the general public is media developed goals of excellence and women want to accomplish them paying little heed to how implausible these beliefs are. Numerous women in the United States enjoy body disappointment; they are engrossed with their physical appearance and are petrified being matured. They utilize every one of their assets in their energy to stay youthful (Wolf, 1991).

Externalizing bodies is the shrewdest type of media introduction of physical engaging quality (Fredrickson, Roberts, 1997). Sexual objectification is theorized as the parcel of a man's body, body parts, or erotic limits from his or her individual, passing on them to the circumstance of immaterial apparatuses, who is there to just please others (Bartky, 1990). Content examinations have described sexual objectification as blueprints in which the accentuation is on specific body parts, for example, an uncovered stomach, bum, cleavage, or an exposed chest, without concentrating on whatever remains of the individual (Kolbe, Albanese, 1996; Rudman, Hagiwara, 1992).

Media and fashion industry the most essential influencer in molding women dressing style. Fashion industry with the assistance of media has displayed an unlikely and unattainable picture of women on society. Media has expanded the sexual orientation separation with the utilization of provocative pictures which advance tight, uncovering, and scanty clothes (Shields, 2014).

Collection of writing has demonstrated that there is irregularity of results about media introduction to body shape goals (e.g., thin women) which is identified with weight concerns (e.g., Posavac et al., 1998), body disappointment (e.g., Harrison, Cantor, 1997), dietary problems (e.g., Stice et al., 1994) and sexually uncovering dress (Edmonds, Cahoon 1986). This irregularity of pervious research part in this has led specialists to search for different variables that play their hotel this respect. Social comparison is one such factor. For instance, much the same as body disappointment relates to the penchant to contrast one's body with others' bodies (Stormer, Thompson, 1996).

Social comparison (SC) with other individuals who are common on essential estimations (upward evaluations) are as frequently as possible accompanying with surges in energetic wretchedness and drops in self– respect (e.g., Major et al., 1991). Given that the mind larger piece of ladies is heavier than the to an awesome degree thin social flawless, SC with models should have dismal outcomes for their own body respect. According to this standpoint, trial introduction thinks about offer as a circuitous show of the effect of SC upward SC with the slim picture's needs happened for negative self-discernment effects to happen.

A couple of examinations which used sweeping or average–measure models, and slim models, demonstrate that the consequence of SC may make sure if models are not slim. For instance, L.M. Irving (Irving, 1990) found higher body approval after ladies had perceived average– and large models (diverged from ladies in the slim model and control conditions). Thusly, if ladies differentiate themselves and models whose body gauge is close ordinary—and in this way achievable for most—it is probable that they may have a lessening in uneasiness involvement. In case SC expect a section in ladies' retorts to media pictures, by then solitary differentiations in SC acquaintance should with influence media impacts.

Correlational examinations that measure the association between body satisfaction what's more, particular variances of the slant to think about one's self with others dependably revealed that bigger measures of look evaluation are connected with more noticeable frustration (Jones,

2001). The central assessment estimation in above mentioned examinations inclines to be physical look, that is a quality of a truly expansive degree. The create of slim– culminate mask, researchers projected first referee, additionally derives, and includes SC, yet at an impressively additional specific degree. Things, for instance, "Photographs of slim ladies impact us to desire I were slim" join SC by suggestion, in any occasion developmentally, as in young ladies need to see that they are not as slim as models earlier they can camouflage the thin great. Regardless, the evaluations associated with the mask portion are precise to body size and slimness. Following are the objectives and hypotheses of the study.

- To investigate the relationship between media objectification, Social comparison and self-gratification with women clothing buying behavior.
- To explore the mediating role of social comparison and self-gratification in the relationship between media objectification and women clothing buying behavior.

H1: Media objectification, Social comparison and self-gratification are positively correlated with women clothing buying behavior.

H2: Social Comparison will mediate the relationship of media objectification with women clothing buying behavior.

