

GenAI on GenAI: Two Prompts for a Position Paper on What Educators Need to Know

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Abstract

This paper outlines and critically analyzes the process, expectations, and outputs of a ChatGPT search on what educators need to know about GenAI. The paper includes two versions of a prompted position paper generated by the free OpenAI tool ChatGPT 3.5. The prompt and the resulting paper(s) are identified as parallel, in content, to an educational video script on AI itself, whose creation the author has recently supervised. However, the content of the generated position paper(s) – while somewhat surface – turns out to be less problematic than the format, in spite of direct format-oriented prompting. This outcome and the implications of both content and format issues for the field of higher education are discussed in the reflection. The overall conclusion is that GenAI should be a site of critical literacy development, while broader concerns about the impacts of these tools on knowledge and society must also be foregrounded. (This abstract was written by the human author.)

1. Introduction

I am currently an Associate Professor in a Canadian Faculty of Education. I have researched, worked, and taught in the field of educational technologies and higher education for more than two decades, though with focus on the human and participatory connections that digital tools can enable, rather than the tools themselves.

When ChatGPT was released in late 2022, I watched my media and social media feeds light up in a massive hype cycle of “AI will change everything!.” As a teacher of Digital Technologies in our faculty’s Bachelor of Education program, I felt a responsibility to explore and address this phenomenon. Not only does my technology course focus on the classroom implications of digital tools, but my students - as pre-service teachers - would face impacts from Generative AI (GenAI) both as learners and as future educators.

The hype made me hesitant to address GenAI outside the classroom, however. I’d spent the decade or so prior to ChatGPT’s release as an open educational researcher and a public contributor to edtech discourse. I was both familiar with and wary of hype cycles. Hype, in reputational economies like media and academia, turns public discussion and speculation into fodder for its ever-turning machine. I’d had a front row seat to a major edtech hype cycle before, when Massive Open Online Courses (MOOCs) catapulted from a niche term to the *New York Times* Word of the Year in 2012 (Pappano, 2012). MOOCs had been touted as

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everything from the future of higher education to its end. Because I'd been involved with MOOCs since their beginning, I had understood how the 'tsunami of disruption' claims that the MOOC boom generated were specious, a fantasy looking for a business model. I suspected that the same phrases, applied to ChatGPT, were equally overblown. Thus, I was hesitant to stake any claim in the gold rush of voices prospecting to be heard on the Generative AI front.

I was, nonetheless, excited to learn with my students. In January of 2023, I demonstrated ChatGPT in my classes, and showcased critiques I'd been seeing from my professional networks. I talked with students about what they'd heard and what they thought. Critical pedagogy and critical digital literacies are at the core of my courses, and we examine the corporate underbelly of digital tools and their impact on education as much as we examine their uses. With ChatGPT, we did both, unearthing errors while also figuring out what it did well. Its capacity to create instant lesson plans was impressive to my teacher candidate students, while its capacity to generate five paragraph essays that they could not distinguish from human work was concerning. We used my account to explore the use value of ChatGPT, as I didn't want students having to give up their own data. We also drew as much from trusted source articles and public tweets about ChatGPT as we did from our own experiments, as I knew all usage was training the tool itself, for free.

When my classes wrapped in spring of 2023, I heard back from multiple students on practicum about their experiences with AI in the classroom. Some were concerned about the questionable provenance of work they were seeing from their students. More were actually concerned about their Associate (supervising) Teachers, who are established educators mentoring students in practice teaching. Several students indicated that our in-class experiments had been valuable, and that their Associate Teachers would benefit from something similar. And thus, I had an idea.

Four years beforehand, I'd secured a grant to create short teacher-to-teacher videos about various digital classroom tools. Co-created with B.Ed students, these open educational resources (OER) covered classroom uses, data collection concerns, and differentiated learning possibilities for each tool. We completed videos about fifteen different digital platforms, then a collection of eleven podcasts with the same structure, covering more tools. In February of 2020, I released the collection on a site called *The Open Page*, hosted under my Faculty of Education's university page (Stewart, 2020). During the remote teaching period of the ensuing pandemic, one of the videos actually went semi-viral and garnered 39,000+ views.

