

# “I can almost recognize its voice”: AI and its impact on ethical teacher-centaur labor

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“I Can Almost Recognize Its Voice”: AI and its Impact on Ethical Teacher-Centaur Labor

**Purpose:** This study builds on previous theoretical work which considered Artificial Intelligence (AI) and its potential for creating “centaur-teachers” whose labor could be accelerated through the use of generative AI (Fassbender, In Review). The purpose of this article is to use empirical methods to study centaur-teachers and the division of labor (Durkheim, 1893/2013) that arises from outsourcing teaching tasks to AI.

**Design/methodology/approach:** Multiple case study (Stake, 2006) was employed to collect data on two secondary English teachers who were early adopters of generative AI. Data included semi-structured interviews as well as ChatGPT chat logs, which helped in describing how teaching approaches evolved using AI technology.

**Findings:** Results showed that teachers used AI for planning, instruction, and assessment. AI augmented teaching practice by allowing teachers to complete tasks with greater speed, which in turn increased stamina and short-term work-life balance. Given the novelty of AI, concerns about data privacy and academic integrity raised ethical questions.

**Originality:** ChatGPT’s rise to popularity in 2023 brought with it significant discussions about education, specifically how students would use AI primarily as a tool for plagiarism. This study takes a different focus, considering how early adoption of AI has begun changing teacher labor, offering implications for the future of the teaching profession.

**Keywords:** Division of Labor, Teacher-Centaur, AI in Education (AIED), Teacher Labor, Ethical AI, English Teaching Practice, Multiple Case Study

Education currently finds itself in a complicated situation regarding teacher labor. The United States is in the midst of a teacher shortage which challenges the quality of learning that schools can offer (García and Weiss, 2019). Teacher attrition is not a new phenomenon, as dissatisfaction from burnout has been on the rise due to a variety of factors including class size, low pay, lack of administrative support, disagreement with school policies, and the pressures of high stakes testing (Sutcher et al., 2019). One of the challenges of teacher labor is that it is shrouded in discourses of deprofessionalization used to justify poor working conditions. First, the field of education has fallen under the category of “care work”—professions oriented around social and emotional engagement with others in which workers often sacrifice financial compensation for greater intrinsic value in their labor (England, 2005). Second, as noted by Darling-Hammond (1985), teachers have long been viewed as “semiskilled, low-paid workers in the mass production of education” (p. 209). Both arguments have been weaponized by policymakers and the public to justify low pay and poor working conditions by denigrating teachers as mildly competent caretakers who are easily replaceable.

Another explanation for the deprofessionalization of the field of education is that expertise in teaching is difficult to understand because the labor of educators cannot be simplified to competencies related to content knowledge. Expert teachers possess unique pedagogical, curricular, and contextual knowledge related to learners and their communities. The mental lives of teachers represent the “hidden side” of teaching (Freeman, 2002)—something which, if better understood, would reveal the complex process that teachers undertake when adapting materials during the planning, instruction, and assessment process (Shulman, 1987). In recent years, teaching has become more politicized as educators have found themselves in the

crosshairs of public attacks from parents, politicians, and the media, further diminishing public opinion around teachers and their professional judgement.

Teachers who choose to remain in the classroom in spite of low satisfaction may seek novel ways to reimagine their job descriptions. Enter Artificial Intelligence (AI). A study by McKinsey & Company found that AI automation could save teachers 13 hours of labor on repetitive tasks, which would free them up for deeper student engagement through individualized instruction and social emotional support (Chui et al., 2015). However, allowing AI to take over certain responsibilities is precarious for numerous reasons. First, outsourcing teaching tasks to AI risks the possibility of further deprofessionalizing education by reinforcing the idea that the knowledge and competencies of teachers can be reducible to algorithms. Second, taken to its extreme, concerns have been raised about AI automation in education (Decuypere et al., 2023) and the provocative speculations about robots supplanting human teachers (Selwyn, 2019). For example, some have argued that AI could address current trends in teacher attrition by designing robot teachers capable of teaching and “taking on affective relationships with learners” (Edwards & Cheok, 2018, p. 355)—a haunting proposal which suggests that, rather than improve working conditions to address teacher attrition, it would be more expedient to replace teachers with robots.

