**Outsmarting AI: Assignments and Exams that Minimize the Risk of Plagiarism**

**Abstract:**

Plagiarism is becoming an existential threat to education thanks to the prom­inence of online test bank repositories and artificial intelligence content generators. ChatGPT is the most notable of these, and much has been written in the popular press recently about how faculty need to be concerned about this nascent technology. In this roundtable discussion, we will challenge the hype and investigate whether AI truly creates an opportunity for us to reevaluate the type of assignments that lead to higher-level learning. Come add to the conversation and learn best practices to combat plagiarism in the age of machine learning.

**Keywords: Textbook, Plagiarism, ChatGPT**

**Introduction**

One of the highly attended sessions at last year’s MOBTS focused on courses that do not use textbooks and discussed how this approach can be implemented by faculty. Its intent was to emphasize issues that are happening in real-time (Ansary, 2004; Errington, & Bubna-Litic, 2015). During the session, one of the most hotly debated subtopics was how best to create assignments in the absence of a test bank and teaching notes. The discussion quickly unearthed a related problem concerning test bank questions appearing online thanks to compilation sites such as Course Hero, Quizlet, and Chegg. In the years since, ChatGPT and similar AI programs that can write answers for students have emerged as potential substantial threats to academic integrity. With the help of AI-powered tools, it is easy and cheap (even free) to automatically generate large amounts of text in seconds that resemble intelligent writing by humans, or to automatically copy and paste text from multiple sources. Additionally, AI-powered tools can also be used to automatically paraphrase text, making it harder (if not impossible) for plagiarism detection software to identify copied content. These online resources have the potential to contribute substantially to academia, but they have led to an emerging crisis of rampant fears of student plagiarism and a hastiness to redesign assignments and prompts by already overburdened faculty. Designing quality assignments must now take into consideration how we can outsmart or coexist with AI, and ensure that students still put the proper level of effort and critical thinking into any graded work they submit.

**Theoretical Foundation/Teaching Implications**

The popular press is terrified of the impact ChatGPT will have on education (e.g., Huang, 2023). The prevailing belief is that students will cease to do any of their own learning and rely on artificial intelligence when writing assignments or doing take-home exams. Journalists, both academic and lay, seem to believe that the only reason students put any effort into classes is to achieve a grade, and the only assignment faculty create is to ask for summary information that falls on Bloom’s low levels of cognitive learning (1956).

Indeed, questions about recall with very limited analysis can be parrotted by AI in a way that cannot easily be differentiated from human student writing. For example, asking ChatGPT to explain Maslow’s Hierarchy of Needs results in an essay that is of sufficient quality to earn a high “B” or low “A” from even the most stringent of graders. On the other hand, asking ChatGPT how to apply Maslow’s Hierarchy to my own life results in very generic answers, and if the question is not phrased correctly, the AI will even respond, “It is difficult for me to say without more information about your personality and actions.” (ChatGPT, 2023). Moreover, if another student were to ask the same question without providing any additional personal information, the results from ChatGPT would be identical.

Therefore, while some concerns are indeed legitimate, and students could exploit the latest technology in unethical ways, we also caution against overly exaggerating the negative impact of AI in academia. Particularly, as the technology is only going to become more sophisticated and be adopted in a wider range of workplaces, attempts to block it from students will prove fruitless and even misguided. Rather, this may be an opportunity that forces educators to reflect upon our own teaching philosophies and pedagogical approaches (much like how the pandemic forced organizations to reconsider remote work). Eventually, we may arrive at a renewed purpose and strategy for our classes that not only keep up with time but also enhance students’ learning potential.

**Session Description**

As fears grow about AI plagiarism, and other means of circumventing the assigned work that we have so carefully crafted to help students enhance their problem-solving skills, we argue that the time is ripe to consider how to create assignments that could evade the use of these types of technology (or render them irrelevant) while also encouraging critical thinking and increasing engagement. We will convey our approaches to course content and design, assignments, and teaching techniques to minimize the probability of plagiarism. We will also share syllabi with complete assignment descriptions, either in the form of paper copies (at the session) or via email (by collecting emails and sending them after the session). We will also highly encourage session participants to share their ideas and assignments to create a cohesive list of options that can be later emailed to the group.

In this round table discussion, we aim to answer the following questions:

1.     How worried about AI should educators even be?

(a) Should we rely on Turnitin and AI detectors like GPTZero rather than altering the    curriculum and assignments?

(b) Do students still learn enough just by reading and evaluating the answers generated by AI?

(c) Is teaching students ethical practices in the face of temptation more valuable in the long-run?

2.     What are some strategies for writing questions that minimize the likelihood of AI-based plagiarism?

(a)   Multiple revisions throughout the semester and how each draft builds upon the last

(b)  Highly personalized reflection papers with precise examples from individual history, experience, and ambitions

(c)   Requiring references to new popular press/online articles (ChatGPT is limited to data that has been uploaded to the Internet before 2022)

(d)  Requiring references to specific conversations from the classroom or even opinions of specific students

(e)   Creation of projects that go beyond writing (i.e., multimedia, video, podcast, etc.)

3.     How does teaching without a textbook help reduce plagiarism (Weir, 2007)?

(a)   Normalize digital research beyond textbooks

(b)  Increase awareness of higher-level learning assignments (Bloom, 1956)

(c)   Have more student-generated content to use for reference in class writing, as none of it would be available to AI

4.     Should we embrace ChatGPT instead of treating it like a taboo (Roose, 2023)?

(a)   Students know about it anyway, and maybe it’s better to control the narrative.

(b)   Treat the tool like a calculator and allow its use with limited functionality (e.g., ask students to critique AI generated essays)

We hope that this session encourages participants to think outside of their current exams and assignments and consider other ways to structure their courses (e.g., stop using textbooks or minimize how much the instructor relies on the textbook for assignments). Some intended outcomes include knowledge transfer of strategies rooted in experiential learning and positive pedagogy and enhanced enthusiasm for teaching a course in a way that views the reduction of plagiarism as an opportunity rather than a hindrance.

**Timeline**:

1.     Solicitation of audience names and emails for later distribution of materials, including the session summary. (4 minutes)

2.     Introduction of theme and participants. (5 minutes)

3.     Each facilitator summarizing relevant experience (4 minutes x6 = 24 minutes)

4.     Interactive discussion of questions 1-4 above (15 minutes)

5.     Plenary audience Q&A (10 minutes)

6.     Wrap up, including next steps (2 minutes)

Total: 60 minutes.

**References**

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