

## FAKE NEWS: THE CHALLENGE OF DIGITAL LITERACY IN DEALING WITH VISUAL DEEPPAKES ON FACEBOOK

Aldi Alamsyah<sup>1\*</sup>, Aghnia Dian Lestari<sup>2</sup>

University of Swadaya Gunung Jati, Indonesia

\*Email Correspondence: aghniadianl@ugl.ac.id

### Abstract

*Advances in artificial intelligence (AI) have significantly transformed the digital information ecosystem, particularly through the emergence of deepfake technology that enables highly realistic visual manipulation. This phenomenon poses serious challenges in distinguishing authentic from manipulated content, especially on social media platforms such as Facebook. This study aims to analyze the role of digital literacy in recognizing and responding to deepfake content, as well as to examine its patterns of dissemination and impact on public trust in visual information. This research employs a descriptive qualitative approach using in-depth interviews with experts from the Indonesian Anti-Slander Society (MAFINDO) and active Facebook users, complemented by digital observation of circulating deepfake content. The findings reveal that limited digital literacy significantly contributes to users' inability to critically evaluate visual information, leading to the unintentional spread of misinformation, disinformation, and malinformation. Deepfakes are also strategically used for political propaganda and identity manipulation, further undermining trust in digital information. This study contributes to the literature by positioning digital literacy as a critical evaluative and ethical competency in addressing AI-driven visual disinformation within a platform-specific context. Strengthening digital literacy through targeted interventions is therefore essential to enhance users' critical awareness and resilience against manipulated content in the digital environment.*

**Keywords:** Deepfake, Digital Literacy, Artificial Intelligence, Visual Manipulation, Fake News

### INTRODUCTION

The rapid advancement of digital technology has significantly transformed the way information is produced, distributed, and consumed in contemporary society. Social media platforms, particularly Facebook, have become dominant spaces for communication and information exchange due to their accessibility, interactivity, and wide user base. While these platforms facilitate the rapid dissemination of information, they also create fertile ground for the spread of misleading and manipulated content. One of the most concerning developments in this context is the emergence of deepfake technology, which leverages artificial intelligence (AI) to generate highly realistic yet fabricated visual and audio content.

Deepfake technology has introduced a new dimension to the phenomenon of information disorder, a concept proposed by Claire Wardle and Hossein Derakhshan, which categorizes misleading information into misinformation, disinformation, and malinformation. Unlike traditional forms of false information, deepfakes rely on sophisticated AI techniques that make manipulated content increasingly difficult to detect. As a result, individuals are more likely to trust visual content, assuming its authenticity, even when it has been artificially generated. This creates a critical challenge in the digital era, where “seeing is believing” is no longer a reliable assumption.

The growing prevalence of deepfakes on social media platforms raises serious concerns regarding the integrity of information and public trust. On platforms like Facebook,

algorithm-driven content distribution tends to prioritize engagement and virality over accuracy, thereby amplifying the spread of visually appealing yet misleading content. This issue becomes more problematic in societies where digital literacy levels remain moderate. For instance, national reports indicate that digital literacy in Indonesia is still developing, suggesting that a significant portion of users may lack the necessary skills to critically evaluate digital content. Consequently, many users are vulnerable to consuming and sharing manipulated information without verification, contributing to the escalation of information disorder in digital spaces.

Digital literacy, therefore, plays a crucial role in addressing the challenges posed by deepfake technology. It extends beyond the ability to operate digital tools, encompassing cognitive, evaluative, and ethical competencies required to critically assess information. Individuals with adequate digital literacy are more likely to question the authenticity of content, cross-check information sources, and avoid the unintentional spread of false information. In contrast, users with limited digital literacy tend to rely on superficial cues, such as visual appearance or social validation (e.g., comments and shares), which increases their susceptibility to deepfake-based disinformation.