The above propositions fall under the rubric of “technosolutionism,” or the idea that technologies possess the necessary tools to resolve educational predicaments. Historically, technology has been positioned as an answer to various educational conundrums, but such predictions have rarely come to fruition (Cuban & Jandrić, 2015). B.F. Skinner (1958) introduced the idea of “teaching machines” in the 1950s. Nearly five decades later, educational technologists touted AI “intelligent tutoring systems” to improve the “speed and quality of student learning”

(McArthur et al., 2005, p. 42). Neither prediction is yet to be realized. Given the historical trends related to technosolutionism, there is good reason to remain skeptical of the scale of impact that AI will have on education.

While AI is unlikely to replace humans in education, it might create “edunudges” (Decuypere & Hartong, 2023) which impact the way teaching and learning are approached. Scholarship of AI in Education (AIED) has recognized that discourses around technosolutionism at any scale bring with it ethical quandaries. Current conversations around AIED are concerned with the “politics of automation” (Williamson et al., 2023), bringing about and the need for teacher preparation programs to engage pre-service teachers in discussions of “technoethics” (Krutka et al., 2019) which foreground AI technologies as not necessarily neutral and worthy of critical investigation. Others have argued for schools to use an “ethics by design” approach when deciding the extent to which certain AI technologies should be used in exchange for the harvesting of personal data by platforms (Williamson & Eynon, 2020). Because of the uncertain impact of AI on education, there is a need to address the ethics of AI in teacher preparation programs and engage in-service teachers in similar conversations as they consider ethical applications of AI in their classrooms.

### *Cyborgs and Centaurs*

Posthuman feminism takes up a different ethical commitment, one which theorizes ways of being “beyond identity” (Braidotti & Strom, 2018, n.p.) by considering how humans converge with technologies to develop new philosophical subjectivities. Perhaps the most notable example is Donna Haraway’s cyborg. According to Haraway (1991), “A cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction” (p. 3). Subjectivities like cyborgs create ensembles that bring together seemingly disparate human

and non-human bodies into a singular assemblage meant to disrupt social constructs. Schools, for example, are sites where students and teachers become “everyday cyborgs” (Lizárraga, 2023) through the augmentation of technologies which enables them to develop different embodied socio-political configurations, creating the conditions for new potentialities for emancipatory curricula.

The purpose of this study is to offer empirical backing of a previous conceptual study used to develop a theory of a different posthuman subjectivity: centaurs (Fassbender, In Review). I argue that that new technologies bring with them new ways of being that challenge previous paradigms (e.g., cyborgs), borrowing the concept of centaurs from the domain of AI engineering (Case, 2018). In Greek mythology, centaurs are mythical half-human, half-horse creatures whose hybridity offers a unique advantage through the coupling of human intelligence with equestrian speed and stamina. Cyborgs, on the other hand, are creations of science fiction, possessing greater precision and superhuman abilities due to cybernetic prosthetics (e.g., Terminator or RoboCop). So, while the metaphor of technology-as-prosthesis may seem appropriate for AI platforms, the concept falls apart when considering the matter of precision. Current iterations of large language models are remarkably imprecise and prone toward generating inaccurate information and false citations known as “hallucinations” (Salvagno et al., 2023). In the absence of precision, humans working with AI enter into different relations, thus creating a need for new subjectivities. This project attempts to describe how teachers embrace teacher-centaur hybridity, leveraging both human intelligence and the speed of AI to complete teaching tasks in a more efficient manner, leading to greater stamina and work-life balance.

This study investigated two secondary English teachers and how AI inspired centaur teaching practices. In addition, it considers how teacher time and labor is re-allocated as a result

of more efficient practice. Broader ethical questions were posed in thinking about issues mentioned above and whether AI can/should help address teacher shortages.

The guiding questions for this study were:

1. How has generative AI impacted teacher labor in secondary English classrooms related to planning, instruction, assessment, feedback, and administrative tasks?
2. To what extent do the affordances of centaur-teacher subjectivities, specifically speed and stamina, impact approaches to teacher labor and job satisfaction?

### **Theoretical Framework**

This study uses Durkheim (1893/2013) and his work on division of labor to consider what happens when teaching tasks are divided between humans and AI platforms. Durkheim’s work was concerned with the Industrial Age and the shift from artisans—whose job it was to create goods from start to finish—to workers who engaged in repetitive, specialized jobs on factory lines. Far from criticizing industrialization, he argued that laborers who play a small role in production of goods not only experienced greater efficiency at work, but an “organic solidarity,” resulting from dependence on others for goods and services. Such efficiency, it was believed, could have a valuable impact on human flourishing. According to Durkheim (1893/2013), “greater productivity is merely a necessary consequence, an after-effect of the [the division of labor]. If we specialize it is not so as to produce more, but to enable us to live in the new conditions of existence created for us” (p. 215). For Durkheim, the goal of division of labor was not simply to be more productive for the sake of productivity, but to flourish under these new economic conditions.

