

AI as Fad or AI as Lasting? Priorities for College Faculty Instructional Development for Generative Artificial Intelligence

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Abstract

As generative artificial intelligence (AI) continues to transform the landscape of education, college faculty must be equipped with the necessary skills to navigate this digital frontier effectively. This position paper argues that instructional development programs for college faculty related to generative AI should focus on three key aspects: enhancing fundamental teaching skills, making AI more familiar to educators, and preventing burnout. These three areas are interconnected and can collectively contribute to the success of AI integration in higher education. In this paper, I present and critique the ChatGPT output. I found the output to be cogent and potentially useful, but limited by inconsistencies, lack of details, and hallucinations. Although AI output may be useful for guiding practice at a surface level, it could not capture the human voice and attention to detail necessary for scholarship.

1. Introduction

My role as a faculty development professional requires me to stay up to date on teaching and learning topics, which I do with the aid of email lists, social media, news sites, and more. Mostly I skim emails and articles to stay abreast of emergent topics; I certainly don't engage with everything. As generative artificial intelligence (AI) emerged over the last year or so, I initially thought to myself, "great, another fad."

Birnbaum's (2000) analysis of academic management fads resonated with me when I first read it while pursuing my PhD. Although not all management-specific per se, his assessment of how fads changed and how actors in higher education responded to them brought up memories of how, in the early 2010s, Massive Open Online Classes (MOOCs) were believed to be a vital disruption of traditional college instruction (see, for example, Harden, 2012; Kurtzleben, 2013; Mazoue, 2013). At that time, I was pursuing a master's degree in higher education leadership and classes were abuzz with talk of MOOCs, the great disrupters. Today, I see MOOCs as having an important role in higher education but they have not lived up to the forecasted disruption expectations. Likewise, I argue that AI in higher education, at writing, resembles the early stages of Birnbaum's proposed fad lifestyle. Just as Concannon and colleagues (2023) suggested narratives of AI are "effusive while managing to say very little about what actually works" (p. 3), Birnbaum (2000) observed that in response to a

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constructed problem, a narrative evolves that “focuses on claimed benefits; little attention is given to potential costs” (p. 6). The first two stages of the academic management fad life cycle are apparent in the rise of AI in higher education; if the path of AI does come to resemble the academic management fad life cycle over time, a great deal of faculty instructional development time, energy, and money will be for naught.

In Spring 2023, leadership at my institution highlighted a need for faculty development related to AI. I was cautious, given my skepticism, but optimistic that such development efforts could be tailored in ways that would be useful whether AI grew to be a genuine disruption or a fad. In Fall 2023, I began facilitating a discussion series for faculty to engage with important ideas related to AI, practice using AI tools, and prepare for the use of AI in classrooms. To make this effort timeless and relevant, I emphasized good teaching practices regardless of AI usage and strove to make AI seem more familiar and less threatening. Additionally, I recognize that new initiatives can force faculty to take unwieldy workloads and test their bandwidth; thus, I also prioritize avoid burnout in faculty development. Using AI, this position paper argues for a faculty instructional development approach to AI that prioritizes fundamental skills, rather than a strict focus on AI and its uses. In doing so, such faculty instructional development retains its usefulness whether AI reveals itself as a fad or not. I conclude by reviewing and critiquing the AI output.

1.2 Prompting and Outputs

I used the OpenAI tool ChatGPT 3.5, a free AI text generator, to produce the following position paper. I began by inputting the following prompt into ChatGPT: Please generate a position paper arguing that college faculty instructional development related to generative artificial intelligence should focus on fundamental skills and preventing burnout. The paper should be between 2000 and 3000 words and informed by relevant scholarly literature.

At first, I built on the output ChatGPT generated in response to this prompt, asking it to produce references and expand on certain points. However, I found the output focused on fundamental skills related to AI, rather than teaching generally, and decided to write a more specific prompt that more closely aligned with my argument. I edited the previous prompt to indicate the faculty instructional development efforts “should focus on fundamental teaching skills, making AI more familiar, and preventing burnout.” I also reworded the prompt’s final sentence to say, “at least 2000 words.” When the resulting output was under 2,000 words, I responded, “Please expand on the previous output to at least 2,000 words.” I present the resulting output in the following section. In the output, I edited only formatting, such as spacing, indentation, and indicators of headers, for consistency with the rest of this paper.