Despite the growing body of literature on deepfakes and digital literacy, several gaps remain. Previous studies have largely focused on the technological aspects of deepfake detection or the general importance of digital literacy in combating misinformation. However, limited research has explored the role of digital literacy in a platform-specific context, particularly on Facebook, where visual content is widely circulated and consumed. Furthermore, existing studies often rely on literature-based approaches, with fewer empirical investigations that capture users' real experiences and perceptions when interacting with deepfake content. This indicates the need for a more contextualized and empirical understanding of how digital literacy functions in real-world social media environments.

Addressing this gap, the present study aims to analyze the role of digital literacy in recognizing and responding to visual deepfake content on Facebook. Specifically, it seeks to examine how users perceive and interact with deepfake content, identify patterns of dissemination, and explore strategies to enhance digital literacy as a protective mechanism against AI-driven disinformation. By focusing on both expert perspectives and user experiences, this study provides a more comprehensive understanding of the issue.

This research contributes to the existing literature in two significant ways. First, it extends the discussion on digital literacy by positioning it as a critical evaluative and ethical competency in the context of AI-generated visual disinformation. Second, it offers empirical insights into the dynamics of deepfake dissemination on Facebook, thereby enriching the theoretical framework of information disorder with platform-specific evidence. Practically, the findings of this study are expected to inform digital literacy interventions, public awareness programs, and policy strategies aimed at mitigating the impact of deepfake technology in the digital information ecosystem.

## LITERATURE REVIEW

Previous studies have largely assessed that deepfake content is currently becoming increasingly difficult to authenticate, so previous studies have described how the development of AI complicates society's assessment of circulating visual content.

Deepfakes are a serious challenge in the digital world and emphasize the importance of digital literacy in dealing with manipulative content (Khusna & Pangestuti Sri, 2019). The combination of AI and visual manipulation makes deepfakes dangerous hoaxes (Mutmainnah et al., 2024). His research has not yet linked this to users' digital literacy levels in depth. Low digital literacy affects public trust in visual content (Widjaja, 2025). This is supported by findings (Geissler et al., 2025) Individuals with low digital literacy skills tend to be more susceptible to the spread of misinformation. Many social media users often consider deepfakes to be entertainment, even though they can have dangerous consequences (Pratiwi et al., 2024).

Previous studies have discussed deepfakes and the importance of digital literacy in dealing with this phenomenon, but previous studies are still limited in reviewing the role of digital literacy in helping the public deal with the spread of deepfakes. Therefore, this study is expected to fill this gap by analyzing the level of digital literacy and placing Facebook as the main context.

Social media has become the primary platform for producing and disseminating various types of information in the digital space, enabling users to quickly obtain and share information for personal communication, business interests, politics, and public information dissemination. As social media plays an increasingly important role in everyday life, challenges arise regarding the authenticity and accuracy of content, especially visual content that can be easily modified and reproduced without adequate verification processes (Qadir & Ramli, 2024). Users can act as creators and disseminators of information without regard to its authenticity because social media is interactive, participatory, and relatively open in nature, Mayfield, 2008 in (Ardiansyah, 2020), Kietzmann et al., 2011 in (Nurfalah et al., 2021)

Digital literacy is an important skill in evaluating and analyzing information presented in the digital space, which originated from the concept of media literacy (Restianty, 2018). Digital literacy is not only the ability to use technology, but also includes ethical and cognitive abilities, as well as critical thinking in assessing information presented in the digital space. According to (Handayani et al., 2024), Improving digital literacy through training can enhance people's ability to recognize hoax content. Someone with sufficient digital literacy skills will be more critical of the information presented in digital media (Geissler et al., 2025; Pratiwi et al., 2024).

The advent of AI has made the challenge of digital literacy even more complex. Artificial intelligence has the ability to automatically recognize patterns and mimic humans through data processing and machine learning (Handoko et al., 2022; Norvig, 2022). In this context, AI can be positioned on two sides, namely supporting the efficiency of information analysis and accelerating the spread of deepfakes through algorithms, (Tomassi et al., 2024).

