

Summary and Outcomes of ChatGPT Kickoff Session 1: The Power and Peril of Emerging AI in Education - Faculty Sharing Experiences, Concerns, Excitement

In response to the emergence of generative AI tools such as ChatGPT in the classroom, the provost's office established a ChatGPT Taskforce Steering Committee to engage, inform and share resources with our campus community. The committee launched its campus engagement by hosting a faculty listening session on February 9, 2023. Approximately 110 faculty members attended the session, which captured the overall campus sentiment on the emergence of ChatGPT in classrooms and research labs, from both positive and negative aspects. As an outcome of the session, we recognize that we need to address five themes: philosophy, pedagogy, technology, research, and policy. The comments and questions received under each category are described below. Comments help us understand what faculty perceive as important observations based on ChatGPT being a part of the teaching landscape. Questions help us understand what areas need more exploration to identify how we can better serve our faculty community by providing resources and encouraging more conversation.

Philosophical Aspects:

- The goal of teaching would be to improve human judgment, cognitive development, and student creativity.
- ChatGPT can provide differential advantages to some fields that provide appropriate contexts.
- ChatGPT will provide differential advantages to scientists with expertise in such technologies. This can create confusion and inequitable practices related to faculty evaluation, retention, and promotion.
- What are the implications of ChatGPT on science and the teaching of it?
- Does ChatGPT pose a threat to the goals and functions of education?
- ChatGPT relies on existing, potentially biased data. What are the ethical implications of using ChatGPT for research and teaching?
- Students can potentially receive different benefits from their experiences, which might be caused by faculty members' choices and practices related to ChatGPT. Do we have an obligation to ensure all UTK students have a solid understanding of the tool and how it might apply to their future careers?

Pedagogical Aspects:

- The use cases and benefits of ChatGPT depend on the context, since it varies from field to field, task to task, and faculty interest and comfort level with the technology.
- ChatGPT can help offload basic analysis to get to more creative aspects.

- Using ChatGPT can increase student engagement.
- ChatGPT encourages students and faculty to get creative with assignments.
- ChatGPT prepares students for working with AI in their future careers.
- Both faculty and students' lack of experience with AI tools presents an immediate challenge to its pedagogical potential.
- To take advantage of ChatGPT's capabilities, there is an immediate need for faculty and student training.
- ChatGPT creates concerns for independent work and critical thinking skills.
- We need to teach faculty what AI technology is capable of.
- How can we encourage students to find ways to use ChatGPT ethically?
- How can we enhance our teaching practice and assessment processes?
- How can we test the limitations of its pedagogical function?
- How will AI technology change the way students learn? How can we get ahead of it?

Technical Aspects

- ChatGPT is in its infancy, but it continues to improve with time as more users train it, and therefore its widespread use will become a common practice.
- ChatGPT's output is repetitive with skipped steps and fake citations.
- There are concerns for independent work and critical thinking skills.
- Students still need to learn basic ideas of how to learn coding/writing/foreign languages. However, it can be useful for more advanced students.
- ChatGPT is an inherently biased tool, since it is based on the biases in the data it accesses.
- Access is not consistent, and there is potential for further accessibility changes as it moves to commercial platforms which could require fees for services.

Research Aspects

- The use of ChatGPT in research is now a reality.
- Its meaningful, effective, fair and ethical use will be the focus of current and future conversations.
- How can ChatGPT aid in research?
- How can we ensure its fair, ethical and effective use in research?
- How will we know the novel contributions of graduate students to a thesis?
- How will ChatGPT impact graduate students' intellectual experience?
- How will ChatGPT impact faculty and graduate student productivity and creativity?
- How will the use of ChatGPT in research impact the university's traditional performance assessment policies and practices?

Policy Aspects

- What copyright and legal issues need to be considered?
- What is the university's policy on ChatGPT? We need to understand that to develop individual policies.
- UT's guidance on what is cheating, and use of detection tools needs to be understood.
- We do not want to falsely accuse a student of cheating presuming that an AI tool is used without reliable proof.

Next Steps

This listening session with faculty gave the taskforce an opportunity to gauge the campus sentiment related to ChatGPT. We will build on the feedback we received to develop a plan for the entire campus community consisting of the following stages: *inform, engage, and educate* faculty, staff, and students around the five themes: *philosophy, pedagogy, technology, research, and policy* through a series of campus events, and *evaluate* our progress.

The taskforce understands that the design and delivery of action items will need to be informed by the diverse needs of various groups on campus. We have different audiences among our faculty, staff, and students, and each audience has unique communication and education needs. Each audience may be at one of the following awareness stages, therefore, the design of our activities will be informed by the needs of these unique stakeholder groups discussed below.

1. Low Awareness. These are faculty, staff, and students who are not yet aware of ChatGPT or are just now learning about it. We need to be sure that we continue to engage them to offer resources and a place to go to for answers.
2. Aware and Have Concerns. These are faculty, staff, and students who have some understanding of it, may have seen it used or tried it themselves, and expect the worst. We need to provide resources and engagement for them to gain a full perspective on both its perils and potentials, awareness of how it can enhance teaching, and the necessity of graduating students who have good command of the technology, so they are well prepared for their careers.
3. Aware and Eager. These are the faculty/staff who have used ChatGPT and are already adopting it into their work. We need to share with them common guiding principles that we emphasize as a campus and leverage their knowledge on the technology to trade ideas and mitigate the greatest concerns.

Action items

The taskforce steering committee will:

- form committees for the five themes across campus

- design and offer hands-on, accessible, and equitable training for faculty members
- host a series of events during the semester
- engage students in the campus discussions including some opportunities to have sessions that include interaction with faculty
- share information through a central point for consistency (<https://provost.utk.edu/emergence-of-ai-tools-in-higher-education/>)

Our Approach in Implementation:

In implementing our work, we will follow the **Inform, Engage, Educate, and Evaluate Framework**.

- The *inform* stage will consist of activities aimed at increasing awareness among faculty, staff, and students about AI tools like ChatGPT, their capabilities, and potential impact on their work.
- The *engage* stage will consist of activities aimed at recruiting expertise on campus to build an infrastructure taskforce to develop capacity around philosophical, pedagogical, technological, research, and regulation domains. These subcommittees will design, develop, and implement focused activities to engage the campus community around the implications of these technologies for their work.
- To *educate* we will provide hands-on learning activities to different stakeholders in different campus units to maximize the benefits for the end users.
- To *evaluate*, we will monitor the impact of campus activities on faculty perceptions, practices, and impact on student learning and campus operations.

Our goal is to help our campus community of faculty, staff, and students to better understand ChatGPT and to make well-informed critical choices regarding its use. An additional goal is to support our campus community to use a similar approach when other emerging technologies may influence how we learn, teach and research.