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Evaluation of UNN Students Awareness, Knowledge and Perception of Fake News Detection Algorithms in Detecting Online Fake News.

Kelly, Ajonina Mbong
Okpoko, Chinwe

Department of Mass Communication,
Faculty of Arts, University of Nigeria, Nsukka, Enugu State.
E-mail: ***kelly.mbong.pg95193@unn.edu.ng***

Abstract

This study sought to assess students' awareness, knowledge and perception of fake news detection algorithm in detecting fake news online fake news. The objectives of the study were to examine the Awareness, knowledge and perception of the students on fake news detection algorithm in detecting fake news online. The study adopted a quantitative research through survey technique. Using Chochran sampling size determinant, a sample size of 384 was drawn from the population of 36, 000 undergraduate students of University of Nigeria using a multi stage technique sampling technique. Questionnaire was used to elicit response from the students. The study found out that students are aware and knowledgeable about fake news detection algorithm in detecting fake news online. And their perception is positive and favourable. Among others, the study recommends that audience should cultivate and maintain the habit of factchecking news stories online to avoid being misinformed by the eggs of impunity of online spaces.

Keywords: ***fake news, misinformation, online space, perception, students***

Introduction

The field of technology has had a profound impact on how individuals engage in interpersonal and professional communication. It has facilitated swifter, simpler, and more effective means of interaction through various platforms and media, including but not limited to email, social media, video conferencing, and chatbots. The emergence of technology has played a critical role in enhancing social engagement. Computers have empowered us to amass ever-increasing volumes of information. Mobile phones have facilitated a shift from location-based communication to person-to-person interaction (Campbell & Park, 2008). Smartphones have enabled us to seamlessly integrate our technology utilization and social communication throughout our daily lives (Dimmick et al., 2011). The internet has allowed us to transcend the boundaries of our immediate networks (Rainie & Wellman, 2012). Social media has significantly augmented the quantity and diversity of individuals with whom users interact daily (Hampton et al., 2011). The advent of social media has significantly transformed the course and manner in which human communication is conducted, altering its trajectory and narration. Moreover, it has seamlessly integrated itself as an extension of our offline activities,

seamlessly merging the two spheres of our lives. This seamless integration has consequently paved the way for individuals from all walks of life to effortlessly share and disseminate any form of content online, thereby democratizing the process and providing an open platform for expression. Social media has become increasingly trendier for news utilization because of its low cost and swiftness. Consequently, this has inadvertently given rise to an overwhelming influx of information, leading to misinformation and fake news proliferation.

Fake News has a significant influence on both society and the general population, leading to not only a distortion in people's understanding but also a failure to uphold the authentic news system built upon the principles of truth and actuality (McEwan, 2019). Fake news refers to information that is clearly and provably fabricated and has been presented and circulated in a manner that gives the impression of being genuine news. Fake news is unreliable information, which encompasses falsehoods, urban legends, covert plots, fraudulent stories, as well as misleading or incorrect material that is consciously or unconsciously spread on social media channels, (Omoera &Uwalaka, 2023). Internet platforms including social media offer an avenue for individuals who are not professional journalists to access a large audience. This brought about the emergence of citizen journalism and it has disrupted the connection between news and journalists, as non-journalists have started participating in journalistic practices to create news content (Robinson & DeShano, 2011). The spread of fake news on social media platforms has become a significant concern for society. The proliferation of unverified news on social media has been increasing exponentially, leading to a loss of trust among individuals who often accept forwarded content without questioning its authenticity. False news stories are intentionally fabricated to cause confusion and skepticism, making it difficult for people to differentiate between facts and falsehoods (Moin et al., 2020).The growing prevalence of fake news on social media has raised concerns about the reliability, quality, and verification of information (Femi et al., 2022). The advent of new technology and social media platforms has made it easier for fake news to spread rapidly and reach a wider audience. People often share news stories without verifying the source or the accuracy of the information. According to Harsh et al. (2020), the concept of fake news is contradictory because news that cannot be verified cannot be considered genuine. These deliberate efforts to spread fake news are aimed at deceiving and manipulating individuals. Misinformation is a significant threat to society due to its strategic planning, ample resources, and the support of technological advancements.

