

Faculty Opinions of AI Tools: Text Generators and Machine Translators

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<https://doi.org/10.33697/ajur.2024.102>

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ABSTRACT

Artificial Intelligence (AI) tools recently became a prominent concern in higher education classrooms. Many teachers have implemented the technology into their assignments, while others are strictly against this technology's use for assignments. Either way, students have found ways to use it in their academic careers. Though research on the power of AI in the workplace exists, research is lacking in its appropriate use in higher education. Universities need to define AI's role on campus and establish guidelines on how these tools may or may not be used and how faculty can recognize misuse, specifically related to academic integrity. This study aimed to determine how faculty view AI as a part of undergraduate literature, language, and linguistics programs. From the interview study, common themes emerged, including implementation, academic integrity, the human aspect of linguistics, and the future of AI writing tools. The faculty interviewed also stated that those in higher education must tread carefully through this strong intersection between technology and the arts to use AI responsibly, strategically, and ethically.

KEYWORDS: Artificial Intelligence (AI); Artificial General Intelligence (AGI); Linguistics; Higher Education; ChatGPT; Machine Translation; Academic Integrity; Ethics

INTRODUCTION

Artificial Intelligence (AI) writers and tools like ChatGPT (Generative Pretrained Transformer) have recently become part of daily discussions, as they appear extensively in news and televised entertainment.¹ For example, ChatGPT, created by OpenAI,² was integrated into South Park, a satirical adult-focused animation, when a portion of season 26 episode four was written using ChatGPT and several characters utilized it in the classroom to navigate various plot points.³ In the episode, students used ChatGPT to write and submit essays without reviewing what ChatGPT said. In addition, the teacher graded the students' papers using ChatGPT because he was "burnt out" and he needed to work hard to spot the AI-generated text in students' essays.³ By removing the human element in writing, this episode of South Park highlighted the problems of AI writing with a nonsensical and comedic conclusion for the episode. The characters resolved the problems caused by this AI technology by using ChatGPT to write a happy yet ironic ending that solved the issues and satisfied everyone, even if the ending made little sense plot-wise.

Realistically, the problem of AI tools in the classroom cannot be solved with a comedic *deus ex machina* plot device, so how can students and teachers deal with AI tools in the classroom?

Per the history of and literature on AI tools, the technology's rapid development has sparked a multitude of conversations. OpenAI introduced ChatGPT 3.5 to the world in December 2022, but the general public already knew of other AI technologies that OpenAI had released: e.g., earlier iterations of ChatGPT (GPT-2 in 2019 and GPT-3 in 2020) and the AI art generator called Dall-E in 2021. These AI tools were not necessarily new to the world, but GPT-3.5 was the first technology available for public use.⁴ In March 2023, OpenAI released GPT-4, the latest version of this chatbot, which claims to process up to "25,000 words, about eight times as many as ChatGPT" and adds a new ability to respond to images that previous iterations of ChatGPT did not accomplish.⁵ While conducting research to develop GPT-4, OpenAI made the model take tests like the "Uniform Bar Exam, the Law School Admission Test (LSAT), the Graduate Record Examination (GRE) Quantitative, and various Advanced Placement (AP) subject tests" and "scored at a human-level... if GPT-4 were a person being judged solely on test-taking ability, it could get

into law school—and likely many universities as well.”⁶ A close look at the research shows that GPT-4 tested poorly on the AP English Language and Composition and AP English Literature and Composition examinations, resulting in a score of 2, with 1 being the lowest score on the scale and 5 being the highest for AP examinations.⁶ These accomplishments create concerns for students who need to take these tests—like the LSAT and GRE—that shape their career paths. Their scores can determine which university a graduate student attends, and AP subject tests can grant students potential college credit.⁷ Knowing that AI tools are not experts at free-response examinations like the AP English exams shows that this model is not ideal for English essay writing. Considering these tests, faculty and testing institutions like College Board may need to consider how to ChatGPT-proof their examinations and prevent students from simply answering the questions with ChatGPT.

