

UK ADVANCE

Fall 2023 Guidelines and Recommendations for Generative AI in Instructional Contexts

Summary

Since the public release of OpenAI's ChatGPT on November 30, 2022, questions and concerns have rapidly circulated concerning the role of generative artificial intelligence (AI) in higher education, particularly in instructional or curricular contexts. While ChatGPT produces text-based output, other generative AI can output text, data, image, sound, video and mixed media formats.

The International Association of Privacy Professionals defines generative AI as “[a] field of AI that uses machine learning models trained on large data sets to create new content, such as written text, code, images, music, simulations and videos. These models are capable of generating novel outputs based on input data or user prompts.”¹

Sidney Dobrin, author of *AI and Writing*, explains that “[w]e can think of a GenAI as participating in a rudimentary conversation with a user” who “ask[s] the AI to create a specific deliverable — an essay, a song, an image, the solution to a math problem or so on. The AI then scrubs through all of the data available, looking for patterns and recurring information about the requested task. It then reorganizes that data into a pattern that it deems to answer the prompt.”²

In June 2023, the University of Kentucky empaneled [UK ADVANCE](#), a broad-based committee of experts to examine and make recommendations to help the campus and community regarding the implications of generative AI and tools such as ChatGPT for higher education, research and beyond. UK ADVANCE is taking an evidence-based approach with experts from multiple disciplines and ongoing monitoring of experiences among our campus, community, and

¹ IAPP 2023.

² Dobrin 2023.

nationally. For these guidelines, UK ADVANCE has sought input from multiple stakeholders as well.

AI already is heralding tremendous changes in academia and the economy, from innovations in farming and the development of therapeutics to customer service and workplace innovations. At the same time, there are significant concerns over disruption and displacement of the workforce, embedded bias, data security and privacy and the spread of misinformation.

Within academia, there is the potential to create even greater access to personalized and customized learning, expanded student engagement, intelligent tutoring systems and innovative approaches to curriculum design. At the same time, there are concerns over academic integrity, infringements on privacy and the ability to develop data and information literacies for AI tools.³

After reviewing emerging evidence and experiences related to instruction and learning environments, UK ADVANCE offers the following guidelines and recommendations for the Fall 2023 semester regarding (1) the development of course policies concerning generative AI, (2) the response to potential misuse of generative AI in instructional contexts, and (3) approaches to assignment and learning design that mitigate the risk of misuse and leverage the positive potential of generative AI.

It's important to note that the following guidelines and recommendations primarily focus on text-based generative AI tools such as Bard (Google), Bing Chat (Microsoft and OpenAI), ChatGPT and ChatGPT Plus (OpenAI), Claude (Anthropic) and Llama (Meta). At the same time, the recommendations and insights may be transferrable to situations involving other modalities of generative AI (e.g., image, audio).

Generative AI is a rapidly evolving technology. These guidelines reflect our best understanding at the current time and may be updated to reflect the nature of the field as it continues to change.

Course Policies Regarding Generative AI

Provenance. University Senate maintains requirements, policies, and procedures for course syllabi and policies. See <https://www.uky.edu/universitysenate/syllabi>. Instructors have authority to determine policies, within the bounds of senate rules, for the appropriate use of technologies in their courses.

³ Passages adapted from *UKNow*, uknow.uky.edu/campus-news/advance-committee-will-explore-ai-opportunities-challenges-campus-commonwealth.

Recommendation. We recommend clear course policies for the use of generative AI in four key areas as follows:⁴

- **People-centered:** policies are student- and instructor-centered
- **Adaptability:** policies are adapted to the needs and circumstances of the course
- **Effectiveness:** policies demonstrate characteristics of an effective course policy
- **Awareness:** policies promote awareness and understanding of generative AI

People-centered. AI is a tool that instructors and students can use to enhance education, but it should be used with human oversight and an awareness of its strengths and limitations. Students and instructors should exercise judgment and control over the use of generative AI so that it is used to augment — rather than replace — instructor decision-making and student learning. The U.S. Department of Education’s Office of Educational Technology describes this as keeping “humans in the loop,” whereby “the human is fully aware and fully in control, but their burden is less, and their effort is multiplied by a complementary technological enhancement.”⁵

Adaptability. Course policies regarding the use of generative AI are best adapted to the local context of the course, including the instructor’s expertise and perspectives; the course learning goals; the nature of the coursework, discipline and/or profession; and the learning needs of the students. While generative AI may not be as useful for one course, it may present an opportunity in another course. Moreover, different modalities and tools for generative AI may be more or less desirable for a course. While instructors may adopt a range of course policies regarding the use of generative AI, those policies likely will fall within one of four areas on a spectrum:

- No use
- Use only when/as directed
- Use freely in certain cases
- Use freely in all cases

While course policies may be more restrictive than what is found in the senate rules, they must reflect the approved senate syllabi template and language. For more restrictive course policies an instructor may need to consider measures to ensure that the policy is followed appropriately. This may involve adapting assignments and holding certain activities during class meetings. Additionally, for more restrictive course policies it is important to understand the limitations of AI detectors as described in the section of these guidelines on responding to possible misuse.

⁴ Byrd, et al. 2023; Chan 2023; Foltynek, et al. 2023; Russell Group 2023; US Department of Education Office of Educational Technology, 2023.