Durkheim (1893/2013) also recognized the challenges that come with a shift in mechanical/pre-industrial society to organic/industrial society. He coined the term *anomie* to

describe a milieu defined by a gap where a previous set of social values breaks down before a new set of norms are established. Such “normlessness” arises during a transition period in which “collective consciousness” slowly erodes previous social norms, creating a short-term vacuum of values. The result is a moment of uncertainty as to how to act or perform daily tasks.

Using Durkheim’s theoretical framework as a guide, this project explores the potential advantages and unintended consequences that might result as the teaching profession begins undergoing its own division of labor through the outsourcing of teaching tasks to AI. In addition, this paper poses critical questions during this moment of technological anomie about how secondary English teachers are making ethical decisions regarding integration of AI into teaching practice.

### **Methods**

Multiple case study (Stake, 2006) was employed to collect data on two teachers who used generative AI, specifically ChatGPT, to lesson plan and teach in Spring and Summer 2023. Cases were selected “because it is believed that understanding them will lead to better understanding, and perhaps better theorizing, about a still larger collection of cases” (Stake, 2005, p. 446). Participants for this small-scale study were early adopters of AI and it was believed that understanding their practices might not simply explain how teachers are currently using AI, but how teachers may adopt AI in the future.

#### *Context and Participants*

Participants were chosen from a local chapter of the National Writing Project in the Mountain West of the United States. Mrs. Lamont was a teacher of 12 years who spent the last 10 years teaching 8<sup>th</sup> grade English Language Arts (ELA) and social studies. She did not identify as particularly tech-savvy, and largely ignored the fear/hype her colleagues shared around AI during

the Winter/Spring of 2023. However, when the social studies state standards were updated and her administration asked her to create a new course combining ELA and social studies, she wondered if generative AI could help her create the materials her administration requested in order to align both subject areas.

Mr. Hogan was in his third year of teaching high school English in the same district as Mrs. Lamont. He was an early adopter of ChatGPT, having recalled getting first intrigued by tutorials on TikTok in January 2023 and immediately using it to summarize works by Shakespeare and Derrida to test its knowledge. As a beginning teacher, he was still creating a significant number of daily lesson plans from scratch and he identified AI as a collaborative tool that could help him develop new materials in a timely manner.

#### *Data Sources and Collection*

Two sources of data were collected for this study. First, semi-structured interviews of roughly 60 minutes were conducted to try to understand how both teachers used ChatGPT. An interview protocol of 16 questions guided the interview, covering four broad topics: 1) initial impressions of AI, 2) planning/instructing with AI, 3) students and AI, and 4) the future of AI in education. Follow up questions around ethics, academic integrity, and work-life balance were asked based on the responses of each participant. During the second part of the interview (planning/instructing with AI), participants mentioned different ways they were using AI to plan and instruct their classes. As a result, interviewees were asked to share their ChatGPT logs as a second data source. 21 pages of ChatGPT logs were collected between both participants: 12 from Mr. Hogan and 9 from Mrs. Lamont. The logs demonstrated the varied ways AI impacted the planning process, including creating a scope and sequence for a combined 8<sup>th</sup> grade language arts/social studies class, writing essential questions for a unit on Homer’s *The Odyssey*,

generating argumentative essay topics that sophomores could complete in two weeks, tips and tricks for using transition words in an essay, and alphabetizing and filling in missing definitions for a vocabulary handout related to dystopian literature.

### *Data Analysis*

Once the data was collected, interviews were transcribed, ChatGPT logs were converted into PDFs, and both were imported into NVivo data analysis software. NVivo allowed for the creation of “dynamic records” (Richards, 1999) through coding transcripts and triangulating interview data with data from the ChatGPT logs. A hybrid thematic analysis approach (Fereday & Eimear Muir-Cochrane, 2006) was used to code the data in two stages. First, a deductive method was used to code interview transcripts and ChatGPT logs using concepts related to centaurs—specifically speed and stamina. Next, an inductive method was used to identify emergent themes from transcripts and ChatGPT logs. Codes in NVivo were then refined and combined to identify salient themes across data sources.

