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ARTIFICIAL INTELLIGENCE TO IMPROVE COMMUNICATION LITERACY ON HOAX COVERAGE

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Abstract

This study examines students' perspectives on the use of social media and artificial intelligence (AI) in verifying information, with a focus on the ethical concerns surrounding AI's role in combating disinformation. Conducted with 70 participants through a qualitative approach using interviews, the research reveals that while most students depend on social media for information verification and view AI positively, they also express ethical concerns and mixed opinions about its use. The findings indicate that students actively apply media literacy skills—such as interpreting messages, evaluating authenticity, and maintaining critical awareness of digital content. They recognize AI as a useful tool but remain cautious about its ethical implications. Overall, the study highlights the need for greater education in media literacy and responsible technology use to navigate the digital information landscape effectively.

Keywords: artificial intelligence, hoax, information verification, literacy communication.

1. INTRODUCTION

In the digital age, disinformation has become a pervasive and complex phenomenon that goes beyond the simplistic notion of "fake news." Once a term used to denote fabricated content, "fake news" is now often weaponized by powerful actors to delegitimize critical voices and discredit legitimate journalism. This tactic contributes to public confusion, erodes trust in media institutions, and facilitates the strategic spread of false or misleading information. Misinformation defined as intentionally false or manipulated content designed to deceive or serve specific interests has been increasingly used in highly organized and systematic ways, particularly in political contexts such as election campaigns [1]. In response, a wide range of stakeholders including governments, media organizations, academic institutions, and technology companies have mobilized efforts to counter disinformation. One key strategy has been the integration of artificial intelligence (AI) to detect, analyze, and mitigate the spread of harmful content. AI-driven tools such as automated fact-checking systems and algorithm-based detection platforms are becoming essential in safeguarding the integrity of the digital information ecosystem [2].

However, the continued rise of misinformation especially during politically sensitive periods like elections raises critical concerns. Social media platforms, such as Twitter (now X), have been shown to act as high-speed information networks where false narratives can circulate rapidly and widely. In Indonesia, Twitter has been instrumental in amplifying misleading information, including high-profile cases where collaborative efforts were falsely reported and later proven to be fabrications [3].

Despite advances in technology and growing awareness of media manipulation, the mechanisms by which individuals engage with, believe in, and disseminate disinformation remain insufficiently understood. While AI offers potential solutions, its effectiveness is closely tied to users' media and communication literacy. The core problem this study addresses is: What cognitive and contextual factors influence individuals' ability to evaluate and respond to misinformation, particularly in political contexts where information is often distorted for strategic purposes?.

By focusing on users' behaviors and perceptions, this study seeks to contribute to a deeper understanding of how misinformation is processed and spread in digital environments. It also aims to inform strategies for

strengthening critical literacy and ethical awareness, especially in preparation for political events where the stakes for disinformation are especially high. Futuremore, the research contributes to the field by highlighting the need to strengthen media and communication literacy strategies that address the specific ways individuals process politically charged information.

In today's digital era, the spread of false information and hoaxes is a major concern. Poor truth claims often result from careless reasoning and reliance on familiar content rather than verified facts. Interestingly, what people believe and what they share on social media are often different mostly due to carelessness rather than intentional misinformation [4]. Interventions that promote accuracy have proven effective in encouraging users to be more mindful when sharing information.

If artificial intelligence (AI) can be used as a tool to improve communication literacy, especially in searching for accurate information, the spread of fake news can be reduced. As a result, negative and harmful content online could also be minimized. One of the most well-known generative AI tools is ChatGPT, which became publicly available in 2022. ChatGPT allows users to input questions or prompts and receive detailed responses based on information learned through machine learning [5].

Beyond education and information, AI also supports industries like business and finance. For example, AI-powered chatbots help companies offer better customer service by providing useful and timely information [6]. In the financial sector, AI is widely used to manage operations, reduce costs, and enhance services. However, AI also carries risks, such as bias in data, algorithm errors, and misinterpretations due to human decisions. To manage these risks, collaboration between humans and AI is essential[7].

