



FROM IMAGINATION TO IMPLEMENTATION

Using Generative AI in Teaching, Learning and Research

Guidelines by and for UTSA Faculty

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UTSA
Academic
Innovation



Welcome

Although its applications and ethical implications continuously evolve, Artificial Intelligence (AI) has quickly become a source of innovation and discovery across many fields. In Higher Education, as in other industries, we learn to adapt to a fast-evolving technology. We must also anticipate how to prepare current and future students who will encounter AI in their personal and professional lives.

With a focus on meeting student needs, supporting faculty members, and nurturing essential workforce skills, UTSA is committed to assisting and partnering with faculty to integrate AI into various aspects of teaching, learning, research, and service in alignment with their educational objectives and teaching methods. A team of UTSA faculty and staff members, part of the UTSA AI Peer Learning Network, created this document to inform and support UTSA faculty.

The following approaches and guidelines are only a starting point to discovery and innovation. This document will be updated based on faculty and student experience to accommodate changes in generative AI models/tools and how they are provided to the public. Our approach emphasizes our dedication to fostering innovation while respecting individual choices.

Using Generative AI

As faculty evaluate whether generative AI has a place in their curricula, we encourage them to explore various generative AI tools' potential benefits and shortcomings to see how they align with and advance the faculty's learning objectives.

HOW CAN I USE GENERATIVE AI?

- Enhance the learning experience by providing personalized and interactive content tailored to individual learning styles and needs.
- Increase efficiency and productivity by saving time on administrative tasks such as emails, course announcements, etc., allowing educators to focus on engaging with students and designing effective learning strategies.
- Foster new forms of creative and critical thinking as well as problem-solving skills using AI tools.
- Create content in different formats to meet the needs of all learners.
- Create rubrics, assessment questions, and learning objectives.

Information Literacy, Data Privacy & Generative AI

As faculty and mentor, educating your students about data privacy and the potential risks associated with sharing personal information or sensitive data is essential.

AI is a tool to enhance, not replace, the educator's role in facilitating meaningful learning experiences. Use AI to complement teaching methods, emphasizing the development of creative, analytical, and problem-solving skills.

Students should use caution when using AI platforms and embrace a continuous learning mindset to make informed decisions.

Suggest your students use AI-enabled search engines to help find the underlying sources of their AI responses. To educate students to develop critical information literacy, they must provide a secondary citation to verify their AI response's content and correctly attribute it.

Demonstrate how to check AI responses for bias with sample artifacts.



SHARE WITH YOUR STUDENTS:

- Add AI and Data Privacy on your syllabus and course homepage.
- Review the sign-on and data privacy policies for the various AI platforms available, and read the privacy agreements and guidelines carefully.
- If the generative AI platform offers two-factor authentication (2FA), enable this option to add an extra layer of security to your account.
- Use generic or fictional data when generating content to prevent the exposure of personal or sensitive information while still exploring the capabilities of generative AI.
- Clear your browser cache and cookies regularly to minimize the collection of browsing history and online activity.

Getting Started with Generative AI

If you incorporate AI in your teaching strategy, foster an open dialogue with your students and encourage them to share any questions or concerns.

REVIEW FACULTY RESOURCES

Consider collaborating with the division of Academic Innovation to analyze and measure the impact of AI on your students' learning. This [article on AI's impact on College Teaching](#) provides a good starting point. (Note: You will need to log in with your UTSA email for access.)

Please visit the [UTSA Generative AI in Teaching and Learning site](#) or book a consultation with the Teaching, Learning and Digital Transformation team to explore resources, teaching practices, and methodologies to measure the impact of AI: [Consultations for Teaching and Learning Experiences Bookings Link](#).

SET STUDENT EXPECTATIONS

Faculty are responsible for their syllabus and courses. Because faculty may choose different approaches for generative AI, clearly state in the syllabus and the course homepage whether and how you are allowing the use of AI. Faculty always have control over their course, and faculty may not choose to use generative AI for their course. Examples of these statements include:

- a) Use of generative AI is encouraged to complete assignments;
- b) Use of generative AI is authorized only as a virtual learning assistant;

c) Use of generative AI is not authorized.

RECOMMENDATIONS FOR USING AI IN THE CLASSROOM

As of January 2024, no reliable industry-created tool detects whether generative AI or a real person created a set of data or "original" content. As a result, we recommend:

- Deepening your digital and AI literacy skills by reviewing the resources on the [TLDT Generative AI site](#).
- Creating assignments that encourage students to demonstrate higher-level thinking that AI cannot generate, such as reflections and experiential activities.
- Teaching students to use generative AI as a tool for deeper learning.
- Sharing UTSA policies regarding academic integrity and conduct with students.
- Setting expectations with students about the use of AI in your course.

