AI Tools Facilitation Guide

Introduction

If you find yourself thinking about how to move forward in a teaching and learning environment that's been altered and complicated in many ways by the widespread availability of generative AI tools like ChatGPT, this guide may be helpful to start that conversation with your colleagues. The Chicago Center for Teaching and Learning pulled together an AI tools working group of faculty and staff from across UChicago, including the Library, the College, and Academic Technology Solutions. The AI tools working group has collaborated on several resources to support UChicago community members in meeting this moment.

This facilitation guide is designed to help interested instructors lead a conversation about this issue with their colleagues in order to consider the approach they'll take to the use of generative AI tools in their teaching and how they'll communicate about it with their students.

This guide will include some suggestions about how to plan this conversation, some suggested discussion questions, a selection of readings to consider sharing with colleagues, and a template for a discussion handout that you are welcome to modify for your purposes.

Setting the Stage

In order to facilitate an effective discussion about this topic, it is important to set the stage thoughtfully. You can do so using the following approaches:

- **Share a piece of reading on this topic (if you're scheduling this conversation with time in advance).**
    - Please feel free to choose an article like one listed in Maha Bali's very thorough reading guide on critical literacy and AI or Ethan Mollick's Substack, which contains many posts on AI's current and future role in pedagogy.
    - If you're looking for guidance, consider ATS's blog post recapping the Spring 2023 faculty panel on AI in teaching and learning. There's also a template for a discussion handout that you are welcome to copy and modify for your purposes.
    - You can also share some discussion questions to help your colleagues to prepare for this conversation. (You'll find a list of potential questions to consider in the next section.) If you share a reading, it may help to customize your questions to fit the reading.
- **Share some objectives for your conversation with your colleagues.**
    - What do you hope to achieve through this conversation? You can share these with your colleagues in advance by email or with the handout accompanying any

readings. If this is part of a larger departmental meeting, you can share that within your slides as well.

- **Set the context for this conversation.**
    - In your verbal remarks and/or your written collateral, explain why you think this conversation about generative AI tools is important for your department or the discipline in general. You might even get as specific as discussing your own personal motivations and their basis in your teaching style or pedagogical values, in order to convey why you find this a worthwhile discussion.

Discussion Questions

The conversation will benefit from the structure provided by thoughtful questions that are relevant to the work you and your colleagues do. You may already have some of these in mind, but here is a bank of questions that you may want to consider pulling a few from or modifying for your needs:

I. **Assessing the potential impact of generative AI tools**
    A. How does the availability and likely use of these tools by some students in the work of our discipline potentially impact the learning our classes are meant to promote? Are there particular assessments that are most likely to be impacted?
    B. What learning activities are we currently using and which are most important? (Ex: writing, presentations, problem sets/group work, etc.)
    C. How might the approach/structure/assessment of an activity be adjusted to be effective in this new situation?
    D. What kind of support or resources do we need from our department or the University in this somewhat new situation?

II. **Generative AI's place in your discipline**
    A. Does it seem likely that generative AI tools will be vital to students' work in this field after graduation? In what ways might students be expected to know how to use these tools outside of the context of this class, and is it related to the work of this class?
    B. Where might we be open to these tools as a legitimate aid to thinking and learning work? Where are they clearly an impediment to our learning goals?
    C. How do we want to address the availability of these tools and their impact on our work?

III. **Communication about generative AI tools with students**
    A. How do we want to convey our orientation toward these tools to our students? How do we want to convey the value of the thinking and learning work in our field that we want students to complete, and the potential impact on their learning if they rely on generative AI to do this work for them?
    B. How do we want to discuss the importance of our learning goals and the impact, both positive and negative, of using generative AI tools in our courses?

C. Are these conversations currently being held in an active manner, one that invites students to engage with these important questions?
D. What unstated assumptions do we currently have about the purpose of the work we assign to students? Do any of the assumptions that we have about our shared understanding of the learning goals between us and students need to be questioned?
E. How do we want to have these conversations with students?
F. Are there potential policies that could apply to all courses in our department, or is it more contextual, based on the aim of the specific learning goals course to course?

Closing the Conversation / Next Steps

In order for you, your colleagues, and your students to benefit from the insights shared in this conversation, it will be important to have a plan to close the conversation and determine any next steps. Consider setting aside 5-10 minutes to discuss the following before your meeting ends:

- Set goals for moving forward with the discussion, or with any action items for follow-up
- Recap or revisit your objectives
- Takeaways or direction to further resources

Handout Creation Guide

As with the conversation facilitation guide, this handout template is meant to help discussion leaders create the most thoughtful and insightful discussion possible. Please feel free to copy, modify, and build out the sections below to build the conversation aid that best fits your audience, situation, and needs. You can remove our setup text when you're ready to share!

Introduction - Setting Context

This opening section can set helpful context for a discipline-specific, teaching and learning-focused discussion by providing the following:

- A brief summary of the recent controversy and conversation about AI writ large
- A rundown of some of the specific AI-tools that are especially relevant to your department's work
- A high-level explanation of how these types of tools work, as free from distracting technical details as possible, provided with the aim of demystifying how they have been used to achieve some of their recently cited results

The text below can be used to begin building that section.

