• **p-ISSN:** 2791-0237

• **DOI**: 10.55737/qjss.090330941

Open Access 👌

CLANTIC JOURNAL OF SOCIAL SCIENCES The Proliferation of Inaccurate and Misleading Information through the Use of Social Media: The Impact on Pakistani Society

Muhammad Tariq¹ Abdul Shakoor² Aqdas Waheed³ Saima Khan⁴

Abstract: The purpose of this research project is to analyze the widespread problem of false and misleading information that is disseminated throughout social media platforms and to evaluate the significant effect that this problem has on society. The research employs a qualitative methodology to investigate the impact that algorithms, user behaviors, and technical characteristics play in amplifying misleading material. The primary objective of the study is to discover patterns and trends connected with the spread of misinformation. Ten professionals in their fields and journalists were chosen for this purpose. In order to transcribe the previously coded data, a number of themes and subthemes were devised and investigated. The purpose of this in-depth inquiry is to improve our knowledge of the intricate dynamics that are associated with the spread of misinformation on social media and to suggest concrete steps that may be taken to counteract the effects of this phenomenon on society.

Key Words: Misinformation, Social Media, Social Trust, Digital Literacy, Fact Check

Introduction

The advancement of communication tools has made the world a global village. The global explosion of knowledge was witnessed by humans. Digital and traditional media convergence offers a great platform for participation, inclusion, and transparency. These benefits are, however, accompanied by hitherto unseen difficulties like exposure to harmful content and misinformation. The lines separating online and offline spaces have also been blurred by the use of digital media. False information and fake news have a detrimental effect on people's digital and political lives. (Ahmad, Musarrat, & Ahmed, 2022).

Unquestionably, false messages that are unintentionally disseminated but may be harmless are known as misinformation, and deliberately produced and disseminated false information with the intent to harm and mislead others is known as disinformation. Disinformation is so widespread that it has recently had an impact on practically every aspect of public life in Pakistan, including politics, religion, health, the economy, and culture. It can be argued that in recent years, disinformation has significantly increased the risks to Pakistan's political and social development. Although not exclusive to cyberspace, the dissemination of misleading information throughout the nation is primarily observed on the internet, sometimes through coordinated campaigns and influence operations. Research indicates that the various forms and types of misinformation that have been seen in Pakistan in recent years have put public health, political stability, human rights, journalism, and peace at risk. This is particularly true during the COVID-19 pandemic years and the political upheaval and transition in 2022 (Naeem & Rehmat, 2022).

The problem of misinformation is not specific to Pakistan. Social media networks are frequently the common denominator among nations grappling with the threat of online propaganda and false messages originating from hate speech. In a similar vein, Pakistan can gain from international efforts to combat misinformation. Nonetheless, given the nation's distinct sociopolitical setting, local responses to

¹ PhD Scholar, Institute of Media and Communication Studies, Bahauddin Zakariya University, Multan, Punjab, Pakistan.

² Assistant Professor, Department of Mass Communication, Lahore Leads University, Lahore, Punjab, Pakistan.

³ Lecturer, Department of Mass Communication, Government College University, Lahore, Punjab, Pakistan.

⁴MS, Department of Mass Communication, Lahore College for Women University, Lahore, Punjab, Pakistan.

Corresponding Author: Muhammad Tariq (<u>xpertyz@gmail.com</u>)

[•] To Cite: Tariq, M., Shakoor, A., Waheed, A., & Khan, S. (2023). The Proliferation of Inaccurate and Misleading Information through the Use of Social Media: The Impact on Pakistani Society. *Qlantic Journal of Social Sciences*, 4(4), 90–99. https://doi.org/10.55737/qjss.090330941

misinformation and solutions are necessary. Furthermore, it is the responsibility of the State and nongovernmental players in the information sector to shield the public from the dangers of false information (Hargittai, <u>2005</u>)

In developing nations, misinformation is becoming a bigger problem due to the widespread use of social media platforms as forums for political and social interaction as well as information sources due to the accessibility of mobile Internet and low-cost smartphones.1. This trend has increased the number of people using the internet, even those with low levels of digital literacy—the capacity to find, comprehend, and apply information online (ITU, <u>2019</u>).