Undergraduate students and university faculty already use standard AI tools in increasingly technology-driven classrooms. Regarding AI tools, researchers propose solutions by considering student-, faculty-, and system-facing AI applications and discuss the implications for students, faculty, and entire institutions that ChatGPT and other tools can support.⁸ Other researchers in the AI in Education (AIED) field advise focusing on learning tools that utilize intelligent tutoring systems to personalize education to individual students and adapting to each student’s learning style and using teacher tools that reduce workloads by automating certain procedures with automatic essay scoring systems and plagiarism detection systems (2023). Writing assistants like Grammarly⁹ and Wordtune¹⁰ claim to support both students and teachers to automate tedious tasks like checking grammar and correcting punctuation. However, these writing assistants cannot accomplish everything that a human proofreader can, especially related to context and commonly misspelled words. The question then is how to introduce these tools so students do not rely on these writing assistants, especially ChatGPT, for generating text and instead show students how to use these AI writers to improve their writing.

The credibility of ChatGPT and other AI tools may be clouded due to the companies behind the tools. *60 Minutes* interviewed technology specialists, including Brad Smith, President of Microsoft.¹¹ Smith mentioned the fears and hopes he had related to new AI technology in terms of helping people with Microsoft’s implementation of AI in the Bing search engine.¹¹ However, the partnership between Microsoft and OpenAI aims to further profit companies and Microsoft is a stakeholder in AI tools like ChatGPT; their profit-driven goal is for both companies to “independently commercialize the resulting advanced AI technologies,” so Smith highlights his aim of helping people and “creating advanced AI that benefits everyone” while simultaneously intending to profit off of this technology.¹² OpenAI is identified as a “capped-profit company” that combines ideas of both nonprofit and for-profit companies to “raise the capital we need to fulfill our mission without sacrificing our core beliefs,” such as safety and broadly sharing the benefits with as many people as possible. Therefore, the partnership between Microsoft and OpenAI also aligns with OpenAI’s mission: to create “artificial general intelligence (AGI) [that] benefits all of humanity, primarily by attempting to build safe AGI and share the benefits with the world,” and they are aware that this multi-billion dollar investment from Microsoft allows OpenAI to continue researching and developing these AI tools for the sake of their mission.¹³ Knowing who creates these tools and who funds these projects should encourage users to be wary of the intent behind these tools.

These AI tools are good at doing repetitive tasks over and over, but these tools can harm students in the learning process. Specifically addressing ChatGPT, *The Dallas Morning News* sponsored a panel of university professors and machine-learning experts who shared their knowledge in a panel discussion, “ChatGPT: Fact vs. Fiction.”¹⁴ In an interview, Assistant Professor of Computer Science Dr. Xinya Du stated, “[ChatGPT] can’t be trusted with crunching numbers.... We can’t really rely on the AI model to handle these calculations for important analysis” because AI models can regurgitate information that they already know, but when ChatGPT is “...asked ‘what’s 2 plus 2,’ ChatGPT is only able to answer ‘4’ because of previous answers on the internet.”¹⁵ AI tools cannot create new information; they recognize already established patterns and repeat words, much like a parrot can repeat a phrase.¹⁵ It is unwise to rely on AI tools for every task; therefore, if students and faculty can access these tools, faculty need to teach students how, when, and where to use them.

AI tools have existed for decades, getting easier for non-technical users to access.¹⁶ Specifically, AIED has been researched since the 1970s,⁸ with recent developments including Google Translate and Grammarly, both text-analysis tools that are a significant part of everyday use; now, integrating AIED technology into the classroom is easier than expected.¹⁷

The potential of AI in classrooms is exciting, with the main benefit coming from personalized learning tools powered by AI for each student, automated repetitive tasks like grading and feedback, and instant feedback; however, those affiliated with arts and humanities fear the convenience of AI for other uses.¹⁸ Whereas utilizing AI technology as assistive technology can help students with learning disabilities, “such students [depending] on technology like ChatGPT... encourages them to effectively outsource solutions rather than think for themselves or develop other ways of coping with their disabilities.”¹⁹ AI tools like ChatGPT are able to generate ideas and words; however, when prompted to build better arguments, “the different arguments provided by ChatGPT are overlapping and superficial... [and] serve better as idea prompts rather than ready-to-use content in writing.”²⁰ Although AI tools can be implemented into the writing process and can generate “idea prompts rather than ready-to-use content in writing,” as chatbots are designed to be an “intelligent conversational system” that students can engage, “students can neither converse with them freely on problems encountered during writing nor seek detailed feedback” like faculty feedback.²⁰ The limitations of plagiarism and “[generating] fake or misleading responses” cause experts to advise that ChatGPT should be “integrated with caution as... writing assistance in classrooms.”²⁰ When students submit their work, “AI detectors like Turnitin and GPTZero suffer from false positives” and can wrongfully create suspicion of a student using AI tools, which could have “potentially devastating long-term effects.”²¹

