Research Poster

Now Loading: Exploring Conversations about AI in Education One Post at a Time

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Introduction/Need for Research

Artificial intelligence (AI) is gaining traction with 77% of mobile phones and other devices being used to operate its platforms (National University, 2025). Of the generations, Gen Z is not only the most predominant generation enrolled in higher education institutions (CLRN Team, 2024), but they are also the most willing to adopt AI (Mittal et al., 2024). The use of AI will continue to grow, causing change among different professions, including higher education (Walter, 2024). For example, AI has provided opportunities to improve the higher education student experience, such as personalized learning (Mittal et al., 2024). However, the growing use of these platforms has raised concerns expressed by stakeholders and educators regarding the impact to academic integrity and critical thinking skills (Alasadi & Biaz, 2023). Additionally, this rise of AI has sprung conversation surrounding a need for critical AI literacy, a skill that is not discipline specific (Hornsberger et al., 2023). With this discussion, studies suggest educators are concerned with students' ability to operate generative AI platforms, finding there is a need to be filled by educators to ensure future ethical and effective use (Knoth et al., 2024). While prior research has sought to understand educators' perspectives toward AI in an educational setting, it is also imperative to understand the public conversation surrounding the use of AI as an educational tool. The goal of this study is to identify themes that highlight general attitudes, hopes, and concerns surrounding the use of AI in higher education.

Theoretical Framework

This study utilized the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al. (2003) as a theoretical framework. The UTAUT model offers a robust framework for understanding how individuals evaluate and adopt new technologies, incorporating multiple theories regarding technology acceptance (Mohammed Ghouse et al., 2024, p.2). The model identifies four key factors that influence technology acceptance: *performance expectancy* (perceived benefits of using the technology), *effort expectancy* (ease of use), *social influence* (the impact of others' opinions), and *facilitating conditions* (the availability of support and resources). Given the growing use of AI tools in educational settings, UTAUT provides a valuable lens for interpreting the diverse attitudes shared online. The UTAUT model has been widely applied in educational research (Strong et al., 2013) to examine adoption of technologies and is a fitting choice for analyzing the online conversation behind AI in education as reflected in public digital conversations.

Methodology

This study was conducted using a social media monitoring tool called Sprout Social. Using the "listening board" feature, we gathered information about the conversation for AI use in education on social media. To build this board, we compiled a list of keywords to enter into the query builder. These keywords were identified using literature, the UTAUT model, and popular press (Venkatesh et al., 2003). We also selected the social media and online platforms to monitor including Instagram, YouTube, X, Reddit, Tumblr, and the internet. Sprout Social collected a total of 9,772 messages. We utilized a stratified proportional sample, resulting in 10% ($N = 974$) of the messages. These messages were then analyzed for relevancy (relating to AI and/or education) leaving a final sample size of 114 messages to analyze. Using a codebook created by the research team, we analyzed the posts including what type of message content (i.e., text, image, video, etc.), engagement metrics (i.e., likes, comments, and shares), message sentiment (i.e., positive, neutral, negative), UTAUT category (i.e., performance expectancy, social

influence, effort efficiency, facilitating conditions), and UTAUT topic theme (i.e., the discussion focus). The two coders used intercoder reliability for all factors evaluated with the intercoder agreement resulting in Cohen's kappa of 0.96, indicating almost perfect agreement (Landis & Koch, 1977). After categorizing, data were analyzed using descriptive statistics using frequency evaluating Pivot Tables in Microsoft Excel.

Results/Findings

A total of 114 messages were identified as relevant and analyzed in the sample. Of these messages, 54 (47.4%) originated from Instagram, 52 (45.6%) from YouTube, 4 (3.5%) from the internet, 3 (2.6%) from Reddit, 1 (0.9%) from X, and 0 from Tumblr. Messages with a positive sentiment were more frequent (n = 55), followed by neutral (n = 45), and negative (n = 14).

Using the theoretical framework, messages were categorized based on which technology acceptance factor they best fell under. Of the total messages (n = 114), most of the messages centered around *facilitating conditions* (n = 44), followed by *social influence* (n = 42), *performance expectancy* (n = 20), and, finally, *effort expectancy* (n = 8). Following the same pattern, *facilitating conditions* messages received 891 engagement metrics (57.7%), followed by *social influence* with 406 (26.3%), *performance expectancy* 204 (13.2%), and *effort expectancy* 43 (2.8%).