CITING GENERATIVE AI

We recommend that students attribute and properly cite generative AI when it is used for text or images. Refer to the APA guidelines for proper citation and attribution:

- [Citing ChatGPT in APA style](#)
- [Citing generative AI in MLA style](#)



ACADEMIC CONDUCT RESOURCES

- [UTSA Office of the Dean of Students](#)
- [UTSA Conduct and Community Standards](#)
- [UTSA Copyright and Fair Use Guidelines](#)
- [Vanderbilt AI Detection Guidance](#)
- [Carnegie Mellon University Examples of possible academic integrity policies that address student use of generative AI tools](#)

Balancing Generative AI Integration and Academic Integrity in Teaching

It is crucial to strike a balance that upholds academic integrity while harnessing the benefits of technology when navigating the integration of AI into the learning process.

While well-designed assignments are essential, there are various strategies to ensure a holistic approach. One key aspect is clearly defining academic integrity expectations and designing assignments with specific learning objectives. Beyond this, integrating AI as a supplement to teaching rather than as a substitute is crucial.

Crafting assignments to discourage shortcut solutions, promoting discussions on ethical AI use, providing alternative assessments, and incorporating technology literacy into course content all contribute to a multifaceted approach. Additionally, faculty members should provide clear expectations and rationale for when AI might not be the optimal choice for certain assessments or is not allowed.

This broader strategy ensures that AI serves as a valuable tool for learning, complementing students' efforts without overshadowing the critical thinking, writing, and analytical skills essential for lifelong success.

LEVERAGING AI TO SUPPORT CLASSROOM TO CAREER

As educators, we are preparing our students to live and work in a society where human-machine collaboration will likely become the status quo. The “[Future of Jobs Report 2023](#)” states that demand for AI and Machine Learning Specialists is expected to grow by 40%, or by 1 million jobs, as AI and machine learning drive continuous industry transformation.

We can help our students foster familiarity and proficiency with generative AI platforms and help them turn those skills into a marketable advantage. It will be imperative that students know and understand how AI tools can be used in their chosen career field.

If you intend to integrate generative AI in your classes gradually, consider providing your students with the [VMock UTSA SMART Career Preparation Platform](#). With this tool, students can submit their resume, receive feedback within a few minutes, and prepare for future jobs by practicing interviewing skills.

You can start from this experience by using generative AI tools such as ChatGPT to explore career outcomes in alignment with the college experience and student interests and talents.



SAMPLE SYLLABUS STATEMENT

While this course incorporates advanced technologies, including AI, to enhance the learning experience, assignments should be completed without its use.

The purpose of assignments is to foster critical thinking, encourage thoughtful exploration of complex course concepts, and develop effective communication skills.

I encourage an open dialogue about the role of technology in your learning journey, and I am committed to providing clear expectations and rationale for the use, or non-use, of AI in specific assessments.

Research Considerations with Generative AI

In theory, leveraging AI for research may be exciting and reveal new uses for the technology. In practice, however, generative AI may also create issues when defining authorship and origin of individual work. Find a list of common publication types and relevant considerations when using generative AI to ensure the appropriate use of generative AI tools in research.

DEVELOPING MANUSCRIPTS AND GRANT APPLICATIONS USING AI:

- Authors must be transparent to the journal and the paper's co-authors in disclosing the use of generative AI tools for creating any portion of the work.
- Authors are responsible for checking the accuracy of the AI-generated outputs and should carefully edit any incorrect, incomplete, or biased content.
- Generative AI can help create outlines or summaries, within the limitations described in the two above points.
- The use of generative AI tools for writing manuscripts or grant proposals may be prohibited in many cases. Check the specific journal or grant application requirements before using any AI tool.
- Do not upload your grant application into any AI tool as then it will be in the public domain and accessible by others.
- As with any resource, the use of AI should be appropriately acknowledged or cited.

AI AND PEER REVIEWS

Researchers should always check with the sponsoring agency regarding their policies and normal expectations for preparing reviews. For example, the [National Institutes of Health](#) (NIH) has prohibited scientific peer reviewers from employing natural language processors, large language models, or other generative Artificial Intelligence (AI) technologies to analyze and create peer reviews for grant applications and R&D contract proposals.

This limitation is in place due to concerns about maintaining confidentiality, as these AI tools lack guarantees regarding the handling, storage, access, and future use of data. Using AI tools for composing critiques or improving grammar and syntax is also regarded as a breach of confidentiality.

OPPORTUNITIES FOR FACULTY PROFESSIONAL DEVELOPMENT

Academic Innovation has created a fully online self-paced course to introduce faculty to generative AI and create a peer learning community to discuss teaching and research strategies, challenges, and student opportunities. To access the Canvas course or join the peer learning network, visit the [TLDT Generative AI site](#) or contact AcademicInnovation@utsa.edu.



WARNING: BEWARE OF AI PLAGIARISM

Grant applications must reflect the genuine and accurate concepts of the applicant institution and researchers.

AI tools could inadvertently introduce plagiarized, falsified, or fabricated content. Therefore, grant applicants must exercise caution when utilizing AI-generated materials.

Funding agencies will hold applicants responsible for any instances of plagiarism, falsification, or fabrication in their submissions.

(Source: [The University of Utah Guidance on the use of AI in research](#))

The [International Committee of Medical Journal Editors](#) (ICMJE) and the [American Psychological Association](#) (APA) define the role of authors and contributors and provide the guidelines for properly citing and attributing resources.