This study was created to analyze what STEM and humanities faculty say about AI tools in the classroom and if faculty should implement these AI tools, specifically writing and translation tools, in the classroom. AI tools like ChatGPT and GPT 4 have spread quickly among students, who need to be taught to use these tools to benefit them but without academic integrity issues.²² Students who misuse these tools miss learning opportunities and submit subpar work that does not demonstrate the student’s proficiency in a topic.²³ Without proper regulation and implementation, these methods will slip past professors and cause students to believe the work can be done for them.²² Regarding AI tools that create written work, one discussion includes copyright within creative works.²⁴ Considering AI tools that translate one language to another, AI tools cannot translate abstract concepts, especially colloquial phrases and idioms that do not translate literally.²⁵ With the rise of AI tools in several career fields, the researchers decided to collaborate and merge the research projects together to further explore AI’s potential use in the classroom.

METHODS AND PROCEDURES

With institutional review board (IRB) approval, we recruited and interviewed professors at a Carnegie tier-one research-oriented public university in the Southwestern US to obtain a unique perspective from professors at a STEM-focused school with a strong liberal arts program. The interviewed professors teach computer programming, literature, writing, language, translation, and communication. We utilized convenience sampling; the chosen professors were in proximity to one of the two researchers: that is, “the ones [professors] that are easier for the researchers to access.”²⁶ Then, both researchers analyzed the interview narratives until we reached saturation, or “obtaining a comprehensive understanding by continuing to sample until no new substantive information is acquired”²⁶. By using convenience sampling, the researchers obtained interviews with professors who teach at the same university, which may have created bias (as mentioned later in the study limitations section).

Through semi-structured interviews, we gathered demographic information and then asked the professors about AI writers and translators:

- Do you allow students to use technology in your classroom and to complete their work?
- What do you think of students using generative AI tools in the classroom?
- Have you used these generative AI tools personally?
- Have you implemented generative AI tools in the classroom/your curriculum?
- What is the ethical dilemma of AI implementation in education?
- What are your thoughts on AI tools in the classroom that we have not covered in other questions? Do you have anything on your mind that we have not covered yet?

We also asked questions based on the subject that the interviewee taught: computer science, literature and writing, and language and translation. Computer science professors were asked,

- How do you see AI developing in the future?
- What is the difference in the use of AI tools in STEM and humanities?
- Do you see AI progression as exciting or threatening?

- Do you believe there is potential for mass-produced fine-tuned models of AI assistants?

Linguistics, literature, and writing professors were asked,

- Do you see AI tools as helpful or harmful to students’ learning experiences?
- How would you implement AI tools in the classroom?
- If we get to a point where we cannot determine if the text was written by a human or AI, does it matter who the author is if it is an engaging piece of literature?
- What is the benefit of using generative AI for writers? For faculty? For students?
- Have you come across AI writers in written assignments in your classroom?

Language and translation professors were asked,

- Would you implement machine translators in the classroom?
- What is the benefit of using generative AI for translators? For language learners?
- Do you think it is possible for human translators to work with machine translators?
- Should current translators and language learners rely on these new AI tools?
- Should there be a specific model for each language or have one universal translator? We also asked follow-up questions to expand the narrative within their responses.

We interviewed seven professors (see Table 1): three in literature, two in language and translation, and two in computer science. The sample included three female and four male professors. The professors differed in their ranks and roles; one was tenure track, three were tenured, and three were teaching intensive (non-tenured) professors.

Identifier	Gender	Job Title
Computer Science Professor 1	Male	Professor of Computer Science (tenured)
Computer Science Professor 2	Female	Assistant Professor of Computer Science (tenure track)
Language Professor 1	Female	Professor of Instruction and Director of Languages (teaching intensive)
Literature Professor 1	Male	Associate Professor of Instruction (teaching intensive)
Literature Professor 2	Female	Assistant Professor of Instruction (teaching intensive)
Rhetoric Professor 1	Male	Associate Professor of Rhetoric and Communication Studies (tenured)
Translation Professor 1	Male	Professor of Literature and Translation Studies (tenured)

Table 1. Demographics of professors who agreed to participate and were interviewed.

