## AS&E Instructors' Guide to Using ChatGPT/AI in the Classroom

'Artificial intelligence'/large language model tools that generate written, visual, and/or technical work in response to prompts are making headlines in higher education. Released in November 2022, ChatGPT is currently one of the most popular; Co-Pilot, Dall-E, Minerva, PhotoMath are some of the \*many\* more.

These tools can be used responsibly and ethically across many educational and professional settings. But excessive reliance on Al can undermine students' ability to demonstrate learning—and there can also be significant privacy and data security concerns associated with *requiring* students to use ChatGPT and/or other Al not vetted or supported by UniversityIT.

Therefore, AS&E encourages instructors to adopt ChatGPT/AI only *after* they consider: (a) how the tools support course learning goals, and (b) how they can create alternative assignment options for students who want to avoid uploading their personal details and/or intellectual property into these platforms.

Our guide for deciding whether and how to use ChatGPT/AI in teaching courses is organized as follows:, 31TJ E(z)-n 1

Teaching / instructional design ideas for discouraging, encouraging, or requiring ChatGPT/Al use ........... pp. 2-4

Reporting / what to do, who to contact, how to follow up if you suspect unauthorized ChatGPT/AI use ...... p. 5

## Setting & Communicating Expectations

In setting and communicating expectations for responsible and ethical use of 0 1 6270.102 RW\* ne 282.38 339.6 Tm0.054

4) Be responsible. I

of students using Co-Pilot to generate routine, time-consuming code in an advanced Computer Science course (e.g.); and similar concerns might not apply as well to content developed in/for Humanities and Social Science courses. In-person or Zoom exams have significant tradeoffs—investing time and effort in (re)designing test questions, training proctors in person or over Zoom, scheduling make-up exams when students get sick, etc. They should be used judiciously, in courses and for learning goals that depend on excluding the possibility of Al assistance in order for students to adequately demonstrate competence.

\*AS&E Zoom proctoring guidelines (more references and teaching resources are provided below): <a href="http://www.rochester.edu/college/honesty/assets/pdf/proctoring\_with\_zoom\_policies\_and\_guidance.pdf">http://www.rochester.edu/college/honesty/assets/pdf/proctoring\_with\_zoom\_policies\_and\_guidance.pdf</a>

2) Alter questions / exam formats\*\* to make them more robust to naïve completion. So far, Davinci-3 seems to perform poorly on tasks that:

Ask students to engage with the argument and/or claims from an obscure article (that does not have a Wikipedia entry and is not routinely discussed in college level courses), or else an article that is very recent (2021 or later). Note: ChatGPT can still provide summaries of texts, including excerpts or quotes from longer research articles, once pasted into chat windows. It is possible for students to attempt to use ChatGPT instead of or in addition to reading text (i.e., similar to how they might use Cliff's Notes or SparkNotes), which in turn can create difficulty in terms of reporting or following up on suspected academic honesty infractions. (More on this below.)

Require students to include direct quotations with precise attribution/citation information from an obscure or recent article in their field. As mentioned above, this approach is not full-proof—it is possible to feed Davinci-3 quotes in a prompt, which it then uses in auto-generated responses. Students would still have to do some work in finding relevant quotations on their own, however; depending how assignments are structured and how instructors articulate expectations for using ChatGPT responsibly and ethically, this approach can provide important learning opportunities.

Require several drafts that respond to specific comments provided by their instructor. The back-and-forth, interactive capacity of ChatGPT make this stipulation difficult to design for ... but if an instructor's comments stay focused on advanced field/discipline-specific content, then ChatGPT and other AI tools like it will struggle to make changes or amendments in line with this feedback.

Questions involving complex multi-step calculation and/or application of high-level concepts in classic Newtonian Physics (e.g.). Thus far, ChatGPT has performed unevenly in this domain. It can generate answers in styles appropriate to complex multi-step calculation ... it also tends to generate a wildly different response if prompted to answer the same question more than once. Such differences are variable enough that students may not be as willing to risk using it for less-than-legitimate purposes, at least for the time being.

\*\*Strategies that are as useful (ChatGPT is already better here than most instructors might realize):

Asking for 'personal' reflections, thought experiments, analogies. Davinci-3 excels at generating novel fantasies and anecdotes; without knowing or talking to their students, instructors cannot reliably determine whether or to what extent such work is grounded in their actual experience.

<u>Specification grading</u> ladders – Davinci-3 has trouble with the first few rungs, but gets markedly better at the latter rungs that involve longer-form writing. Requiring citations or an argument in standard form may help in this context, but really only forms some of the overall learning goals.

Questions involvir way	ng simple calculation:	s (addition, subtr	action, similar). Th	nis *used* to be a goo

## Reporting

Under AS&E's <u>academic honesty policy</u>, giving or receiving <u>unauthorized</u>\* aid (including unauthorized use of AI tools like ChatGPT) is considered a policy violation. Failing to properly cite sources, including source technologies like ChatGPT, is considered a violation as well.

\*ChatGPT/AI is not *automatically* considered unauthorized aid