

Information Literacy in the Age of AI

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AI Aides Disinformation

The ubiquity of the Internet has impacted how people develop information literacy, which itself has been drastically influenced by the issue of 'fake news' and its spread on social media. This is further troubled by the recent rise of Artificial Intelligence machines like ChatGPT and BingBot. The prevalence of Artificial Intelligence (AI) has shed new light on issues of how disinformation spreads and the growing importance of information literacy. It is important for people to understand how AI creates and spreads disinformation, so literacy learners can be equipped to identify it.

Edson et. al (2017) define fake news, or disinformation, as "viral posts based on fictious accounts made to look like news reports" (p. 138). Disinformation is the intentional creation of false information to spread confusion. Disinformation is often spread on websites that rely on user-generated content, such as Facebook and Twitter. Over 60% of adults have unknowingly shared fake news at least once over social media, and fake news spreads at a faster rate across the Internet than information that is truthful and accurate (Wong, 2019). The advent of AI machines, such as ChatGPT and Microsoft's BingBot create new concerns. Readers must now be mindful that information posted on the Internet may have been authored by AI. In May of 2023, *The New*

York Times identified over one hundred websites that used AI to generate and publish content to generate ad-revenue for the publisher rather than inform the readers (Thompson, 2023).

AI has impacted how research is conducted on the Internet. Since ChatGPT became open access, it is becoming increasingly common for learners to cite research that simply does not exist. When asked for research on a specific topic, ChatGPT and BingBot will invent journal articles, and often the authors cited are not real people. This fabrication of content has yielded real world consequences beyond impacting one's schoolwork. In June 2023, Steven Schwartz, a lawyer working on an injury suit, used ChatGPT to research past precedents for his case (Bohannon, 2023). The machine provided Schwartz with a detailed summary of similar cases that would help him prove precedence. Schwartz would cite those cases for his brief and present it to the judge – only to learn later that the cases never occurred, and the people summarized in them did not exist.

Disinformation is not limited to text-based content. 'Deepfakes' are another example of AI-generated disinformation. Schick (2020) defines a deepfake as "a type of 'synthetic media'... . that is either manipulated or *wholly generated* by AI" (p. 1). Some deepfakes have gone viral, and they may fool many who view the content. An example viewed over 17 million times, is a deepfake of actor Keanu Reeves, wherein it appears the actor prevents a robbery in progress (Bode, 2021). While this example is mostly humorous, deepfakes can be used for more evil purposes, such as fabricating political wrongdoing (Vaccari & Chadwick, 2020). In addition, if a piece of media upholds a person's already established beliefs, they are more likely to believe it, even when the information is incorrect (Shin & Lee, 2022, p. 417). Bontridder and Poullet (2021) assert that deepfakes not only spread disinformation – when combined with confirmation bias, they undermine the legitimacy of true information.

Information Literacy can be a Solution

Information literacy relates to understanding how information is produced and valued, and how information is used to create new knowledge for ethical participation in learning and dissemination of information (Dunn, 2002). When people are aware that it is possible for AI to write content and fabricate videos, they may be more critical of information they come across. Vaccari and Chadwick (2020) encourage people to verify the authenticity of sources by seeking out corroborative information. AI-generated content will have no originating source except for the post in which it first appears. AI often invents authors - if no information can be found about an author that is cited, that is clue to readers the article is disinformation. As this technology will only continue to advance, the responsibility will fall on the individual to verify the authenticity of information that spreads over the Internet. Information literacy is an issue that affects everyone. People must be strategic, vigilant, and cautious when they interact with information found online and in other spaces. They should receive appropriate guidance and use critical thinking skills to identify fake news and to employ relevant strategies to fight misinformation (Julien & Barker, 2009). Formal and informal education programs and initiatives can help promote such skills.

Questions for Reflection

- 1. What might be a good starting point to facilitate understanding of how AI works?
- 2. What skills are needed to combat misinformation?
- 3. In what ways can the ethics and problems of using AI for schoolwork be discussed in the learning context?
- 4. How can we teach information literacy at different education levels?

REFERENCES

- Bode, L. (2021). Deepfaking Keanu: YouTube deepfakes, platform visual effects, and the complexity of reception. *Convergence: The International Journal of Research into New Media Technologies*, 27(4), 919–934. <u>https://doi.org/10.1177/13548565211030454</u>
- Bohannon, M. (2023, June 8). Lawyer used ChatGPT in court—and cited fake cases. A judge is considering sanctions. Forbes.

https://www.forbes.com/sites/mollybohannon/2023/06/08/lawyer-used-chatgpt-in-courtand-cited-fake-cases-a-judge-is-considering-sanctions/?sh=129a5d337c7f

- Bontridder, N., & Poullet, Y. (2021). The role of artificial intelligence in disinformation. *Data & Policy*, 3. <u>https://doi.org/10.1017/dap.2021.20</u>
- Dunn, K. (2002). Assessing information literacy skills in the California State University: A progress report. *The Journal of Academic Librarianship*, *28*(1-2), 26-35.
- Edson , T., Lee, J., Chew, M., Tan, F. X., & Goh, Z. H. (2021). Falling for fake news: The role of political bias and cognitive ability. *Asian Journal of Communication*, 31(4), 237–253. <u>https://doi.org/10.1080/01292986.2021.1941149</u>
- Julien, H., & Barker, S. (2009). How high-school students find and evaluate scientific information: A basis for information literacy skills development. *Library & Information Science Research*, 31(1), 12-17.
- Schick, N. (2020). *Deep fakes and the infocalypse: What you urgently need to know*. Hachette UK.
- Shin, S. Y., & Lee, J. (2022). The Effect of Deepfake Video on News Credibility and Corrective Influence of Cost-Based Knowledge about Deepfakes. *Digital Journalism*, 10(3), 412– 432. <u>https://doi.org/10.1080/21670811.2022.2026797</u>

Thompson, S. (2023, May 19). A.I.-generated content discovered on news sites, content farms and product reviews. *The New York Times*. <u>https://www.nytimes.com/2023/05/19/technology/ai-generated-content-discovered-on-news-sites-content-farms-and-product-reviews.html</u>

- Vaccari, C., & Chadwick, A. (2020). Deepfakes and disinformation: Exploring the impact of synthetic political video on deception, uncertainty, and trust in news. *Social Media* + *Society*, 6(1). <u>https://doi.org/10.1177/2056305120903408</u>
- Wong, Q. (2019). Fake news is thriving thanks to social media users, study finds. CNET. Available online: https://www.cnet.com/tech/social-media/fake-news-more-likely-tospread-on-social-media-study-finds/(accessed on 24 July 2023).



BIOGRAPHY

HANNAH BROOKS is a doctoral student at Texas State University. She is a student in the Education PhD Program and majoring in School Improvement. Hannah is currently the department head for 10th grade English at Texas Virtual Academy, a school that serves at-risk students who otherwise may not receive their high school diploma. She is very interested in the ways that online school and technology can be used to improve the schooling experience for students with disabilities.