The consequences of fake news on society are severe. It can lead to a loss of trust in institutions, create social unrest, and even influence political outcomes. Therefore, it is crucial to recognize

and combat fake news by promoting media literacy, fact-checking, and responsible journalism. The dissemination of false information through social media is a significant issue that requires immediate action. Platforms like Facebook, WhatsApp, Twitter, and Instagram must take decisive steps to curb the spread of fake news, which is impacting both adults and children. The extensive availability of mobile devices and accessible Wi-Fi has only worsened the situation. Omoera and Uwalaka (2023) have shown that fake news is deliberately spread to disrupt society, provoke religious conflicts, or advance political agendas against perceived rivals. The role of social media in politics has sparked a fascination, prompting heightened attention on how these platforms affect political matters. Facebook, Twitter, and Instagram have enabled the widespread sharing of information and news, leading to an increased rate of fake news (Vosoughi et al., 2018; Omoera & Uwalaka, 2023). It is essential to recognize the gravity of this problem and take prompt and effective action to prevent further damage to society.

As the popularity of social media, news blogs, and online newspapers has grown, it has become increasingly difficult to distinguish between reliable and unreliable news sources. This problem is particularly prevalent in Nigerian media, where fake news and rumors circulate without proper verification processes, especially among younger generations (Omoera & Ogoke, 2021; Omoera & Uwalaka, 2023). Consequently, there is a growing need for computational tools that can provide valuable information about the trustworthiness of online content. Efforts to combat the spread of fake news on social media have mainly focused on technological solutions, such as algorithmic content moderation (Silveira, 2020; Paor & Heravi, 2020).

Statement of the Problem

The rapid expansion and widespread dissemination of false and misleading information on various social media platforms represents a significant and ever-increasing danger to the integrity and trustworthiness of the information being disseminated and to the reliability of public discussions and debates (Olan et al., 2022; Khan & Akhunzada, 2021). The presence of fake news not only undermines the confidence of individuals in the sources of news but also possesses the potential to exert influence on public opinion, disrupt the functioning of democratic processes, and, in certain instances, contribute to tangible harm in the real world (Talwar et al., 2020). Social media users, who are frequently exposed to an overwhelming amount of information, encounter unique challenges in distinguishing between reliable sources and deceptive content. This predicament is further compounded by a variety of cognitive

biases, the rapid dissemination of information, and the absence of effective mechanisms for gatekeeping on these platforms. Additionally, users often distribute content without verifying its accuracy, inadvertently serving as conduits for the propagation of fake news (Lopez-Marcos & Vicente-Fernandez, 2021). Endeavors aimed at mitigating the widespread dissemination of fake news on social media have predominantly concentrated on technological solutions, including the implementation of algorithmic content moderation. Despite the introduction of algorithms designed to identify and detect fake news within social media, the presence of such false information continues to persist on these platforms. Consequently, the objective of this research study is to assess the level of awareness, knowledge, and perception among students of UNN concerning the functionality and effectiveness of fake news detection algorithms in detecting and identifying instances of online fake news.

Objectives of the Study

The main objective of the study is to investigate the level of awareness, knowledge, and perception of Fake news detection Algorithms in detecting online fake news among UNN students. Specific objectives include:

1. To examine students' awareness and knowledge of fake news algorithm in detecting fake news online.
2. To identify the students' perception of fake news algorithm in detecting fake news online.

THEORETICAL REVIEW

Technological Determinism Theory

Marshal McLuhan, a renowned scholar, was the mastermind behind the development of the groundbreaking concept of Technological Determinism, also referred to as Media Ecology, in 1964. The theory of technological determinism, a reductionist perspective, asserts that an innate desire for efficiency propels a society's technological progress, inevitably molding the trajectory of its social framework and cultural principles. The central objective of this theory is to illustrate the significant role that technological advancements, encompassing media or technology in a broader sense, assume in propelling historical occurrences and steering social metamorphoses. In light of the ubiquity of technology, it becomes impracticable to escape the swiftness of the globalization process. Consequently, technological progress and ingenuity