Summary of the controversy and conversation:

Since the release of the generative AI tool ChatGPT in November 2022, many instructors have been trying to understand and mitigate the impact of AI tools on teaching and learning in their classes. Headlines about milestones like ChatGPT generating passing responses for law and business school exams and the proliferation of similar tools for image generation, coding, and even research overviews have prompted a variety of responses from institutions, instructors, and industries. These responses include incorporating these tools as a legitimate aid in specific circumstances, explicitly banning these tools to keep them from impacting student learning, and designing learning experiences that both encourage authentic engagement and disincentivize use of AI tools. UChicago has hosted expert panels on AI tools' impact within industries ranging from medicine to music production, on human rights and democracy, and on higher education pedagogy specifically. (For recent thinking at UChicago on generative AI in teaching, feel free to review the blog post summarizing the CCTL's Spring 2023 panel or Academic Technology Solutions' blog post series on academic integrity.)

Rundown of relevant tools

While ChatGPT has been the most prominent and widely known tool, our discussion might benefit from specificity of tools and the ways in which their application has an impact on the work we do in class.

[INSERT HERE: An explanation of how you may be concerned that students are using ChatGPT to write, draft, or revise their essays. Alternatively, you may find that slides used for student presentations lately seem like they may have been generated using Tome or that code for computer science assignments may have been generated using GitHub Copilot. If you have heard colleagues note concerns about specific tools recently, this would be a good place to reference them. The landscape of available tools is currently expanding rapidly, so it's nearly impossible to offer an exhaustive list. However, discussion leaders may want to check out a list like the Massachusetts Library System's to get a sense of what existing tools may be relevant to your work.]

Demystification - a brief explanation of how LLMs work

While every week seems to bring a new improbable feat achieved using generative AI tools, from writing and coding to uncanny music production in the style of real artists, it is important to note that these outputs are made possible by large data sets, human training, processing power to generate a probable answer to human prompts. In some cases, demystifying this technology may be helpful in the work of responding to this change in the teaching and learning landscape.

Simply put, Large Language Models (LLMs) like ChatGPT create a probable and fluent response to written prompts. Consider the autocomplete features you're used to when writing an email or text message–it offers the next most likely word for a text message, email, or document you're writing. The technology behind this is much more advanced, but the concept is similar. As UChicago computer science and linguistics professor Allyson Ettinger explained in a panel for colleagues and students in Spring 2023, ChatGPT's training process involved Reinforcement Learning from Human Feedback (RLHF), a layer of training that helps ChatGPT to provide responses that align more with what a human writer would produce as well as a massive quantity of data to produce responses at the level of quality and detail that have brought it to such prominence.

These kinds of outputs are often good examples of fluent language and–as we've seen in since these tools' wide debut–often quite effective for specific situations, but Ettinger cautions against placing excessive trust in those outputs:

"These models should be used with caution. There are lots of things that they can potentially do that are not desirable. They can say things that are false, both because they may see false things on the Internet, and because they can just make things up that sound plausible and probable based on their training distributions. They also have the risk of just seeming so human-like, that people start treating them in ways that give them that trust in them more than they should, or are more influenced by the models than they should be, when interacting with an agent that is so fluent like this."

Goals for this Discussion

While the subject matter of this discussion has an obvious timeliness, it is meant to serve the following specific goals in advance of Autumn classes starting:

- Consider the impact AI tools are having or stand to have on teaching and learning in our field of study
- Refine our definition of the value of work done without (or with) technology assistance by students in our field
- Articulate a vision for AI's role in our respective teaching approaches and philosophies

Guiding Insights

As a means of starting our conversation and providing some useful insight, I've shared [INSERT NAME OF RESOURCE/ARTICLE/VIDEO]. As a means of starting the discussion, consider the following resources:

- [FACILITATOR SHOULD INSERT RELEVANT EXCERPT HERE. If necessary, see one of the following for ideas:
    - Maha Bali's reading guide on critical literacy and AI
    - Ethan Mollick's Substack, with posts on AI's current and future role in pedagogy
    - ATS' series of posts on AI tools in teaching and learning
- [SEE ALSO THE BELOW RESOURCES TO USE IN PLACE OF OR AS AN ACCOMPANIMENT WITH YOUR OTHER READING]
    - UChicago's Academic Honesty and Plagiarism Policy
    - Guidance from the UChicago Provost's Office on Academic Honesty
    - The Sentient Syllabus Project
    - Valuable takeaways excerpted from the CCTL's AI panel
    - Boston University's Policy on Using Generative AI in Coursework and an article about the process that created it

Questions for Discussion

[IF DESIRED, you can create accompanying questions to go with these readings]

- Accompanying questions
- AND/OR clarifications based on the work of your department
- [Consider using or modifying some ideas from the list provided in the facilitation guide]
- Alternatively, the most basic guiding questions to adopt might come from James Lang's *Cheating Lessons:* "*What* does it mean for students to do their own work in my discipline?
  Why does it matter?"

Departmental Context

It may be helpful to include at least some of the following department-specific information that you can use to inform your discussion:

- Major assignments for course sequence
- Learning objectives common to your courses
- Potentially impacted areas of the work (both positive and negative)