Less than half of people in 40 developing and emerging nations are able to perform basic computer functions like copying and pasting files and sending attachments via email. These comparatively newbies to technology are utilizing social media in an environment where false information is frequently spread. This could have significant effects on people's lives as well as society. According to the study, the nation's attempts to counteract disinformation through journalism and fact-checking have failed because of a variety of factors, including a lack of conceptual understanding among journalists, monetization trends that encourage sensationalist reporting and lessen the impact of capacity-building initiatives, a lack of financial sustainability of responses, linguistic obstacles, and political backlash (Hirshleifer, Naseem, Raza, & Rezaee, 2023).

One effective way to lessen the ubiquity and impact of fake news is to educate users about disinformation and the digital sphere. There is little concrete data regarding the efficacy of educational interventions to combat misinformation in developing nations despite the apparent benefits of teaching people how to do so.

Conspiracy theories and false information have permeated mainstream politics in many nations, both autocracies and democracies. Pakistan is no different. Belief in conspiracy theories and false information, as well as disbelieving inaccurate information, pose serious challenges in Pakistan and could have negative effects on interstate relations, attitudes toward minorities, and political behavior. Widespread misconceptions and conspiracy theories regarding Pakistan's state military prowess, its indigenous minority populations, and its standing abroad were discovered in a nationally representative phone survey. According to the research, people should be wary of traditional media and instead rely on social media to tell what is true and false. Political awareness was positively correlated with acceptance of conspiracy theories and other types of false information. Nationalist narratives enhanced belief in unverified information about domestic minority groups but had little effect on belief in many other forms of misinformation. Though the results of the survey indicate that simple corrections of misinformation do not effectively counteract negative downstream social and political beliefs, a large portion of Pakistanis are aware of the prevalence of misinformation (Mir & Siddiqui, 2022).

Individuals' daily lives are being impacted by digital media. However, it is challenging to trust the internet news because there is a lot of information available and divergent views on the same topic. Unprecedented information can be overwhelming, making it hard to believe, and one must work hard to choose the correct one (Aslam, Hayat, & Ali, <u>2020</u>).

Social media platforms, providing immense opportunities for people to engage with each other in beneficial ways, also allow misinformation to flourish. Therefore, the current era is considered "an era of fake news" in which misinformation, generated intentionally or unintentionally, spreads rapidly. Although affecting all areas of life, it poses particular problems to health-related issues. Social media also spread disinformation, which not only affects health and politics but is a challenge to democracy (Terzis, Kloza, Kużelewska, Trottier, & Konstantinou, <u>2020</u>).

Fake news is not a recent issue. Propaganda, misinformation, and disinformation have all existed in human communication, at least since the Roman era (Posetti & Matthews, <u>2018</u>). Fake news has serious repercussions and is not just an issue in Pakistan; it is also becoming more and more of a problem in developing nations. Additionally, this study revealed that media literacy can help combat misinformation (Ali & Qazi, <u>2021</u>).

According to a study, most respondents verify the veracity of the news they find on social media. However, it is hard to control because there isn't enough professional gatekeeping. During the Covid-19 pandemic, fake news produced a skewed perception of the situation (Ahmed, Qamar, & Asghar, <u>2021</u>).

Although social media is widely acknowledged for fostering democratic discourse, scholars and analysts have also issued a warning regarding its potential to propagate fake news, particularly in the runup to and following elections (Gentzkow, 2017).

In Pakistan, as in the rest of the world, "disinformation" is becoming a serious threat to democratic values and public discourse. Online misinformation has exacerbated or created new problems with regard to hate speech, political polarization, social media conversation manipulation, news media trust, and access to reliable information. Due to the risks to public health and safety posed by rumors, conspiracy theories, and misleading messages regarding the coronavirus, Pakistan was affected by the unquestionably detrimental role that internet disinformation played during the COVID-19 pandemic. However, observers had already noticed the spread of misinformation in Pakistan prior to the pandemic regarding a number of topics, including business, governance, foreign policy, elections, and health (Media Maers for Democracy, 2020).

In a similar vein, news reports and public surveys regarding COVID-19 indicated that people were misled by misinformation campaigns into thinking the virus was a hoax, an exaggerated threat, or something else entirely. People's attitudes toward COVID-19 precautions seem to have been directly influenced by these beliefs, as evidenced by the thoughtless and careless behavior of the public prior to the second wave of coronavirus infections in Pakistan in October and November (Dawn, 2020).

People were also influenced by the COVID-19 misinformation to commit violent crimes against healthcare professionals and refuse medical care. It was noticed that fake messages and conspiracy theories about doctors working together to raise the number of coronavirus deaths were misleading them (Kermani, 2020).

