

Digital Communication Technology is not the Only Cause of Rapid Spread of Misinformation in Society

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Abstract: While achieving technological development in media communication, it is important to recognize the dual nature of technological advancement. This rapid development has led to a great threat of spreading misinformation, where ideas are no longer geographically restricted and spread globally at an unprecedented rate (Wang et al., 2019). Statistics from the Central Statistical Office (CSO) 2021 show that 62% of Internet users have seen untrue or suspicious content online Georgiev (2024). Many people believe that digital communication technologies are the only reason for the accelerated spread of misinformation. On the contrary, I believe that this view ignores the more complex political motivations, social, cultural, and psychological underpinnings. While technology itself is an important agent in the process of spreading misinformation, other factors are also integral. Therefore, I do not agree that the cause lies solely in digital communication technology, and this paper will illustrate how technological and social factors interact with each other through examples.

Keywords: Digital Communication; Spread of Misinformation; Communication Technology.

1. Technological Determinism and Misinformation Spread

The role of digital communication technology in the dissemination of disinformation cannot be ignored through technological determinism analysis. Technological determinism asserts that technology largely determines or shapes the structure of other parts of society and culture (Hallström, 2020). From this perspective, digital communication technology is not only a tool for information dissemination, but also determines the way information is disseminated and the mode of interpersonal interaction in modern society. The core of this technology consists of four key components: software, hardware, network and media (Al-Rahmi et al.). Among these, the design of social media platforms, particularly algorithms based on click-through and interaction rates, dictates that highly emotional and interactive content is more likely to be widely disseminated than factual content (Westlund & Hermida, 2021). This mechanism makes it easier for misinformation to spread rapidly across the web. Misinformation usually refers to unintentionally disseminated falsehoods that, although not intended to cause harm, can lead to misunderstandings or mislead the public as they spread, especially during breaking news events when information spreads much faster than it can be fact-checked (Palfrey, 2024). These exaggerated, misleading, or even outright false information not only exacerbate public misunderstanding, but also trigger social mood swings, especially on emotionally sensitive or polarizing topics.

The rapid dissemination mechanisms of social media platforms allow users to easily share unconfirmed news, further accelerating the proliferation of disinformation. In the 2022 Northern Ireland legislative elections, for example, politician Hunt's AI face-swap erotic video was widely disseminated on social media, leading to attacks on him with messages of sexual violence (Scott, 2024). Hunt claimed that this was not only a political defamation, but a stain on his life, demonstrating that AI technology combined with social

media platforms can accelerate the spread of disinformation with serious personal and professional consequences for the victims.

While digital communication technology is a catalyst for the spread of misinformation, it is not the only cause. As described in the Hunter example above, political motivations in addition to technological support play an important role in the dissemination of misinformation. Some candidates may have attempted to promote misleading or manipulative videos to influence public opinion or gain a political advantage that could have prevented Hunter from being elected. As discussed by Moral (2022), disinformation campaigns are often coordinated for specific political goals, deliberately distorting information to achieve strategic objectives. As in the scenario Hunter faced, the disinformation video was widely disseminated among the crowd, possibly because the video fit into some people's preexisting views of a particular candidate. Additionally, disinformation will spread more easily if the public lacks critical thinking and information discernment skills. In Hunter's example, many users may have quickly shared the video out of an emotional reaction without analyzing it in depth or verifying its authenticity. Emotionally driven individuals, in turn, are particularly prone to accepting and spreading misinformation, due to their beliefs that they are correct, their strong beliefs rooted in instinctive reactions, and limited critical evaluation. Additionally, media and information literacy increase critical thinking, awareness of media bias, and desire for quality news, all of which help combat disinformation (Cunliffe-Jones, 2022).

2. Social Culture and Misinformation Spread

Technological determinism emphasizes the impact of technology, but ignores the critical role of society and culture in information dissemination. First, cultural determinism emphasizes that culture has a greater influence on human behavior, values and social norms than biology or individual

roles. People's behaviors and thoughts are largely influenced by the culture in which they were raised, rather than by innate factors. Secondly, existing cultural traditions, other 'media traditions', and the socio-political and organizational structures of media outlets, although not entirely fixed or independent, all have an impact on the influence of media forms (Abiocca, 1988). Thus, social behavior, cultural contexts, and human motivations and psychology are often more decisive than the technology itself. Social and religious contexts are major factors in the spread of disinformation. From a passive audience perspective, people tend to accept information or validate it uncritically, which leads to its wider dissemination. For example, individuals who rely on social media for health information are more likely to accept and disseminate false information without checking its accuracy, especially if they lack health literacy and analytical thinking skills (Nan et al., 2022).

In 2003 there was an outbreak of boycott of polio vaccine in some parts of Nigeria, where many people believed that the vaccine causes infertility and HIV, and this misinformation spread rapidly, fueled by political and religious leaders (Jegade, 2007). Even though modern communication technology is not widely available locally, religious culture determines what people believe and how they behave. On the other hand, even in developed countries, religious culture also influences the spread of misinformation. Asser and Swan (1998) claimed that 172 American children who refused medical care for religious reasons died between 1975 and 1995. Many of the children died from easily treatable infectious diseases and diabetes. Eighty percent of the children had at least a 90 percent chance of survival if they had received timely medical care. This proves that social and cultural variables must be considered to fully understand how misinformation is spread.

On the other hand, the spread of misinformation is not only influenced by religious and cultural factors but also originates from individual psychological mechanisms. Due to confirmation bias, when people encounter information that contradicts their existing beliefs, they tend to automatically ignore, dismiss, or question its credibility, thereby reinforcing their pre-existing views (Peters, 2020). This can potentially lead to an echo chamber effect, whereby people only access information in groups that agree with their views, further entrenching the spread of misinformation (Törnberg, 2018). For example, a Nigerian who is already skeptical about vaccines is more likely to believe negative information related to vaccines, even if the information is not scientifically based. This selective reception can lead to the rapid spread of misinformation within specific groups, as members of these groups are more likely to receive information that is consistent with their beliefs. Thus, confirmation bias is not only an individual level phenomenon, but can also be collectively reinforced through groupthink. Confirmation bias affects not only how individuals receive information, but also their sharing behavior. When people see information that is consistent with their beliefs, they are more likely to share it with others without verification (Abrams, 2021). However, digital communication technology has made it easy and quick to share information, and misinformation is often spread widely before it is verified.

3. Conclusion

It is true that digital communication technology has played an important role in the dissemination of misinformation, but

blaming it solely on technological advances is one-sided. It is important to recognize the complexity of digital communication technologies in the dissemination of misinformation; in addition to the rapidly evolving technology itself, political motivations, cultural and religious beliefs, and group psychology all influence the way information is disseminated in different ways, and even in countries where information technology is not well developed, cultural beliefs can still be reinforced through traditional media means. Through the dissection of multiple examples, attributing blame to digital communication technology alone can overlook the broader social context and human behavior. The best way to more effectively identify and stop the spread of misinformation is through thoughtful efforts and strong media literacy. Enabling viewers to enhance their critical thinking and ability to recognize the truthfulness of information and prompting the public to reflect on and verify the information they receive, rather than being driven by emotions to share or accept it easily.

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