⁵ US Department of Education Office of Educational Technology, 2023

For more permissive course policies an instructor may need to consider measures to ensure transparency and appropriate documentation of the use of generative AI.⁶

Any questions or requests from students related to the use of generative AI as learning accommodations should be referred to the UK Disability Resource Center.

Effectiveness. While instructors will adopt a range of policies and approaches for students' use of generative AI in courses, the written account of those policies should be included clearly on syllabi and other locations where students regularly interact with information about the course. This is important for several reasons, including:

- Students will likely be navigating different policies, requirements, and approaches to the appropriate use of generative AI for their coursework.
- Students may be unsure about generative AI, especially whether it can or should be used for their coursework.⁷
- Students may be reluctant to ask about course expectations for the use of generative AI in the face of ambiguity or uncertainty.⁸

Factors to consider when developing course policies on generative AI include:⁹

- A definition of generative AI. For example, "Generative AI refers to a range of emerging technologies that draw from training on large datasets to generate new content in written, visual and other forms based on user instructions." This definition may be expanded or revised to include more specific information that is relevant to the course and discipline.
- A statement on whether the use of generative AI will be permitted for coursework, and if so, how and to what degree it will be permitted.
- A specific description of what constitutes inappropriate use of generative AI in the course as well as the consequences for inappropriate use.
- A process for students to document or cite the use of generative AI for assignments and other course activities (if it is permitted).¹⁰
- A rationale for the policy grounded in the context of the discipline/profession, the learning goals of the course, the skills that will be assessed and/or ethics and academic integrity.
- Links to resources for understanding and using generative AI ethically and effectively.

⁶ Dobrin 2023.

⁷ Amigud and Pell 2021; Barnett 2023; Bens 2022; Bogost 2023.

⁸ Ryan, Gheen, and Midgley 1998; Ryan, Pintrich, and Midgley 2001; Sheu, Chong, and Dawes 2022.

⁹ Gannon 2023.

¹⁰ Perkins 2023.

- A learner-centered and student-friendly tone that builds understanding and motivation for students in the course.
- An invitation for students to discuss any questions or concerns with the instructor.

Awareness. In addition to providing clear course policies regarding generative AI, it is important for instructors and students to be aware of the larger evolving issues concerning the technology:

- While generative AI continues to become more sophisticated, it has a well-documented history of producing fabricated, incorrect, and misleading information.¹¹ Should instructors or students use generative AI tools, verification of the output will be a critical component of informed use.
- Privacy is a major concern and caution. Many generative AI tools do not guarantee the protections for private, confidential or sensitive data that may be required (or desired) for certain information.¹² For example, student education records (as defined by FERPA)¹³ and protected research data¹⁴ should not be provided to generative AI tools unless/until they have been vetted for data privacy and other governance issues and approved by the University for the proposed use.
- There is an ongoing conversation about the ethics of how generative AI models have been trained on openly available data, both in terms of any biases that the models might inherit from the datasets¹⁵ as well as issues of intellectual property in the training data.¹⁶
- Generative AI technologies continue to evolve at a rapid pace, as do the ways in which we can (and can't) access and use them. We cannot assume that the performance nor the use-conditions of generative AI at a particular moment will remain the same or stable in the long term.¹⁷

¹¹ Alkaissi and McFarlane 2023; Athaluri, et al. 2023; Christian 2023; Francl 2023; Hosseini, Rasmussen, and Resnik 2023; Ji, et al. 2023; Kidd and Birhane 2023; Lee, Bubeck, and Petro 2023; Lightman, et al. 2023; Liu, Zhang, and Liang 2023; Megahed, et al. 2023; Metze, Morandin-Reis, Lorand-Metze, and Florindo 2023; OpenAI 27 March 2023; Poritz 2023; Weise and Metz 2023; Weiser 2023; Zhang, et al. 2023; Zhao, et al. 2023; Zhavoronkov 2023.

¹² Busch 2023; Electronic Privacy Information Center 2023; Huang 2023; Hosseini and Horbach 2023; Lauer, Constant, and Wernimont 2023; Meskó and Topol 2023; National Institutes of Health 2023; Schwartz and Rogers 2022.

¹³ See registrar.uky.edu/ferpa and registrar.uky.edu/ferpa/ferpa-faculty-and-staff-faq.

¹⁴ See www.research.uky.edu/office-research-integrity.

¹⁵ Bender, Gebru, McMillan-Major, and Shmitchell 2021; Brown, et al. 2020; Caliskan, Bryson, and Narayanan 2017; Hovy and Prabhumoye 2021; Liang, Wu, Morency, and Salakhutdinov 2021; Najibi 2020; Nazer, et al. 2023; Nicholas and Bhatia 2023; Schwartz, et al. 2022; Small 4 July 2023; Whittaker, et al. 2019; Zhuo, Huang, Chen, and Xing 2023.

¹⁶ Appel, Neelbauer, and Schweidel 2023; Lucchi 2023; Saveri and Butterick 2023; Sobel 2018; Strowel 2023; Thorbecke 2023; Zirpoli 2023.

¹⁷ Chen, Zaharia, and Zou 2023.

For assistance in talking with students about generative AI as it relates to teaching and learning, instructors can work with UK's Center for the Enhancement of Learning and Teaching (CELT) at celt.uky.edu.

