GENERATIVE AI IN HIGHER EDUCATION

Opportunities & Challenges

Portia Ofori-Benefo, a graduate student in technical communication, fires up ChatGPT for a conversation.

In the ever-evolving landscape of higher education, the emergence of generative artificial intelligence (AI) has created both opportunities and challenges for academic institutions like Missouri S&T. As students and faculty navigate this new terrain, the integration of AI technologies into educational practices is reshaping traditional teaching and learning methods while raising concerns about academic integrity.

Dr. Dan Reardon is a full professor in our department as well as Missouri S&T's vice provost of undergraduate education. One of his many responsibilities in his current role is overseeing cases of potential academic dishonesty. He highlighted the growing concern that students are resorting to generative AI for improper academic gains. "Last summer was the first time faculty reported noticing students using generative AI [in questionable ways]," Reardon stated.

He emphasized the difficulty in identifying instances of academic dishonesty facilitated by AI, but he noted a few cases where a proctored exam revealed clear evidence of unauthorized AI use.

In response to these challenges, Reardon underscored the necessity of faculty guidance and transparency when implementing proctoring software. He stressed that instructors must inform students about monitoring practices and the parameters for assessments to avoid ethical breaches and ensure

At the table (left to right): Elizabeth Reardon, instructional technologist with S&T's CAFÉ; Ryan Cheek, assistant professor of technical communication; and Huiyuan Yang, assistant professor of computer science. Both Professor Reardon and Dr. Cheek teach in our department and participated as panelists in the October 30 forum about generative AI in the classroom.

academic honesty. "When instructors use proctoring software, it is mandatory that they make it known to the students for ethical reasons," he added.

Reardon acknowledged the dilemma faced by faculty in balancing surveillance measures with the preservation of the educational experience. "I think what a lot of faculty are probably grappling with right now is how much they want to monitor their students' work and then to what extent does that monitoring really detract from the learning and educational experience. I don't have good answers for that."

Dr. Ryan Cheek, assistant professor of technical communication, shared a more optimistic perspective on AI's role in education, considering it a disruptive force that prompts a redefinition of the educator's role in the digital age. Emphasizing the precedent

of disruptive technologies, Cheek compared the integration of AI to past technological innovations, such as the calculator and the Web, that initially caused upheavals but eventually became commonplace and necessary within the educational system. "AI is all around us and it's not new. We've been using this technology for a while, but the difference is the democratization of it," he explained.

Cheek emphasized the need for policies and support from academic institutions to facilitate the flexible integration of AI into various disciplines. "The institution needs to be able to have policies in place that allow for disciplines to have flexibility in their use of AI," he said. He urged a shift in the mindset from resisting AI to identifying the unique value that human educators bring alongside AI's

capabilities. "We have to realize that betting against AI is not going to be the way this happens, but rather figuring out what things we can provide as human beings and what things we can delegate to AI."

The views of graduate students majoring in technical communication shed light on their experiences and perceptions regarding AI integration. Portia Ofori-Benefo expressed her interest in leveraging AI's potential for academic improvement but highlighted the need for proper training and guidance due to her apprehensions about using AI tools. "AI can boost my academics, and I want to learn how to use it properly," she said. "I value honesty and ownership of my work."

Summer Potter acknowledged AI's valuable role in aiding comprehension and organization for students with learning differences. "ChatGPT helps me decode instructors' homework directions into steps and see the process of an assignment," she noted.

Jude Enete pointed to the practical uses of AI for academic work. "I use AI for content generation and improvement," he explained.

In response to these varying perspectives, ETC instructors face challenges in properly integrating generative AI into their courses and assignments. While the technology offers great potential for aiding students in their education, that potential hinges on ethical considerations and the importance of academic integrity.