Similarly, researchers have examined the amount of fake news that was spread during the Brexit referendum and the elections in Spain, Canada, and France. It was discovered that uncorroborated material was primarily used for political ends (Grinberg, Joseph, Friedland, Swire–Thompson, & Lazer, <u>2019</u>).

Around the world, fake news has consistently caused enormous harm. In the course of the 2016 US presidential election, fake news significantly increased in both production and distribution (Holan, 2016<u>#Holan</u>).

In Nigeria, fake news between the Peoples' Democratic Party (PDP) and the All–Progressives Congress (APC) became the norm in the run–up to the presidential elections in 2015 and 2019. Their goal was to influence voters by promising things that were untrue and might only backfire. With a high degree of political propaganda and deception for the voters, politicians took over social media, leading to the false acceptance of candidates without authentic manifestos. Thus, fake news was widely disseminated throughout the political landscape in an effort to pique public interest and win over voters. This demonstrates how fake news undercuts legitimate media coverage and makes it more challenging for reporters to cover important news stories that could have had a big influence on society (NyiharTine, Chile, & Iyorkyaa, 2020).

The top 20 fake news stories about the 2016 US presidential election garnered more engagement on Facebook than the top 20 election stories from 19 major media outlets, according to a BuzzFeed media analysis (Chang, Lefferman, Pedersen, & Martz, <u>2016</u>).

The myth of fake news has truly taken over the world. Hot news reporting has drawn more attention from the public, which has diminished media ethics. Social media's widespread use has made it easier for fake news to spread constantly on topics that are undoubtedly concerning for development and integrity. In general, people act upon what they read, watch, or hear in addition to believing it. Under these conditions, the myth of fake news spreads more widely while simultaneously destroying society (Lonhardt & Thompson, 2017).

Literature Review

The fundamental principles of communication accuracy theories and truth concepts are embedded in cascading news and sensitive information (Brennen, <u>2020</u>).

But over the last five years or so, social media (SM) has completely changed the composition, scope, and intricacy of news reporting (Berkowitz & Schwartz, <u>2016</u>).

Since social media platforms like Twitter, Facebook, and Instagram facilitate the widespread sharing of news and information, there has been an increasing amount of interest in the impact of social media, particularly on political affairs (Vosoughi, Roy, & Aral, <u>2018</u>).

Social media platforms have primary goals to facilitate social interaction, communication, and entertainment in addition to information sharing. Specifically, a lot of social media posts seek assistance, whereas the purpose of reposting is to use the multiplicative effect to spread messages (Hwang, Yuan, & Weng, <u>2011</u>).

The COVID-19 pandemic is impliedly mentioned in a joint statement released by the National Academies on July 15, 2021, when Marcia McNutt, president of the National Academy of Sciences of the United States, is quoted as saying, "Misinformation is worse than an epidemic: It spreads at the speed of light throughout the globe and can prove deadly when it reinforces misplaced personal bias against all trustworthy evidence." Fake news, disinformation, and misinformation have become such a scourge (Aïmeur, Amri, & Brassard, 2023).

As a result, social media is now a significant channel for the spread of false information (Sharma, et al., 2019). In 2020, roughly half of American adults got the news via social media at least occasionally, but in 2018, only one-fifth of them said they frequently got the news via social media, according to the Pew Research Center's analysis of news use across social media platforms (Sharma, Seo, Meng, Rambhatla, & Liu, 2020).

Dealing with fake news and misinformation has always presented its greatest challenge due to public susceptibility and lack of user awareness. This is a complicated topic because a lot of people trust almost everything they read or hear on the Internet, and those who are less experienced with digital technology or are new to it may fall for it more easily (Edgerly, Mourão, Thorson, & Tham, <u>2020</u>).

Another study looked at how fake news and misinformation spread on social media and discovered that because there aren't many obstacles to overcome, this kind of content is created and shared on these platforms more quickly and easily (Shu, et al., 2020).

It has also been supported that the spread of information on SNSs can also have unfavorable effects, like disinformation. The dissemination of false information has the potential to seriously disrupt society. A lot of false information was disseminated during the 2016 U.S. presidential election, and a lot of people fell for it (Allcott & Gentzkow, 2017).

The most prevalent fake news type favored Trump over Clinton, and the most widely disseminated fake news supported Donald Trump rather than Hillary Clinton. These data imply that, in the absence of such false information, the election's result might have been different. The conspiracy theory known as "Pizzagate" is another illustration of how misinformation affects social networking sites. It alludes to a shooting that happened on December 4, 2016, at a pizza restaurant in Washington, D.C. The gunman acknowledged that the conspiracy theory that was going around social media had an impact on his violent outbursts (Tangherlini, Shahsavari, Shahbazi, Ebrahimzadeh, & Roychowdhury, <u>2020</u>).