### *Positionality Statement*

I approached this study from the perspective of a professor of English education who is curious and concerned about the impact that AI technologies will have on the preparation of English teachers. This work extends my research agenda, which investigates the role of technology in secondary English classrooms and how posthumanism might possess descriptive power in explaining the impact of digital tools on teachers and students. As a former middle school ELA teacher, I viewed myself as an early adopter of technologies. This study attempts to engage fellow early adopters—both of which are National Writing Project teacher consultants in the local chapter where I am a co-director—in thinking about how this technology is shifting teaching practice while at the same time engaging in ethical conundrums which call into question

what might get overlooked when educators enter into new posthuman arrangements with generative AI.

### **Findings**

Findings from the data analysis process showed that participants mapped AI onto their current approach to teaching English. In addition, ethics surrounding use of AI with teaching practice and students were tenuous and not fully realized as they were still learning how to best integrate AI into the classroom.

#### *Re-Imaging English Teaching Practice*

Both teachers understood that AI would shape literacy and composition in the future. Mr. Hogan wanted to use literature circles as the method for facilitating a unit on dystopian texts. Unfortunately, his experience with dystopian literature was relatively limited, so he felt uncomfortable offering students much variety outside of the texts he had read. However, when he realized that ChatGPT could provide him with chapter summaries for most texts, he re-worked his unit to allow students to choose any dystopian novel, so long as they could find a partner to join their literature circle. The result was that the class chose 12 different novels, most of which Mr. Hogan had never read. On the days that literature circles met, Mr. Hogan prompted ChatGPT for summaries of the chapters that each group had assigned themselves, which allowed him to possess just enough knowledge about the books being read in the literature circles so that he could participate in each groups' discussions. This changed Mr. Hogan's entire approach to literature circles, explaining,

Whereas before I was afraid to do literature circles with novels I hadn't read because I didn't want to be ignorant...I could feel almost as though I had read all dozen novels without having to try to accomplish that task in a month.

Whereas Mrs. Lamont had not used AI in her classroom, she was excited to re-imagine parts of the writing workshop process in the upcoming school year. One of the shortcomings of her workshopping model was that she felt like she was only providing feedback on final drafts, something she believed fell too late in the writing process. Mrs. Lamont wanted to re-orient the process by asking students to prompt AI for specific feedback at each step of the drafting process and then use conference time to discuss the suggestions generated by AI. Mrs. Lamont said, “I’m imagining I’m there with them through the whole process, maybe less at the very end. It’s the opposite of what it used to be.” She believed that this would lead to a different type of conversation during writing workshop meetings, one that centered around why a writer might accept or reject AI-generated feedback rather than how she would personally approach editing and revising. She also believed students would see the algorithmic feedback as feeling “more fair, less subjective.”

### *Speed*

Both interviews addressed the importance of centaur speed and efficiency afforded by AI in various realms of teaching practice. The following section highlights three areas of teacher labor that participants noted as having been significantly impacted by their use of ChatGPT: planning, instruction, and providing feedback.

*Planning Speed.* Because Mr. Hogan was an early-career teacher, he was still in the process of trying to lesson plan and refine his daily activities. Although he would seek out support from his more experienced colleagues, he explained that they were much more willing to hand him a flash drive with handouts and lesson plans than to sit and plan with him. Moreover, he would find himself grading and planning in his classroom until well into the evening when most of his fellow English teachers had already left. ChatGPT presented itself as an on-demand

collaborator which gave him the opportunity to ask the questions needed to create entire units from scratch.

Mr. Hogan recognized AI as “a good starting point” stating, “I think a lot of times, especially as a new teacher, I felt like I don't even know where to begin or what question I would ask a colleague because I feel so overwhelmed.” However, by simply prompting ChatGPT to generate ideas for units, he was able to pick and choose the ones that made the most sense to him. Mr. Hogan understood the strengths and limitations of ChatGPT and where his expertise mattered, stating “It's not super good at creating things, but it's good at synthesizing information off of a...massive database of excellent unit plans and lessons and assessments.” He explained that ChatGPT excelled at taking “human capital” from “really good teachers” and then curating lesson plan ideas, allowing him to pick and choose those which resonated with him.

