THE ROLE OF INFORMATION TECHNOLOGY IN COMBATING HOAXES AND MISINFORMATION

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ABSTRACT

Hoaxes and misinformation have become a serious problem in modern society, especially with the rapid development of information technology and social media. The spread of false information can cause great harm, both individually and socially, such as damaging reputation, causing panic, and disrupting social and political stability. This study aims to analyze the role of information technology in combating hoaxes and misinformation. This research uses qualitative research methods. The data collection technique in this research is a literature study. The data that has been collected is then analyzed in three stages, namely data reduction, data presentation and conclusion drawing. The results showed that information technology has an important role in combating hoaxes and misinformation. Social media platforms and technology companies can use various ways to combat hoaxes and misinformation, such as developing algorithms, verifying facts, working with fact-checking organizations, and providing education to users. However, it is important to remember that information technology is not the sole solution to combat hoaxes and misinformation. Joint efforts from various parties, such as the government, civil society, and academia, are needed to improve digital literacy and build a healthy information culture.

| KEYWORDS | *Information Technology, Hoax, Misinformation.* |

INTRODUCTION

The rapid development of information technology and social media has brought many positive changes to our lives including easy access to information, faster communication and global connectivity. However, behind these benefits, there are significant negative impacts, one of which is the spread of hoaxes and misinformation. Hoaxes are false information that is deliberately created and spread to deceive or trick people. The purpose of hoaxes is usually to create confusion, influence public opinion, gain financial gain, or simply for entertainment. Hoaxes are created with malicious intent or for a specific purpose (Susanto & Iqbal, 2019).

Hoax creators are aware that the information they spread is untrue. Examples include fake news about celebrities who died while still alive or information spread about the discovery of miracle cures for certain diseases that have no scientific basis.

In contrast to hoaxes, misinformation is false or misleading information that is spread without the intention to deceive. The source of misinformation is usually ignorance or a mistake in understanding the information (Malik, 2017). People who spread misinformation believe that the information is true and do not intend to deceive others. For example, someone shares misinformation about the health benefits of a food because they believe the information is true. Errors in news reports that lead to the spread of inaccurate information.

During the first quarter of 2023, the Ministry of Communication and Information Technology identified 425 hoax issues circulating on websites and digital platforms. This number is higher compared to the first quarter of 2022, where there were 393 hoax issues. In January 2023, the Ministry's AIS Team detected 147 hoax issues. In February 2023, the number reached 117 issues, and in March 2023 there were 161 hoax issues. The AIS team was formed in January 2018 to collect, identify, verify and validate all hoax content circulating in the digital space. The team is supported by an AIS engine that works non-stop, 24 hours a day and 7 days a week. From August 2018 to March 31, 2023, the Ministry of Communication and Information's AIS Team has identified a total of 11,357 hoax issues (Kominfo, 2023).

The spread of misinformation can cause great harm, both individually and socially. Individually, hoaxes and misinformation can damage one's reputation, cause emotional stress, and lead to poor decisions based on misinformation (Putra et al., 2023). Socially, false information can cause mass panic, such as hoaxes about natural disasters or disease outbreaks that are not true (Pulungan, 2023). In addition, misinformation can disrupt social and political stability by triggering tensions, conflicts and divisions in society (Ghifari, 2023). When misinformation about sensitive issues such as politics, health or national security is widespread, it can undermine public trust in institutions and the media, and hinder fact-based decision-making.

While information technology can accelerate the spread of hoaxes, it also has great potential to combat the spread of misinformation. Digital platforms and social media are often fast channels for hoax distribution, due to the viral nature of sensational content and algorithms that prioritize popularity without verification. However, information technology also offers a variety of tools and methods that can be used to detect, identify and mitigate the spread of misinformation. Therefore, it is important to explore and optimize the role of information technology in this effort, as well as ensure collaboration between various stakeholders such as governments, technology companies, and civil society to create a healthier and more trusted information ecosystem.

Previous research by (Cleopatra et al., 2020) examined the role of parents and teachers in preventing hoax news, the results of the study found that the lack of parental supervision of device use. Parents have not maximized the rules and knowledge of using good devices, and it is feared that students do not filter incoming information. Teachers have monitored the use of gadgets, and socialized the use of gadgets. This needs to be improved.