Responding to Possible Misuse of Generative AI

Provenance. University Senate maintains requirements, policies and procedures for academic offenses. See Senate Rules 6.3 and 6.4 at www.uky.edu/universitysenate/rules-regulations. The Academic Ombud lists the procedure for processing academic offenses at ombud.uky.edu/faculty/academic-offense-procedures.

Detectors. Several detectors for text-based generative AI output have been developed. For example, TurnItIn (to which all UK instructors have access through the assignments feature in Canvas) activated its own proprietary AI detector on April 4, 2023. On July 20, 2023, OpenAI closed off access to its AI classifier, citing a "low rate of accuracy."¹⁸ These technologies are still emerging, but they have demonstrated several problems thus far:

- They can be prone to false positives, i.e., indicating that all or part of a student's work is likely AI-generated when it is, in fact, not.¹⁹ Relying on these percentages can introduce bias in the assessment process and demoralize students if further action is taken.
- They can be evaded with a combination of prompt manipulation (e.g., iterating a prompt to receive ideal output) and hand-editing the output.²⁰
- They cannot be verified with other evidence (e.g., as opposed to similarity detectors that link to matching sources).
- They do not guarantee the protection, privacy and confidentiality of any information, data or intellectual property that a student or instructor inputs.²¹
- They risk creating a surveillance-based learning environment that can negatively affect student motivation, learning and belonging.²²

Data on detectors will continue to emerge and require ongoing reassessment, which may result in updated guidelines.

¹⁸ OpenAI 31 Jan 2023.

¹⁹ Chechitelli 2023; Cingillioglu 2023; D'Agostino 2023; Dalalah and Dalalah 2023; Edwards 2023; Fowler 2023; Liang, et al. 2023; Weber-Wulff, et al. 2023.

²⁰ Anderson, et al. 2023; Cingillioglu 2023; Henrique, Kucharavy, and Guerraoui 2023; Krishna, et al. 2023; Liang, et al. 2023; Sadasivian, et al. 2023; Weber-Wulff, et al. 2023. Additionally, Thompson and Hsu 2023 and Jiang, Zhang, and Gong 2023 found that detection methods for image-based generative AI output (e.g., via DALL-E, Stable Diffusion, Midjourney) can be evaded and/or lead to false positives.

²¹ See, for example, GPTZero's privacy policy at <https://gptzero.me/privacy-policy.html>.

²² Acevedo 2023; CCCC-IP Caucus; Cullen 2022; Lang 2013.

Data Privacy. Student education records should not be input into third-party generative AI detection tools or systems unless and until the tools/systems have been vetted for data privacy and other AI governance issues and approved by the university for use. This includes generative AI systems that include detection tools. The Family Education Rights and Privacy Act (FERPA) applies to all student education records, which are “records that are directly related to a student and that are maintained by an educational agency or institution or a party acting for or on behalf of the agency or institution.”²³

Range of Misuse. Misuse of generative AI can include “copy/paste” plagiarism scenarios — i.e., submitting text generated by an AI program without attribution, as if it were one’s own writing — but it also can include more ambiguous scenarios such as:

- Using ideas or approaches that generative AI programs have suggested
- Reusing information, calculations, analyses or solutions provided by generative AI
- Revising text generated by an AI program without indicating the initial source

Additionally, even if a student attributes their use of generative AI, it may still be “misuse” if course policy prohibits it in that scenario. Clear course policies will help students — and instructors — navigate the range of possible misuse cases and understand what to expect if an instructor determines that misuse has occurred.

It’s important to note that because generative AI’s language models draw from a variety of textual sources (including openly available text on the world wide web), it is possible that writing, ideas and other output produced by generative AI may themselves lack proper attribution of source material and may imitate or reproduce copyrighted material on which they were trained.²⁴

Responding. Should an instructor suspect that a student has used generative AI inappropriately in the completion or all or part of an activity or assignment, we would suggest consultation with the department chair or school director and the Academic Ombud.

Recommendation. Because of these concerns, we recommend against the use of generative AI detectors for determining academic offenses. UK ADVANCE will, however, continue to monitor the landscape and update the guidelines as appropriate.

²³ US Department of Education Student Privacy Policy Office.

²⁴ Appel, Neelbauer, and Schweidel 2023; Dobrin 2023; Small 10 July 2023; Smits and Borhuis 2022; Thorpe 2023.

Assessing Learning with Generative AI in Mind

While generative AI can feel like a disruption of instructors' ability to teach and assess student learning, it is also an invitation to refine pedagogy and assessment.²⁵

Principles of Assessment Design. The design of assessments is driven by many context-specific considerations, most importantly:

- Course and program learning outcomes
- Competencies and skills in the discipline or profession
- Scaffolding along the course curriculum
- Authentic and engaging learning experiences
- Equity, clarity and structure
- Opportunities to practice and improve
- Iterative feedback on performance
- Reflection on progress and learning

Effective, learning-centered assessments follow from these principles whether they seek to avoid the use of generative AI or engage students in it.

Design Strategies to Enhance Learning and Mitigate Misuse of Generative AI.

Strategies that mitigate the conditions that may lead to misuse of generative AI also draw from principles of strong learning design. Instructors may consider how their assessments may draw from any of the following strategies, as is appropriate for the course, students and other factors.

