

How to Bridge Critical Thinking and Artificial Intelligence:

ChatGPT in the Management Classroom

The introduction of AI-powered chat bot ChatGPT has arguably heralded the beginning of a new era of content creation, and been a cause of concern for many educators, especially those who seek to teach students critical thinking and analytical writing skills. In this interactive roundtable session, we present one business school's teaching experience with ChatGPT, using survey and interview data. We also outline two teaching strategies (which we term 'offense' and 'defense') which are emerging as AI-generated content becomes more commonplace. Participants will be invited to share their own experiences and ideas, and will leave the session with examples of syllabus language and assignment ideas related to AI-generated content.

Introduction

The artificial intelligence (AI)-powered chat bot ChatGPT was launched by artificial research and development company OpenAI in November 2022. Its emergence shook the educational community, with the *New York Times* reporting that while universities are generally avoiding bans of the tools, many professors are responding to the threat of AI-generated assignments by “phasing out take-home, open-book assignments ... instead opting for in-class assignments, handwritten papers, group work and oral exams” (Huang, 2023).

Yet, even as educators push to eradicate AI-driven content from their students’ written work, early reports from the work world suggest that ChatGPT and related generative-AI tools are not only being used, but may threaten the relevance of workers who do not learn to use them wisely. A recent Bloomberg article featured results of a survey of 4,500 professionals, of which 30% reported that they had already used ChatGPT or a similar tool at work. The article also quoted a post made on the industry social platform Fishbowl (owned by Glassdoor) by someone identifying themselves as a CEO: “I discovered ChatGPT about a month ago. I use it every day. It has changed my life. And my staffing plan for 2023” (Constantz, 2023).

The stark contrast between academia’s and industry’s reactions to ChatGPT is a potential gap that, if not proactively addressed, could leave students on one hand worried about how to demonstrate that they have not used AI in written assignments, while on the other hand, struggling to gain the skills needed to outlast AI-driven job replacement after graduation. To this end, we propose an interactive Roundtable session as a first step to finding ways to optimize our use of generative-AI tools in management teaching. The session will include new survey and interview data from our own institution (gathered during this first full semester of ‘living with

ChatGPT), and will encourage participants to not only discuss their own experiences, but also to think proactively about how they might view ChatGPT and related tools as both challenge and opportunity in their teaching.

Theoretical Foundation/Teaching Implications

In his essay entitled, “On the Cutting Edge or the Chopping Block,” Allen (2020) argues that “management educators can help students better understand the language and application of disruptive technologies,” designing learning that helps student remain relevant in a rapidly changing workplace (p. 372). We agree with this assessment, and suggest that ChatGPT and related generative-AI tools are an urgent example of this type of disruptive technology. As most people do when initially confronted with a disruptive technology, it is an understandable reaction for instructors to think of these tools as a threat to their assessment methods and to teaching as a whole. And yet, in doing so, faculty miss an opportunity to teach students to effectively and ethically use the tool, and to distinguish themselves in the future workplace.

With their development of a management elective course on “Robots and the Future of Work” at the University of Denver, Allen, Fukami, & Wittmer (2022) demonstrate that the management classroom can be an optimal setting for learning about technologies that will impact both the workplace and our students’ future employability. We follow this thinking, and suggest that management professors can utilize ChatGPT as a teaching opportunity, rather than a threat. We find Eric Brynjolfsson’s recent description of generative AI as a “calculator for writing” a helpful analogy, in that it suggests that generative AI can enable individuals to reach greater levels of complexity and sophistication in their writing more quickly, just as a calculator enables more sophisticated mathematical computation (Aldrick, 2023).

Optimizing between two approaches, which we call “offense” and “defense,” we can help our students learn critical thinking and writing skills, while also helping them prepare for an AI-driven work world. The “offense” approach seeks to leverage the capabilities of ChatGPT to teach students how to wisely and ethically use the tool (just as they would a search tool such as Google). This approach may also include specific assignments that instructors can use to help students identify both the risks and limitations of AI in writing, as well as learning how to optimize the potential of these tools. The “defense” approach discourages – or altogether bans – the use of ChatGPT and other tools. This approach argues that such tools are a ‘slippery slope’ that discourages students from engaging in critical thought and which increases students’ dependence on technology, at the expense of their own analytical and writing skills.