The spread of false news by irresponsible individuals is a constant threat. Therefore, caution is crucial especially for students, who play a key role as agents of change in society [8]. In education, AI should align with pedagogic, affective, and psychomotor aspects to support effective and meaningful communication between studen. This research seeks to answer the question: How can AI be used effectively to improve communication literacy, especially in handling fake news and hoaxes? Students, as change agents, need to have strong media literacy skills. Media literacy is the ability to access, analyze, evaluate, and communicate information across various forms of media. It empowers individuals to understand and interpret messages from the media critically.ts and lecturers [9].

Media literacy focuses on critical awareness, which helps individuals interact wisely with media. According to Art Silverblatt [10] , key elements of media literacy include a) Awareness of Media Influence. Understanding how media affects individuals and society. b) Understanding Mass Communication. Knowing how media is produced, distributed, and consumed. c) Media Analysis Skills. The ability to critically analyze and discuss media content. d) Content Awareness. Realizing that the media reflects cultural and social values. e) Appreciation for Media. Building interest and understanding of media content.

Media literacy also involves knowing the ethical responsibilities of media creators [11] and the skills to create effective and ethical media messages. This knowledge helps individuals contribute meaningfully to the media landscape. The media greatly influences both individual and social behavior[12], but audiences also have the power to manage media use and interpret its messages [13], [14]. Good media literacy empowers people to be active, critical participants in the media world [15], [16].

Moreover, the importance of critical awareness according to experts, critical awareness helps individuals: 1) Identify reliable sources by comparing information from different media [17]–[19] 2) Understand media's influence on thoughts and behavior [20] . 3) Interpret messages more accurately, identifying bias or manipulation [21]. 4) Recognize cultural values within media content[22]. 5) Understand media ownership and politics, which may shape content [23]. Use media wisely in everyday decision-making [24]. So, critically aware individuals are better at evaluating media content and making informed decisions. They realize that media never neutral it carries social, political, and economic messages [25]. While media literacy is like a protective shield that helps people navigate media safely and critically [26]. In today's complex media environment, it is essential for filtering information, understanding issues, and making thoughtful decisions [27].

Futhermore, Seven Essential Skills for Media Literacy (James Potter) is needed [28]. 1) Analytical Skills. Breaking down media content into smaller parts for better understanding. 2) Evaluation. Assessing the credibility and relevance of information. 3) Grouping. Sorting similar or different elements in media content. 4) Induction. Drawing general conclusions from patterns in media messages. 5) Deduction. Applying general principles to understand specific messages. 6) Synthesis. Combining various elements into a new, coherent understanding. 7) Abstracting. Summarizing the main points clearly and concisely. These skills are especially important for students. They help learners become smart media users who can identify credible, meaningful, and relevant information in a crowded media landscape [29].

2. RESEARCH METHODS

The research utilized a qualitative method with a case study approach, enabling a deeper exploration of students' thoughts, views, and understanding regarding the role of AI in countering disinformation[30]. Case studies provide an opportunity to thoroughly examine the diverse perspectives and opinions of respondents[31]. This approach not

only captures what students express but also investigates the reasoning behind their viewpoints, offering a richer understanding of their perspectives. Researchers concentrated on specific cases to gain detailed insights into the phenomenon under study. In this context, the focus was on students' opinions and views about the utilization of AI in addressing disinformation.

A purposive sampling strategy was utilized to select participants who were most likely to provide relevant and information-rich responses. The inclusion criteria required participants to be active undergraduate or graduate students at Universitas Islam Jakarta, have access to digital technologies, and demonstrate basic awareness of AI and disinformation issues. Students who did not meet these criteria such as those without regular internet access or who had not encountered AI-related content were excluded from participation.