By disseminating accurate information, one can lessen the number of people who believe false information and stop it from spreading. More specific corrective information is required to successfully dispel people's misconceptions because the impact of corrective information on their misperceptions is diminished when there is a compelling reason to believe false information. In actuality, corrective information may work against you and not convince people who still hold false beliefs. We refer to this as the backfire effect. (Chan, Jones, Jamieson, & Albarracín, 2017)



Similarly, in this phenomenon, people's initial beliefs are reinforced rather than changed when they come across information they do not want to believe. Another technique identifies accounts that disseminate false information and stops the owners of those accounts from doing so. Especially considering that a sizable portion of the accounts that disseminate false information are bots (Shao, Ciampaglia, Varol, Flammini, & Menczer, 2017). False information has been around for a very long time, even before the printing press was invented and made it easier for it to spread widely (Soll, <u>2016</u>).

For example, over 250 years ago, Socrates was sentenced to death based on false accusations that he was impious against the Athens pantheon and corrupted the youth (Wikipedia , 2023).

The term "fake news" saw a surge in popularity around the time of the 2016 US presidential election (Allcott & Gentzkow, <u>2017</u>).

The detection of fake news is an issue that many organizations, such as the European Union and NATO, have recently taken on (Eupropean Commision, 2022).

Word-of-mouth and manuscripts were once used as effective means of disseminating false information and historical and factual distortions. However, fake news can now spread so widely, thanks to modern technology, that it is having an impact on society and the economy at large. Without a doubt, fake news has an unintentional negative impact on the economy, but it also negatively affects people's lives, which increases its danger in the modern world. Since the emergence of digital media, false and misleading information has become more widely available, which has contributed to the democratization of false and misleading information (Heikkinen, 2021).

Human judgment is the most common method of spotting fake news, but it isn't always accurate. For a human to accurately detect fake news, they must possess comprehensive domain knowledge (Kishwar & Zafar, <u>2023</u>).

False information has the power to deeply affect a reader's thinking, leading them to make poor decisions. It may have far-reaching consequences on finances and health. Misinformation about vaccination campaigns and other illnesses like polio is not limited to COVID-19 (Siddiqui, <u>2019</u>).

The amount of news, conspiracy theories, and information being shared about the virus is at an all-time high, coinciding with a rise in virus-related fear and panic (Ejaz & Ittefaq, <u>2020</u>).

Although fake news has been around for a while, some scholars contend that we have entered a post-truth era in which media producers persuade readers to believe something, even in the face of contradicting evidence. We have been flooded with fake news nonstop since the pandemic started. The ignorance surrounding the virus made it easy for conspiracy theories and fake news to proliferate, leading to a rise in mistrust and confusion. It follows that it is not surprising that Madej's video went viral and had such a profound impact on so many people (Roas, <u>2022</u>).

Misinformation is continuously thrown at the public by mobile devices, social media, and the internet. Because of this, the majority of people spread unsubstantiated claims, which exacerbates the problem. Eventually, a lot of people forward these claims to one another on WhatsApp, a popular social media messaging app in Pakistan. The messages might include inaccurate and deceptive information about the virus's origins as well as fabrications regarding its symptoms and fictitious cures. These unconventional therapies carry some risk because they have not been endorsed by medical professionals or public health specialists. Taking hot air from a hairdryer and ingesting garlic water are two examples of home remedies mentioned in the messages; however, neither of these is a proven treatment for COVID-19. Adding insult to injury, a number of these fraudulent medical cures are misrepresented as official statements from the Pakistan Health Ministry (Ittefaq, Hussain, & Fatima, 2020).

Research Objectives

This study focuses on the following research questions;

- To investigate the role of social media in disseminating misinformation in Pakistan.
- To find the impact of misinformation on trust level in Pakistan.
- To examine the potential ways to stop misinformation in Pakistan.

Research Questions

- Which topics and content categories of false and misleading information are most common on Pakistani social media?
- How much does social media misinformation affect Pakistani public opinion, especially in politics, religion, and culture?
- What impact does social media misinformation have on Pakistani society, politics, and institutions?

Methodology

The qualitative research approach was used for this investigation. It was planned to conduct in-depth interviews to gather data from a predetermined portion of the study's population. Ten professionals in their fields and journalists were chosen for this purpose. In order to transcribe the previously coded data, a number of themes and subthemes were devised and investigated.