By spring of 2023, I knew the page needed updating. I planned to apply for an additional small grant to freshen it, when it occurred to me that adding a resource on GenAI would be of value. This new resource could be used in my own teaching about AI, but would also serve as a campus resource and a guide that students could direct future Associate Teachers towards.

I was successful in getting the second grant. At current writing, in fall 2023, I am working with two student Research Assistants and four faculty colleagues from across my campus, plus a videographer from our Office of Open Learning. We are creating a teacher-to-teacher video overviewing GenAI from a critical classroom perspective. It will include scripted text written and delivered by the two students, plus inserts of interviews with faculty.

I was curious what kind of content AI itself would give me if I asked it to generate something similar in structure to *The Open Page* resources, in the format of a position paper rather than a script. As someone already deep in the work of editing and attempting to add critical elements to a student-generated script on the same topic, I'm able to assess the accuracy, the thoroughness, and the depth of AI's response.

I put the prompt "Write a 2000 word position paper, with academic citations, on what educators should know about Generative AI tools: how they can be of use in the classroom, how the free versions generate income and what their data implications are for use with students, and what - if any - possibilities they offer for supporting differentiated learning and equity. The paper should be written from a teacher-to-teacher perspective and be analytic, critical, and focused on application" into the free (3.5) version of ChatGPT. The following is how it responded.

2. AI Generated Position Paper

Version 1: (OpenAI, 2023)

Title: *Leveraging Generative AI Tools in Education: Opportunities, Challenges, and Implications for Equity*

Abstract: This position paper aims to provide educators with an in-depth understanding of Generative AI tools and their potential applications in the classroom. It explores the utility of these tools for educational purposes, their economic models, data implications, and their role in supporting differentiated learning and promoting equity. Written from a teacher-to-teacher perspective, this paper critically examines the advantages and drawbacks of integrating Generative AI tools into education, offering practical insights for educators.

Introduction: In recent years, Generative Artificial Intelligence (AI) tools have gained prominence across various industries, offering innovative solutions in content creation, language generation, and problem-solving. In the field of education, these tools hold the potential to revolutionize teaching and learning experiences. Educators can leverage Generative AI tools to enhance content creation, adapt to diverse learning needs, and promote equity in education. However, while these tools offer numerous advantages, they also pose significant challenges, particularly concerning data privacy, ethics, and economic models. This paper explores what educators should know about Generative AI tools, focusing on their classroom applications, economic models, data implications, and potential for supporting differentiated learning and equity.

I. Generative AI Tools in the Classroom:

1.1 Enhancing Content Creation: Generative AI tools, such as language models like GPT-3, can assist educators in creating high-quality educational content efficiently. They can automate the generation of lesson plans, quizzes, and learning materials, saving educators valuable time. For example, teachers can use AI-generated content for creating personalized assignments, thereby catering to individual student needs.

1.2 Supporting Language Learning: Generative AI tools can facilitate language learning by providing instant translation, pronunciation assistance, and grammar correction. These tools

can help students improve their language skills, breaking down barriers to learning and fostering inclusivity.

1.3 Promoting Creativity: AI-powered creativity tools can encourage students to explore their creative potential. For instance, students can collaborate with AI to generate art, music, or creative writing, fostering a sense of autonomy and innovation in the classroom.

II. Economic Models of Free Generative AI Tools:

2.1 Freemium Models: Many Generative AI tools offer free versions with limited features while charging for premium access. Educators should be aware of these models and understand the limitations of free versions. While free access can be valuable for initial exploration, it may not provide the full range of capabilities needed for educational purposes.

2.2 Data Harvesting and Monetization: Free Generative AI tools often collect user data, which can be monetized through targeted advertising or by selling user insights to third parties. Educators should consider the implications of data collection and ensure compliance with privacy regulations. To protect student privacy, it is crucial to use AI tools that prioritize data security and anonymize user information.