The study involved 70 student respondents, with data collected through multiple qualitative techniques, including observation, semi-structured interviews, document analysis, and questionnaires. While using term Student Answer (SA) to explain their opinion based on the questioner. Observational methods captured students' interactions and behaviors in natural settings, while interviews explored their deeper reflections on AI and disinformation. Documentation involved analysis of relevant written materials and student submissions, including responses submitted via Google Forms (G-Form). Questionnaires were used to gather broader insights and quantify common trends in students' opinions and understanding, thereby enriching the data and supporting triangulation across multiple sources.

3. RESULTS AND DISCUSSION

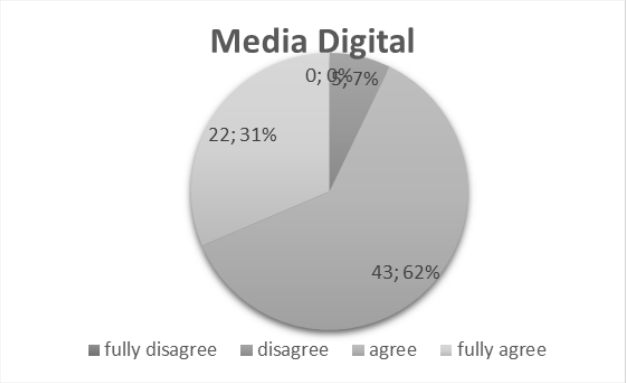

Figure 1. Media Digital

Based on Figure 1, social media has become an essential part of daily life for most people, a trend that aligns with the rapid development of technology and applications, including those powered by Artificial Intelligence (AI). The widespread adoption of AI presents a duality for education practitioners. On one side, it offers significant benefits and conveniences. On the other side, it poses risks, especially when individuals use it without verifying the accuracy of the information it provides.

This duality is evident in the behavior of college students, who frequently rely on social media platforms such as Google, YouTube, and TikTok to verify the accuracy of online information. The data reveal that 22.31% of respondents strongly agree that these platforms are reliable tools for fact-checking, while an additional 43.62% agree indicating that nearly two-thirds of students perceive social media positively in this context. These findings are supported by interview responses, in which several students expressed confidence in using Google and YouTube to cross-check claims and access diverse viewpoints quickly. One student noted, "*I usually double-check news on TikTok by comparing it with what I find on Google, it helps me feel sure about what's real*." (Student Answer 1)

However, 6.7% of respondents disagreed with the reliability of these platforms, reflecting a more critical stance. This skepticism was echoed in interviews, where some students voiced concerns about the prevalence of user-generated misinformation and algorithm-driven content that may reinforce bias. For example, one respondent remarked, "*TikTok sometimes shows me things that aren't accurate, but they get a lot of likes, so I don't fully trust it for fact-checking.*" (Student Answer 2). These qualitative and quantitative findings together illustrate a nuanced perception among students, with most recognizing the utility of social media for verification, while a minority remain cautious about its credibility.

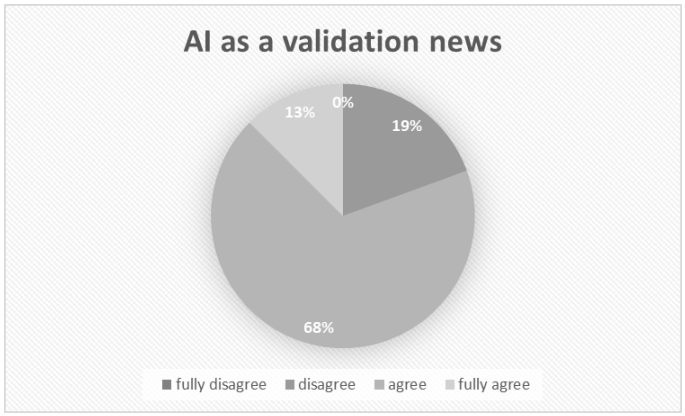

Figure 2. AI as Validation News

According to Figure 2, whre is involved 70 respondents, aiming to assess their ability to access and utilize AI tools or platforms for validating the accuracy of information found on the internet. Among the respondents, 13% expressed strong agreement, indicating a high level of confidence in their effectiveness in using AI tools for verifying online information. This reflects a small portion of the population with a strong belief in their ability to leverage such technologies effectively.