Findings and Discussion

Themes	Sub-themes
Social media uses and misuses in Pakistan	InformationEntertainmentMisinformation and fake news
Freedom of speech and misinformation on social media	 Democracy Public opinion Censored traditional media landscape Lack of trust in traditional media stories
Digital (il)literacy and misinformation	Free or cheap internet accessAvailability of technology, gadgetsNo check and balance of content creation
Social trust and misinformation	Unreliable informationDoubts on social media campaigns
Misinformation and pathways to counter it	 Lack of fact-checking Lack of digital literacy Untrained journalists Citizen journalism

Social Media Uses and Misuse in Pakistan

Social media is widely used in Pakistan. The reasons can be various. From seeking information to entertainment and consuming to content creation, social media is providing an extensive platform for the masses. Social media is an effective tool that can reach people who might not regularly interact with formal media and significantly lower the cost of information sharing. The fact that any user can share content from any source, however, presents a risk because social media can spread harmful and inaccurate information just as easily as helpful information (Hirshleifer, Naseem, Raza, & Rezaee, 2023). Respondents of the interview agreed to the notion that social media platforms have revolutionized media usage and dissemination of generated messages. In developing countries like Pakistan, where no checks and balances are exercised, social media is often used to disseminate fake news in order to get more views and likes. A wide range of media messages are created in order to get a following. Experts also opined that since it is difficult to censor messages on social media, the reach of internet-assisted content is faster than traditional media. Therefore, the dissemination of fake news and misinformation can have adverse consequences. People can become divided and polarized as a result of fake news, which can spark social unrest and conflicts. Fake news has been used in Pakistan to incite conflict between various racial and religious groups. For instance, violent protests and conflicts between various religious groups have been sparked by false information regarding the destruction of religious sites (Bahadur, 2020).



Freedom of Speech and Misinformation

Without a doubt, the development of technology has altered how society functions and how media messages are disseminated. Conspiracy theories have become increasingly popular as a result of the decline of traditional media outlets (such as newspapers) and the concurrent rise of social media (Roas, 2022). The idea behind social media sites like Twitter is that anyone can share and upload anything they want, subject to certain restrictions. Even so, amazing things have come of it, like the growth of social movements and online activism. It also produced an environment in which anyone can quickly spread false information. Experts also opined that social networks have facilitated free speech and access to information for which citizens have been entitled under Article 19 of the Constitution. In Pakistan, traditional media censorship has been counter-treated with social media engagement and increased expressions of opinion. A wide range of media content disseminated through social media can also be coupled with misinformation. Traditional media is often witnessed under certain policies and heavily censored; therefore, individual users have harnessed social media for the free expression of their opinions. However, participants of the interviews also opined that since social media platforms have provided maximum space for freedom of speech, they have also breached the thin line between "freedom" and "fake." Misinformation has been a worse form of social media use. It is spread quickly with no or very limited ways to stop it. Thus, freedom of speech is often found to be maligned by social media users.

Digital (il)literacy and use of social media

Due to a significant portion of the population lacking digital literacy, which leaves them open to various forms of online and digital propaganda, disinformation has become more prevalent in Pakistan in recent years. The spread of false information has increased as a result of easier access to digital tools. People frequently divulge information without first verifying it. It is assumed that an individual with low digital literacy may be more prone to accepting and disseminating misleading information. Therefore, those who are less tech-savvy could be heavily involved in the dissemination of false information. It is commonly believed that people who use social media and have low digital literacy-that is, who struggle to understand basic internet-related technological concepts—are more prone to believe false information they find online (Sirlin, Epstein, Arechar, & Rang, 2021). Similarly, participants also opined that misinformation and "fake news" have been a major source of concern in recent years, with social media playing a major part in this. Lack of digital literacy is a common explanation for why some people believe false information they find online. If people are unable to use digital spaces effectively, they may be more likely to believe and spread false information they come across. For this reason, the dissemination of false information on social media platforms may be especially facilitated by those with lower levels of digital literacy. There have been a number of reasons related to lack of digital literacy and consequent misinformation. For instance, in Pakistan, there is a cheap subscription for internet connectivity, and a large number of people are using technology-based gadgets for communication. Similarly, there is huge social media citizenship in Pakistan, which is likely to be exposed to fake news and misinformation. Given that approximately 35% of Pakistan's population is under 15 and 64% is under 30 (Shaheen, 2022), a major portion of them are social media consumers. However, some experts also believe that lack of digital literacy is not proven to be a key cause of misinformation. Rather, it is so abrupt and spontaneous that, generally, social media consumers are left unable to differentiate between fact and false.