The development of artificial intelligence has led to the emergence of deepfake technology, which is a technology that allows for realistic manipulation of visuals, from movement and sound to faces (Maras & Alexandrou, 2019). This shows that deepfakes pose a serious threat in the digital world because they can produce a high degree of realism (Amanda et al., 2025). This phenomenon blurs the line between false and authentic information, which can lead to a decline in public trust in information (Widjaja, 2025). In addition, deepfakes have the potential to be used for defamation, manipulation of public opinion, and widespread dissemination of visual disinformation (Mutmainnah et al., 2024).

Users who have adequate digital literacy skills tend to be more critical in dealing with and responding to manipulated content, making digital literacy the primary protection against this phenomenon. (Geissler et al., 2025) The public's ability to recognize manipulated content is improved through digital literacy-based efforts, serving as a strong foundation against disinformation.

The phenomenon of the spread of manipulative content such as deepfakes can be understood through the Information Disorder theoretical framework proposed by (Wardle & Derakhshan, 2017) misinformation (false information without malicious intent), disinformation (false information deliberately spread), and malinformation (true information manipulated with the aim of harming a particular party). In the context of digital media, the development of AI and deepfakes exacerbates visual disinformation that is difficult for the public to recognize. Digital literacy helps individuals understand context and critically evaluate the information presented to them.

## **METHOD**

The method used in this study was qualitative with a descriptive approach, which is the most relevant method for understanding and exploring phenomena in depth (Creswell, 2018). The phenomenon of low digital literacy among users and the free circulation of deepfake content on Facebook is an issue that needs to be analyzed because it involves public trust and the potential for disinformation in the digital space. The analysis unit covers public interaction with and perception of deepfake content, focusing on understanding, experience, and digital literacy skills in recognizing the authenticity of visual content based on Artificial Intelligence (AI).

Data was collected through in-depth interviews and digital observation. In-depth interviews were conducted with key informants from the Indonesian Anti-Slander Society MAFINDO (Masyarakat Anti Fitnah Indonesia) and several supporting informants who were active Facebook users. Digital observation was conducted on deepfake content. The data was analyzed qualitatively through the stages of data collection and sorting, transcription, in-depth reading, interpretation of meaning, and drawing conclusions, then linking them to the theory of information disorder. The validity of the data was tested through source triangulation by comparing the results of interviews, observations, and documentation.

## **RESULTS AND DISCUSSION**

### **The Role of Digital Literacy in Dealing with Visual Deepfakes on Facebook**

The results of the study show that digital literacy plays an important role in users' ability to recognize and evaluate deepfake content on Facebook. The Indonesian Anti-Slander Society MAFINDO (Masyarakat Anti Fitnah Indonesia) describes how users often only view part of the content, with many “only watching half the video before jumping to conclusions.” However, the entire content is crucial in determining the meaning of each piece of content presented. This shows that the public's digital literacy skills are not yet at a sufficient level.

Deepfakes have developed rapidly and can create content that looks very realistic. Users admit that it is increasingly difficult to distinguish between original and manipulated content, and they only look at “lips that are out of sync” to verify it, but this method is ineffective because AI can now create even more realistic facial gestures. This shows that the public's digital literacy skills are not yet sufficient, both technically and critically.

### **The Spread of Deepfakes and Public Trust in Visual Information**

The study found a lot of content spread on Facebook, ranging from entertainment to misleading users. Informants provided real examples such as deepfakes of Sri Mulyani with provocative narratives, as well as deepfakes of Raffi Ahmad. Several informants stated that the visuals “looked real,” causing confusion.

This study found that many users spread deepfake content without knowing the truth about it. MAFINDO said that “people often swallow what they see whole” and do not check other sources. This is supported by Facebook users who stated that users often share content because it is viral without knowing its truth, and to find out whether the content is real or fake, they only look at the comments section.

There is a deliberate pattern of dissemination to influence the opinions of consumers. MAFINDO states that during political periods, there are often groups that deliberately produce and disseminate deepfake content with the aim of discrediting political opponents or boosting the image of one of the candidate pairs. This is supported by Facebook users who believe that such content is often “clearly designed to sway opinion.”