A total of 68% of respondents answered "yes" when asked whether they felt capable of using AI tools or platforms to verify the validity of online information. This suggests that most students hold a positive perception of their ability to utilize AI in evaluating digital content. Interview data supported this finding, with several students expressing confidence in using AI-based features such as ChatGPT, Google Lens, or algorithm driven fact-checking tools to cross-verify information. One respondent remarked, "*I've used AI like ChatGPT to double-check news articles it's fast and often gives me the context I need.*" (SA 3)

Conversely, 19% of respondents disagreed, revealing a level of skepticism or uncertainty about their ability to use AI tools effectively for verification. This view was also reflected in interviews, where some students admitted to being unfamiliar with the proper use of AI technologies or worried about the accuracy of AI-generated content. One student shared, *"Sometimes I'm not sure if what the AI says is true or just made up, it still needs checking*." (SA 4)

These findings indicate that while most students are optimistic and confident about integrating AI into their digital literacy practices, there remains a notable portion who feel unsure or hesitant. To address this gap, targeted educational initiatives and training on the effective and critical use of AI for information verification are essential. Such efforts could empower more students to responsibly use AI in combating misinformation and fake news in the digital age.

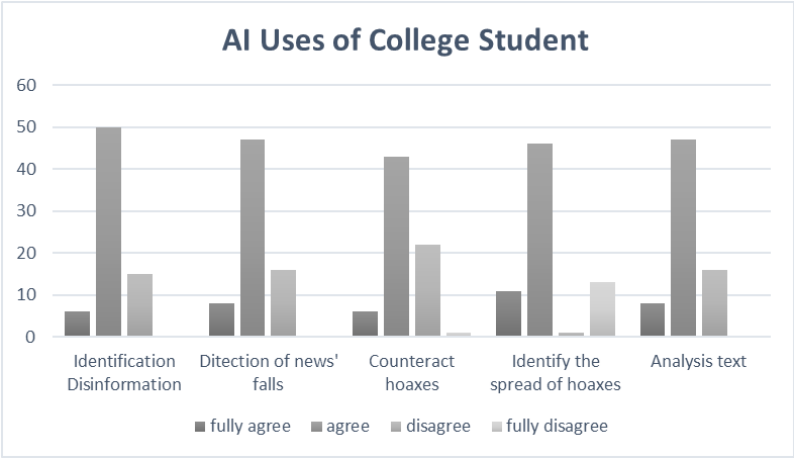

Figure 3. AI uses of college students

As illustrated in Figure 3, the study reveals nuanced student perspectives on the role of AI in countering disinformation, highlighting both confidence and skepticism. The data show that 8.57% of respondents strongly agree and 71.43% agree that AI can effectively identify disinformation, suggesting broad optimism about AI's capabilities. This sentiment was echoed in interviews, where students described AI tools as "*helpful for sorting facts from lies" and "able to process large volumes of data quickly, which we can't do manually."*(SA 5) However,

21.43% expressed doubt, which aligns with interview responses from students who questioned the neutrality or reliability of AI-generated outputs, with one stating, *"AI can make mistakes too, especially if it's trained on biased data.*" (SA 6)

Similarly, 11.43% of respondents strongly agreed and 67.14% agreed that AI is effective in detecting fake news. Interviewees who supported this view often cited specific experiences using tools like ChatGPT or AI-enhanced search engines, describing them as "*useful to check headlines that seem suspicious*." (SA 7) On the other hand, 22.86% of respondents disagreed, and several students shared concerns during interviews that AI sometimes "*amplifies misinformation if the data behind it is flawed*." (SA 8)