Mr. Hogan's interview and ChatGPT logs demonstrated that he adopted a backward planning approach, starting with assessment ideas for a unit on *The Odyssey* based around a set of essential questions and then prompting ChatGPT to create lesson plans that address the skills necessary for success on the final assessment. He found that ChatGPT would get him “90% of the way” when designing lessons; it was his job to tailor content to his teaching style and context. Discussing AI-generated materials, Mr. Hogan said,

I ended up with very similar products to what I would have come up with on my own...I was headed in that direction. I was on the cusp of a good idea, but I would have sat in the corner for three hours, just banging my head against the wall.

ChatGPT not only increased the speed of his planning process, but decreased the frustration of trying to figure out how to create a lesson plan that was, in his opinion, “objectively good” and which “150 other English teachers came up with already.”

As described above, Mrs. Lamont was frustrated by her administration’s choice to re-work her entire curriculum by combining ELA and social studies into a single course using new social studies standards, all while her school was shifting from traditional periods to 90-minute block scheduling. She believed they were asking for too many changes and knew that administration would not provide her with the time she needed to make the adjustments before the Fall semester.

While Mrs. Lamont had not yet used AI in her teaching, she saw the possibility of using ChatGPT to address the seemingly Herculean tasks being asked of her entering the upcoming the school year. She prompted ChatGPT to create a scope and sequence for a combined ELA and social studies curriculum and it gave her six units with essential questions. She then asked ChatGPT to add Common Core Standards to the units, apply the C3 Framework (College, Career, and Civic Life), create inquiry-based assignments, and curate a reading list. Within five minutes, she had a scope and sequence that she was pleased with. Having completed this task, Mrs. Lamont thought to herself, “Wow. OK, like here we go. I don't have to spend a whole day out of my classroom during the school year to do this.” During the interview, she marveled at the relative speed of this process in comparison to a similar task she undertook a few years previous. When the ELA state standards were updated in 2017, Mrs. Lamont and two colleagues spent eight hours re-working their 8<sup>th</sup> grade materials to align their curriculum with the changes. With the help of AI, she completed an admittedly more laborious task in just five minutes. Mrs. Lamont knew she would need to make some tweaks, particularly to the reading list. But, she was relieved that she would not need to spend her summer break planning a new curriculum.

Both cases help differentiate cyborg practices from those of centaurs. Cyborgs use technology to develop superhuman skills, which in this case might look like a teacher who uses

AI to develop transformative lesson plans or scope and sequences unlike anything humans would have otherwise been able to conceptualize. Mrs. Lamont’s understanding of her school context and the texts she had access to allowed her to know where she would need to tweak the AI-generated content. Mr. Hogan conceded that the lessons generated with AI were no better than the ones he would have created without ChatGPT; they simply allowed him to arrive at similar ideas with greater speed, getting him “90% of the way.” This limitation reinforces the importance of the human element of centaurs required to complete the final 10% of the planning process.

*Instructional Speed.* Mr. Hogan saw the potential for ChatGPT to add efficiency to his instruction, particularly when trying to address redundant requirements of the district-mandated senior project. For one section of the project, students had to take a six-page summary of their research and then write an even briefer summary. Mr. Hogan had a hard time understanding the merits of writing multiple summaries of a research paper, particularly since it was not teaching nor assessing any new skills that had not been addressed in previous project requirements. Instead, he modeled for students how to use AI to write a summary about one of his students’ projects on the history of rock ’n roll. He demonstrated how to prompt AI to generate the best response and then showed them how to revise, edit, copy/paste, add personal voice, and check for proper MLA formatting. He was excited because he took a “generic writing assignment” and “only spent three days on [the entire summary activity] versus six. So, I cut that time in half.” He argued that the time this activity saved him allowed him to invest in activities that would be of greater consequence to his seniors, claiming, “that was three extra days to focus on things that I liked in the class and preparing them for final presentations.”

*Timeliness of Feedback.* During her interview, Mrs. Lamont expressed her “career-long struggle” with the volume of essays she had to grade. Previously, she had tried setting a two-

minute timer to grade papers, but found it too hard because she wanted to “have a conversation” in the margins of student writing, which could not be done in two minutes. Her inefficiency with grading only reinforced the resistance she felt toward providing feedback. She said, “I’m so emotionally invested as a teacher. I think like most teachers, I’ve gotten into situations where I’m like, *Oh my God, I’ve taken so long to grade this. Now I’m embarrassed to give it back.*” She recalled reading an article that discussed “tantalizing” ideas to help teachers use AI to cut down on the time it takes to grade papers, and she wondered how she might use it to help her provide more timely feedback. While she had not tried it yet in her classroom, she viewed AI as possessing the key to her future success as a grader, using it as a tool to workshop (as mentioned above) and assess final drafts in the hopes of alleviating some of the emotional tension attached to assessment by increasing the speed, and thus timeliness, of feedback on student writing.