emerge as the principal propelling agents behind alterations in various spheres of societal, economic, or political nature. Technological determinism postulates that technology serves as the fundamental underpinning for all human endeavors, acting as the principal governing force within society (Merritt Roe, 1994). The ramifications of this phenomenon on individuals' cognitive processes and social connections can be succinctly encapsulated in a concise and logical three-word declaration (Williams, 1990). The incorporation and assimilation of technology into the fabric of everyday life are subject to the influence exerted by the ever-changing nature of technology itself. Consequently, this influence in turn shapes how individuals live and interact within the societal framework. Ultimately, the impact of technology on relationships and lifestyles plays a pivotal role in shaping the trajectory of societal development. To exemplify this, the advent of the wheel can be viewed as an extension of the human foot, revolutionizing mobility and enabling humans to traverse greater distances and transport heavier burdens (Wogu, 2015). According to Dusek (2006); Hallstorm (2022), the progress and evolution of technology yield profound effects on the structural composition of society, precipitating transformations across various realms including institutions, art, and religion. Accordingly, following the tenets of technological determinism, an inevitable and inextricable connection exists between technological advancement and social interactions, whereby any alterations occurring within one domain will inevitably reverberate throughout the other as a result of normalization. After the introduction of technology into society, there is a definite expectation of further advancements in said technology. This perspective posits that the technology itself, or rather its inherent characteristics, possesses the capacity to instigate changes. As a result, the mere creation of technology necessitates the subsequent requirement of its adoption and usage. Furthermore, it is important to recognize that the social context in which technology is introduced plays a significant role in influencing the acceptance and utilization of said technology. In turn, the social context itself plays a pivotal role in shaping the impact that technology has on society as a whole (Smith & Marx, 1998). Marshall McLuhan's theory, famously known as "the medium is the message," along with the concepts put forth by his mentor Harold Adams Innis, can be seen as yet another manifestation of the overarching concept of technological determinism within the realm of media theory. McLuhan posits that there exists a strong correlation between the evolution of communication technology and the development of language. In his view, media itself wields a more profound influence and serves as a more transparent and discernible factor when compared to the broader notion of language. McLuhan further argues that our employment of specific media platforms may

yield indirect consequences upon us as individuals; however, the most crucial aspect lies in the socio-cultural milieu within which these mediums are employed.

In the contemporary era marked by the prevalence of digitalization, the utilization of the Technological Determinism theory is primarily focused on the realm of social media, encompassing its content and the consequential impact it exerts on human social, economic, and political behaviors. The comprehensive integration of social media into individuals' daily lives has facilitated their active participation in social interactions, encompassing both familiar and unfamiliar individuals (Boyd, Ellison 2007; Lenhart, Madden 2007; Jan et al., 2020). McLuhan (1964) has aptly classified human societies into distinct epochs, namely the tribal age, literate age, print age, and electronic age. The advancement of communication technologies has played a pivotal role in the modernization of these societies, propelling them forward to the subsequent stage of development. The transition from the tribal age to the literate age was subsequently followed by the transformation into the print age and ultimately culminated in the era of electronic communications. Consequently, the lifestyles of individuals in each respective epoch underwent profound revolutionary changes. Finnemann (2002); Jan et al. (2020) confidently assert that social media does not supplant traditional mass media, but rather seamlessly incorporates various forms of media, including electronic text, telephone, radio, and television. This harmonious integration facilitates individuals' access to electronic versions of newspapers, allows for cost-effective phone calls, ensures effortless access to global radio channels, and provides an extensive selection of television channels to choose from. Contrary to the limitations imposed by radio and television, where users are confined to consuming the content provided by media management, social media technology empowers information to flow horizontally, with active users positioned at the forefront. Within the realm of social media systems, information is shared amongst consumers, thereby endowing social media users with the autonomy to select the nature and timing of their consumption, and even enabling the sharing of content with fellow users (Abdulahi et al. 2014; Jan, 2020).