When asked about AI's role in counteracting fake news, 8.57% strongly agreed and 61.43% agreed, reflecting overall confidence. Yet 31.43% disagreed—a significant minority. In interviews, some students acknowledged AI's potential but also expressed reservations, with one remarking, "*AI can help stop fake news, but it's not always up to date or context-aware, it still needs human judgment*." (SA 9)

Regarding AI's capacity to identify the spread of hoaxes, 15.71% of students strongly agreed and 65.71% agreed. This was consistent with interview responses describing AI tools as *"able to track how misinformation spreads across platforms*." (SA 10) However, 20% of respondents disagreed, with interviewees pointing out challenges such as "*algorithms not detecting subtle hoaxes or satire*." (SA 11)

For AI's ability to perform hoax text analysis, 11.43% strongly agreed and 67.14% agreed, suggesting confidence in its analytical capabilities. Still, 22.86% expressed doubts. One respondent explained, "*AI can analyze text fast, but sometimes it misunderstands sarcasm or cultural references*." (SA 12)

Finally, on the topic of ethical risks associated with AI in combating disinformation, many students expressed concern. While the percentages were not detailed here, interviewees frequently highlighted ethical dilemmas such as data privacy, algorithmic bias, and lack of transparency. As one student noted, "*AI might fight hoaxes, but if it invades our privacy or censors too much, it's also dangerous*." (SA 13)

Overall, the combined quantitative and qualitative findings indicate a generally positive student outlook on AI's role in combating fake news and disinformation, tempered by concerns over reliability and ethics. This underscores the importance of enhancing students' AI literacy and ethical awareness through targeted education and practical training.

In addition, regarding students' views on ethical risks in the use of AI to combat hoaxes, there is significant attention to ethical issues in this context. Here is a more detailed explanation of how much ethical risk the use of AI is for students as shown in the graph below.

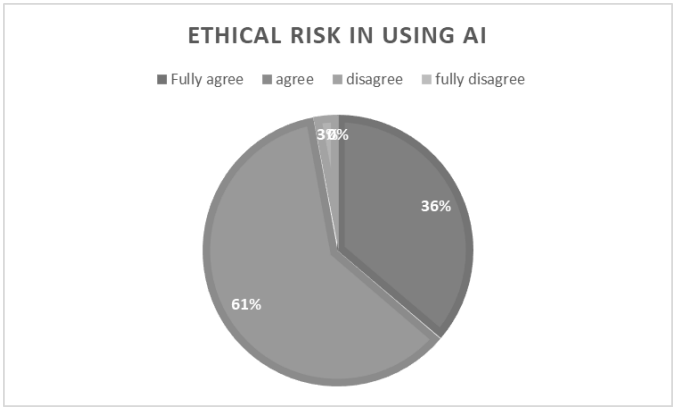

Figure 4. Ethical Risk in Using AI

Based on the visual data presented above, a substantial majority of respondents—60%—agreed that there are ethical risks associated with the use of AI in combating hoaxes. Additionally, 35.71% of students strongly agreed with this view, underscoring widespread concern about the ethical implications of AI. In interviews, many students voiced apprehensions about privacy violations and the potential misuse of user data. One respondent commented (SA 14), "*Even if AI helps spot fake news, it might be collecting our information without us realizing it*," while another expressed concern about "*how algorithms can unintentionally discriminate based on race, gender, or ideology.*" (SA 15)

These concerns were further supported by qualitative responses emphasizing algorithmic bias and lack of transparency in how AI systems operate. Some students noted that AI tools could reinforce existing misinformation if not properly monitored. As one student explained, "*Sometimes AI gets trained on biased data, and it ends up repeating the same misinformation we're trying to fight*." (SA 16)