H3: Self-gratification will mediate the relationship of media objectification with women clothing buying behavior.
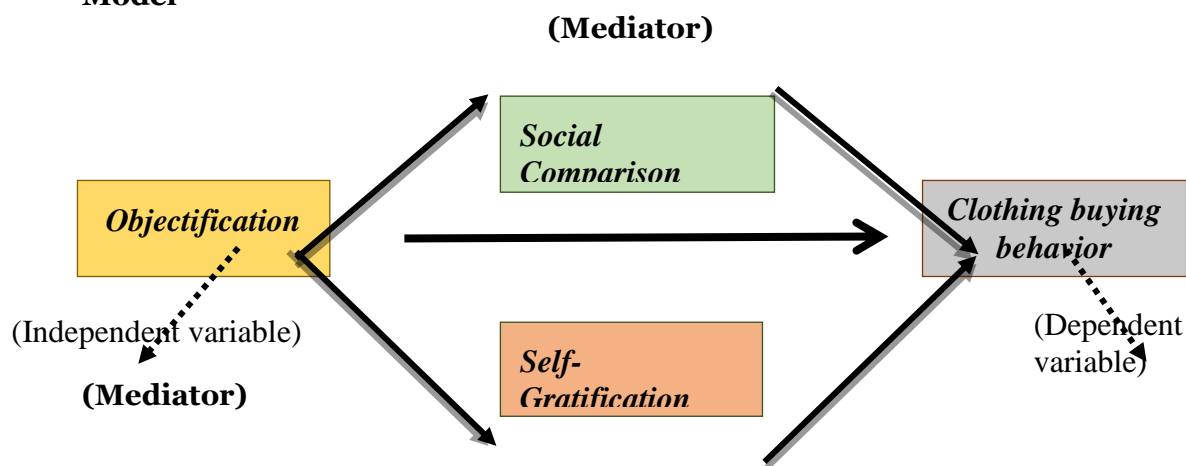
Model

Fig. 1. Showing the mediating model for women clothing buying behavior

2. Materials and methods

Initially 460 females within the age range of 18-29 (M=22.01; SD=2.11) were contacted out of which 400 agrees to participate in the study and they completely responded to the questionnaire. In the final 400 sample 48 % belongs to 18-20, 38 % belongs to 21-23; 11 % belongs to 24-26 age range while 3 % belongs to 27-29 years of ages. Moreover, the participants were also inquired about the media exposure and their percentages were as follows; 4 % very low exposure; 12 % low exposure; 57 % moderate; 22 % high exposure and 6 % extremely high exposure, respectively.

Furthermore, owing to the socioeconomic status they were belonging to; 52 % belongs to middle class; 40 % belongs to upper middle class while 8 % belongs to upper class stratification of the population that indicted that the sample is of homogenous population. While, as their current year in the university the descriptive characteristics of the sample indicated that 25 % of the sample was of freshman, 18 % were of sophomore, 15% were juniors while 43 % were seniors.

The self-administered questionnaire as adapted from the previous studies (Gibbons, Buunk, 1999; Johnson et al., 2017; Mortimer et al., 2015; Sontag, Lee, 2004). The questionnaire was divided into four sections each dedicated to the separate variable assessment i.e media objectification; clothing buying behavior, self-gratification and social comparison were assessed using 18, 17, 10 and 11 items, respectively. The participants had to indicate the degree of consensus with the statement using 5-point rating scale starting from 1 = "never or almost never true of me" while 5 =usually of me. Higher scores were indicative of greater endorsement of the study variable.

After getting approval from the Board of studies and ethical committee the researcher assembles the assessment measures by attaching the consent form along with it. The purpose of the signed consent form was to ensure to the participants that their provided information will only be used for the research purpose and their anonymity were maintained, moreover they were free to withdraw at any time. Overall participants took 15-20 minutes to complete the survey and an overall 87 % response rate was collected from the study participants.

3. Discussion

This study has explored the relationship between media objectification and clothing buying behavior. In addition to this, role of two mediating variables social comparison and self-gratification was also measured. The results show that there is a positive relationship exist between media objectification, clothing buying behavior, social comparison, and self-gratification. Moreover, social comparison and self-gratification are significant mediators between the relationship of media objectification and clothing buying behavior.