We conducted virtual interviews via Microsoft Teams from April 10 to April 28, 2023. One of the interviewers met with each professor to conduct one-on-one interviews and to reduce miscommunication and technical difficulties. After each interview, the interviewer saved the recording and transcription into OneDrive to allow both researchers access.

To analyze the interviewees’ responses, we first noted common themes that became the center of our discussion. In addition to considering individual quotes from the interviews, we arranged the seven automatically generated speech-to-text Microsoft Teams

transcripts into a single document and removed the names and timestamps using regex expressions to automate the task. With that document, we analyzed the common terms mentioned in the interviews and removed filler words such as “like” or “um.” Then, we experimented with a text analysis tool, Voyant Tools,²⁷ to analyze the interview transcripts and search for additional reoccurring keywords.

RESULTS AND DISCUSSION

The seven professors produced varied results throughout the study, but the three common themes were

- (1) approaches to implementation,
- (2) academic integrity and how it feeds into the originality of content, and
- (3) the future of AI in the university classroom.

We address each of these themes separately.

Implementation

The professors interviewed were concerned about how AI tools could be effectively introduced into the classroom but the professors did not agree on implementation methods. What they did agree on was the ethical use of AI assistants. Literature Professor 1 referred to the tools as “pedagogically irresponsible.” Rhetoric Professor 1 acknowledged, “I’m on a learning curve with this. I’m learning about it and hearing more and reading more... and my impression is that it can be both beneficial... and also detrimental.”

Five of the professors hesitated to comment, acknowledging the added research that must be available before full integration. Faculty must be one step ahead of students in familiarizing themselves with these tools so they can be used ethically. Research shows that the rise in students using AI tools without authorization has caused scholars to be hesitant to include these tools in their teachings.²⁸ The lack of consideration for how students and faculty have used and will use technology in the classroom⁸ has led to fearful responses, especially from those in humanities. Some professors suggest more oral examinations or in-class assignments to prevent plagiarism through AI writers.²⁹ By preventing students from using online tools, their work can be assessed without worry. Unfortunately, these methods are time-sensitive and create a greater sense of pressure—for students *and* faculty. Students struggle with these forms of assignments but students may have accommodations that prevent them from conducting these tasks under a specified time limit.

Literature Professor 1 sees avoiding these tools as detrimental to students’ success. “It’s not preparing students for their careers,” Literature Professor 1 claims. “So... when you go out to work, [employers] don’t say, ‘Okay, sit down and write something in an hour.’” The workforce does not operate like a classroom, so students should be using tools that are currently used outside of the classroom.

The professors found potential benefits to adding these tools into their curricula. Literature Professor 1 idealized an interesting way to use machine learning models like Voyant in his Close Reading course(s) to narrow down terms in a text or use ChatGPT to “[find] what the machine looked for in the text.” The misuse of ChatGPT has incited fear in academic administrators, but when used with caution, this tool and other AI tools can aid educators.³⁰ This is an optimistic viewpoint for AI in the humanities space regarding the analysis of long pieces of text, a time-consuming task, and can be one way to implement AI tools in the classroom.

Professors who are teaching language and translation are cautious in encouraging the use of machine translation, especially in classrooms. Language Professor 1 prohibits the use of AI tools like Google Translate in her Spanish classes and explains that, for students who want to improve their language skills, “using online translators to do your job... [students] won’t be learning.” Although she acknowledges that students want to earn high grades, she encourages students to make mistakes in the classroom. Students “need to know that making errors or mistakes is a good thing, because [students] can learn from them... If [students] use an online translator, they don’t know what they are doing wrong.” College students’ fear of low grades can be explained because low GPAs can cause them to lose certain academic scholarships and other activities. This fear may entice students to take shortcuts to maintain high grades, possibly jeopardizing their academic integrity and their learning.