Meanwhile, another study by (Rahayuningsih, 2020) examined the role of librarians, the results of the study found that librarians can educate, teach, and train the public through information literacy activities on the internet; give examples of responding to news and become community activists in anti-hoax declarations/discussions. Librarians must be able to ensure that they help and make people aware that information from any source must be evaluated before use.

Similar research by (Hasanah, 2023) which examined the communication role of government and non-government actors in combating misinformation, found that the communication role between government and non-government actors through crisis communication guiding principles such as call to action, clarity, compassion and empathy, dialogue tone, correction of misinformation, and transparency. This research uses information communication technology (ICT), public engagement, response, collaboration, and utilization of Situational Crisis Communication Theory (SCCT) strategies.

The findings of this study can contribute to the development of information dissemination theory, specifically how information spreads and how technological interventions can affect the flow of information in society. In addition, the results can also enrich social influence theory by showing how the interaction between information technology and users can affect their perception and understanding of information. This research aims to analyze the role of information technology in combating hoaxes and misinformation.

RESEARCH METHOD

This research uses qualitative research methods. Qualitative research method is a method or research method that emphasizes analysis or descriptive. In a qualitative research process, things that are subject perspectives are more highlighted and theoretical foundations are utilized by researchers as a guide, so that the research process is in accordance with the facts encountered in the field when conducting research (Hasan et al., 2023). The data collection technique in this research is a literature study. Literature study involves collecting and analyzing various relevant sources of information, such as books, scientific articles, research reports, government documents, and other credible sources. The data collected includes information on the role of information technology in combating hoaxes and misinformation, strategies used by social media platforms and technology companies, and collaborative efforts from various related parties. The data that has been collected is then analyzed in three stages, namely data reduction, data presentation and conclusion drawing.

RESULT AND DISCUSSION

The development of information technology has occurred at a rapid pace in recent decades, changing the way we live, work and interact. Technological advances have significantly facilitated the access and distribution of information, which in turn brings various benefits in various aspects of life, including in planned development (Miranda et al., 2022). Technological developments have accelerated

the dissemination of information allowing real-time access and wide distribution through the internet, social media, and mobile devices. Social media platforms and news apps provide instant notifications, while big data and analytics technologies process and personalize content according to user preferences (Batoebara & Pasaribu, 2021).

Technology has led to the birth of many new media that significantly facilitate access to information (Fathurokhmah, 2021). In essence, technology was created to improve the quality of human life by providing easier and more convenient access to information. Whether it is in the form of the internet, mobile applications, or other smart devices, technology allows individuals to quickly access various sources of information from anywhere and at any time. This facilitates learning, communication and innovation, and enables individuals to make better decisions in their daily lives. Thus, technology plays an important role in fulfilling human information needs, broadening horizons, and facilitating social and economic progress (Wiryany et al., 2020).

The flip side of online media as a platform for freedom of expression is that it triggers various problems of misinformation. While allowing individuals to share ideas, opinions and information quickly and widely, online media is also vulnerable to the spread of hoaxes, fake news and misinformation (Annisa et al., 2021). Without verification mechanisms or strict regulations, unverified information can easily spread and be believed by many people, even with adverse consequences such as fear, confusion or hatred. Therefore, it is important for online media users to develop critical skills in evaluating and verifying information before disseminating it, and for the government and social media platforms to implement effective efforts to combat hoaxes and disinformation (Khosiah & Rohmiyati, 2019).

The easy access to information offered by today's technology has indeed accelerated the spread of hoaxes. The internet, social media and news apps provide an easy platform to spread information, both true and false, quickly and widely. Hoaxes can often easily spread through various digital communication channels without adequate verification or validation, especially when the information supports a particular opinion or agenda (Sari et al., 2021). The need for better digital literacy and awareness of the risks of hoaxes is becoming increasingly important so that individuals can sort and evaluate information wisely before disseminating it further (Sabrina, 2018).