Conversely, only 2.86% of respondents disagreed with the idea that AI poses ethical risks in this context. This minority believed that the benefits of AI in reducing misinformation outweigh potential concerns. In interviews,

one student reflected this sentiment by stating, "*I think the ethical risks are minimal if AI is used responsibly. What matters is how humans use it*." (SA 17)

These findings suggest that most students not only recognize AI's potential in combating disinformation but are also critically aware of the ethical responsibilities that come with it. The strong agreement among respondents points to a need for universities to integrate ethics into digital literacy programs. Several students proposed that workshops or coursework addressing both AI functionality and ethical awareness would better prepare them to use these tools responsibly. As one student concluded, "*We should learn not just how to use AI, but how to question what it gives us." (*SA 18)

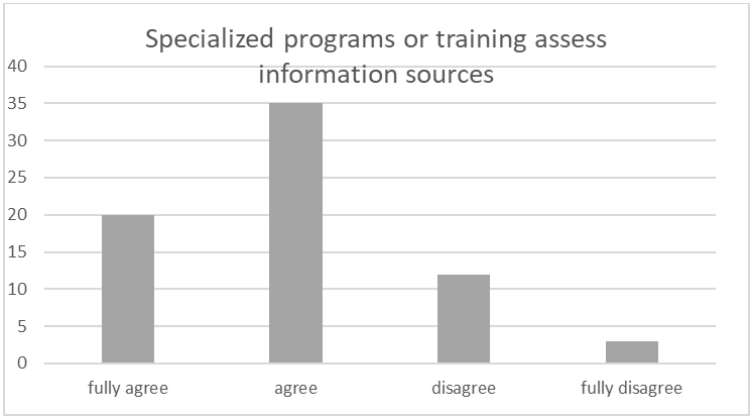

Figure 5. Specialized programs or training assess information sources

As illustrated in Figure 5, the survey findings offer valuable insight into students' perceptions of the importance of training programs that focus on evaluating and selecting credible information sources. Approximately 28.57% of respondents strongly agreed that such training is essential. In interviews, students in this group expressed concern over the overwhelming presence of misinformation online and emphasized the need for practical guidance. One respondent stated (SA 19), "*There's just so much fake stuff online—sometimes it's hard to know what's real. We need training to help us tell the difference*."

An additional 50% of respondents agreed with the importance of these programs, indicating broad recognition of the need to develop critical information literacy. Many of these students described personal experiences of confusion or uncertainty when encountering conflicting information on social media. For instance, one student shared, "*I've fallen for clickbait headlines before. If the campus offered workshops on verifying sources, I'd join."* (SA 20)

In contrast, 14% of respondents disagreed with the need for such training. Interviews revealed that students in this group often felt confident in their current information-seeking habits or believed that informal learning through experience was sufficient. One student remarked, *"I think I already know how to spot fake news I usually cross-check stuff on my own."* (SA 21)

Despite this minority perspective, the overwhelming agreement (78.57%) underscores a pressing demand for educational initiatives that can strengthen students' abilities to critically assess digital content. Interview comments consistently supported this notion, with students calling for more structured opportunities—such as seminars, online modules, or integrated course content to build these vital skills.

Together, these findings highlight a clear need for campuses to implement targeted training programs that address the realities of digital misinformation. Such efforts would empower students not only to protect themselves from false information but also to become more responsible contributors to the information ecosystem.

So, based on the result in the digital media era, social platforms have become integral to daily life, offering both significant conveniences and notable challenges. The rapid advancement of artificial intelligence (AI) applications has added another layer of complexity, exerting a dual impact on the education sector. Amid this dynamic landscape, students frequently rely on social media platforms such as Google, YouTube, and TikTok to navigate the vast expanse of online information, using these tools to verify the accuracy of the content they encounter.

a. Social Media as a Verification Tool

Most students, about 22.31%, strongly agree that social media platforms are an effective tool for fact-checking. Around 43.62% said they agreed, showing a positive majority view of using this platform for information validation. However, a small number (6.7%) disagreed, highlighting a small percentage who felt social media was less appropriate or effective at checking for truth.