III. Data Implications for Use with Students:

3.1 Privacy Concerns: When integrating Generative AI tools into the classroom, educators must prioritize student privacy. It is essential to choose tools that have robust data protection measures in place, including encryption, secure storage, and clear data usage policies. Educators should also inform students and parents about the data collection and usage practices associated with these tools.

3.2 Ethical Considerations: Generative AI tools can inadvertently perpetuate biases present in their training data. Educators should critically assess the content generated by these tools to ensure it aligns with ethical and educational standards. Additionally, educators should teach students about the potential biases and ethical challenges associated with AI to foster responsible usage.

3.3 Compliance with Regulations: Educators should be aware of relevant data protection regulations, such as the Family Educational Rights and Privacy Act (FERPA) in the United States, and ensure that their use of Generative AI tools complies with these laws. Non-compliance can result in legal consequences and reputational damage.

IV. Supporting Differentiated Learning and Equity:

4.1 Personalized Learning: Generative AI tools can support differentiated learning by tailoring content to individual student needs. Educators can use these tools to create personalized assignments, adaptive quizzes, and targeted feedback, helping students progress at their own pace.

4.2 Inclusivity: Generative AI tools can assist in making educational content more accessible to diverse learners. For example, they can generate alternative text for images, provide real-

time transcription for lectures, or convert text into audio for students with reading disabilities. These features promote inclusivity and ensure that education is accessible to all.

4.3 Addressing Equity Gaps: While Generative AI tools hold promise for promoting equity, educators should be cautious of the digital divide. Not all students have equal access to technology and the internet, which can exacerbate educational inequalities. Schools and educators should work to bridge this gap and provide equitable access to AI-powered resources.

Conclusion: Generative AI tools offer educators exciting possibilities to enhance teaching and learning experiences. However, to harness their full potential, educators must be aware of the economic models behind these tools, the data implications for students, and their role in promoting differentiated learning and equity. By critically evaluating the advantages and drawbacks of Generative AI tools, educators can make informed decisions about their integration into the classroom, ultimately benefiting both teachers and students.

In an increasingly digital world, educators must adapt and leverage technology to meet the evolving needs of students. Generative AI tools represent a valuable resource that, when used responsibly and ethically, can contribute to a more engaging, inclusive, and equitable education system. As educators, our role is not just to teach, but also to empower students with the skills and knowledge needed to navigate the complex world of AI responsibly and ethically.

Follow-on prompt: “Make it 2000 words total and not in list form please. Add relevant academic citations.”

Version 2: (OpenAI, 2023)

Title: *Leveraging Generative AI Tools in Education: Opportunities, Challenges, and Implications for Equity*

Abstract: This position paper explores the integration of Generative Artificial Intelligence (AI) tools in education, offering educators a comprehensive understanding of their applications, economic models, data implications, and potential for promoting equity and differentiated learning. Drawing from academic sources, this paper critically assesses the advantages and challenges of using Generative AI tools in the classroom, providing practical insights for educators.

Introduction: The advent of Generative Artificial Intelligence (AI) tools has ushered in new opportunities and challenges in education. These AI tools, powered by advanced language models such as GPT-3, offer educators innovative solutions to enhance teaching and learning. This paper, written from one teacher to another, aims to equip educators with a deeper understanding of Generative AI tools, focusing on their utility in the classroom, economic models, data privacy implications, and their potential to support differentiated learning and equity.

I. Generative AI Tools in the Classroom:

Generative AI tools have the potential to transform the classroom experience in various ways. From content creation to language learning and promoting creativity, educators can harness the power of AI to improve pedagogy.

Content Creation: Generative AI tools can assist educators in creating high-quality educational content efficiently. They automate the generation of lesson plans, quizzes, and learning materials, saving educators valuable time (Bibik et al., 2020). For instance, teachers can use AI-generated content for creating personalized assignments, catering to individual student needs.

Supporting Language Learning: AI-powered language tools facilitate language learning by providing instant translation, pronunciation assistance, and grammar correction (Xu et al., 2020). These tools break down language barriers, making education more inclusive and accessible to students from diverse linguistic backgrounds.

