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Shift Happens! Clashing AIs in Higher Education and the Unexpected Implications of Restriction and Implementation

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Cover Page Footnote

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The AI-AI conflict in higher education, artificial intelligence and academic integrity, led to a frenzy of policy and curricula changes throughout the 2022-2023 academic year. Yet, the impacts of restrictions and implementations on marginalized populations were not immediate concerns. Students with disabilities and others considered marginalized and underprepared may have the most to lose without careful considerations of the implications of restriction and implementation. Identifying evidence-based best practices for next steps in AI integration that support students' learning and avoid the biases of emerging applications may provide the safest path forward for evolving teaching and student advising in higher education systems.

Keywords: artificial intelligence, higher education; AI implications, AI implementation; artificial intelligence, Academic Integrity

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Thank you TVC for awarding me this opportunity. It is my deep desire that people will learn from this journal article and be more proactive where need be.

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In November of 2022, the release of *ChatGPT* sparked fear and uncertainty throughout higher education. Yet, this fear and uncertainty were not reactions to the inequities and biases plaguing higher education and artificial intelligence's contribution to it. Considering evolving technologies contribution to the expanding digital divide between mainstream and marginalized student populations (D'Agostino, 2023; Ellsworth, Law, Pinder, 2022; Kelley & Cisneros, 2021) the focus on controlling the use of artificial intelligence (AI) tools instead of on maintaining efforts for closing achievement gaps while managing these technologies raised concerns for those implementing inclusive practices into teaching. Progress made with creating inclusive programs, courses, and instruction moved into second place as the fear and uncertainty that raged in response to the threat posed by *ChatGPT* moved into first. Since November 2022, these AI tools morphed into massive distractions as their availability to all internet users lead to further issues and complications amplified by higher education restrictions. Considering the implications of rushed restrictions, or the implications of its opposite - open and liberal acceptance and implementation of all new artificial intelligence language models and related programs - stepping back and reassessing the direction a higher education institution is headed may lead to redirecting efforts, so that informed decisions can be made based on observations, experiences, and student learning outcomes regarding AI implementation into courses.

AI Restrictions and Students with Accommodations

Restrictions placed on students' use of AI tools threaten the progress made with inclusive instruction designed to reach diverse groups of learners. Those impacted include instructors designing differentiated lessons that use technology supports during onsite instruction and within online learning platforms. This also includes students utilizing AI tools approved through student services offices and by their instructors. Popular tools include citation generators, *Grammarly* and similar grammar checkers, online translators, online voice to text transcribers, and other AI applications for improving oral and written communication available prior to November 2022. Limiting the accommodations that can be used for students identified with disabilities and removing accommodations already in place can lead to unexpected and undesirable consequences for individual students, instructors, the student disabilities office, and the institution.

AI Restrictions and Underprepared Students

Additionally, AI tools' availability on the open internet amid higher education restrictions following the release of *ChatGPT* sets students up for failure, namely the underprepared students who risk committing *plagiarism by AI (*using content in a composition that is AI generated without proper citation of the tool and prompt used for generating it) for the simple error of exploring emerging technologies available. This exploration is something familiar and expected for individuals born after the early 1990s (DeWitte, 2022) which is when the internet was made available to the general population (Leiner, et al., 1997). This issue is one that may lead to additional implications

regarding long term enrollment and graduation rates, as the limitations placed on AI tools and their use by college students may influence motivation and commitment to completing degrees as those born after 1990 have the tendency is to be self-reliant and collaborative (DeWitte, 2022) which the internet and its applications allow for.

The Clash of the AIs in Higher Education

Ultimately, the clash of the AIs in higher education – artificial intelligence and academic integrity - raise other concerns for both policy and practice, possibly indicating the need for more action research within departments accompanied by collaboration among groups of colleagues to examine AI's impact on inclusive instructional practices and the use of alternative assessment strategies to make informed decisions leading to innovative solutions. Several promising suggestions are already shared in recent literature (Xie, Wu, & Chakravarty 2023). However, not all institutions agree that AI tools have a place in the higher education classroom, while others forge ahead to experiment with department implementation.

AI Restrictions

Though maintaining academic integrity is a critical concern in higher education, without considering all student populations along with evolving technologies and how these impact society, risks associated with rushed policy and program changes cannot be avoided. Stepping back to collaboratively consider strategies for exploring AI capabilities and how these may fit into curricula and instruction may be a proactive direction to go in when reconsidering the restrictions placed on AI programs in courses. Testing AI implementation in several courses as opposed to an entire department, can lead to constructive collaboration among colleagues with conversations leading to the identification of best practices for use based on instructors' experiences and student learning.

AI Implementations

On the other end of the spectrum is the avoidance of policies that restrict AI tools, so that any AI applications available are blindly accepted and implemented without testing them in a course or selecting specific tools based on evidence. Just as restrictions can lead to unexpected consequences, blind acceptance of programs will do the same, with a specific concern for the biases that may exist within these untested applications. Additionally, blindly accepting all AI tools may harm underprepared students, as the use of these tools may lead to reliance and dependence. This places underprepared students at a steeper disadvantage compared to peers coming from secondary schools with college preparation programs and advanced course offerings. The disadvantages of reliance on AI tools may not surface until later, when requirements include independent completion of tasks without AI assistance. As with rushed restrictions, stepping back to collaborate and test AI programs separately and in different courses may be a safe direction for rewinding and reassessing liberal access and implementation of all AI tools as they become available.