The output also produced a title and abstract, which I adapted for this piece as well. The original title read, “Prioritizing Fundamental Teaching Skills, Familiarity, and Burnout Prevention in College Faculty Instructional Development for Generative Artificial Intelligence” (OpenAI, 2023). I considered using this straightforward approach verbatim but wanted to adapt the title to my previous argument related to academic management fads while keeping some of the ChatGPT output. The resulting title is co-authored, so to speak, by ChatGPT and me. The abstract is also co-authored in this way; ChatGPT produced the first three sentences, and I wrote the final three.

After the position paper output, I prompted, “Please produce a list of references for the previous output.” These references are included as produced, including errors, in the reference list. To differentiate between references only I cited and those ChatGPT produced, I mark ChatGPT-produced references with an asterisk.

2. AI Generated Short Report

2.1 Introduction

The emergence of generative artificial intelligence (AI) has revolutionized many industries, and education is no exception. College faculty play a crucial role in shaping the future of higher education by incorporating AI technologies into their teaching practices. However, this transition comes with its own set of challenges. In this position paper, we argue that instructional development programs for college faculty should focus on three key aspects: enhancing fundamental teaching skills, making AI more familiar to educators, and preventing burnout. These three areas are interconnected and can collectively contribute to the success of AI integration in higher education.

2.2 Fundamental Teaching Skills

2.2.1. The Pedagogical Foundation

At the heart of effective teaching with AI lies a strong pedagogical foundation. College faculty must understand the principles of teaching and learning to harness the potential of generative AI. Research indicates that an instructor's pedagogical knowledge significantly influences student learning outcomes (Hattie, 2009). Thus, it is crucial for faculty members to develop and hone their fundamental teaching skills.

In the digital age, it's easy to become enamored with the technological aspects of teaching, including AI applications. However, the fundamentals of teaching should remain at the core of any instructional development program. The foundational principles of teaching, such as effective communication, student engagement, and pedagogical strategies, should be emphasized.

Effective communication in the classroom, whether physical or virtual, is critical. Faculty members need to ensure that their messages are clear and understandable, as miscommunication can hinder the learning process. This is particularly important when using AI tools that may introduce technical jargon or complex terminology.

Moreover, student engagement remains a cornerstone of effective teaching. Faculty should understand how to use AI to enhance student engagement rather than replacing it. AI can provide valuable insights into student participation and understanding, enabling educators to tailor their teaching strategies for better engagement (Freeman et al., 2014).

2.2.2. The Role of Active Learning

Active learning strategies have proven to be effective in enhancing student engagement and comprehension (Prince, 2004). While AI can automate certain aspects of instruction, faculty should focus on using these technologies to support active learning rather than replace it.

Understanding how to integrate AI tools into active learning environments is essential for faculty development (Freeman et al., 2014).

Active learning involves students in the learning process, allowing them to construct knowledge actively rather than passively receiving information. This approach has been shown to improve retention, critical thinking, and problem-solving skills. Faculty should be trained to use AI in a way that encourages active learning. For example, AI-powered discussion forums or collaborative platforms can promote student interaction and critical thinking.

2.2.3. Assessment and Feedback

Constructive feedback is a cornerstone of effective teaching. College faculty must learn how to use AI-generated data to provide timely, meaningful feedback to students. As AI can assist in grading and tracking student progress, educators should focus on how to leverage these capabilities to enhance the quality of assessment and feedback (Nicol & Macfarlane-Dick, 2006).

AI has the potential to revolutionize the assessment and feedback process. Automated grading systems can quickly and objectively evaluate student work, freeing up faculty to provide more personalized feedback on assignments, projects, and exams. Instructors need to be proficient in using these AI-driven tools to provide valuable feedback that aids student growth.

Additionally, AI can help identify trends in student performance, indicating where specific areas of instruction may need improvement. Faculty can use this data to tailor their teaching approaches, providing targeted support where it's most needed.

2.2.4. Lifelong Learning

The rapid evolution of AI technologies demands that faculty adopt a mindset of lifelong learning. Being able to adapt to new AI tools and methodologies is crucial. Continuous development in the field of AI is essential to maintain a cutting-edge pedagogical approach (Sfard, 1998). Instructional development programs should equip faculty with the skills necessary to stay current in a constantly evolving landscape.