Session Description

We will begin the session with a very brief demonstration of ChatGPT and instructions for how to access the site (for those not yet familiar with its capabilities). We will then go on to discuss our business school’s experience during the Spring 2023 semester (the first semester in which ChatGPT was widely available). We will do this by concisely summarizing the results of a survey of our faculty, which is planned for May 2023, which will ask questions about faculty approaches to ChatGPT (and AI-powered content creation more generally) in the areas of syllabus language and policies, specific assignments asking students to use these tools (if any), and whether they identified any specific incidences of cheating in written assignments related to the use of ChatGPT or a related tool.

We will then outline the two teaching approaches – “offense” and “defense” – that we describe above. We see benefits and tradeoffs inherent in both approaches, and thus argue that

examining both approaches is better than debating the supremacy of either. We use a sports analogy – ‘winning requires both good offense and good defense’ – as a way to emphasize that these two approaches are end-poles of the same spectrum, and that faculty need to think about where they want their teaching to reside on this spectrum (that is, what mix of “offense” and “defense” tactics is best for their teaching). Our business school contains faculty engaging in a range of approaches that span the “offense” to “defense” spectrum, and we will use their survey and interview responses to illustrate the challenges and benefits of different approaches.

At several points in the session, we will engage participants in discussion about their own experiences with, and approaches to, ChatGPT and other AI tools in the classroom. We will also lead participants through a short exercise in which they can experiment with different types of prompts in ChatGPT. In addition to in-session interaction, participants will be given the opportunity to access (electronically) a collection of sample syllabus policies and sample assignments utilizing ChatGPT, from our own teaching as well as that of other faculty. We will also record key points made during the session discussion, and make a set of notes electronically available to participants at the end of the session.

The proposed format for the session follows:

Activity	Duration
Introduction /quick demo of Chat GPT software	5 minutes
One business school's first-semester experience: summary of survey and interview responses	10 minutes
Participant discussion: What was your school's experience? What was your own experience?	12 minutes
Definition of "offense" and "defense" approaches to ChatGPT, including sample policies and assignments	5 minutes
Participants led through short exercise allowing them to experiment with ChatGPT, using a simple assignment prompt	10 minutes
Participant discussion: How to optimize between "offense" and "defense"? What will be the future of AI content creation in our classrooms and assignments?	15 minutes
Wrap-up/electronic sharing of sample docs and session notes	3 minutes
	60 minutes

This session fits into the conference theme of "Bridges," in that it encourages faculty to bridge an important gap between the past and the future for both their own teaching methods and for their students' capabilities. In doing so, we hope that this session will help participants strengthen their ties (theoretically and practically) between the best of traditional management instruction and nearly emerging technologies.

References

- Aldrick, P. (2023). ChatGPT Will Be the Calculator for Writing, Top Economist Says. *Bloomberg* online. January 18. Accessed on January 23, 2023 at <https://www.bloomberg.com/news/articles/2023-01-18/chatgpt-will-be-the-calculator-for-writing-top-economist-says>.
- Allen, D. B., Fukami, C. V., & Wittmer, D. P. (2022). A Course on the Future of Work: Building the Scaffold While Standing on It. *Journal of Management Education*, 46(1), 178–209. <https://doi.org/10.1177/1052562920983839>
- Allen, S. J. (2020). On the Cutting Edge or the Chopping Block? Fostering a Digital Mindset and Tech Literacy in Business Management Education. *Journal of Management Education*, 44(3), 362–393. <https://doi.org/10.1177/1052562920903077>
- Constantz, J. (2023). Are Your Co-workers Using ChatGPT? 30% of Professionals Admit to Trying It. *Bloomberg* online, January 19. Accessed on January 19, 2023 at <https://www.bloomberg.com/news/articles/2023-01-20/who-uses-chatgpt-30-of-white-collar-professionals-tried-it-at-work>.
- Huang, K. (2023). Alarmed by A.I. Chatbots, Universities Start Revamping How They Teach. *The New York Times*, January 16. Accessed on January 22, 2023 at <https://www.nytimes.com/2023/01/16/technology/chatgpt-artificial-intelligence-universities.html>.