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 AI 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 AI 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:

Setting & Communicating Expectations

In setting and communicating expectations for responsible and ethical use of AI, instructors should:

1) Be practical. In a postgraduation professional landscape, the question is not *if* students need to know how to navigate AI tools or make good choices about using them—it is *when*. Depending on what timing and resources you have to work with, the most ethical course of action regarding ChatGPT/AI may be to 'lean in.' Work from course and assignment learning goals to determine whether and how integrating ChatGPT/AI makes sense (remember: strategies that involve prohibiting its use entirely are unlikely to succeed). Make *some* mention of AI, so that expectations are clear and so you can follow up if needed.

2) Be transparent. It is important to message out ChatGPT/AI expectations—*more* frequently than you may be inclined to do. Include course-specific rules and expectations on syllabi, assignment guides, and other course documents. AS&E academic honesty policy also requires that instructors call attention to their honesty rules in the first weeks of the semester. In doing so, mention: <u>what</u> expectations you set; <u>why</u> you set them; <u>how</u> they support students' learning, as well as academic and professional goals.

3) Be consistent. Wherever possible/where it makes sense to do, with respect to colleagues' agency and autonomy, try developing consistent expectations across departments or divisions (it is less confusing to students). Many students are 'digital natives'—but when it comes to teaching/learning with technology they can feel just as lost in a sea of ethical decision-making as you, their instructors, do.

4) Be responsible. Instructors in AS&E have a duty to tie policies on ChatGPT/AI back to learning goals in their courses. Unless writing/communicating to a certain proficiency level is a stated outcome, e.g., as it may be in a language course, trying to prohibit any and all reliance on ChatGPT/AI is unrealistic. (Maybe consider discouraging if not banning ChatGPT/AI for some tasks and assignments, while permitting if not encouraging its use for others?)

5) Be mentors. Especially under circumstances where expectations are less than clear, instructors can offer valuable guidance that helps motivate students to make responsible and ethical choices in using ChatGPT/AI. Colleagues at University of California, San Diego's Academic Integrity Office recommend reminding students, if they are ever unsure, to ask themselves:

> **Is this AI tool doing something for me that was or will be assessed by my course instructor(s)?**
> (If so … remind students, the safest thing to do is avoid using it!).

> **Do I know or can I verify whether use of this AI tool has been permitted or encouraged by my course instructor(s) / by a department's academic honesty policies?**
> (If not, or if students aren't sure … the safest thing to do is to avoid using it!).

All members of the AS&E academic community share the duty to act with integrity and to help uphold a culture of fair and honest work. Students in AS&E should feel comfortable asking for guidance on what is seen as fair and honest for a given project or assignment—please encourage students to raise questions *before* submitting work and/or making decisions that could obligate you to report a suspected violation.

Additional resources (students)
If they have questions related to setting or communicating course-specific policies, students can contact Honesty Liaisons Greer Murphy or Emma Rarich: honestyliaison@ur.rochester.edu (for general inquiries) or mywco.com/honesty (for student appointments).

The **academic honesty website** also features resources instructors can share with students, including:

Quiz 1: http://www.rochester.edu/college/honesty/policy/quiz1.html (basic policy expectations)
Quiz 2: http://www.rochester.edu/college/honesty/policy/quiz2.html (academic honesty scenarios)
Quiz 3: http://www.rochester.edu/college/honesty/policy/quiz3.html (honesty in online education)***
        ***Includes a ChatGPT-specific item, which instructors can use to invite/engage further discussion.

Instructors with questions can email honestyliaison@ur.rochester.edu (general guidance), contact Greer directly (greer.murphy@rochester.edu), or consult Teaching Center or Writing, Speaking, and Argument.

Teaching

When designing courses and assignments and assessing learning in the 'era' of ChatGPT/AI, you have options. Depending on your learning goals, among other considerations and constraints, you could:

1) Offer in-person or Zoom-proctored*, rather than take-home, exams. This approach is probably more applicable to some contexts than others – for instance, ensuring students show they have learned the basics in calculation-heavy, introductory STEM courses. There may be fewer concerns on the possibility

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 AI assistance in order for students to adequately demonstrate competence.

***AS&E Zoom proctoring guidelines** (more references and teaching resources are provided below): http://www.rochester.edu/college/honesty/assets/pdf/proctoring_with_zoom_policies_and_guidance.pdf

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 *not* 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.

- [Specification grading](#) 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 involving simple calculations (addition, subtraction, similar). This ***used*** to be a good way to avoid auto-completion until Davinci-3 markedly improved and can now calculate reliably.

3) Encourage co-authoring with ChatGPT and raise grading standards. Since ChatGPT/AI makes lower-level writing and conceptual work easier, some instructors could decide to aim higher when assessing or grading their students (especially undergraduates). Papers for which instructors begrudgingly awarded Bs in previous semesters—minimum length essays with 'filler' content that meets basic specifications—could now be awarded Cs. Papers that might have earned As could now be awarded Bs; and so on. In addition, instructor rubrics could adjust maybe as much as a letter grade or more if structure, grammar, style, basic conceptual content is lacking. Standards for engaging with readings, evidence of secondary research (aspects ChatGPT cannot address well but remain integral to learning goals) remain the same.

