Tech Snacks: AI in the Classroom

Good or bad, Artificial Intelligence (AI) is here to stay. Should it be banned from the classroom or given free reign? Can we find a productive middle ground?

Ways to Address AI Use in Your Class

In order to prevent misunderstandings down the road, it's usually a good idea to address your expectations around AI use with students. Is AI use acceptable in the course? If no, what are the consequences? If yes, to what extent or in what contexts?

Syllabus Statements

Many instructors have begun to use syllabus statements addressing what they consider "acceptable" AI use for the course.

A crowd-sourced document full of real instructor AI statements can be found here: [Syllabi Policies for AI Generative Tools](#)

Example:

You must clearly identify the use of AI-based tools in your work. Any work that utilizes AI-based tools must be clearly marked as such, including the specific tool(s) used. For example, if you use ChatGPT-3, you must cite "ChatGPT-3. (YYYY, Month DD of query). "Text of your query." Generated using OpenAI. https://chat.openai.com/"

You must be transparent in how you used the AI-based tool, including what work is your original contribution. Be aware that an AI detector such as TurnItIn (https://www.turnitin.com/) may be used to detect AI-driven work.

You must ensure your use of AI-based tools does not violate any copyright or intellectual property laws.

Class Discussions (in-person or online)

It can be helpful to provide students with a clear, concise article or video that explains how generative AI tools work. The video "[Explained simply: How does ChatGPT actually work?](#)" from YouTube creator techie_ray does a great job laying out the basics.

Once students start to grasp the mechanics of generative AI, they may better understand its limitations and productive uses.

Consider having an open classroom discussion (or discussion forum for online classes) about the use of AI. Example prompts:
- How is AI content created? Is the use of AI-created content ethical?
- What does responsible use of AI look like, in a learning context? Should students be able to use AI to help create their work? Should instructors?
- In what ways does AI use diminish your own opportunities for learning? In what ways can it enhance your learning?

Ways to <u>Use</u> AI in the Classroom

Cautionary

Help students discover and explore the limitations and shortcomings of AI.

- Have students write a paper and then have them use AI to respond to the same prompt. Anonymize the papers and assign two papers at random to each student to

grade with a rubric. Compare the graded results of the AI generated papers with the student written papers. Discuss the results in class.

- Have AI generate a paper about a particular controversial topic. Work as a class to evaluate the paper and highlight examples of bias in generated texts.
- Experiment with AI to show how bad prompts lead to bad results. Highlight the non-factual information provided by AI and discuss how to prove or disprove the facts provided by AI.
- Discuss the mechanics of how large language models are created and how AI relies upon them to generate answers to user prompts (see techie_ray's video linked above). Have students feed prompts into an AI program (e.g., Chat GPT) and speculate about why it generated the results it did.
- Have students ask an AI tool to write a paper with a given topic and include 3 cited sources. Work with the students to try to hunt down those sources (they are often fabricated by the AI).

Productive

Help students discover/explore AI's potential as a collaborative entity. Many of these options are complementary and are not necessarily good standalone activities without expert verification.

- Brainstorm ideas on how AI can be useful in their respective industries.
- Have students use the AI tool to ask about career possibilities, including options they may have never considered before.
- Have them use AI to review papers for writing errors (grammar, spelling, etc.,)
- Have them use AI to help create an outline of a paper or project (lesson plan, etc.)
- Have them use AI as a practice problem generator. For example:

  "Give me three problems that require me to use the concept of recursion in the Java programming language."

- Have them prompt AI with an automotive or diesel troubleshooting scenario to talk through options for diagnosing a complex issue. For example, a prompt to ChatGPT about slow throttle response for a 2000 F250 generated 14 possibilities to troubleshoot but ultimately summarized due to the complexity of diesel engines it recommended a qualified technician to check.
- Have them use AI to help generate scenarios that they have to analyze and solve. For example, have them ask for construction failure scenarios due to geology hazards, which they then discuss as a group: Could those failures have been prevented? How?
- Ask ChatGPT or another AI tool to conduct a role playing scenario. When given good prompts that outline the type of scenario desired, AI will interact as the designated role and allow students to ask diagnostic questions. (At the end, you can also ask the AI what other diagnostic questions would have been helpful. The final summary will help serve as a self-assessment tool to reflect on lower-performance areas.)

  Example prompts:
  "Let's act out a scenario between a mechanic and a customer who is reporting issues with their vehicle. The mechanic is to conduct the intake check-in that will aid in helping the mechanic determine to start troubleshooting. You are the customer."

  "Let's start another scenario where I am the nurse and you are the patient. The patient is a 24-year-old female reporting severe headaches with no family history. You are the patient. (It is important to note that there should not be any real patient information used)."