There is content in which a person's face is manipulated and combined with sensitive content such as obscenity and promotion of illegal sites, with the aim of harming the victim. This shows that deepfakes have the potential to damage a person's reputation, where their true identity is manipulated to harm the victim.

### **Communication Strategies to Improve Digital Literacy**

MAFINDO conducts training for students and housewives to improve the digital literacy of the community. This includes training on how to verify the accuracy of content, as well as introducing and teaching how to use tools to detect AI-manipulated content such as deepfake, so that they can recognize and detect AI-manipulated content themselves.

This study also found that Facebook users have begun to take an active role in addressing this phenomenon. Users are more careful when posting something on social media, and report content that has the potential to cause chaos and division.

Digital literacy is not just the ability to use technology. It also includes the ability to analyze, assess, understand, and evaluate information presented in the digital space (Restianty, 2018). Facebook users who consume AI-generated content are more likely to believe visual manipulations if they do not fully understand the content. This shows that individuals are more likely to believe the information presented to them if they do not critically evaluate what they see (Nurviana et al., 2024).

The aspect of misinformation in the information disorder theoretical framework, where users spread false information without knowing its truth. This is reinforced by findings in the field, which found that there are users who only watch half of the content and do not finish it, do not look for other sources, and immediately conclude that the content is not manipulated. Critical thinking skills are a crucial factor in determining what information is false and what is true, so that users do not easily believe everything they see (Nurviana et al., 2024).

The digital literacy skills of the public play an important role in recognizing information presented in the digital space. Some users only glance at deepfakes circulating on social media without checking further. This causes users to easily believe manipulated content that looks realistic. Added to this is limited verification capabilities. Thus, it is important to improve the digital literacy of the public in terms of evaluation so that people are not vulnerable to false information.

A lot of AI-Manipulated content is circulating on social media, including Facebook. One example is controversial content involving Finance Minister Sri Mulyani and famous celebrities such as Raffi Ahmad.



**Figure 1.** Deepfake of Sri Mulyani stating “Teachers Are a Burden on the State”  
Source: Facebook account @Irfansyah

Figure 1 shows a case of deepfake content featuring Finance Minister Sri Mulyani, who appears to be stating that “teachers are a burden on the state.” The content is the result

of artificial intelligence engineering, in which the voice and movements are subtly and convincingly manipulated so that it does not appear to be the result of AI manipulation. Deepfake's ability to manipulate visuals so subtly makes it difficult to distinguish between the original and the manipulation (Fitri et al. 2025). The existence of such content shows how public figures are manipulated to appear provocative, thereby potentially causing misunderstandings.



**Figure 2.** Deepfake Raffi Ahmad promotes online gambling sites

Source: Facebook account @Raffi Ahmad Slot

Figure 2 is an example of a deepfake that circulated on social media, in which famous celebrity Raffi Ahmad appeared to be promoting the launch of an online gambling site, showing what appeared to be an authentic recording of Raffi Ahmad. His voice and lip movements are subtly manipulated to appear convincing to viewers, especially those who are not tech-savvy. The general public often finds it difficult to verify the accuracy of information (Zahro et al. 2024). This shows that users who lack verification skills will find it difficult to recognize such manipulated content. This is in line with disinformation, which is deliberately manipulated with the aim of causing harm while benefiting its creator.

Many users spread false content because they do not know that it has been manipulated. This method of dissemination is a form of misinformation. Users' habit of not evaluating what they see, relying on comment sections, and being reluctant to check the truth from other sources causes this phenomenon. Users' inability to distinguish between original and manipulated content makes the spread of deepfakes a serious threat in the digital world. (Budiman, 2025). Therefore, users' lack of ability to recognize AI-manipulated content leads to misinformation.