AIs Disruption to Traditional Education Systems

Keeping in mind that AI's disruption to the traditional education system is forceful and unstoppable, policies restricting the use of these tools seem to be the least effective solution to managing the issue of the clashing AIs in higher education, just as complete and unlimited access may also not be the best solution to implementing AI tools within a course or program. At this point, however, it can be observed and agreed upon that attempts to control or limit students' use of AI through policy revisions is inefficient and ineffective considering the open availability of these programs on the internet for all internet users. However, if higher education institutions maintain restrictions and "no use" policies, this decision clashes with mainstream society's and tech giants' use of these AI language models and related tools. This may lead to tensions rising amid the clashing AIs.

AI Text Generators Implementations and Restrictions

As universities move forward with revised policies and curricula, which include restrictions on the use of AI language models by students, technology giants adopt, adapt, and implement: Google Chrome recently released an AI writing feature, which users can enable on their devices through Google services. Microsoft launched its own version of ChatGPT: Copilot, advertised as "your everyday AI companion" (copilot.microscoft.com). As of April 2024, it is rumored online that Apple is exploring its own large language model comparable to ChatGPT (Clover, 2024; White, 2024) and recently released its own multimodal AI: MM1, which generates both text and images (Kelly, 2024; Morrison, 2024). As the internet world and major corporations continue to embrace and evolve these large language models and related applications, the AI-AI conflict in higher education remains with recent research on AI in education indicating a deepening of the digital divide among groups of learners (Wang, et al.,2024). And as Microsoft, Google, and Apple introduce and remotely train the world in using their own AI language models and relate applications, academic departments in higher education institutions and their educators race to replace faulty AI detectors as the errors in plagiarism detection continue to rise along with the sophistication of AI applications.

An Interesting Aside

An interesting aside: it is likely that AI compositions will one day be undetectable as AI programs improve their output with each use. Just ask Bars Juhasz, a Ph.D. student to create the first "adversarial AI model allowing generative text to bypass detection efforts" (Juhasz, 2023). This further demonstrates the unknown future of AI language models and related applications along with their evolving capabilities that higher education must consider.

The Big Question Regarding the Clashing AIs

The question to be answered regarding AI in higher education is not how to protect the academic integrity of higher education institutions from the threat of artificial intelligence. Instead, the question is how can higher education institutions adapt, adopt, and successfully implement the latest, biased-free artificial intelligence into curriculum and instruction in ethical and efficient ways for improving student learning and ensuring the sustainability of progress?

Shift happens. The clashing AIs indicate that change is here for higher education instruction, as letting go of past practices and beliefs require the acknowledgement that traditional systems no longer fit current society, nor do they fit the emerging technologies that are reshaping education.

AI Benefits and Considerations: Chatbots for Scheduling and Monitoring Progress

Considering costs for academic advisors and the time involved for one-to-one assistance for scheduling and reviewing students' progress, the use of technology and AI applications for individualizing student advising, such as the IPASS initiative that uses advising technologies for student planning, alert systems, communications and other tasks (IES, 2022, p.7) is one use of AI technologies recommended by the U.S Department of Education in the What Works Clearinghouse publication sharing recommendations for improvements to student advisement in higher education (IES, 2022, p.8). AI tools available for student advising may be ones not all universities are familiar with, but several universities have already forged ahead to adopt AI for student advisement purposes, as highlighted in the "Artificial Intelligence in Higher Education" report that shares examples including student scheduling, student monitoring of progress, student degree planning, and instructor progress alerts – all which can be managed with AI programs (Klutka, Ackerly & Magda, 2018, p.14). Implementing chatbots for addressing questions online and within a university website is another AI strategy universities are adopting, but further research is needed to ensure chatbots are free of bias (D'Agostino, 2024).

AI Grammar Tools for Student Writing and Tutoring Services

Additionally, AI tools for editing and revising student compositions serve as an additional option for efficient use of time as one-to-one assistance in tutoring centers can move beyond a composition's surface issues. AI tools can manage these technical issues in writing while tutors and consultants can focus on the more complicated tasks in real time meetings with students such as understanding content from a course project or reading, generating ideas for a composition, analyzing processes, responding to arguments, applying complex problem-solving steps, and other cognitive processes that real time one to one interaction can assist with.

Putting People at the Center of AI Applications' Evaluation and Implementation

Innovative and creative solutions replacing fear-generated decision making that restricts the use of AI's advancing capabilities in higher education can pave the way to better outcomes regarding implementation and understanding of AI tools in ethical and responsible ways. To resolve the clashing AI dilemma, action research by individual instructors and the sharing of findings among colleagues in departments may be a reasonable place to begin.

Sharing best practices and insights in a shared online space across higher education institutions is another promising strategy along with qualitative research on student experiences and perceptions of AI tools, instruction, and the use of innovative assessment strategies that can inform decision-making regarding revisions to courses and instructional practices. Traditional education systems no longer meet the needs of this changing high-tech society. The clashing AIs are a clear indicator that shift happens in education, and the time for change is now.

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