Language Professor 1 is a native Spanish speaker and usually can catch when students use tools like Google Translate to do their work. She noted that when she tested how these tools work, she noted that online translators could translate English to Spanish well, but for translating something she wrote in Spanish to English, it was “not that good,” and she noted that if students were to write text in English, a language that they are fluent in, they don’t have the same level of fluency in the target language they are translating into so it is “not the grammar they know...” and they “are not supposed to know those tenses or structures or how to express that” in the target language. When it comes to online translators, “English to... Spanish is pretty good, it's not perfect. But for things like subjunctive... or the difference between perfect and imperfect for the past tenses... [is] difficult for students [and even machine translators] to understand,” meaning that the level of fluency in the target and source languages is not equivalent in the classroom. In addition, translating certain colloquial expressions can prove to be difficult because “[online translators] will make a literal translation.” The translation professor even mentions that, when it comes to ChatGPT and AI tools that draw English text from the internet, it will work better in English than in other languages.

[Approximately] 80% of the Internet is in English.... These are tools that are gonna [sic] work better on English texts than they are for texts coming from our language. Like what I work with, which is Romanian so these tools will be less impressive.... It’s not that [ChatGPT] won’t respond to [translation prompts,] it will respond to translation prompts, but they [AI tools] work better with text that has already been translated. (Translation Professor 1)

Translation Professor 1 noted that it could be possible to “accelerate the process of translation because people have already agreed on what the right translation for this text is,” like in French, which uses long closing phrases on letters that are simply translated to ‘yours sincerely’ in English. When it comes to translating phatic expressions, or “phrase[s] that primarily serves to establish or maintain social relationships,”³¹ it is possible to translate the same thing in countless different ways, depending on the context. Translating the same phrase over and over in the same way may be an efficient way to translate, especially for simply getting the meaning across to someone; however, a human translator can make the creative decision to translate a certain phrase differently based on context and speaker and other reasons.

Concerning implementation, students must learn how to navigate technology in this rapidly evolving world, especially with the introduction of AI. In a panel on ChatGPT, Associate Dean of Research and Creative Technologies Dale MacDonald said, “It is becoming clear that it’s important that students use it. ... Our students are going to have to have this literacy.”¹⁴ With students already becoming familiar with AI writers, professors must do the same to create boundaries with such tools. Implementation within higher education courses seems clear, but faculty and student use of these tools must be determined. The task of implementing AI tools in linguistics is a difficult feat. The concerns about academic integrity and originality of text have caused experts to consider the ethics behind AI assistants.³² Most consumers agree that AI must be regulated, but the issue is who will be responsible and how these tools will be moderated.³²

If considered with an open mind, these tools can improve the expectations placed on students. If these models can conduct “peer reviews” or edits before a student runs through a text, then the student’s work can be elevated. However, with more tools comes higher expectations of students. Literature Professor 2 especially expressed concerns of potential added pressure to students who already cannot manage their academic workloads: “...my concern is now what are going to be the increased expectations on people’s time and... output.” Although these tools help if fully implemented and established as the standard, instructors must consider what more will be required of students. When questioned about how faculty should respond to a possible implementation, Dr. Du stated, “We can come up with questions that are more challenging.”¹⁴ There has been a natural comparison to the use of calculators:

You know, calculators were invented. You might give homework where you actually have to do the calculations, but I guess today nobody gives those kinds of assignments.... And so now the game changes in some sense that now the nature of homework has to change. (Computer Science Professor 1)

Students are taught when and how to use calculators, which mathematical problems can be solved with calculators, and which equations are elementary enough to use a calculator. AI tools must be treated similarly; students must be taught *how* to use AI tools to ensure that they still learn to read and communicate effectively.

Computer Science Professor 2 went in depth about how these tools cannot be compared directly to calculators: “So it's not the task that we're asking you to do... It's the fact that you've gone through the process of doing the task. And that's the learning experience we're looking for.” Without proper observation of the use of AI tools in students' work processes, they can lose the benefits of the learning experience. Allowing students to use machine learning tools, which help with editing, can speed up the writing process by cutting hours of reviewing (e.g., tools like Grammarly or spell check/autocorrect [Translation Professor 1]). Students must learn what syntactical edits to look for before using these tools. For AI assistants to be useful, the student must be smarter than the computer.

Academic Integrity

The professors who we interviewed sometimes disagreed on the use of tools and whether implementing AI tools in the classroom would benefit students in higher education. However, they shared the same primary concern: academic integrity. They see misuse of AI writing and translation tools as a threat to students' education, and several stated that they fear the implementation of AI use could deter students from working and learning to their full abilities.