This shows that while many college students rely on platforms like Google and TikTok to verify information, there is a diversity of views, with a small percentage opting for alternative approaches in fact-checking.

b. AI as a News Validation Tool.

When it comes to using AI tools to validate information, most college students express conviction. About 13% strongly agree, and about 68% agree that AI can effectively verify information online. However, 19% disagreed, indicating doubts among some students about their ability to use AI tools for this purpose.

This indicates general optimism among students regarding the ability of AI to verify information, but there is a need to address the concerns and uncertainties of skeptical minority groups through additional information and training.

c. Applications for AI in Fighting Disinformation

The data showed positive sentiment among students regarding the role of AI in identifying disinformation, detecting fake news, counteracting fake information, identifying the spread of fake news, and analyzing fake news texts. However, a small number in each category expressed disapproval, displaying diverse perspectives regarding the effectiveness of AI in specific contexts.

The findings show that while most students see AI as a valuable tool in fighting disinformation, a minority are suspicious of its abilities in certain contexts.

d. Ethical Risks of Using AI

Concerns about the ethical risks associated with the use of AI in countering general disinformation among students. The majority, about 60%, agree that there are ethical risks, emphasizing their awareness of the complex ethical issues that can arise from the use of AI technology. Furthermore, around 35.71% strongly agreed, indicating a large proportion of students who believe in the existence of ethical risks. Only 2.86% disagreed, representing a minority that underestimated the significance of ethical risks in the use of AI. It emphasizes the importance of addressing ethical considerations in the development and implementation of AI systems to combat disinformation, ensuring that these efforts are in line with human rights principles and privacy standards.

Overall, the study reveals diverse views among students regarding the role of social media and AI in information verification, ethical considerations in the use of AI, and requests for specialized training programs. Understanding and overcoming this view is important to form a student society that is media literate and ethical aware in the digital era.

The research does not delve deeply into external factors such as cultural, social, or technological influences that may shape students' perceptions of AI and its role in countering disinformation. The absence of longitudinal data further limits the ability to understand changes in students' views over time. Moreover, future studies could expand the sample size to include students from diverse educational institutions, regions, and disciplines to ensure greater representativeness and generalizability. Incorporating longitudinal data would provide insights into evolving perspectives on AI's effectiveness in combating disinformation. Moreover, future research could investigate the impact of targeted educational programs on students' ability to critically assess information using AI tools. Exploring the ethical dimensions of AI applications across varied cultural and social contexts would add depth to the understanding of these technologies' implications. Additionally, comparative studies with alternative disinformation countermeasures could provide a broader perspective on effectiveness.

4. CONCLUSION

The survey findings present key conclusions derived from responses from numerous students. These include the use of social media to verify information, beliefs regarding AI capabilities, the role of AI in countering disinformation, awareness of the ethical risks associated with AI, and the demand for media literacy training programs. The study highlights that students possess strong awareness of the challenges in managing the information they encounter in a digital environment. Social media and AI technology are frequently utilized as tools to navigate these complexities, albeit with variations in students' perspectives.

Furthermore, the research indicates a significant level of awareness among students about the ethical risks of using AI technology, including concerns related to privacy and algorithmic bias. The call for media literacy training programs reflects students' eagerness to strengthen their skills in evaluating and analyzing the information they consume. From an educational standpoint, this demonstrates the necessity of developing initiatives that foster media literacy and ethical understanding in the application of AI technologies.

Overall, the survey results reveal that students actively employ elements of media literacy in their interactions with digital information. This includes decoding messages, validating their accuracy, recognizing the utility of AI tools, identifying ethical concerns, and showcasing critical awareness of online content. These findings underscore the importance of media literacy as a fundamental skill in the digital era for comprehending, evaluating, and managing information effectively and responsibly.

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