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COMMENT



The Rise of Artificial Intelligence: A Clarion Call for Higher Education to Redefine Learning and Reimagine Assessment

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ABSTRACT

In 2022, OpenAI released ChatGPT, a generative artificial intelligence (AI) chatbot that can instantly respond to user-provided queries in a conversational manner. While it can be a powerful tool for completing a great number of written tasks, instructors are worried about students misusing ChatGPT and other AI programs in their coursework. Though this concern is valid, we propose that the emphasis on trying to circumvent cheating with AI is misplaced. In the following commentary, we argue that the way students are assessed should fundamentally change. Instead of asking students to simply reproduce knowledge in essays or exams—tasks that are easily accomplishable for an AI like ChatGPT—students should engage in class-specific, guided self-reflection and take part in assessing their own work. Self-assessment and ungrading could increase intrinsic motivation and reduce the desire to rely on AI for coursework, especially when such coursework requires personalized details from students. Thus, we propose that the emergence of ChatGPT and the continued evolution of AI poses an exciting challenge for higher education—to refocus students on work that is personally meaningful, and accomplishable only by humans.

KEYWORDS

Artificial intelligence (AI); ChatGPT; higher education; self-assessment; ungrading

Artificial intelligence (AI) has been discussed in the context of higher education for decades. Many of these discussions have focused on AI as a tool for educators for tasks such as predicting student behavior, creating personalized and adaptive courses, performing assessments, and intelligent tutoring (Zawacki-Richter et al. 2019). With the recent public release of the large language model ChatGPT and popularity of other AI-powered writing tools such as Quillbot (OpenAI 2022; Quillbot 2022), conversations have shifted from educators to students and how they may use (or misuse) these tools in their coursework.

Since ChatGPT's release, there has been a surge of news articles, blog posts, and an increasing number of peer-reviewed articles related to the impact of students' use of ChatGPT on higher education (Adiguzel, Kaya, and Cansu 2023; Cooper 2023; Crawford, Cowling, and Allen 2023; D'Agostino 2023; Heilweil 2022; McMurtrie 2023; Mitchell 2022; Sun and Hoelscher 2023; Tlili et al. 2023; Qamar, 2023). Students now have access to AI that can answer test questions, generate essays, and even embed fake but convincing peer-reviewed sources. Although the products of these AI tools have limitations, concerns about the use of AI have led many educators to try to find ways to detect AI-related

plagiarism—if not ban the use of AI altogether. We argue that these concerns about cheating and plagiarism are well-intentioned but miss the opportunity to reimagine how we assess learning.

1. Traditional assessments are especially vulnerable to cheating with AI

Traditional assessments stem from the idea that learning involves the ability for students to reproduce the information provided by their instructor (Freire 1970). When assessments consist mainly of reports of facts, definitions, or even essays on well-known topics, academic dishonesty is more likely (Sotiriadou et al., 2020). Within this framework, the use of AI to summarize and repeat facts (i.e., the primary demonstration of “learning”) can only be addressed by penalizing students and making technology inaccessible during assessments. But an overemphasis on punitive responses to student use of AI comes at the expense of considering how students can demonstrate their learning in innovative ways—perhaps even in ways that are augmented with AI.

We suggest that the increasing prevalence of AI is a push to adopt more practices that disrupt what is

traditionally considered important for student assessment, which can fundamentally influence students' motivation and relationships with their own learning. We propose that the rise of AI is a call to: 1) acknowledge that evidence of learning can be demonstrated with techniques beyond traditional exams and essays, which are highly susceptible to cheating, and 2) increase the use of alternative grading practices like ungrading, which incentivize learning and intrinsic motivation by incorporating nontraditional, authentic assessments that are difficult for AI to replicate without sufficient prompting.