Numerous tools in the past have caused professionals to assume their only use would be for cheating. The example of calculators used by Computer Science Professor 1 helps us understand that any tool produced can be used for good or bad, depending on its user. It has become the job of faculty in higher education to monitor how and when students are using these tools. Professors cannot control whether their students use AI assistants to cheat, but they can familiarize themselves with the pattern-based writing seen with these assistants. Machines still do not have their own voice; the brainpower that is needed to apply context to writing has not been achieved by machine[s] yet. “Everybody has a unique voice,” Literature Professor 1 said. “Just like everyone has a unique fingerprint.” The fear is that one day, machines will be able to think like humans do; though the technology is not there yet, it can surely come soon.

The blurred lines between citation guidelines within computer science and linguistics have confused what constitutes a breach of academic integrity. A “gray area” exists for computer science citations:

To me... the main difference is that in computer science... you're either right or you're wrong... Whereas I think the beauty of the humanities is if you have five people answer that question, you probably get five completely different answers. But they're all right... (Computer Science Professor 2).

AI writing assistants bridge the gap between computer science and linguistics. Because experts in computer science have familiarized themselves for years with this technology, this community experiences more amazement. In contrast, linguist faculty were alarmed by advancements in AI like ChatGPT. Computer Science Professor 2 explained that, although the tool can supply code found within websites like GitHub, it only provides a faster way for students to find the source, like a search engine. “It's a way to access information,” she said. “Maybe a more convenient way than Google, and it feeds you the results in a conversational way.” ChatGPT cannot be used in the same way for those studying linguistics; Rhetoric Professor 1 states that when it comes to using AI assistants, a “fine line” exists for what constitutes cheating. “It's like any other tool; it can be used for good purposes and for not-so-good purposes.” Because these evolved tools serve similar goals as older, common tools, students and faculty should approach newer tools with the same attitude of acceptance paired with careful consideration.

The spike in student usage of ChatGPT in early 2023 brought a heavy weight on university faculty across the world.³³ Because of the rise in the popularity of AI assistants, the “concept of plagiarism” has been brought into question.⁸ Though these tools were meant to be helpful, the extensive range of skills these tools have can hinder students' learning experience. “Unfortunately, [shortcuts] are going to encourage and maybe even incentivize... academic dishonesty and breach academic integrity.” Rhetoric Professor 1 was most concerned with how machine learning technology could impact his advanced editing classes. Like most humanities faculty, he fears these tools may be abused for their power. A large concern of experts in higher education, especially when referring to ChatGPT, concerns students who fabricate citations.³⁴ With the tools previously mentioned, students can create sources that “support” their argument rather than investigating and referencing true sources.

In addition to the concern of unethical academic use, businesses are scrambling to organize copyright laws for AI-generated content. AI art and music concern artists, as many do not know who to credit for these works. “...There's incredible beauty in a

human being's ability to work on a craft and develop it and improve upon it," stated Literature Professor 2, who emphasized the human touch needed in creation. "I still feel like there's incredible beauty in a human being's ability to work on a craft and develop it and improve upon it." The issue is whether the authenticity of works will still be valued as these tools grow in popularity. She also presented the dilemma of withholding information on how a creative work was made. She said creators must be upfront about AI usage: "Then I think they'll be less [anxious] about it... It was made by a machine, but I know that it's made by a machine." Though the work of a machine cannot live up to the text humans can produce, knowing who or what should be credited is vital.

Future of AI

Although the five humanities professors were skeptical about AI's future in education, the two computer science professors voiced that these tools could improve students' education. AI will not be dismissed,³⁵ so university faculty are considering what changes universities must make. "People will absolutely be adapting them," Computer Science Professor 1 stated. "Fine-tuning them provides what is called in-context learning."

On the ChatGPT panel (previously introduced), Dale MacDonald reassured his audience that their jobs were not at risk. "AI is not going to take your job," MacDonald stated.¹⁵ "A human that can use AI is going to take your job."¹⁴ Computer Science Professor 2 reiterated this statement in her interview: "I think no matter what, there needs to be some human who's babysitting the AI system." At this time, we cannot say or do much about the future of technology, but we can try to get ahead by setting standards for what we have today. As Computer Science Professor 1 said, "Since [the] domain is narrow, [researchers] cannot reason outside of this domain." With the possibility of mass-produced fine-tuned AI assistants, researchers worry about data collection. This concern was explored further at the ChatGPT panel, when one professor advised, "It's always a concern that anything you put on the internet could be collected (Good)."¹⁴