- Segment larger assessments with checkpoints and/or multiple deliverables that value process along with content.
 - This strategy helps students to organize and plan their efforts, make steady progress towards a larger goal, increase their self-efficacy and reflect on their decision-making by documenting their process.
- Integrate work towards assessments into class meetings and other planned interactions.
 - This strategy ensures that opportunities to study, practice, plan, research, draft, revise, etc., are embedded in the culture of the course, and students are held accountable for doing the work in ways that are constructive for learning.
- Ground assessments in the specific context of the course.
 - This strategy asks instructors to integrate unique aspects of the course, whether particular readings, concepts, methods, discussions, cases, etc. (or a

²⁵ Byrd, et al. 2023; Council of Writing Program Administrators 2019; Mills 2023.

combination thereof) rather than assigning generic tasks that are easily replicated elsewhere.

- Incorporate opportunities to receive iterative feedback on learning and performance via drafts and revisions, development phases, interactive practice, observations, etc.
 - This strategy leverages frequent, formative assessment as a way to lower the stakes, engage and motivate students, and focus on opportunities for growth.
- Ask students to contribute their own insights, original analyses and other perspectives.
 - This strategy ensures that students are incentivized to add their own informed contributions to the issues at hand, which frames learning as *reckoning with* rather than merely reproducing extant knowledge.
- Include moments when students need to be conversant about the nature and progress of their own work.
 - This strategy engages students in multiple modes and contexts for communicating about their learning and emphasizes the importance of reflecting on their efforts in addition to proving that they have learned something.
- Ask students to express their learning in different genres, formats and modalities.
 - This strategy engages students in multimodal and multigenre communication in preparation for careers that will engage them with different stakeholders.

Uses of Generative AI in Assessments and Other Learning Activities. While some situations may not call for the use of generative AI, others may be enhanced when it is used strategically. Importantly, if an instructor integrates generative AI into an assignment, it is a consideration of equity to ensure that all students are supported in the use of digital technologies rather than relying on extant — and uneven — literacies and comfort levels with generative AI tools.²⁶ This might mean walking students through the process of using generative AI for a particular task, providing tips for effective use of generative AI for that task, addressing the tool during office hours, etc. Generative AI has shown potential to be effective for learning when used to:²⁷

- Brainstorm or discover ideas
- Organize projects or plan efforts
- Summarize or synthesize information
- Analyze and visualize data
- Provide output that students critique or verify
- Offer different possibilities for approaches to a task
- Give feedback on ideas or drafts
- Engage students in retrieval practice, concept review, or other studying

²⁶ Zamfirescu-Pereira, Wong, Hartmann, and Yang 2023.

²⁷ Ellis and Slade 2023; Hicks 2023; Mollick and Mollick 2023; Trust 2023.

- Generate materials for demonstrations or case studies

As part of ensuring that students learn to become strategic and ethical users of generative AI, it will be important to emphasize that students should verify the claims and information in the output, and to understand the framing of that output as only one possibility among many others. It will also be important for students to document their use of generative AI in a consistent way.²⁸

Support for Instructors. For support in any way related to designing activities and assessments in relation to generative AI, instructors can work with CELT at celt.uky.edu.

Support for the UK Community. Contact UKADVANCE@uky.edu with questions, ideas, and recommendations as well as feedback regarding AI-related efforts underway on campus. The UK ADVANCE webpage can be viewed at advance.uky.edu.

References

- Acevedo, Matthew M. "The Panoptic Gaze and the Discourse of Academic Integrity" In *Critical Digital Pedagogy in Higher Education*, Athabasca University Press, 2023. DOI: [10.15215/aupress/9781778290015.01](https://doi.org/10.15215/aupress/9781778290015.01).
- Alkaiissi, Hussam and Samy I McFarlane. "Artificial Hallucinations in ChatGPT: Implications in Scientific Writing." *Cureus*, vol 15, no 2, 19 Feb 2023. DOI: [10.7759/cureus.35179](https://doi.org/10.7759/cureus.35179).
- Amigud, Alexander and David J Pell. "When academic integrity rules should not apply: a survey of academic staff." *Assessment & Evaluation in Higher Education*, vol 46, no 6, 2021. DOI: [10.1080/02602938.2020.1826900](https://doi.org/10.1080/02602938.2020.1826900).
- Anderson, Nash, et al. "AI did not write this manuscript, or did it? Can we trick the AI text detector into generated texts? The potential future of ChatGPT and AI in Sports & Exercise Medicine manuscript generation." *BMJ Open Sport and Exercise Medicine*, vol 9, 2023. DOI: [10.1136/bmjsem-2023-001568](https://doi.org/10.1136/bmjsem-2023-001568).
- Appel, Gil, Juliana Neelbauer, and David A. Schweidel. "Generative AI Has an Intellectual Property Problem." *Harvard Business Review*, 7 April 2023. hbr.org/2023/04/generative-ai-has-an-intellectual-property-problem.
- Athaluri, Sai Anirudh, et al. "Exploring the Boundaries of Reality: Investigating the Phenomenon of Artificial Intelligence Hallucination in Scientific Writing Through ChatGPT References." *Cureus*, vol 15, no 4, 11 April 2023. DOI: [10.7759/cureus.37432](https://doi.org/10.7759/cureus.37432).
- Barnett, Sofia. "ChatGPT Is Making Universities Rethink Plagiarism." *Wired*, 30 Jan 2023. www.wired.com/story/chatgpt-college-university-plagiarism/.
- Bender, Emily, Timnit Gebru, Angelina McMillan-Major, and Shmargaret Shmitchell. "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?" *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, March 2021, pp 610-623. DOI: [10.1145/3442188.3445922](https://doi.org/10.1145/3442188.3445922).
- Bens, Susan L. "Helping Students Resolve the Ambiguous Expectations of Academic Integrity." In *Academic Integrity in Canada: An Enduring and Essential Challenge*, Springer, 2022, pp 377-392. DOI: [10.1007/978-3-030-83255-1_19](https://doi.org/10.1007/978-3-030-83255-1_19).
- Bogost, Ian. "The First Year of AI College Ends in Ruin." *The Atlantic*, 16 May 2023. www.theatlantic.com/technology/archive/2023/05/chatbot-cheating-college-campuses/674073/.
- Brown, Tom B, et al. "Language Models are Few-Shot Learners." *Proceedings of the 34th International Conference on Neural Information Processing Systems*, 6 Dec 2020. [dl.acm.org/doi/abs/10.5555/3495724.3495883](https://doi.org/10.5555/3495724.3495883).
- Busch, Kristen E. *Generative Artificial Intelligence and Data Privacy: A Primer*. Congressional Research Service, 23 May 2023, R47569. crsreports.congress.gov/product/pdf/R/R47569.