Hoaxes refer to deliberate and misleading information that is spread with the aim to mislead, deceive, or manipulate its readers or audience. Hoaxes are often created to create confusion, spread certain opinions or views, or even for certain political, economic, or social purposes (Rachmawati & Agustine, 2021). Hoaxes can have detrimental effects, such as spreading fear or hatred, influencing public opinion, or disrupting social stability. In today's digital era, with the rapid spread of information through the internet and social media, hoaxes can spread very quickly and widely, exacerbating their negative impact. Therefore, it is important to always verify information before disseminating it and be critical of the source of information received (Batoebara & Hasugian, 2023).

Hoaxes can mislead and influence public perception by making false information appear to be the truth. By using convincing narratives and often supporting

existing beliefs or opinions, hoaxes can be easily believed and spread widely. When this false information is accepted as truth, it can lead to the spread of fear, hatred, or socially or politically harmful attitudes. Therefore, it is important to always verify information before believing it and to be careful in spreading unverified information so as not to contribute to spreading hoaxes (Fauzi & Marhamah, 2021).

To reduce the spread of hoaxes, technology plays an important role. Technology can be used to strengthen efforts to automatically monitor and detect hoaxes using algorithms and TOGAF (The Open Group Architecture Framework). Social media platforms and news apps can implement features such as fact tagging, dubious content labeling, and reduction algorithms to reduce the spread of hoaxes (Hamzah & Basuki, 2022). In addition, technology can also be used to provide education and training on digital literacy to users, helping them understand and evaluate information more critically before disseminating it further. Thus, technology can be an effective tool in combating hoaxes and promoting the circulation of more accurate and reliable information (Adawiyah et al., 2022). There are several efforts that can be made by utilizing technology to reduce the spread of hoaxes, as follows:

1. Hoax Detection Algorithm

   The use of algorithms and TOGAF (The Open Group Architecture Framework). With sophisticated algorithms, technology can scan and analyze content quickly and efficiently, identify suspicious patterns or hoax characteristics, and compare information with trusted sources (Desyawulansari et al., 2022). TOGAF provides a structured framework for designing, implementing, and managing the information architecture that supports a holistic hoax detection system. The integration of technology and TOGAF enables the construction of a more adaptive and scalable system, with the ability to constantly update and improve detection algorithms according to the evolution of hoax strategies. Thus, technology and TOGAF play an important role in strengthening protection against the spread of hoaxes and providing more reliable solutions in combating disinformation in today's digital era (Kristianto et al., 2021).

2. Fact-Checking

   Social media platforms and search engines can implement fact-checking features that clarify the truth or untruth of the information presented (Martin et al., 2022).

3. Reach Reduction

   Range reduction algorithms can be used to reduce the visibility of hoax content, thereby reducing its potential spread (Thiemann et al., 2022).

4. Digital Literacy Education

   Development of educational applications or platforms that provide training on digital literacy, helping users understand and evaluate information more critically (Maulana et al., 2022).

5. Fake Content Reporting

   Encourage users to report suspected hoax content to the platform or authorities for follow-up (Iswara et al., 2023).

Information Technology plays an important role in combating hoaxes and misinformation by providing tools and techniques to verify the authenticity of information, filter out untrue content, and improve digital literacy. Algorithms and AI technologies can be used to detect suspicious patterns in content, while social

media platforms can implement features such as fact-tagging and labeling of questionable content. In addition, an educational approach is also needed, where technology can be used to provide resources and training on how to check the authenticity of information online, raise awareness of the risks of hoaxes, and develop critical skills in evaluating content consumed digitally. As such, information technology has a vital role to play in combating hoaxes and misinformation, helping the public obtain accurate and reliable information.

CONCLUSION

Information technology has an important role to play in the fight against hoaxes and misinformation. Social media platforms and technology companies can use a variety of ways to meet this challenge, including developing sophisticated algorithms capable of detecting and filtering false information, as well as verifying facts through cooperation with fact-checking organizations. In addition, tech companies can educate users to raise their awareness about hoaxes and misinformation. However, it is important to remember that information technology is not the sole solution in combating hoaxes and misinformation. Joint efforts from various parties, such as the government who can set supportive regulations, civil society who are active in promoting digital literacy, and academics who can conduct further research and provide education, are needed. Only with close cooperation among all parties can we build a healthy information culture and improve people's digital literacy to effectively face this challenge.

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