### *Stamina*

The fringe benefit of the centaur’s speed with regard to planning, instruction, and grading is that they developed stamina by re-allocating their time to other personal and professional pursuits. The time that Mr. Hogan saved from planning with ChatGPT allowed him to better address other tasks, including responding to emails from parents and administration. He also spent less time planning and grading on the weekends, allowing him to invest in his personal hobbies, namely hunting, crediting ChatGPT as having “helped with the work life balance for sure.”

Mrs. Lamont talked about a similar mindset shift regarding time as it relates to more efficient planning explaining,

I think it means I’m less resentful of the meetings I have to go to or I have the opportunity to go into study lab and spend that prep time with those kids giving help instead of

hoping no one comes into my classroom because I need to get [planning and grading] done.

While she admitted to being able to approach meetings and tutoring with greater positivity, she also shared similar sentiments around stamina as Mr. Hogan, stating that ChatGPT “helps create the balance that we're all so desperate for.” When asked about how she planned to reallocate the time she got back from more efficient planning and grading, she argued, “I don't think it necessarily gets reallocated. I think [time is] just being used in a healthier way.” She imagined, “maybe I don't have to spend 2 hours a night at home anymore grading and planning, so I'm actually putting my kids to bed and making dinner, which is what I was wishing I was doing that whole time.”

### *Ethical Stances*

Portions of the interviews revolved around current and speculative issues surrounding AI and its ethical integration in schools. The aim of this line of inquiry was to better understand what ethical stances Mr. Hogan and Mrs. Lamont were taking up as they began addressing issues related specifically to academic integrity and data privacy.

*Academic Integrity.* Both teachers experienced instances where students used AI to complete writing assignments and attempted to pass it off as their original work, however Mrs. Lamont seemed particularly bothered by it. She caught a student who had procrastinated on a written assignment and then asked to go to the library to work on it, returning five minutes later with a completed, polished essay. Knowing the student's previous writing and his procrastination on this project made it easy for her to recognize that he used AI to complete the assignment. Mrs. Lamont was concerned that instances like this might become a common occurrence and harder to detect in the future. During the interview, she inquired about how tools like TurnItIn might help

identify AI-generated writing. She even wondered if there was a way to check students’ search history on their school Chromebooks, before recognizing that such a practice would be an egregious invasion of privacy.

As the Spring semester progressed and he played with ChatGPT more, Mr. Hogan started to see patterns in AI writing stating, “I can almost recognize its voice, which is a weird thing.” So, when a student brought in a paper using six words that seemed outside of his lexicon, Mr. Hogan became dubious that this was the student’s original work. He explained that “at a certain point in the year, I can recognize [a student’s] voice” and it became clear that the paper was not written by this student. Moreover, Mr. Hogan recognized it as being in the voice of ChatGPT. When asked to define the six esoteric words in his essay, the student admitted to not knowing the words and using ChatGPT to write the paper.

The interviews indicated that it is not only students who will be tempted to use AI to complete written tasks. Both teachers, particularly Mrs. Lamont as discussed above, were looking for ways to use ChatGPT as a tool for providing feedback for student writing. She believed that AI, when used transparently as a tool for feedback for students, could help address any ethical concerns that she might have in using it to grade writing. However, when asked if he had any ethical qualms in using AI to generate feedback for student writing and passing it off as his own, Mr. Hogan said, “I would have moral issue with it, but I struggle at the moment to define why.” This question made him imagine a dystopian future where students write essays using AI and then teachers turn around and use AI to grade them, completely removing humans from the writing process.

Mr. Hogan considered the need to assign more handwritten essays to remove such temptations from both students and teachers. This question of modality seemed important to Mr.

Hogan as he made the argument, “if I’m going to use AI to evaluate something written on a computer, you may as well have written with AI because you’re going to get a better product.” More directly, he believed that assignments created by him would be best assessed by him because he would know exactly what he was looking for. However, with activities where students are encouraged to use ChatGPT to write, it made more sense to use ChatGPT to assess the final product because it is “going to know better what it’s asking for because it’s the one doing the looking, too.”