Social Trust and Misinformation

Fake news invariably fosters mistrust and jeopardizes the work of respectable international media outlets that work to report the truth, support the rule of law, and hold influential and powerful people accountable. Fake news is sneaky; it seeps into society's cells, attaching itself covertly to its target before rupturing the system from the inside out (Navaratnam, 2022). Pakistan is vulnerable to disinformation in both internal and external crises. In Pakistan, the involvement of social media in spreading false information is not a recent development. Experts supported the notion of increasing mistrust in society due to increased misinformation. Public opinion is greatly influenced by free, fair, and responsible journalism, which also promotes a diversity of opinions and debate, discussion, and challenge. Fake news produces an ugly deception and weakens society. It serves as a platform for propaganda that has the power to sway people's perceptions, fabricate risky singular narratives, and promote the unquestioning acceptance of constrained

viewpoints. Experts related that people stop relying on media as a potential source of information. They will not trust even the truth and refuse to follow the instruction even during crises or calamities. The consequent mistrust can also lead to the degradation of social values and harmony, for it becomes hard to convince people to stand united or respond as a society to certain events that need a unanimous response from social factors. Thus, increased doubts and lack of trust in sources of information can lead to a chaotic society as a whole.

Misinformation and Pathways to Counter it

Responsible reporting is a component of a robust global society. The purpose of journalism is to question and challenge; it should be given the freedom to do so and assisted in its quest for the truth. The main topics of interest for journalists are matters of public concern. In order to create more equitable societies, it is essential that the truth be known so that those in positions of authority can be questioned, their goals exposed, and wrongdoing and corruption exposed. The most effective way to combat misinformation and disinformation is to present the truth (Navaratnam, 2022). Similarly, among other doable steps, creating a broad media literacy program that includes fact-checking and spotting false news is crucial (Shaheen, 2022). Participants of interviews believed that there are ways to deal with rapidly growing misinformation. First, computer science curricula can be developed in schools to help young students become media literate; second, the government or their employers need to directly train journalists in fact-checking. Given that approximately 35% of Pakistan's population is under 15 and 64% is under 30, initiatives to promote media literacy have a great deal of potential to have a long-term impact. Additionally, fake news is easily disproved and scrutinized closely if digital literacy is improved with a high standard of factcheckers developed in Pakistan. Citizen journalism also needs to be looked into critically as there is bulk opinion coming out and rapidly being disseminated. A verified account may help in this regard so that identified users can be located and the source of fake news can be traced quickly.

Conclusion

The rising rate of social media penetration in Pakistan increases the potential for misinformation and disinformation. For example, in order to bring Pakistan's constitution into compliance with Article 19 and provide a clear definition of what constitutes "reasonable restrictions," it is significant that the amended Article 19 be applied consistently throughout the nation. Free speech should not contribute to social media misinformation. Counter-misinformation measures need to be implemented in accordance with the requirements outlined in the European Convention on Human Rights. Here, striking a balance between counter-disinformation, fake news, freedom of speech, and access to information is crucial. Lack of fact-checking, untrained journalists, and unchecked digital citizenship are adding to misinformation. In order to avoid social mistrust and consequent social chaos, it is important to revisit all these parameters.

References

- Ahmad, A., Musarrat, R., & Ahmed, S. (2022). Information Vs. Misinformation on Digital Media: A Study on the Youth of Lahore. *Journal of Peace*, *Development and Communication*, 6(2), 203–217. https://pdfpk.net/pdf/wp-content/uploads/2022/06/34515.pdf
- Ahmed, M., Riaz, M., Qamar, M. T. U., & Asghar, R. (2021). Fake news shared on WhatsApp during CovId-19:AnanalysisofgroupsandstatusesinPakistan. *Медиаобразование*, 17(1). https://doi.org/10.13187/me.2021.1.4
- Aïmeur, E., Amri, S., & Brassard, G. (2023). Fake news, disinformation and misinformation in social media: A review. Social Network Analysis and Mining, 13(1). <u>https://doi.org/10.1007/s13278-023-01028-5</u>
- Ali, A., & Qazi, I. A. (2023). Countering misinformation on social media through educational interventions: Evidence from a randomized experiment in Pakistan. *Journal of Development Economics*, 163, 103108. <u>https://doi.org/10.1016/j.jdeveco.2023.103108</u>
- Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives*, 31(2), 211–236. <u>https://doi.org/10.1257/jep.31.2.211</u>
- Aslam, S. (2020). Hybrid warfare and social media: Need and scope of digital literacy. *Indian Journal of Science and Technology*, 13(12), 1293–1299. <u>https://doi.org/10.17485/ijst/v13i12.43</u>