This study advances the existing knowledge that how media objectification of female creates an interest in shopping among the female viewers. Those individuals who pay attention to media objectification are more likely to develop clothing buying behavior. These results are in line with previous studies (Boursier et al., 2020; Duan, Dholakia, 2018; Strubel et al., 2018; Salomon, Brown, 2019). Media objectification of clothes and women body leads the viewers towards clothing buying behavior. Traditional and social media has forced the sexually soaked introduction of women with tight fitting uncovering garments and exposed body part that give another definition to womanliness (Blake et al., 2018; Kunst et al., 2019; Marfell, 2019; Mikorski, Szymanski, 2017; Toffoletti, Thorpe, 2018). These projections incite women to contrast themselves and these projections alongside the comparison against other women of society on the grounds that these goals give an unmistakable message to every one of the women out there that to be appealing they need to take after that sexualized picture. So, to be alluring and to meet the excellence measures set by the media women enjoy purchasing garments that are in line of media projections.

As proposed that media objectification is positive related with social comparison. This study results show that higher perception of media objectification leads the female viewers towards social comparison. Previous studies have also found the similar results (Chae, 2019; Hanna et al., 2017; Tiggemann, Anderberg, 2019). Body-uncovering apparel is the standard for an entire female look, and all women are relied upon to want and comply with that pattern. Hence women have turned into the doll in the hands of these tremendous mammoths who would prefer not to change that amusement, yet tragically in the meantime it is not workable for women to stay away from that idea in view of included weight of social comparison. In our present social setup women need energy to take their own choices, they are educated from the early age that their primary resource is their look (Alleva et al., 2019; Fredrickson, Roberts, 1997; Kerr, Gahm, 2018; Muehlenkamp, Saris-Baglama, 2002) so women have almost no flexibility however to take after the on-going models of magnificence to safe watches their assets.

We have also proposed that media objectification creates a desire and an individual's tries to fulfil that desire. Media objectify the females through their look, body, and dress. They gratify themselves by adopting those things. This relates with the uses and gratification theory. Media objectification creates a desire of self-gratification which ultimately leads toward achieving those desire by purchasing the clothes. These results are supported by existing studies (McNeill, McKay, 2016; Stuart, Kurek, 2019; Veer, Golf-Papez, 2018).

Since ladies value that they are perceived and valued by others fundamentally as their sexualized bodies and look rather than as their inside characters, it looks great that changed will pick this kind of a look basically reviewing a complete objective to like themselves. For this study data is collected from the university students, which could be a segment of the general population but cannot represent the general women of Pakistan. Correlational design is use in present study which too simple and cannot handle the confounding variable playing their part.

This research lacks more general study of people and is focused on university female students only. Researchers, doing research on the similar topic should give a more general study with women from different segment of Pakistani women and not just from a sample of a specific place. Longitudinal research design or experiment could be used to establish causal relationship or observe the long-term effect of media exposure on clothing buying behavior. Current research

would fill in the gap of pervious research where buying behavior is mostly studied with reference to media objectification. Present research explains the role of social comparison and self-gratification in buying behavior. It would help manufacturer to understand the importance of social comparison and self-gratification in women clothing buying behavior. It would also provide insight to choose clothing according to their personality and need rather than social comparison.

4. Results

This section presents the findings of the current study that are evaluated using different analysis with the help of SPSS 21 and AMOS. Initially, the data is screened for any missing data and extreme cases. Then the descriptive statistics for the demographic characteristics and study variables are computed. Then the reliability analysis is computed so to evaluate the reliability coefficient of the assessment measure used in the current study for data collection. Then hypotheses testing is done using inferential statistics, Pearson Product moment correlation is computed to explore the relationship between, MO, SC, SG and CBB, while the direct effect and mediating role of SC and SG has been computed using Structural Equation Modeling (SEM) path analysis through AMOS.

In order to access the mediating role of Social comparison and self- gratification in the relationship between media objectification and clothing buying behavior, path analysis using Structure Equation Modeling (SEM) with the help of AMOS was carried out The results are given in table below. In all path analysis, bias-corrected bootstrap 90% CI for the standardized effects was used to determine the significance of direct and indirect effects using 5000 bootstrap samples for all SEM analysis.