In addition, individuals who engage with social media platforms can generate and distribute their content to a wide audience. This newfound freedom to create and share content of their choosing has resulted in the emergence of false information and deceptive news stories. The prevalence of fake news in the digital age has prompted scholars and researchers to examine its impact on public perception and societal trust. Numerous studies have highlighted the challenges posed by the rapid dissemination of inaccurate information across online platforms. As the landscape of fake news continues to evolve, innovative and novel strategies are required

to combat this issue, leading to the development and implementation of algorithms designed to identify and flag fake news stories. Given the importance of understanding the origins and consequences of fake news, it becomes necessary to evaluate the effectiveness of these technological measures (Wardle & Derakhshan, 2017; Pennycook & Rand, 2018). The level of digital literacy skills possessed by students at the University of Nigeria, Nsukka (UNN) plays a pivotal role in determining the reliability and credibility of information encountered in the digital realm. An exploration of existing literature on digital literacy reveals educational approaches that empower individuals to critically engage with digital content, aligning with the broader aims of Technological Determinism (Buckingham, 2007); Hobbs, 2010). The development of algorithms specifically designed to detect fake news introduces the concept of algorithmic decision-making into the realm of information verification. This alteration in cognitive processes gives rise to apprehensions regarding the impact of algorithms on the consciousness and understanding of individuals. An indispensable aspect of comprehending how UNN students perceive and place confidence in the results generated by such algorithms necessitates a thorough examination of the existing body of research on algorithmic bias, transparency, and user awareness (Diakopoulos, 2016; Mittelstadt et al., 2016).

Research Methodology

This study adopts a quantitative research method of survey design. According to Baran and Davis (2011), survey research helps to balance the diverse interests and opinions among a set of respondents. Since this is a social research, a survey becomes necessary in order to give opportunity for divergent views among university of Nigeria students. The population of this study includes the entirety of undergraduate students of University of Nigeria, Nsukka. The population of University of Nigeria, undergraduate Students is *36*,000 according to data available on the school website. From this population, the sample size was drawn. A sample size is a part of the population chosen for a survey. It means choosing a part of the population to study from the entire population. Maama (2010) defines population as the process of selecting a sample for investigation. Therefore, to determine the sample size for this study, the researcher used the Cochran sample size formula. The sample size of the study was 384. The complexity of studying the entire population demands that a researcher must adopt sampling as yardstick for measuring all the countable elements under study. Ojo (2017) states that the purpose of sampling is to provide a realistic basis upon which generalization about the population may be drawn. The multi-stage sampling technique; comprising of stratified sampling and purposive sampling techniques was used to select the sample size of this study.

The researcher carried out this multistage sampling through the following step-by-step stages. On the first stage, the researcher adopts a stratified sampling technique to divide the school into homogenous sub-groups consisting of different faculties. In other words, the researcher divides the entirety of University of Nigeria undergraduate students into 16 different faculties available in the school. On the second stage, Purposive sampling technique was adopted to select respondents who are avid news consumers on social media. This was done by asking respondents to rank their level of news consumption on social media in the range of 1-100. Those who ranked 60 and above were allowed to partake in the study. A structured questionnaire was designed and was the main instrument for data collection. The questionnaire consisted of two sections, section A and Section B. Section A comprises questions relating to the bio data of the respondents such as age range, sex, and occupation among others, while Section B consisted of item statements which were derived from the research questions. The questionnaire contained a Likert scale model of five options, designed according to the objections.

Data were collected using the primary method of data collection. The researcher of this study, however, retrieved the questionnaire copies administered to the respondents through direct face-to-face contact with respondents. To establish the validity, a copy of the questionnaire was presented to a professor in the Department of Mass Communication, University of Nigeria, for vetting. His recommendations were incorporated into the final distributed copy. To test the reliability of the study, a pilot study of 38 copies of questionnaires was carried out to evaluate the internal consistency of the instrument and this study took place among the students of Kogi State University which is outside the study area. A total of thirty-eight (38) respondents made up of 10% of the total sample size were involved in responding to the instrument due to their awareness and knowledge of fake news detection algorithm. The data collected were analysed using the Spearman Ranking and gave a correlation of 0.9 which is strong and reliable. Data collected were analyzed manually through simple frequency tables and percentages for the demographic data on the research instrument and the Likert scale analysis was carried out using mean and standard deviation.