²⁸ For best practices in citing or documenting the use of generative AI, disciplinary or professional style guides may be a useful place to start, e.g., McAadoo 2023. Other approaches to generative AI documentation may resemble a brief description or summary of research methods.

- Byrd, Antonio, et al. "MLA-CCCC Joint Task Force on Writing and AI Working Paper: Overview of the Issues, Statement of Principles, and Recommendations." Modern Language Association of America and Conference on College Composition and Communication, July 2023. aiandwriting.hcommons.org/working-paper-1/.
- Caliskan, Aylin, Joanna J Bryson, and Arvind Narayanan. "Semantics derived automatically from language corpora contain human-like biases." *Science*, vol 365, no 6334, pp 183-186. DOI: [10.1126/science.aal4230](https://doi.org/10.1126/science.aal4230).
- CCCC-IP Caucus. "Recommendations Regarding Academic Integrity and the Use of Plagiarism Detection Services." Conference on College Composition and Communication. culturecat.net/files/CCCC-IPpositionstatementDraft.pdf.
- Chechitelli, Annie. "AI writing detection update from Turnitin's Chief Product Officer." Turnitin, 23 May 2023. www.turnitin.com/blog/ai-writing-detection-update-from-turnitins-chief-product-officer.
- Chan, Cecelia Ka Yuk. "A comprehensive AI policy education framework for university teaching and learning." *International Journal of Educational Technology in Higher Education*, vol 20, 2023. DOI: [10.1186/s41239-023-00408-3](https://doi.org/10.1186/s41239-023-00408-3).
- Chen, Lingjiao, Matei Zaharia, and James Zou. "How is ChatGPT's behavior changing over time?" *arXiv*, 18 July 2023. DOI: [10.48550/arXiv.2307.09009](https://doi.org/10.48550/arXiv.2307.09009).
- Christian, Jon. "CNET's Article-Writing AI Is Already Publishing Very Dumb Errors." *Futurism*, 29 Jan 2023. futurism.com/cnet-ai-errors.
- Cingillioglu, Ilker. "Detecting AI-generated essays: The ChatGPT challenge." *International Journal of Information and Learning Technology*, vol 40, no 3, 2023, pp 259-268. DOI: [10.1108/IJILT-03-2023-0043](https://doi.org/10.1108/IJILT-03-2023-0043).
- Council of Writing Program Administrators. "Defining and Avoiding Plagiarism: The WPA Statement on Best Practices." 30 Dec 2019. wpacouncil.org/aws/CWPA/pt/sd/news_article/272555/PARENT/layout_details/false.
- Cullen, Courtney S. "Pivoting From Punitive Programs to Educational Experiences: Knowledge and Advice From Research." *Journal of College and Character*, vol 23, no 1, 2022, pp 48-59. DOI: [10.1080/2194587X.2021.2017973](https://doi.org/10.1080/2194587X.2021.2017973).
- D'Agostino, Susan. "Turnitin's AI Detector: Higher-Than-Expected False Positives." *Inside Higher Ed*, 1 June 2023. www.insidehighered.com/news/quick-takes/2023/06/01/turnitins-ai-detector-higher-expected-false-positives.
- Dalalah, Doriad and Osama MA Dalalah. "The false positives and false negatives of generative AI detection tools in education and academic research: The case of ChatGPT." *The International Journal of Management Education*, vol 21, no 2, 2023. DOI: [10.1016/j.ijme.2023.100822](https://doi.org/10.1016/j.ijme.2023.100822).
- Dobrin, Sidney I. *Talking About Generative AI: A Guide for Educators*. Broadview Press, 15 May 2023. sites.broadviewpress.com/ai/talking/.
- Edwards, Benj. "Why AI detectors think the US Constitution was written by AI." *Ars Technica*, 14 July 2023. arstechnica.com/information-technology/2023/07/why-ai-detectors-think-the-us-constitution-was-written-by-ai/.
- Electronic Privacy Information Center. *Generating Harms: Generative AI's Impact and Paths Forward*. May 2023. epic.org/documents/generating-harms-generative-ais-impact-paths-forward/.
- Ellis, Amanda R and Emily Slade. "A New Era of Learning: Considerations for ChatGPT as a Tool to Enhance Statistics and Data Science Education." *Journal of Statistics and Data Science Education*, vol 31, no 2, pp 128-133. DOI: [10.1080/26939169.2023.2223609](https://doi.org/10.1080/26939169.2023.2223609).
- Francl, Michelle. "ChatGPT saves the day." *Nature Chemistry*, vol 15, no 7, 19 June 2023, pp 890-891. DOI: [10.1038/s41557-023-01253-7](https://doi.org/10.1038/s41557-023-01253-7).
- Foltyniek, Tomas, et al. "ENAI Recommendations on the ethical use of Artificial Intelligence in Education." *International Journal for Educational Integrity*, vol 19, 2023. DOI: [10.1007/s40979-023-00133-4](https://doi.org/10.1007/s40979-023-00133-4).
- Fowler, Geoffrey A. "Detecting AI may be impossible. That's a big problem for teachers." *The Washington Post*, 2 June 2023. www.washingtonpost.com/technology/2023/06/02/turnitin-ai-cheating-detector-accuracy/.
- Gannon, Kevin. "Should You Add an AI Policy to Your Syllabus?" *The Chronicle of Higher Education*, 31 July 2023. www.chronicle.com/article/should-you-add-an-ai-policy-to-your-syllabus.
- Henrique, Da Silva Gameiro, Andrei Kucharavy, and Rachid Guerraoui. "Stochastic Parrots Looking for Stochastic Parrots: LLMs are Easy to Fine-Tune and Hard to Detect with other LLMs." *arXiv*, 18 April 2023. DOI: [10.48550/arXiv.2304.08968](https://doi.org/10.48550/arXiv.2304.08968).
- Hicks, Maggie. "Scared of AI? Don't Be, Computer-Science Instructors Say." *The Chronicle of Higher Education*, 2 Aug 2023. www.chronicle.com/article/scared-of-ai-dont-be-computer-science-instructors-say.
- Hosseini, Mohammed, Lisa M Rasmussen, and David B Resnik. "Using AI to write scholarly publications." *Accountability in Research*, 25 Jan 2023. DOI: [10.1080/08989621.2023.2168535](https://doi.org/10.1080/08989621.2023.2168535).
- Hosseini, Mohammed and Serge PJM Horbach. "Fighting reviewer fatigue or amplifying bias? Considerations and recommendations for use of ChatGPT and other large language models in scholarly peer review." *Research Integrity and Peer Review*, vol 8, no 4, 18 May 2023. DOI: [10.1186/s41073-023-00133-5](https://doi.org/10.1186/s41073-023-00133-5).
- Hovy, Dirk and Shrimai Prabhunoye. "Five sources of bias in natural language processing." *Language and Linguistics Compass*, vol 15, no 8, 20 Aug 2021. DOI: [10.1111/lnc3.12432](https://doi.org/10.1111/lnc3.12432).
- Huang, Lan. "Ethics of Artificial Intelligence in Education: Student Privacy and Data Protection." *Science Insights Education Frontiers*, vol 16, no 2, 30 June 2023, pp 2577-2587. DOI: [10.15354/sief.23.re202](https://doi.org/10.15354/sief.23.re202).