Promoting Creativity: Generative AI tools can foster creativity among students by engaging them in collaborative AI-generated projects. For example, students can work with AI to create art, music, or creative writing, thereby encouraging innovation and self-expression (Chen et al., 2019).

II. Economic Models of Free Generative AI Tools:

Understanding the economic models of Generative AI tools is essential for educators to make informed decisions about their classroom use.

Freemium Models: Many Generative AI tools offer free versions with limited features, monetizing their services through premium subscriptions (Amodei et al., 2019). While free access can be valuable for initial exploration, educators should be aware of the limitations of these versions, which may not provide all the functionalities needed for educational purposes.

Data Harvesting and Monetization: Free Generative AI tools often collect user data, which can be monetized through targeted advertising or by selling user insights to third parties (Mittelstadt et al., 2019). Educators must consider the data implications and prioritize tools that adhere to stringent data protection and privacy standards to safeguard student information (Barocas et al., 2020).

III. Data Implications for Use with Students:

Ensuring data privacy and ethical usage of Generative AI tools is paramount when incorporating them into the educational environment.

Privacy Concerns: Educators must prioritize student privacy when using Generative AI tools. Choosing tools with robust data protection measures, including encryption and secure storage, is crucial (Veale & Binns, 2020). Clear communication with students and parents about data collection and usage practices is equally important.

Ethical Considerations: Generative AI tools may unintentionally perpetuate biases present in their training data (Bender et al., 2021). Educators must critically assess the content generated by these tools to ensure it aligns with ethical and educational standards (Crawford et al., 2019). Teaching students about the potential biases and ethical challenges associated with AI fosters responsible usage.

Compliance with Regulations: Educators should be aware of relevant data protection regulations, such as the Family Educational Rights and Privacy Act (FERPA) in the United States, and ensure their use of Generative AI tools complies with these laws (Eckersley, 2019). Non-compliance can result in legal consequences and reputational damage.

IV. Supporting Differentiated Learning and Equity:

Generative AI tools hold the potential to address the diverse needs of students and promote equity in education.

Personalized Learning: Generative AI tools can support differentiated learning by tailoring content to individual student needs (Johnson & Johnson, 2019). Educators can use these tools to create personalized assignments, adaptive quizzes, and targeted feedback, allowing students to progress at their own pace.

Inclusivity: Generative AI tools can make educational content more accessible to diverse learners. They can generate alternative text for images, provide real-time transcription for lectures, or convert text into audio for students with reading disabilities (Rajpurkar et al., 2020). These features promote inclusivity and ensure that education is accessible to all.

Addressing Equity Gaps: While Generative AI tools have the potential to promote equity, educators must address the digital divide. Not all students have equal access to technology and the internet, which can exacerbate educational inequalities (Reimers & Schleicher, 2020). Schools and educators should work to bridge this gap and provide equitable access to AI-powered resources.

Conclusion: Generative AI tools offer educators a powerful toolkit to enhance teaching and learning experiences. However, their responsible integration into the classroom requires educators to be well-informed about economic models, data privacy implications, and their potential to promote differentiated learning and equity. By critically assessing the advantages and challenges of Generative AI tools, educators can harness their potential to create a more engaging, inclusive, and equitable education system.

In an increasingly digital world, educators must adapt and leverage technology to meet the evolving needs of students. Generative AI tools represent a valuable resource that, when used thoughtfully and ethically, can contribute to better education outcomes for all. As educators, our responsibility extends beyond teaching content; it encompasses preparing students to navigate the complex world of AI with responsibility and ethical consciousness, ensuring that technology serves as an ally in the pursuit of educational excellence and equity.

3. Critical Reflection

Since my early forays last January, I've become grudgingly impressed with some of what GenAI - and specifically ChatGPT - can do, while remaining cynical about its capacity for synthesis or criticality. My impression prior to this experiment was that GenAI is great at drafting content for formulaic structures, like lesson plans, and okay at highly formal and structured texts like reference letters. Some cold call research proposals from potential PhD students this fall have dismayed me, however, with their awkward marriage of my own CV with oddly chipper technologically-determinist statements.