- Bahadur, F. K. (2020). Fake it till you break it?! Impact of fake news on implicit brand attitudes of social media users (Master's thesis, University of Twente). <u>https://essay.utwente.nl/81352/</u>
- Berkowitz, D., & Schwartz, D. A. (2015). Miley, CNN and The Onion. Journalism Practice, 10(1), 1-17. https://doi.org/10.1080/17512786.2015.1006933
- Brennen, B. (2017). Making sense of lies, deceptive propaganda, and fake news. *Journal of Media Ethics*, 32(3), 179–181. <u>https://doi.org/10.1080/23736992.2017.1331023</u>
- Chan, M. S., Jones, C. R., Hall Jamieson, K., & Albarracín, D. (2017). Debunking: A meta-analysis of the psychological efficacy of messages countering misinformation. *Psychological Science*, *28*(11), 1531–1546. <u>https://doi.org/10.1177/0956797617714579</u>
- Chang, J., Lefferman, J., Pedersen, C., & Martz, G. (2016). When Fake News Stories Make Real News Headlines. *Nightline.ABC News*.
- DAWN. (2020, October 15). 'Unmistakable signs': Asad Umar urges caution as Covid-19 positivity rate rises to highest since August. *DAWN.COM*. <u>https://www.dawn.com/news/1585186</u>
- Edgerly, S., Mourão, R. R., Thorson, E., & Tham, S. M. (2019). When do audiences verify? How perceptions about message and source influence audience verification of news headlines. *Journalism & Mass Communication Quarterly*, 97(1), 52–71. https://doi.org/10.1177/1077699019864680
- Ejaz, W., & Ittefaq, M. (2020). Data for understanding trust in varied information sources, use of news media, and perception of misinformation regarding COVID-19 in Pakistan. *Data in Brief*, 32, 106091. <u>https://doi.org/10.1016/j.dib.2020.106091</u>
- Gentzkow, A. (2017). Social Media and Fake News in the 2016 Election . New York: National Bureau of Economic Research.
- Grinberg, N., Joseph, K., Friedland, L., Swire-Thompson, B., & Lazer, D. (2019). Fake news on Twitter during the 2016 U.S. presidential election. *Science*, *363*(6425), 374-378. <u>https://doi.org/10.1126/science.aau2706</u>
- Hargittai, E. (2005). Survey measures of web-oriented digital literacy. *Social Science Computer Review*, 23(3), 371–379. <u>https://doi.org/10.1177/0894439305275911</u>
- Heikkinen, D. (2021). An analysis of fake news and its effects on the economy and society. *The Cyber News, Research, and Commentary Journal,* 1(2), 7–12.
- Hirshleifer, S., Naseem, M., Raza, A. A., & Rezaee, A. (2023). The spread of (mis)information: A social media experiment in Pakistan . *CEGA Working Papers*.
- Holan, A. D. (2016). 2016 lie of the year: Fake news. <u>https://www.politiFact.com</u>
- Hwang, Y., Yuan, S., & Weng, J. (2009). A study of the impacts of positive/negative feedback on collective wisdom—case study on social bookmarking sites. *Information Systems Frontiers*, 13(2), 265–279. <u>https://doi.org/10.1007/s10796-009-9186-8</u>
- Ittefaq, M., Hussain, S. A., & Fatima, M. (2020). COVID–19 and social–politics of medical misinformation on social media in Pakistan. *Media Asia*, 47(1–2), 75– 80. <u>https://doi.org/10.1080/01296612.2020.1817264</u>
- ITU. (2019). Lack of ICT skills a barrier to effective Internet use. <u>https://itu.foleon.com/itu/measuring-digital-</u> <u>development/ict-skills/</u>
- Kermani, S. (2020). Coronavirus: Rumours, fear and rising Covid deaths in Pakistan. <u>https://www.bbc.com/news/world-asia-52925286</u>
- Kishwar, A., & Zafar, A. (2023). Fake news detection on Pakistani news using machine learning and deep learning. *Expert Systems With Applications*, 211, 118558. <u>https://doi.org/10.1016/j.eswa.2022.118558</u>
- Media Maers for Democracy. (2020). *Disinformation and the Freedom of Opinion and Expression*. <u>https://ohchr.org/sites/default/files/Documents/Issues/Expression/disinformation/2-Civil-</u><u>society-organisations/Media-Matters-for-Democracy3.pdf</u>
- Mir, A., & Siddiqui, N. (2022). Losing Facts to Fiction: Nationalism, Misinformation, and Conspiracy Theories in Pakistan. <u>https://www.usip.org/publications/2022/11/losing-facts-fiction-nationalism-</u> <u>misinformation-and-conspiracy-theories</u>
- Naeem, W., & Rehmat, A. (2022). Countering disinformation in Pakistan; Lessons and Recommendations for Digital Journalism. <u>https://mediasupport.org/wp-content/uploads/2023/01/Countering-</u> <u>Disinformation-in-Pakistan-2023.pdf</u>
- Navaratnam, K. (2022). *Fake news, mistrust and global media*. <u>https://commonwealth.sas.ac.uk/blog/fake-news-mistrust-and-global-media</u>