IAPP. "Key Terms for AI Governance." International Association of Privacy Professionals, June 2023. iapp.org/resources/article/key-terms-for-ai-governance/.

Ji, Ziwei, et al. "Survey of Hallucination in Natural Language Generation." *ACM Computing Surveys*, vol 55, no 12, 3 March 2023, pp 1-38. DOI: [10.1145/3571730](https://doi.org/10.1145/3571730).

Jiang, Zhengyuan, Jinghui Zhang, and Neil Zhenqiang Gong. "Evading Watermark based Detection of AI-Generated Content." *arXiv*, 5 May 2023. DOI: [10.48550/arXiv.2305.03807](https://doi.org/10.48550/arXiv.2305.03807).

Kidd, Celeste and Abeba Birhane. "How AI can distort human beliefs: Models can convey biases and false information to users." *Science*, vol 380, no 6651, 22 June 2023, pp 1222-1223. DOI: [10.1126/science.adi0248](https://doi.org/10.1126/science.adi0248).

Krishna, Kalpesh, et al. "Paraphrasing evades detectors of AI-generated text, but retrieval is an effective defense." *arXiv*, 23 March 2023. DOI: [10.48550/arXiv.2303.13408](https://doi.org/10.48550/arXiv.2303.13408).

Lang, James M. *Cheating Lessons: Learning from Academic Dishonesty*. Harvard University Press, 2013.

Lauer, Mike, Stephanie Constant and Amy Wernimont. "Using AI in Peer Review Is a Breach of Confidentiality." *NIH Extramural Nexus*, 23 June 2023. nexus.od.nih.gov/all/2023/06/23/using-ai-in-peer-review-is-a-breach-of-confidentiality/.

Lee, Peter, Sebastien Bubeck, and Joseph Petro. "Benefits, Limits, and Risks of GPT-4 as an AI Chatbot for Medicine." *New England Journal of Medicine*, no 388, 30 March 2023, pp 1233-1239. DOI: [10.1056/NEJMSr2214184](https://doi.org/10.1056/NEJMSr2214184).