Data Analysis and Discussion

Data Presentation

The data presentation was based on the 376 recovered copies of questionnaire from the 384 copies distributed.

Demographic Data of respondent

Table 1: Sex of Respondent

Variables	Frequency	Percentage (%)
Male	164	44
Female	212	56
Total	376	100

Table 1 above represent the sex of respondents. The table indicates that female respondents are more than the male respondents. the female students have a percentage of 56% indicating that female respondents are 10% higher than the male respondents. it however implies that 212 copies of questionnaire were administered to female respondents while male respondents were given 164 copies of questionnaire.

Table 2. Age Distribution

Variables	Frequency	Percentage (%)
16- 24	7	3
25-34	276	73
35-44	92	24
45 and above	1	-
Total	376	100

Findings from the table above indicates that respondents between the age of 25-34 constitute the larger percentage of the respondents with a percentage of 73, followed by respondents between the age of 35-44 with a percentage of 24% which is lower by 49% when compared to respondents between the age of 25-34. The table also indicate that respondents between the age

of 16-24 constitute 3% of the respondents. The forgoing however implies that majority of the respondents falls under the age of 25-34.

Table 3: Marital Status of Respondents

Variables	frequency	Percentage (%)
Married	12	3
Single	364	97
Total	376	100

Table 3 above represent the marital status of respondents. The table indicates that majority of the respondents are single constituting 97% of the respondents. while, married respondents are minimally low constituting 3 per cent of the respondents. Invariably, findings from this table indicate that 364 copies of questionnaire were administered to single respondents.

Table 4: Religion of respondents

Variables	frequency	Percentage (%)
Christianity	355	92%
Islam	21	8%
Others	-	-
Total	376	100%

Table 4 above represent religion of respondents. The table indicates that majority of the respondents are Christians constituting 92% of the respondents. while, Islam religion constitute 21 percentage of the respondents. invariably, findings from this table indicate that more copies of questionnaire were administered to Christian respondents and few Muslims.

Table 5: Students awareness and knowledge of fake news algorithm in detecting fake news online.

S/N	Question	SA	A	N	D	SD	Mean		Response
1.	I have a knowledge of fake news detection algorithm	100	250		18		2	6	4.2 Accepted
2.	I have used fake news detection algorithm to assess the claim of a news story online.	162	10		3		200	6	2.8 Accepted
3.	My knowledge and awareness of news detection algorithm in detecting fake news online is to a large extent.	100	250		18		2	6	4.2 Accepted
4.	From 1-100, I rank my knowledge of fake news detection algorithm in detecting fake news online to be 60-80	210	40		118		2	6	4.2 Accepted
					Grand Mean = 3.9				Accepted

Table 5 above presents the respondents knowledge of fake news detection algorithm in detecting fake news online. The table has an accepted gran mean of 3.9 which implies that the respondents are knowledgeable on fake news detection algorithm. The table indicates respondents have used fake news detection algorithm to assess the claims of an uncertainty and security news online. Also, the table accepted that the respondents' knowledge level is high and can be ranked 60-80. The foregoing implies that respondents are knowledgeable about fake news detection algorithm in detecting fake news.

Table 6: Audience perception of fake news algorithm in detecting fake news online.

S/N	Question	SA	A	N	D	SD	Mean		Response
1.	Fake news detection algorithms are very good for battling fake news online		316		40	18	2	-	4.8 Accepted
2.	I agree that with the help of fake news detection algorithm, many individuals have been able to ascertain the credibility of a news reports		310		46	18	2	-	4.8 Accepted
3.	My perception of fake news algorithm is favourable and I often make use of fake news detection algorithm to verify news stories.		299		57	18	-	2	4.7 Accepted
4.	Fake news detection algorithms have been able to battle misinformation online to a large extent.		299		57	18	-	2	4.7 Accepted
							Grand Mean = 4.8		Accepted

Table 6 above presents the perception of fake news algorithm in detecting fake news online. The table has a grand mean of 4.8 which implies that fake news detection algorithms are very good for detecting fake news online. The table indicates that with the help of fake news detection algorithm many individuals have been able to ascertain the credibility and uncertain security reports. The table also indicates that fake news detection algorithms have been able to battle uncertainty and security misinformation on online space to a large extend. The implication of the foregoing is that audience perception of fake news detection algorithm is positive and favourable.