Content that is deliberately created and disseminated for specific purposes is a form of disinformation. The ability of deepfakes to manipulate highly realistic visuals is widely exploited, especially in the context of political groups on Facebook, which is a fertile ground for spreading fake news. This has led to increased public trust in manipulated information in the digital space. This is because deepfakes are more convincing than text-based narratives. (Fahrudin & Rahman, 2025). This can have a significant impact on users and the wider community, as disinformation has the power to corrupt information systems,

making them a powerful tool for spreading disinformation (Ali et al. 2025). Deepfakes not only affect victims personally but also have an impact on information because they can disrupt the quality of public information. Visual disinformation is far more convincing and can increase the risk of the public believing falsehoods, thereby shifting public opinion, undermining credibility, and even becoming a strategic tool for creating confusion and division.

The misuse of identity manipulation is a form of malinformation. The ability of deepfakes to manipulate a person's face and combine it with sensitive content shows that they not only threaten the truthfulness of information, but also have the potential to damage reputations, digital security, and cause psychological distress. Thus, deepfakes can be used to humiliate, harass, and even blackmail someone, causing emotional distress (Ali et al. 2025). This shows that deepfakes pose a direct threat to the emotional security and personal integrity of victims.

This study shows that user behavior and certain interests are the causes of the creation and dissemination of deepfake content circulating on Facebook. The main cause of dissemination is still unintentional users. During political moments, deepfakes are used to influence public opinion, which shows that there is intentional creation and dissemination, causing confusion, a decline in user trust in visual content, and threats to individual reputations.

MAFINDO has conducted digital literacy education, which is in line with research showing that the public's ability to distinguish between original content and manipulated content can be improved through digital literacy intervention strategies. Digital literacy helps the public access, evaluate, and use information wisely, thereby encouraging a critical attitude in assessing the accuracy of content circulating in the digital space (Septia et al. 2025). Various forms of education are important to improve critical thinking skills. In addition, training such as "Fact Check" has also been shown to improve the ability to recognize and evaluate information in the digital space (Handayani et al., 2024).

Individual protection strategies such as privatizing accounts, limiting uploads, and reporting content reflect the application of ethics-based digital literacy. In the context of Information Disorder, ethical literacy is a safeguard to prevent the spread of misinformation and disinformation by users themselves. Therefore, it is important to improve digital literacy. This is because improving digital literacy has been proven to strengthen individual security and reduce the risk of personal data misuse (Saputra et al., 2023). Users with sufficient digital literacy skills can determine and protect their posts from potential misuse, and can be critical of the information circulating, thereby minimizing the risk of identity theft and the spread of fake content. This shows that digital literacy contributes significantly to more ethical behavior and restraint from spreading fake news (Putri & Ardoni, 2025).

Digital literacy training, such as the introduction of detection tools carried out by MAFINDO, helps to improve the public's understanding and ability to deal with this phenomenon. The spread of fake news can be slowed down by simple steps taken by users, such as privatizing their accounts so they do not become victims, and reporting

manipulated content that has the potential to cause chaos. This shows that the involvement of digital media users plays an important role in dealing with deepfakes, and cannot rely solely on a technological approach. Therefore, improving digital literacy and encouraging more cautious behavior are important steps in creating a safer information space.

## CLOSING

### Conclusion

Digital literacy plays an important role in the community's ability to deal with visual deepfake content on Facebook, where most users still have inadequate digital literacy skills. This is evident in the way users consume content quickly and rarely verify it from other sources, making it difficult for them to distinguish between authentic and manipulated content, which increases the likelihood of them spreading misinformation, disinformation, or malinformation. The spread of deepfakes is not only due to unintentional actions by ordinary users, but also used for political propaganda, identity theft, and undermining public trust in information, leading to a decline in the quality of information in the digital space. The implications of this research emphasize the need to enhance the evaluative, critical, and ethical capabilities of society so that people are not easily exposed to manipulated content. The limitations of this research lie in its focus on only one social media platform, namely Facebook, and the limited number of informants, which means that the dynamics of deepfake dissemination on social media have not been fully examined

### Suggestions and Acknowledgments (if any)

Further research is expected to expand the scope of study to various other social media platforms to obtain a more comprehensive picture of the spread of deepfakes and to use quantitative methods to measure the level of digital literacy among the public in concrete terms. In addition, it can further highlight the effectiveness of digital literacy training.

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