Liang, Weixin, et al. "GPT detectors are biased against non-native English writers." *Patterns*, vol 4, no 7, July 2023. DOI: [10.1016/j.patter.2023.100779](https://doi.org/10.1016/j.patter.2023.100779).

Liang, Paul Pu, Chiyu Wu, Louis-Philippe Morency, and Ruslan Salakhutdinov. "Towards Understanding and Mitigating Social Biases in Language Models." *arXiv*, 24 June 2021. DOI: [10.48550/arXiv.2106.13219](https://doi.org/10.48550/arXiv.2106.13219).

Lightman, Hugh, et al. "Let's Verify Step by Step." *arXiv*, 31 May 2023. DOI: [10.48550/arXiv.2305.20050](https://doi.org/10.48550/arXiv.2305.20050).

Liu, Nelson F, Tianyi Zhang, and Percy Liang. "Evaluating Verifiability in Generative Search Engines." *arXiv*, 19 April 2023. DOI: [10.48550/arXiv.2304.09848](https://doi.org/10.48550/arXiv.2304.09848).

Lucchi, Nicola. "ChatGPT: A Case Study on Copyright Challenges for Generative AI Systems." *SSRN*, 25 June 2023. DOI: [10.2139/ssrn.4483390](https://doi.org/10.2139/ssrn.4483390).

McAdoo, Timothy. "How to cite ChatGPT." *APA Style*, 23 April 2023. apastyle.apa.org/blog/how-to-cite-chatgpt.

Megahed, Fadel M, et al. "How Generative AI models such as ChatGPT can be (Mis)Used in SPC Practice, Education, and Research? An Exploratory Study." *arXiv*, 17 Feb. 2023. DOI: [10.48550/arXiv.2302.10916](https://doi.org/10.48550/arXiv.2302.10916).

Meskó, Bertalan and Eric J Topol. "The imperative for regulatory oversight of large language models (or generative AI) in healthcare." *npj Digital Medicine*, vol 6, July 2023. DOI: [10.1038/s41746-023-00873-0](https://doi.org/10.1038/s41746-023-00873-0).

Metze, Konradin, Rosana C Morandin-Reis, Irene Lorand-Metze, and João B Florindo. "The Amount of Errors in ChatGPT's Responses is Indirectly Correlated with the Number of Publications Related to the Topic Under Investigation." *Annals of Biomedical Engineering*, vol 51, 2023, pp 1360-1361. DOI: [10.1007/s10439-023-03205-1](https://doi.org/10.1007/s10439-023-03205-1).

Milla, Anna. "AI Text Generators and Teaching Writing: Starting Points For Inquiry." WAC Clearinghouse, 14 Feb 2023. wac.colostate.edu/repository/collections/ai-text-generators-and-teaching-writing-starting-points-for-inquiry/.

Mollick, Ethan R and Lilach Mollick. "Assigning AI: Seven Approaches for Students, with Prompts." *SSRN*, 21 June 2023. DOI: [10.2139/ssrn.4475995](https://doi.org/10.2139/ssrn.4475995).

Najibi, Alex. "Racial Discrimination in Face Recognition Technology." *Science in the News*, 24 Oct 2020, sitn.hms.harvard.edu/flash/2020/racial-discrimination-in-face-recognition-technology/.

National Institutes of Health. "The Use of Generative Artificial Intelligence Technologies is Prohibited for the NIH Peer Review Process." 23 June 2023. grants.nih.gov/grants/guide/notice-files/NOT-OD-23-149.html.

Nazer, Lama H, et al. "Bias in artificial intelligence algorithms and recommendations for mitigation." *PLOS Digital Health*, vol 2, no 6, 22 June 2023. DOI: [10.1371/journal.pdig.0000278](https://doi.org/10.1371/journal.pdig.0000278).

Nicholas, Gabriel and Aliya Bhatia. *Lost in Translation: Large Language Models in Non-English Content Analysis*. Center for Democracy and Technology, May 2023. cdt.org/insights/lost-in-translation-large-language-models-in-non-english-content-analysis/.

OpenAI. "New AI classifier for indicating AI-written text." 31 Jan 2023 [20 July 2023]. openai.com/blog/new-ai-classifier-for-indicating-ai-written-text.

OpenAI. "GPT-4 Technical Report." *arXiv*, 27 March 2023. DOI: [10.48550/arXiv.2303.08774](https://doi.org/10.48550/arXiv.2303.08774).

Perkins, Mike. "Academic Integrity considerations of AI Large Language Models in the post-pandemic era: ChatGPT and beyond." *Journal of University Teaching and Learning Practice*, vol 20, no 2, 2023. DOI: [10.53761/1.20.02.07](https://doi.org/10.53761/1.20.02.07).

Poritz, Isaiah. "OpenAI Hit With First Defamation Suit Over ChatGPT Hallucination." *Bloomberg Law*, 7 June 2023. news.bloomberglaw.com/tech-and-telecom-law/openai-hit-with-first-defamation-suit-over-chatgpt-hallucination.

Russell Group. "Russell Group principles on the use of generative AI tools in education." 4 July 2023. russellgroup.ac.uk/news/new-principles-on-use-of-ai-in-education/.