Discussion of Findings

The discussion of this findings is done in tandem with the data presented in the tables above as it relates to the objective of the study. Objective one of the study aim to examine audience knowledge of fake news detection algorithm in detecting fake news online. This objective was achieved on table five which has an accepted grand mean of 3.9 which implies that respondents are knowledgeable about fake news detection algorithm in detecting fake news. This finding

corroborates with Mykhailo (2021) which shows a simple approach for fake news detection using naive Bayes classifier. This approach was implemented as a software system and tested against a data set of Facebook news posts and indicated that the algorithm was able to detect 70% fake and manipulated news online.

Furthermore, the second objective of the study was realized on table six with a grand mean of 4.8 which implies that the students perceive fake news detection algorithms to be very good for detecting fake news. The implication of the foregoing is that audience perception of fake news detection algorithm is positive and favourable. This findings corroborates with the study of Marco and Vedova (2020) which proposed a novel Machine Learning fake news detection method which, by combining news content and social context features, outperforms existing methods in the literature, increasing its accuracy up to 78.8%. Also, the study connects with the Uses and Gratification Theory which was used to anchor the study as it indicates that the knowledge and perception of the respondents is based on their usage and satisfaction derived from the use of fake news detection algorithm in detecting fake news online.

Conclusion

Fake news accounts for much of the numerous news stories that can be factchecked online through the use of fake news detection algorithms. In Nigeria, news often spread like wide fire and sometimes people are at odds about its truthfulness. The study therefore concludes that respondents have the knowledge and awareness of fake news detection algorithm in detecting fake news. Also, their perception of fake news detection algorithm is favorable and positive. The study therefore recommends that:

1. Audience should cultivate and maintain the habit of factchecking news online to avoid being misinformed by the eggs of impunity of online spaces.
2. People should desist from the habit of propagating unconfirmed news with the intention to either chase clout or serve as click-bait for their blog and websites or to gather followers.
3. Media experts should sensitize individuals on the use of fake news detection algorithm to verify uncertain news stories.

REFERENCES

Buckingham, D. (2007). Media Education: Literacy, Learning, and Contemporary Culture.

Campbell, S., & Park, Y. J. (2008). Social implications of mobile telephony. *Sociolog- ical Compass, 2, 371-387. doi: 10.1111/j.1751-9020.2007.00080.x*

Carretero, S., Vuorikari, R., & Punie, Y. (2017). DigComp 2.1: The Digital Competence Framework for Citizens with Eight Proficiency Levels and Examples of Use. DOI:10.2760/38842.

Diakopoulos, N. (2016). Accountability in Algorithmic Decision Making. *Communications of the ACM, Volume 59, Issue 2. Pp56-62. https://doi.org/10.1145/2844110*

Dimmick, J., Feaster, J. C., & Hoplamazian, G. (2011) News in the interstices: The niches of mobile media in space and time. *New Media & Society, 13, 23-39. doi: 10.1177/1461444810363452*

Femi O., Uchitha J., Emmanuel O. A., Jana S., & Shaofeng L. (2022). Fake news on Social Media*: the Impact on Society. https://doi.org/10.1007/s10796-022-10242-z*

Hallström, Jonas. (2022). Embodying the past, designing the future: Technological Determinism Reconsidered in Technology Education. *International Journal of Technology and Design Education.32.10.1007/s10798-020-09600-2.*

Hampton, K. N., Sessions, L. F., & Her, E. J. (2011). Core networks, social isolation, and new media: How Internet and mobile phone use is related to network size and diversity. *Information, Communication, & Society, 14, 130-155. doi: 10.1080/1369118x.2010.513417*