*Data Privacy.* Another ethical conundrum that came up was the issue related to data privacy. As previously noted, Mrs. Lamont considered the possibility of surveilling students’ Chromebook history to see if they used ChatGPT on a writing assignment before walking that back as a “weird” invasion of privacy. She believed that schools had a responsibility to discuss with students the benefits and dangers of AI. She did not feel knowledgeable enough to discuss this with her students, but she noted that there was already an effort by counselors and librarians to offer programming around social media and responsible use and perhaps it could “expand to include ChatGPT and other AI” in order to discuss how tech companies are collecting and using their data.

When asked how he addressed data privacy for his written assignments with ChatGPT, Mr. Hogan explained, “I’ve made it optional or allowed students to use my account so that they’re not having to give up their personal information.” In addition, he attempted to address the lack of clarity around OpenAI’s data collection practices, explaining to students, “I don’t know what they’re doing with your information. Like, this is very new.”

As cautious as both teachers were with students’ data, discussions around their own data told a different story. Mrs. Lamont explained how she had recently been thinking about a Ratan

rug for her house and suddenly started receiving an onslaught of ads on various platforms for rugs. She went on to say, “I don't even know how that happens...and I just don't see a way around it personally, so it doesn't freak me out. Maybe that's kind of naive.” Mr. Hogan took a similar orientation toward personal data, discussing how he had recently searched for a gift on the shopping page of Instagram and was unable to find exactly what he wanted. He expressed frustration, stating, “I, oddly enough, get annoyed when my algorithm doesn't give me exactly what I want.” I asked him if the fact that “his algorithm” had become so good at predicting his interests felt like an infringement on his privacy. He adopted a disinterested stance, wondering rhetorically, “Will I ever be important enough that my personal data is that important to me?”

### *Why Humans Matter*

Conversations around ethics during both interviews led to discussions of where humans ultimately will fit into the education system moving forward. In considering the speculative concerns raised above about robots taking over teaching, Mrs. Lamont refuted, “we want our teachers to be human. We want that investment because that's where the learning happens, right?” For both participants, the need for human teachers could best be summarized in one word: relationships. Mrs. Lamont said that so much of her teaching is about “relationship building and any kind of writing or reading that we're doing is about getting to know each other better.” When asked about parts of his role as a teacher that he would feel uncomfortable outsourcing to AI, Mr. Hogan was quick to respond, “when a kid comes crying into your classroom.” He went on to say, “one should leverage their skills that are uniquely human, like lean into that stuff. Figure out what you're good at that has to do with human connection.” Mr. Hogan went on to explain that tasks that involve “rote memorization and the things that are

cookie cutter and standardized...are going to ChatGPT” which opens up new possibilities for teachers to pursue tasks that are “uniquely human.”

Reading and writing, however, were no longer in the realm of skills that could be characterized as “uniquely human” given that AI was capable of crawling the internet to generate new written content. This raised questions as to why students need English skills. Mrs. Lamont agreed that this complicated her rationale for explaining why learning to write matters. But, if a student were to ask her why they needed English, she said that she would explain the importance of self-expression stating, “write the thing for you in a really great way and edit it. Maybe you just need to be an editor now, but we want them to be thinkers.”

Mr. Hogan took a similar approach in justifying why English teachers still matter, arguing that,

I think the emphasis in the classroom has to be that writing is thinking, and so...we're trying to model good thinking on a page because if we can model logical reasoning here, we can accomplish logical reasoning outside in the real world.

In trying to explain the relevance of writing in an age of AI, Mr. Hogan made clear that teachers, not AI, are able to teach students to think and communicate ideas with others, arguing “that's what we're really teaching, and you can't outsource that.”

### **Discussion and Significance**

This study outlines a new division of labor (Durkheim, 1893/2013) in the teaching profession, brought about when certain tasks, previously assigned to the domain of the human, become outsourced to AI technologies. Both Mr. Hogan and Mrs. Lamont illustrated a similar orientation toward AI and its potential to bring about change in teaching practice—not only in

how they use it in planning and assessing student work differently, but through updating instruction to address the literacies students will likely need in the future.