Table 1. Goodness of Fit Indices for Path Analysis among Women (N=300).

Model	χ²	P	df	CFI	NFI	RMSEA (90 % CI)
Initial	14.03	.01	4	.82	.84	.07
Final	.76	.65	1	.90	.92	.04

Note: Initial= with all the added parameters of the study, Final= with errors (e2, e3, e4) correlated, CFI=Comparative Fit Index, NFI= Normed Fit Index, RMESEA= Root Mean Square Error of Approximation, *CI=Confidence Interval*

The overall model in the table above indicated that the current meditational model is significant as indicated by the non-significant value of the Chi-square (χ^2 = .76, p=.65) and <.09
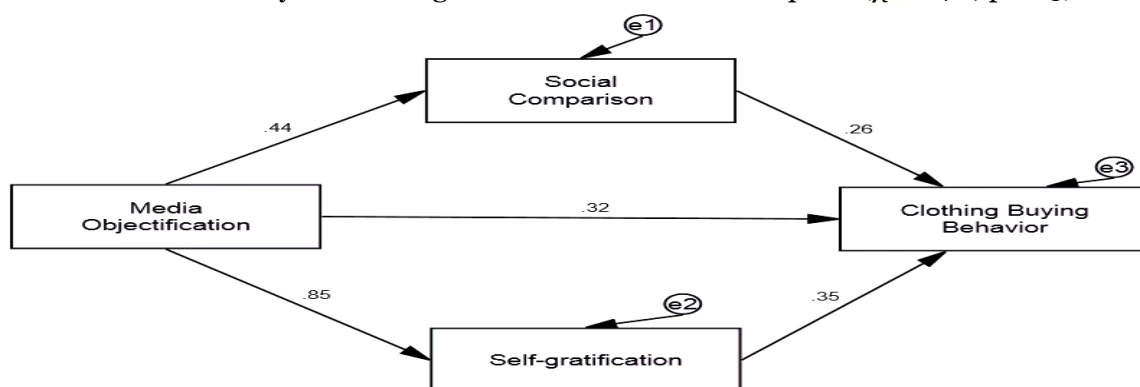

Fig. 2. Demonstrates the last model with all the significant paths

ranges of fit indices (CFI, NFI, RMSEA and chi-square) and the below figure 2 showing the overall direct and indirect paths of the tested model.

The model fit had shown a factual fit organized model with proportion of chi-square χ^2/df = .29 (≤ 3), (Kline, 2011). At that point, the ways were dissected through direct and indirect effects.

Table 2. Summary for Paths estimates and Decisions

Paths (direct effects)	Estimates	Decision
MO➔CBB	.318***	Supported
MO➔SC	.442***	Supported
MO➔SG	.849***	Supported
SC➔CBB	.263***	Supported
SG ➔CBB	.348***	Supported
Path (indirect effects)		
MO ➔ SC ➔ CBB	.114**	Mediation
MO ➔ SG ➔ CBB	.298**	Mediation

Note: Media Objectification (MO); Social comparison (SC); Self-gratification (SG); Clothing buying behavior (CBB); *p<.05*; **p<.01; ***p<.001*

The table indicated the presence of five significant direct paths with the most significant being the effect of Media Objectification (MO) on Self-gratification (β=.85, p<.001). Thus, H1(a), H1(b), H1(c), and H1(d) were supported by data. While on the other hand, the indirect effect of SC and SG was also significant that reveals the evidence of mediating role of Social Comparison (SC) and Self-gratification (SG) in the relationship between media objectification (MO) and Clothing Buying Behavior (CBB) of women. Thus, H2 and H3 were also accepted.

5. Conclusion
Present study has presented a model that explains the women buying behavior. This model explains media objectification and women clothing buying behavior with reference to social comparison and self-gratification as mediators. Current research would fill in the gap of pervious research where buying behavior is mostly studied with reference to media objectification. Present research explains the role of social comparison and self-gratification in buying behavior. It would help manufacturer to understand the importance of social comparison and self-gratification in women clothing buying behavior. It would also provide insight to women to choose clothing according to their personality and need rather than social comparison.

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