- NyiharTine, V. A., Chile, n. N., & Iyorkyaa, T. (2020). Investigative Journalism and Fake News Myth of Social Media Users: Views fromBenue State University, Nigeria. *Vaungwa Tine's Lab.*
- Posetti, J., & Matthews, A. (2018). A short guide to the history of 'fake news' and disinformation. *International Center for Journalists*, 7(2018), 2018–2007.
- Roas, E. C. (2022). The fine line between fake news and freedom of speech. <u>https://www.kcl.ac.uk/the-fine-line-between-fake-news-and-freedom-of-speech</u>
- Shaheen, S. (2022, July 26). Fake News, Escalation, and Polarization: Pakistan's Disinformation Vulnerabilities. South Asian Voices. <u>https://southasianvoices.org/fake-news-escalation-and-polarization-pakistans-disinformation-vulnerabilities/</u>
- Shao, C., Ciampaglia, G. L., Varol, O., Flammini, A., & Menczer, F. (2017). The spread of fake news by social bots. *arXiv preprint arXiv:*170707592, 96–104.
- Sharma, K., Qian, F., Jiang, H., Ruchansky, N., Zhang, M., & Liu, Y. (2019). ombating fake news: a survey on identification and mitigation techniques. *ACM Trans Intell Syst Technol (TIST)* 10(3):1–42. https://doi.org/10.1145/3305260.
- Sharma, K., Seo, S., Meng, C., Rambhatla, S., & Y, L. (2020). COVID-19 on social media: Analyzing misinformation in Twitter conversations. *arXiv* (Cornell University). <u>https://doi.org/10.48550/arxiv.2003.12309</u>
- Shu, K., Bhattacharjee, A., Alatawi, F., Nazer, T. H., Ding, K., Karami, M., & Liu, H. (2020). Combating disinformation in a social media age. . *Wiley Interdiscip Rev: Data Min Knowl Discov* 10(6):e1385. <u>https://doi.org/10.1002/widm.1385</u>.
- Siddiqui, N. (2019, May 13). social media posts spreading 'hatred, misinformation' about polio vaccination removed. <u>https://www.dawn.com/news/1481429/social-media-posts-spreading-hatred-misinformation-about-polio-vaccination-removed</u>
- Sirlin, N., Epstein, Z., Arechar, A. A., & Rand, D. G. (2021). Digital literacy is associated with more discerning accuracy judgments but not sharing intentions. *Misinformation Review*. <u>https://doi.org/10.37016/mr-2020-83</u>
- Soll, J. (2016). *The Long and Brutal History of Fake News*. Politico Magazine : <u>https://www.politico.com/magazine/story/2016/12/fake-news-history-long-violent-214535/</u>
- Tangherlini, T. R., Shahsavari, S., Shahbazi, B., Ebrahimzadeh, E., & Roychowdhury, V. (2020). An automated pipeline for the discovery of conspiracy and conspiracy theory narrative frameworks: Bridgegate, Pizzagate and storytelling on the web. PLOS ONE, 15(6), e0233879. https://doi.org/10.1371/journal.pone.0233879
- Terzis, G., Kloza, D., Kużelewska, E., Trottier, D., & Konstantinou, I. (2020). Disinformation and digital media as a challenge for democracy. *Intersentia*, 6. <u>https://biblio.ugent.be/publication/8738543</u>
- Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. . *Science*, 359(6380), 1146–1151, <u>https://doi.org/10.1126/science.aap9559</u>.