4) Encourage co-authoring with ChatGPT and require associated reflections. Ask students to write with GPT3, then submit a paper that explicitly delineates what is their text and what is text created by GPT3. Students can be asked to write a reflection about their writing process, with grades assigned according to whatever standard rubric instructors ordinarily use. Reflections could modulate assignment grades by as much as half a letter grade (e.g., using an Ash and Clayton [2004] reflection rubric). This approach is a bit 'meta' and may not work across all courses/for every instructor. Writing or writing-intensive courses can benefit from such an approach for the foreseeable future—at least until ChatGPT/AI improves to the point where more advanced reflection content can be credibly imitated in these ways.

5) Discourage co-authoring with ChatGPT and instead scaffold low-stakes, formative writing-to-learn so students explain their thinking and engage with writing as a process. Ask students about process. This approach may not work as well in all contexts (e.g., large enrollment courses). But it *can* preclude the possibility of students feeling desperate enough to cheat by illicitly using ChatGPT/AI, so it *might* be worth dedicating time and resources to this approach—in particular courses *and/or* as a department.

Additional resources (instructors):
AS&E *Academic Honesty* / reminders, resources, responding to suspected violations:
http://www.rochester.edu/college/honesty/index.html
http://www.rochester.edu/college/honesty/instructors/resources.html
http://www.rochester.edu/college/honesty/instructors/violations.html

AS&E *Teaching Center* / guidance on teaching, teaching online / consultations:
https://www.rochester.edu/college/teaching/teaching-guidance/index.html
https://www.rochester.edu/college/teaching/teaching-online/index.html
https://www.rochester.edu/college/teaching/programs-services/consultations.html

AS&E *Writing, Speaking, and Argument* / resources, honesty with online learning tools PPT:
https://writing.rochester.edu/faculty/faculty-resources.html
https://rochester.app.box.com/s/4axjoc5nszk4lnkdyiz698hj6iwh198m

Georgetown University Center for New Designs in Learning and Scholarship – ChatGPT and AI Tools:
https://cndls.georgetown.edu/ai-composition-tools/

University of California, San Diego faculty message from the Academic Integrity Office on ChatGPT/AI:
https://ucsdcloud-my.sharepoint.com/:w:/g/personal/tbertramgallant_ucsd_edu/EX29uhn0M9pJsWu4GlHC6TIBuT4gFkHCueQnGT5RXJir5w?rtime=meD_TvAQ20g

Reporting

Under AS&E's academic honesty policy, giving or receiving *unauthorized** 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; but depending on your course rules, *it could be*.

Unless/until they become "convinced … no violation was committed," instructors in AS&E must follow up on—i.e., must report—suspected honesty infractions in some way. Follow-up entails consulting with an Honesty Liaison and/or the Chair of the Board on Academic Honesty, and may also involve speaking with the student or students involved. The sites and resources linked below contain further details:

Academic honesty policy: http://www.rochester.edu/college/honesty/policy/index.html

Violations and sanctioning guidelines sections:
http://www.rochester.edu/college/honesty/policy/index.html#V (violations)
http://www.rochester.edu/college/honesty/policy/index.html#XII (sanctioning guidelines)

Instructor resolution process:
http://www.rochester.edu/college/honesty/policy/index.html#IX

Board resolution process:
http://www.rochester.edu/college/honesty/policy/index.html#X

Academic honesty website: http://www.rochester.edu/college/honesty/index.html

Academic honesty website instructor resources (also linked above on p. 4):
http://www.rochester.edu/college/honesty/instructors/index.html

Academic honesty website student resources:
http://www.rochester.edu/college/honesty/students/resources.html

FAQ on instructor resolutions: http://www.rochester.edu/college/honesty/students/faq.html#instructor
FAQ on board resolutions: http://www.rochester.edu/college/honesty/students/faq.html#board
Scheduling website for students to contact an Academic Honesty Liaison: http://mywco.com/honesty

In addition to links and resources from page 4, the Teaching Center and Writing, Speaking and Argument Program can provide confidential advice to instructors regarding best practice in course and assignment design, which in turn supports instructors in helping students avoid accidental policy violation(s).

   The **Teaching Center** website is: https://www.rochester.edu/college/teaching/index.html.
   The **Writing, Speaking, and Argument Program** website is: https://writing.rochester.edu/.

***Note**: AS&E academic honesty policy sets baseline rules for authorized vs. unauthorized aid/resources and proper vs. improper citation of sources/source technologies. It remains each instructor's obligation (a) to further define these terms, and (b) to describe and help guide students in making ethical decisions in the context of their courses, as well as co-curricular or professional endeavor(s) in which they engage.

We gratefully acknowledge instructors' efforts to support students and uphold the spirit and letter of our shared policies.