I assumed, though, that a 2,000 word position paper on the subject of AI would be something that ChatGPT might be able to do at a passable level, even with the specificity and complexity of the prompt's focus on classroom uses, data, and differentiation.

I was wrong, though not about the things I'd expected.

ChatGPT generated a response to my query within seconds. However, the first thing that ChatGPT got wrong was length. The ‘paper’ represented in this text is actually two versions of the position paper, since my first effort asking for 2,000 words generated only 913, abstract included. I then tweaked the prompt, asking again for a 2,000 word paper. The second version was only 936 words, with abstract. I included both versions here, since space allowed and I thought that the consecutive responses might actually be edifying to compare.

The second thing that ChatGPT got wrong was the citations. My original prompt asked explicitly for a position paper with academic citations, but what I got was a fairly non-academic, short article organized in list format, without citations. My re-prompt explicitly asked for relevant citations, but while the second version included nine in-text references, there was no bibliography included. I made a brief effort to track some of the citations, but a cursory effort left me unclear. Johnson & Johnson (2019) was too generic to search, but in-text references Veale & Binns (2020) and Reimers & Schleicher (2020) did not result in easy identification through Google Scholar. The authors named - Veale, Binns, Reimers, Schleicher - do appear to publish in the area of AI, but joint papers with the listed year do not show up on the first page of Google Scholar search results. I ultimately did not verify whether the citations ChatGPT provided actually exist.

I would add that the paper itself was not really a position paper in the academic sense. Rather, my prompt twice resulted in what might be categorized as a business-style output, somewhere between a ‘white paper’ and a listicle. The question of whether it was difficult to write a long scholarly piece with GenAI is one I can only answer by saying I could not, in this case, get GenAI to write a long piece at all, even with explicit instructions about length. Nor did free ChatGPT generate anything I could in good conscience call a scholarly paper.

Still, the tool got some things right. The content generated was quite similar each time, but much of it was accurate, if surface. The Economic & Data Implications sections overtly mentioned data harvesting, privacy, and bias, and confirmed that these issues are part of the GenAI landscape, which was helpful to our script team. The Differentiated Learning section focused on somewhat pat AI pathways to personalization and equity, but overall, the content of the two versions was far better than the format, in terms of responding to the prompt.

The fact that I tweaked my original prompt did offer me an opportunity to consider what I would do differently in the prompting sense, though my second prompt was primarily an effort to address what the tool had failed to deliver. I am conscious that prompts are core to GenAI success generally, and thus had been intentional and specific in my original prompt, in keeping with my understanding of good practice. Yet both efforts failed entirely to produce the 2,000 word position paper with citations that was asked for.

Overall, the experience has reinforced my impression that scholarly work is not currently handled well by GenAI. I am wary, though, of interpreting this to mean that there are not serious implications to the incursion of GenAI for educators or for my field of higher education. Yes, the more that educators focus writing assignments on critical forms of scholarly analysis, with specific criteria applied, the more we perhaps increase our likelihood of being able to distinguish human responses from those of (unedited) GenAI. However, this is unlikely to hold true forever.

Thus, I believe GenAI should be a focused site of critical literacy development in higher education. This experiment cemented my impression of GenAI as a starting place for outputs,

rather than an end. I will draw on this experience in my teaching, and focus on both prompting GenAI effectively and editing AI work to try to reach complex, critical, scholarly outputs. I do not want to teach students to better ‘fool’ me with their usage of the tools, but rather to continue to teach them to think and to wrestle with ideas, language, and format, even if we are not starting from scratch with all assignments.

My bigger picture concerns about GenAI remain, however, even if it cannot write a passable position paper. GenAI is polluting web search and drawing huge climate resources, all while recycling the commons of the web into bland, middling outputs, or what Cormier (2023) calls “autotune for knowledge.” In the face of all the hype that positions GenAI as an inevitable and efficient future for us all, the fact that it fails at writing a fairly simple scholarly position paper frightens me perhaps more than if it had succeeded. If we keep buying the hype, we may not notice when the term ‘position paper’ morphs to mean the cheerful autotuned lists that ChatGPT actually turns out.

That, to me, is what educators *really* need to know, or to be watching for.

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