Lifelong learning is not only important for staying up to date with AI advancements but also for cultivating a growth mindset among faculty members. This mindset encourages educators to embrace change, learn from failures, and continually improve their teaching methods.

Instructional development programs can offer ongoing training in emerging AI technologies and pedagogical best practices. They should also encourage faculty to engage in professional development opportunities, attend conferences, and collaborate with colleagues to share knowledge and insights related to AI in education.

2.3. Making AI More Familiar

2.3.1. Demystifying AI

Generative AI can be intimidating to faculty who may not have a technical background. Instructional development programs should aim to demystify AI by explaining the

fundamental concepts in accessible terms. AI literacy, akin to digital literacy, can empower educators to better understand and use AI technologies (Bates & Sangra, 2011).

Demystifying AI is a crucial step in making faculty members feel comfortable with the technology. AI is not a monolithic, inscrutable force; it comprises various tools, techniques, and algorithms. Faculty need to learn the basics, such as what machine learning is, how neural networks function, and the practical applications of AI in education.

Moreover, demystification extends to dispelling myths and misconceptions about AI. Some educators may fear that AI will replace them entirely, which is an unrealistic concern. AI can assist teachers, automate routine tasks, and enhance the learning experience, but the human element in education remains indispensable.

2.3.2. Ethical Considerations

College faculty should be well-versed in the ethical implications of AI. Ethical issues surrounding data privacy, bias, and accountability are of paramount importance (Jobin et al., 2019). Instructional development programs must include modules that address these concerns, ensuring that educators are responsible users of AI in education.

Understanding the ethical considerations of AI is not just a matter of compliance but of responsible AI integration. Faculty should be aware of the potential biases in AI algorithms and how to mitigate them. They should also understand the importance of data privacy and the ethical use of student data.

To make AI more familiar, it is essential to introduce faculty members to ethical guidelines and best practices for AI in education. Faculty must learn how to ensure fairness and transparency in their AI-enhanced teaching practices.

2.3.3. Customization and Personalization

One of the strengths of generative AI is its ability to customize learning experiences for individual students. Faculty should be trained to use AI to personalize education, tailoring instruction to meet students' diverse needs (Anderson & Dron, 2011). This personalization can significantly enhance learning outcomes.

Personalization is a key feature of AI in education, and faculty members should be equipped to leverage this capability. AI can analyze data on student performance, preferences, and progress to create tailored learning pathways. Faculty need to understand how to implement these personalized approaches effectively.

Instructional development programs can introduce faculty to AI tools that allow for the customization of content, assignments, and assessments. Faculty should also learn to interpret the data generated by AI systems to adjust their teaching strategies in real-time, catering to the unique needs of each student.

2.3.4. Collaboration with AI Developers

Building familiarity with AI also includes establishing collaborations with AI developers and vendors. Faculty should learn how to provide constructive feedback and contribute to the

improvement of AI tools used in education (Lakkaraju et al., 2018). These collaborations can create a symbiotic relationship between educators and AI developers, leading to better educational products.

Collaboration between faculty and AI developers is mutually beneficial. Faculty members gain insights into the capabilities and limitations of AI tools, while developers receive valuable input for refinement and optimization. The result is a more effective, user-friendly, and education-focused AI ecosystem.

Instructional development programs should guide faculty on how to collaborate with AI developers. This might involve providing feedback on the usability and functionality of AI applications, participating in pilot programs, or engaging in research projects that explore the impact of AI on teaching and learning.

2.4. Preventing Burnout

2.4.1. Managing Workload

The integration of AI can sometimes lead to faculty feeling overwhelmed by the demands of adapting to new technologies. Instructional development programs should emphasize time management and workload strategies to prevent burnout (Schneider et al., 2019). Balancing the adoption of AI with other professional responsibilities is crucial.

Faculty members often juggle multiple roles, including teaching, research, and service. The introduction of AI can add to this workload, particularly during the initial phases of adoption. It is essential to provide faculty with strategies for effective time management to prevent burnout.

Instructional development programs can introduce faculty to time-saving AI tools and techniques that can streamline administrative tasks. These programs should also encourage faculty to prioritize tasks, delegate responsibilities when possible, and find a balance that works for their individual circumstances.

2.4.2. Mental Health Support

The introduction of AI into education can create additional stressors for faculty members. The fear of being replaced by technology and the pressure to keep up with advancements can take a toll on educators' mental health. It is imperative that institutions provide mental health support services and resources to help faculty cope with these challenges (Cherniss, 2010).