In addition to assigning a UTAUT factor, reemerging themes were identified in the sample. Regarding *performance expectancy*, there was a general discussion of how students can use AI tools in their educational settings covering topics such as personalized learning, choosing a college with AI platforms, and AI shaping everyday life. The common messages emerging under *effort expectancy* focused on AI helping students, its capabilities, and the potential for the technology. General themes regarding *social influence* include presentations and conferences available to learn about AI, institutions leading in AI implementation, and how students and educators are using AI. Lastly, messages surrounding *facilitating conditions* had heavy discussion of academic integrity as well as AI literacy and its effects on students.

Conclusion/Implications/Recommendations

To summarize, Instagram and YouTube were the primary platforms with a voice on AI in education. This follows social media metrics reported by Sprout Social with Gen Z using these two platforms the most (Schaefer, 2025), along with reports that Gen Z has the highest adoption of generative AI programs (Mittal et al., 2024). Additionally, the themes emerging for each UTAUT factor are in line with the literature discussing the benefits and concerns of AI in educational settings covering everything from personalized education to critical AI literacy (Strong et al., 2013; Mittal et al., 2024). Finally, there is a generally positive view surrounding AI use in education.

As the use of this technology continues to grow, there is a need to establish curriculum covering critical AI literacy. Further, it is important to continue to investigate student attitudes toward AI, while also making them aware of the potential implications (Bewersdorff et al., 2025). It is also important to note when looking at UTAUT, much of the online discussion and engagement focuses on *facilitating conditions* and *social influence;* indicating social media users are interested in topics such as academic integrity, critical AI literacy, and how others are using AI. This research has identified the basis of the online conversations regarding AI; however, there is a need for future research to dive into critical AI literacy among students and educators alike.

References

Alasadi, E.A., & Baiz, C.R. (2023). Generative AI in education and research: Opportunities, concerns, and solutions. *Journal of Chemical Education, 100*(8)**,** 2965-2971. 10.1021/acs.jchemed.3c00323

Bewersdorff, A., Hornberger, M., Nerdel, C., & Schiff, D.S. (2025). AI advocates and cautious critics: How AI attitudes, AI interest, and use of AI and AI literacy build university students AI self-efficacy. *Computers and Education: Artificial Intelligence, 8*. https://doi.org/10.1016/j.caeai.2024.100340

CLRN Team. (2024). What generation is in college now? *California Learning Resource Network.* https://www.clrn.org/what-generation-is-in-college-now/

Hornberger, M., Bewersdorff, A., & Nerdel, C. (2023). What do university students know about artificial intelligence? Development and validation of an AI literacy test. *Computers and Education: Artificial Intelligence, 5*. https://doi.org/10.1016/j.caeai.2023.100165

Knoth, N., Tolzin, A., Janson, A., & Leimeister, J.M. (2024). AI literacy and its implications for prompt engineering strategies. *Computers and Education: Artificial Intelligence, 6*. https://doi.org/10.1016/j.caeai.2024.100225

Landis, J.R., & Koch, G.G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*(1), 159-174. https://doi.org/10.2307/2529310

Mittal, U., Sai, S., Chamola, V., & Sangwan, A.D. (2024). A comprehensive review on generative AI for education. *IEEE Access, 12*, 142733-142759. https://doi.org/10.1109/ACCESS.2024.3468368

Mohammed Ghouse, L., Karthikeyan, C., Paul Mansingh, J., Padma, S.R., & Ihou, A.F.Y. (2024). Evaluating the effectiveness of online agricultural education during the Covid-19 pandemic. *Multidisciplinary Science Journal, 7*(1), 2025051. https://doi.org/10.31893/multiscience.2025051

National University. (2025). 131 AI statistics and trends for 2025. https://www.nu.edu/blog/ai-statistics-trends/

Schaefer, A. (2025). How Gen Z uses social media and what that means for brands. *Sprout Social*. https://sproutsocial.com/insights/gen-z-social-media/

Strong, R., Ho, S.P., Odom, S.F., & Irby, T.L. (2013). A course focused on the critical issues in agriculture: Stude4nts' acceptance and use of mobile learning. *NACTA Journal, 51*(4), 57-64. https://www.jstor.org/stable/nactajournal.57.4.57

Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425–478. https://doi.org/10.2307/30036540

Walter, Y. (2024). Embracing the future of artificial intelligence in the classroom: The relevance of AI literacy prompt engineering and critical thinking in modern education. *International Journal of Educational Technology in Higher Education, 21*(15). https://doi.org/10.1186/s41239-024-00448-3