Harsh B., Humza K., Ipsha R., Jagjeet S., & Jay B. (2020). IMPACT OF FAKE NEWS ON SOCIAL MEDIA. *International Journal of Research and Analytical Reviews (IJRAR). Volume 7, Issue 3 www.ijrar.org (E-ISSN 2348-1269, P- ISSN 2349-5138*

Hobbs, R. (2010). Digital and Media Literacy: A Plan of Action. A White Paper on the Digital and Media Literacy Recommendations of the knight Commission on the Information Needs of Communities in a Democracy. *The Aspen Institute One Depont Circle, NW suite 700 Washington, D.C. 20036. ISBN: 0-89843-535-8.https://doi.org/10.3390/publications9030036*

Jan, A. et al. (2020). Marshal McLuhan's Technological Determinism Theory in the Arena of Social Media. *Theoretical and Practical Research in Economic Field, (Volume XI, Winter 2020), 2(22):133 - 137. DOl:10.14505/tpref.v11.2(22).07*

Joseph, W. O., (2015). Introduction to Mass Communication Theories. University of Nigeria Press.

Khan, T., Michalas, A. & Akhunzada, A. (2021). Fake news outbreak 2021: Can we stop the viral spread? Journal of Network and Computer Applications 190. https://doi.org/10.1016/j.jnca.2021.103112.

Lopez-Marcos, C. & Vicente-Fernandez, P. 2021). Fact Checkers Facing Fake News and Disinformation in the Digital Age: A Comparative Analysis between Spain and United Kingdom. MDPI 9(3),

Mavridis. G., (2018). Fake news and Social Media ;How Greek users identify and curb misinformation online.

McEwan. B., (2019). Human Communication and Technology. VOL. 1.1, https://journals.ku.edu/hct

McLuhan, M. (1964). Understanding Media: The Extensions of Man.

Merritt, R. S., (1994). Does Technology Drive History? MIT Press. ISBN 978-80-262-69167-3.

Mittelstadt, B. D., Patrick, A., Mariarosaria, T., Sandra, W., Luciano, F., (2016). The Ethics of Algorithms: Mapping the Debate. https://doi.org/10.1177/2053951716679679

Moin, K., Amish, J., Chouhan, R., & Sheikh, S. H., (2020). Fake News Identification on Social Media.International Journal of Engineering Research & Technology (IJERT). Vol. 9 ISSN: 2278-0181.

Omoera, O. S., & Uwalaka, T. (2023). Fake News as Disruptive Media: A Digital Age Challenge in Nigeria. Studies in Media and Communication Vol. 11, No. 6; ISSN: 2325-8071 E-ISSN: 2325-808X. doi:10.11114/smc.v11i6.6240

Pennycook, G., & Rand, D. G. (2018). The Implied Truth Effect: Attaching Warnings to a Subset of Fake News Stories Increases Perceived Accuracy of Stories Without Warnings.

Postman, N. (1970). The Medium is the Massage: An Inventory of Effects.

Rainie, L., & Wellman, B. (2012). Networked. Cambridge, MA: MIT Press.

Robinson, S., & DeShano, C., (2011). 'Anyone Can Know': Citizen Journalism and The Interpretive Community of The Mainstream Press." Journalism 12 (8): 963-982. do:10.1177/1464884911415973.

Silveira, P. (2020). Fake News Consumption Through Social Media Platforms and the Need for Media Literacy Skills: A Real Challenge for Z Generation. *Conference: 14th International Technology, Education and Development Conference*. 10.21125/inted.2020.1063

Smith, M., Marx, L., (1998). Does Technology Drive History?: The Dilemma of Technological Determinism. Cambridge: MIT Press. p. 70. ISBN 978-0262193474.

Talwar, S., Dhir, A., Singh, D., Virk, G.S. & Salo, J. (2020). Sharing of Fake News on Social Media: Application of the Honeycomb Framework and the Third-Person Effect Hypothesis. Journal of Retailing and Consumer Services 57. https://doi.org/10.1016/j.jretconser.2020.102197.

Wardle, C., & Derakhshan, H. (2017). Information Disorder: Toward an interdisciplinary framework for research and policymaking.

William, S.H.,(1990). *Notes on the Underground: An Essay on Technology, Society, and the Imagination.*