With what we have seen with AI, instructors have hopes and concerns for the future of these AI tools. There is talk of possible fine-tuned models made for specific skill sets. When OpenAI began developing ChatGPT, AI trainers were required to create these fine-tuned models.² Specialization is one possible positive outcome of machine-learning tools, but many people fear that AI will become "too powerful." The future of AI is vast but talk of AGI (Artificial General Intelligence) has grown.³⁶ Open AI's plan for AGI is to create "AI systems that are generally smarter than humans."³⁶ Scholars are skeptical of AI and even more concerned about stronger AI.

CONCLUSIONS: STUDY LIMITATIONS, FUTURE RESEARCH, AND STUDY VALUE

The main limitations of our study include the length of time for data collection, the number of professors interviewed, and a concern of bias due to the overflow of media coverage on AI at the time of our study.

We had only three weeks to conduct interviews, which also limited the number of professors we were able to interview. The researchers' and professors' schedules were full toward the end of the semester, and this study was conducted within a senior-level research and writing course with a deadline. The study was centered around discussions with university experts in computer science and in linguistics and writing. Universities that are focused heavily on engineering and science do not face an insurmountable connection between students who study humanities and those who study technology.³⁷ This study focused more on the liberal arts and literature, as both researchers were majoring in literature with a concentration in rhetoric and communication. However, both researchers briefly studied computer science and software engineering respectively, before changing majors, so both researchers had a basic knowledge of the technology field.

In addition, the researchers focused only on faculty in the humanities and computer science departments for their sample of convenience.²⁶ Because media focused on ChatGPT the professors were aware of the tool. This technology evolves quickly and news about this new technology surfaces regularly. It is impossible to encompass all the development that has happened in the last few months (since the research was completed).

In future iterations of this study, researchers should seek a balanced ratio of humanities and computer science professors, as well as scholars in business, political science, and other interdisciplinary studies. Every professor interviewed knew of ChatGPT, but

many had not realized how many of the tools they use are considered machine learning; we anticipate value in learning how faculty in a variety of fields view AI tools and what future they see with these tools. Furthermore, future research could consider a student perspective, especially once instructors are integrating or prohibiting AI into their classes and programs.

Professors have become more interested than fearful as they have learned more about machine learning and what these tools can do to improve education. Faculty understand that students cannot neglect their linguistic skills for the sake of convenience but also that these tools can help students create better texts. Rather than trying to keep technology and humanities separate, students should be encouraged to use machinery to help them create something unique. These tools should not be used as a starting point for written works but can be used to improve them.

It is important to note that AI is a developing technology and our study was conducted in April 2023, providing a brief snapshot of how university professors viewed these developing tools at the time. Certain automated tasks like spellcheck are already implemented in our everyday lives; however, the academy must view these tools with caution and avoid developing an overreliance on them because of the convenience and novelty of these tools. Even automated tasks like spellcheck need to be checked by a human.

ACKNOWLEDGEMENTS

The authors thank Dr. Carie S. Tucker King for her support and supervision throughout the experiment and writing process. She believed that this paper could be published in the first place and this study and publication would not have happened without her help. We also would like to thank the seven professors from the Bass School of Arts, Humanities, and Technology and the Erik Jonsson School of Engineering and Computer Science for their participation.

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PRESS SUMMARY

In the higher education setting, artificial intelligence (AI) tools recently became a prominent concern for university faculty. With AI rapidly gaining popularity within higher education around the world, the topic of ethics in technology has also been brought to the forefront of research. In the university setting, faculty are becoming more aware of these AI tools that students have access to. There is a spectrum of responses regarding these tools, from some actively implementing AI tools in their curriculum to some prohibiting these tools at all in the classroom. Either way, students are learning in an environment where these tools are becoming more prevalent, so our study aimed to hear from humanities and STEM faculty to determine how to implement AI tools, if at all, in the classroom. Based on seven interviews conducted in April 2023 with faculty from the humanities department and the engineering & computer science department, concerned with the rise of AI tools in their classrooms, the paper concludes that if these AI tools are to be implemented in the classroom ethically, they should be used as helping tools like how a calculator is used in the classroom and not as a starting tool for AI tools to do the student's work for them.