2. Using ungrading to decenter AI and recenter student learning

Ungrading is an alternative grading approach that centers self-assessment and feedback in lieu of points/letter grades (Ferns, Hickey, and Helen, 2021) and emphasizes growth over time, reflection, multiple attempts to succeed, and cultivation of instructor-student relationships (Blum 2020). Ungrading can take many forms, including just a few assignments during the term in which only feedback is provided in lieu of a grade, or as the entire basis of a course (i.e., all work is scored through evaluations). In some instantiations of ungrading, students may still be asked to assign themselves letter grades based on their evaluation of their performance in the course (Stommel, 2018)—though typically this happens in consultation with the instructor and their own evaluation of the student's work. Across the different implementations of ungrading, the common theme is that at least part of the students' evaluation is provided through self-assessments of their learning progress.

Much of the original impetus for ungrading emerged from problems with points-based grading paradigms. Blum (2020) outlines multiple issues that emerge from traditional grading: Lack of agreement about what different grades represent, dichotomy between assigning grades and communicating feedback, and the presence of grades reducing intellectual risk-taking. Importantly for our purposes, letter/points-based grades have numerous negative effects including decreasing intrinsic motivation (Kohn 1999; Kohn 1993) and orienting students to performance-avoidance goals (Pulfrey, Buchs, and Butera 2011). The act of assigning letter grades itself may be a factor in influencing students to cheat (Anderman, Griesinger, and Westerfield 1998; McCabe, Treviño, and Butterfield 2001; Zastrow 1970). Particularly, it is the pressure to obtain high grades

that students report is a major cause of cheating behavior (McCabe, Treviño, and Butterfield 2001).

Several of the outcomes of using ungrading may lead to decreased rates of academic dishonesty and cheating more broadly, which would also reduce the use of AI for such purposes. A meta-analysis by Krou, Fong, and Hoff (2021) identified several factors related to motivation that are negatively associated with academic dishonesty including intrinsic motivation, feelings of control over academic achievements, and focus on goals related to mastery. These same factors are argued to be increased by adopting ungrading and self-assessments; their use is associated with increases in students' intrinsic motivation, feelings of control over their success, and greater self-efficacy (Nieminen, Asikainen, and Rämö 2021; Spurlock 2023; Walser, 2009), and shifts in learning orientation and greater trust in the teaching/learning process (Greenberg, Sohn, and Moret 2022). When students are presented given a chance to self-assess, they demonstrate a willingness to adapt to new experiences and take responsibility for their own learning to produce high-quality work (Ferguson 2013). Removing grades and shifting motivation toward students' own desire to learn may reduce the desire to cheat, and thus, the desire to rely on AI to complete coursework. Ungrading can relieve the pressure to achieve specific grades for students and the burden on instructors to justify those grades. This shift allows for the exploration of more authentic and complex assignments that are not easily quantified solely with points or grades.

3. Implementing ungrading practices

In an ungraded class, self-assessments could include mid- and final-term assignments that prompt students to reflect on their coursework throughout the semester, incorporating feedback they've received and how they have met personally-set goals for the class (e.g., Stommel 2018). For instance, students could be asked to reference a slide number as evidence for where they learned information or refer to instructor feedback on an essay to explain how revisions to a final draft were made. Students could describe challenges they faced and how they overcame them, how the course content relates to their lives, or how they met or failed to meet their own learning goals for the course. These self-assessment activities rely on the unique experiences of each student that are not readily available in AI databases. Both authors of this paper have successfully implemented ungrading in their Psychology courses during the age of ChatGPT—sample assignments and course syllabi can be accessed

via an OSF repository: https://osf.io/pq359/?view_only=569aed596b014927b788a5043027ea85.

4. Concluding comments

AI tools will only continue to increase in their abilities and sophistication. Trying to outsmart users of such constantly improving AI is an unwinnable arms race. Instead of continuing to teach under the assumption that reiteration of knowledge is the only way to define learning, we consider the release of ChatGPT as a call to embrace progressive and radical ideas about assessment. AI may be the push higher education needs to try something new.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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