Mental health support should be an integral part of any instructional development program. Faculty members need to be aware of the potential stressors associated with AI integration and know where to seek assistance if needed. This includes access to counseling services, stress management workshops, and resources on maintaining a healthy work-life balance.

Institutional policies should also promote a culture of well-being, emphasizing the importance of mental health and providing resources for self-care. Faculty should be encouraged to take breaks, maintain healthy lifestyles, and seek assistance when facing mental health challenges related to their work.

2.4.3. Recognizing Burnout Signs

Faculty should be educated about the signs and symptoms of burnout. Early recognition and intervention can prevent the escalation of burnout, preserving both the well-being of educators and the quality of education (Maslach et al., 2001).

Preventing burnout begins with recognizing its signs. Faculty members should be educated on the common symptoms of burnout, such as emotional exhaustion, depersonalization, and reduced personal accomplishment. They should also be aware of the factors that contribute to burnout, such as excessive workload, lack of control, and inadequate support.

Instructional development programs can offer workshops and resources on recognizing and addressing burnout. Faculty should be encouraged to self-assess their well-being regularly and seek help if they identify signs of burnout. Moreover, institutions should foster a culture in which faculty members feel comfortable discussing their well-being and seeking support.

2.4.4. A Healthy Work-Life Balance

Faculty should be encouraged to maintain a healthy work-life balance. Instructional development programs can provide guidance on setting boundaries and creating a sustainable teaching workload (Kahveci, 2019). By promoting a balanced lifestyle, burnout can be mitigated.

Maintaining a healthy work-life balance is essential for the long-term well-being of faculty members. A balanced lifestyle reduces the risk of burnout and promotes overall job satisfaction. Faculty should be guided on how to establish clear boundaries between work and personal life, allowing them to recharge and maintain their mental and physical health.

Instructional development programs should offer workshops on time management, setting priorities, and creating routines that support a balanced lifestyle. Additionally, they can provide resources on stress management techniques, healthy eating, and exercise, all of which contribute to a faculty member's well-being.

2.5. Conclusion

Generative artificial intelligence is reshaping education, offering exciting opportunities for innovation and improvement. However, for this transformation to be successful, college faculty need comprehensive support in the form of instructional development programs. This position paper has argued that such programs should prioritize three key areas: fundamental teaching skills, making AI more familiar, and preventing burnout.

By enhancing fundamental teaching skills, faculty can ensure that pedagogical principles are at the core of AI integration, leading to improved student learning outcomes. Making AI more familiar to educators empowers them to use AI technologies responsibly and ethically, while also embracing customization and personalization for student benefit. Preventing burnout is essential to safeguard the well-being of educators, ensuring that they can thrive in the evolving landscape of education.

Scholarly literature supports the notion that these three areas are integral to successful faculty development for generative AI in education. Faculty members who are equipped with fundamental teaching skills, familiar with AI, and supported in preventing burnout will be well-prepared to navigate the future of education, benefiting both educators and students. It is the responsibility of higher education institutions to invest in comprehensive instructional development programs to achieve these goals and shape the future of higher education for the better.

In summary, the integration of generative AI into higher education offers numerous benefits, but its success hinges on equipping faculty with the skills, knowledge, and support necessary to navigate this transformative landscape. A combination of fundamental teaching skills, familiarity with AI, and strategies to prevent burnout is essential to ensure that faculty members can harness the full potential of AI for the betterment of education. Through robust instructional development programs, colleges and universities can prepare their educators for the AI-driven future and, in turn, enhance the learning experiences and outcomes of their students (OpenAI, 2023).

3. Critical Reflection

The ChatGPT-generated position paper generally presented a cogent argument, though as I have explained, it took additional, explicit prompting to get the tool to produce a paper of sufficient length. Here, I raise concerns about the quality of the work. While not making any incorrect claims per se, I found inconsistencies in arguments, lack of evidence, and concerns related to cited literature.

Despite trying to steer the AI tool toward fundamental teaching skills with my revised prompt, it still incorporated AI into all sections related to these skills. The tool agreed with my argument, such as with the statement, “it’s easy to become enamored with the technological aspects of teaching, including AI applications. However, the fundamentals of teaching should remain at the core of any instructional development program” (OpenAI, 2023). Elsewhere, ChatGPT highlighted the importance of “cultivating a growth mindset among faculty members” and “foster[ing] a culture in which faculty members feel comfortable discussing their well-being and support” (OpenAI, 2023). These statements comport with the intention of the paper.