Given this division of labor, this study tested the utility of the theory of the centaur and implications of posthuman subjectivities on the teaching profession. Mr. Hogan and Mrs. Lamont helped refine the differentiation between the cyborg (Haraway, 1991) and centaur, noting how the use of AI helped them to complete teacher labor with speed, allowing them to re-allocate their time toward personal interests and commitments. The result was that both participants approached teaching with a renewed sense of energy and stamina. Both participants noted that, while impressive, AI-generated content was not perfect and required human intervention to supplement and edit lesson plans, assessments, and scope and sequence documents. Moreover, while AI helped accelerate curricular decisions, it did not necessarily generate better ideas than what he would have ultimately created. In other words, AI technology did not allow teachers to develop “superhuman” ability to create novel instructional activities or assessments that transcend human thought—something we might expect from a teacher-cyborg. It is speed, not precision, which is the primary feature of AI that impacts teacher-centaur labor.

Scholarship like this runs the risk of bolstering the hype around AI and, by extension, expanding the discourse of deprofessionalization in education. Arguments could be made that, as this technology becomes more robust and the division of labor becomes more prominent, teachers will no longer need to know the content they teach, nor will they need to understand the planning and assessment process when it can be automated using AI. If teachers have historically been viewed as the “semiskilled, low-paid workers” in the factory of education (Darling-Hammond, 1985, p. 209), then the increased automation of teaching risks further undermining the expertise that teachers possess. However, this project sought to understand the mental lives of

teacher-centaurs (Freeman, 2002) to help articulate the process that educators undertake to make content meaningful to students (Shulman, 1987), in this case AI-generated material. Both participants benefitted from their professional engagements with AI while acknowledging that materials were not generated readymade and required their content knowledge, competencies, and contextual understandings to revise and augment curricular ideas to make it meaningful in practice. So, while fears of automation in education abound, the human element of the centaur remains critical to any arrangement with AI.

New milieus of education bring with them not only changes in practices, but ethical conundrums. Returning to Durkheim (1893/2013), participants’ lack of clarity around academic honesty, surveillance, and school policy demonstrated how teachers found themselves in a moment of anomie, or normlessness, related to the ethics of AIED. Both Mr. Hogan and Mrs. Lamont expressed need to be cautious of student data when using AI platforms, while at the same time sharing a sentiment of indifference for privacy when it came to their personal data. In fact, both expressed a desire for their algorithms to push ads and goods onto their social media feeds and browsers for their convenience. This is not surprising since centaurs privilege speed and the convenience afforded by algorithms. Given this, there is a renewed need for a focus of technoethics in education (Krutka et al., 2019) to ensure that centaurs’ impulse toward convenience does not pave the way for less critical work around surveillance capitalism and data privacy in schools moving forward. Moreover, given the fears of AI automation (Decuypere et al., 2023) and the speculations of teachers one day being replaced by robots (Edwards & Cheok, 2018; Selwyn, 2019), new ethical questions arise regarding how teachers use tools like ChatGPT. Given the normlessness of this moment, one is left to speculate whether the data centaurs willingly offer up on AI platforms today are being used to train educator bots of the future.

### *Conclusion*

This article started with questions regarding the current teacher shortage and whether AI technologies like ChatGPT were capable of impacting teacher labor by providing the necessary stamina needed to keep teachers in the profession. The benefit of the increased speed afforded by centaur teaching practice was that it provided participants with time that they re-allocated for themselves, leading to increased stamina. In the teaching profession, stamina may provide the work-life balance burned out educators desperately desire. For Mr. Hogan, that was hunting on the weekends. For Mrs. Lamont, that was spending time with her family during the evening and even spending more time supporting students or attending meetings with a positive attitude knowing that it's not a re-allocation, but reclamation of the time that always belonged to her.

However, after a follow up conversation, Mrs. Lamont decided to apply for a sabbatical in her district so that she could return to graduate school or seek a new profession. Mr. Hogan chose to leave teaching altogether, taking an industry job in sales and marketing for an outdoor apparel company. Both participants' decisions to seek careers outside of education helped make an important distinction about teacher-centaurs: the speed afforded by AI may lead to increased stamina in the short-term by improving parts of teacher labor (i.e. planning, instruction, and assessment), but this may not be enough to keep teachers in the profession long-term without also improving other working conditions. The awe of AI has enchanted many in education, leading to technosolutionist thinking around how this technology will revolutionize teaching (Cuban & Jandrić, 2015). However, one must not lose sight of the importance of human capital in this current moment and recognize that, regardless of how much AI may impact teacher labor, teacher shortages are likely to persist unless schools earnestly seek to improve working conditions and compensation. Undoubtedly, the greater fear is that a refusal to address such

conditions that lead to shortages will make the prospect of AI teacher bots all the more enticing for schools that find it increasingly difficult to fill the empty classrooms of teachers who have chosen to leave the profession.

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