Other statements in the output contradict the thesis somewhat. For example, the Assessment and Feedback section almost exclusively focuses on the use of AI for grading and feedback. In the section on Managing Workload, the tool points out that “AI can add to this workload” (OpenAI, 2023), but recommends AI tools and time management strategies to deal with this, instead of, for example, more slowly introducing AI in the first place. I raise these issues in part because they deviate from the ethos of my argument, but also to question if ChatGPT is capable of internal consistency in making and supporting an argument.

Some claims lack detail. For example, ChatGPT presented that “[f]aculty should be trained to use AI in a way that encourages active learning. For example, AI-powered discussion forums or collaborative platforms can promote student interaction and critical thinking” (OpenAI, 2023). I prompted ChatGPT to give examples of “AI-powered discussion forums or collaborative platforms,” and it indicated several learning management systems such as Canvas and Sakai, and programs such as Piazza, which allows students to collaborate in wiki-

style pages, and Microsoft Teams, a communication and file sharing platform. The breadth of tools presented make the category of “discussion forums and collaborative platforms” too vague to be useful; the recommendation to simply apply active learning to these programs omits how active learning can be achieved in these programs.

Citations are another concern with ChatGPT’s output. Although the tool mentioned relevant literature, such as Freeman and colleagues’ (2014) and Prince’s (2004) widely cited articles on active learning in STEM, its application of literature was uneven. For example, the paper by Freeman et al. was cited twice, both related to using AI for active learning. Although relevant to active learning, Freeman et al. say nothing about AI or its uses in education. Additionally, I was surprised to see no literature specifically about faculty development programs (e.g., Beach et al., 2016; McKee & Tew, 2013), given the reference to faculty instructional development in the prompt.

More concerning than the misapplication of and missing scholarly literature, ChatGPT hallucinated two references: those cited as “Kahveci (2019)” and “Schneider et al. (2019)” (Open AI, 2023). To confirm these were hallucinations, I was unable to locate either paper in the indicated journals, both of which (to the tool’s credit) exist, as well as by searching via Google Scholar. When I prompted ChatGPT to fix the hallucinated references, the output simply removed them from the references list. For the sake of comprehensiveness, the fabricated references remain in this paper’s references list.

3.1 Implications

Logistically, creating this paper was a relatively fast process. A strength of the ChatGPT output was its organization of information into tidy sections and subsections. This structure made reviewing the output fast and easy. However, as I have described, the paper failed to accurately convey what I might have produced without the aid of AI. I could have continued to prompt the tool until it generated something more aligned with my goal but doing so would have extended the time needed and tested my limits of understanding what prompts would get me what I wanted. For example, after producing the output, I prompted ChatGPT to regenerate one of the sections I disagreed with and it produced multiple additional sections. I conclude that the best way to craft a consistent argument using output from this tool is to combine parts of multiple outputs into a more coherent whole.

Even still, I would have a hard time omitting my own writing in a full scholarly piece. When I write scholarship, I want my voice and perspective to be very clear. The output here does not resemble my writing, does not frame things like I would have, and does not pay homage to the literature bases that inspire me. I believe my scholarship is not mere output; it is reflective and represents ongoing work. I can see the value of output like this for practice-based educational work, like faculty development, in pulling together and presenting core concepts important on a given topic, but at this time it seems to me that the production of new scholarly knowledge remains square in the realm of human authors.

Further, hallucinations such as fabricated references remain major issues (see Walters & Wilder, 2023). Scholarship using AI would need to ensure claims are accurate and supported by literature that exists. In my experience as a peer reviewer, I have not confirmed every reference, so I worry that AI tools may create references that pass muster and, over time,

become presumed knowledge without ever having been based on existing literature. Scholars and editors should be vigilant in applying and reviewing cited literature.

Whether AI is a fad or has staying power, support for faculty and their continual learning is paramount to managing new technologies in college classrooms. As I have shown, ChatGPT can mostly develop an argument claiming the same. Its inability to craft a deep, consistent, and accurate argument grounded in literature demonstrates how “the human element in education remains indispensable” (OpenAI, 2023).

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