Ryan, Allison M, Margaret H Gheen, and Carol Midgley. "Why Do Some Students Avoid Asking for Help?: An Examination of the Interplay Among Students' Academic Efficacy, Teachers' Social–Emotional Role, and the Classroom Goal Structure." *Journal of Educational Psychology*, vol 90, no 3, 1998, pp 528-535.

Ryan, Allison M, Paul R. Pintrich and Carol Midgley. "Avoiding Seeking Help in the Classroom: Who and Why?" *Educational Psychology Review*, vol 13, 2001, pp 93-114. DOI: [10.1023/a:1009013420053](https://doi.org/10.1023/a:1009013420053).

Sadasivan, Vinu Sankar, et al. "Can AI-Generated Text be Reliably Detected?" *arXiv*, 28 June 2023. DOI: [10.48550/arXiv.2303.11156](https://doi.org/10.48550/arXiv.2303.11156).

Saveri, Joseph and Matthew Butterick. *LLM Litigation*, 2023. lmlitigation.com/.

Schwartz, David L and Maz Rogers. " 'Inventorless' Inventions? The Constitutional Conundrum of AI-Produced Inventions." *Harvard Journal of Law and Technology*, vol 35, no 2, Spring 2022, pp 531-579. jolt.law.harvard.edu/volumes/volume-35.

Schwartz, Reva, et al. *Towards a Standard for Identifying and Managing Bias in Artificial Intelligence*. National Institute of Standards and Technology, March 2022. DOI: [10.6028/NIST.SP.1270](https://doi.org/10.6028/NIST.SP.1270).

Sheu, Hung-Bin, Shiqin Stephanie Chong, and Mary E Dawes. "The Chicken or the Egg? Testing Temporal Relations Between Academic Support, Self-Efficacy, Outcome Expectations, and Goal Progress Among College Students." *Journal of Counseling Psychology*, vol 69, no 5, 2022, pp 589-601. DOI: [10.1037/COU0000628](https://doi.org/10.1037/COU0000628).

Small, Zachary. "Black Artists Say A.I. Shows Bias, With Algorithms Erasing Their History." *The New York Times*, 4 July 2023. www.nytimes.com/2023/07/04/arts/design/black-artists-bias-ai.html.

Small, Zachary. "Sarah Silverman Sues OpenAI and Meta Over Copyright Infringement." *The New York Times*, 10 July 2023. www.nytimes.com/2023/07/10/arts/sarah-silverman-lawsuit-openai-meta.html.

Smits, Jan and Tijn Borghuis. "Generative AI and Intellectual Property Rights." In *Law and Artificial Intelligence*, T.M.C. Asser Press, 2022, pp 323–344. DOI: [10.1007/978-94-6265-523-2_17](https://doi.org/10.1007/978-94-6265-523-2_17).

Sobel, Benjamin LW. "Artificial Intelligence's Fair Use Crisis." *The Columbia Journal of Law and the Arts*, vol 41, no 1, 2018, pp 45-97. DOI: [10.7916/jla.v41i1.2036](https://doi.org/10.7916/jla.v41i1.2036).

Strowel, Alain. "ChatGPT and Generative AI Tools: Theft of Intellectual Labor?" *IIC - International Review of Intellectual Property and Competition Law*, vol 54, 2023, pp 491-494. DOI: [10.1007/s40319-023-01321-y](https://doi.org/10.1007/s40319-023-01321-y).

Thompson, Stuart A and Tiffany Hsu. "How Easy Is It to Fool A.I.-Detection Tools?" *The New York Times*, 4 July 2023. www.nytimes.com/2023/07/04/technology/how-easy-is-it-to-fool-ai-detection-tools.html.

Thorbecke, Catherine. "Google hit with lawsuit alleging it stole data from millions of users to train its AI tools." *CNN*, 12 July 2023. www.cnn.com/2023/07/11/tech/google-ai-lawsuit/.

Thorpe, Vanessa. " 'ChatGPT said I did not exist': how artists and writers are fighting back against AI." *The Guardian*, 18 March 2023. www.theguardian.com/technology/2023/mar/18/chatgpt-said-i-did-not-exist-how-artists-and-writers-are-fighting-back-against-ai.

Trust, Torrey. "Essential Considerations for Addressing the Possibility of AI-Driven Cheating, Part 2." *Faculty Focus*, 4 Aug 2023. www.facultyfocus.com/articles/teaching-with-technology-articles/essential-considerations-for-addressing-the-possibility-of-ai-driven-cheating-part-2/.

US Department of Education Office of Educational Technology. *Artificial Intelligence and the Future of Teaching and Learning: Insights and Recommendations*. Washington DC, 2023. tech.ed.gov/ai-future-of-teaching-and-learning/.

US Department of Education Student Privacy Policy Office. "What is an education record?" studentprivacy.ed.gov/faq/what-education-record.

Weber-Wulff, Debora, et al. "Testing of Detection Tools for AI-Generated Text." *arXiv*, 10 July 2023. DOI: [10.48550/arXiv.2306.15666](https://doi.org/10.48550/arXiv.2306.15666).

Weise, Karen and Cade Metz. "When AI Chatbots 'Hallucinate.'" *The New York Times*, 8 May 2023. www.nytimes.com/2023/05/01/business/ai-chatbots-hallucination.html.

Weiser, Benjamin. "Here's What Happens When Your Lawyer Uses ChatGPT." *The New York Times*, 27 May 2023. www.nytimes.com/2023/05/27/nyregion/avianca-airline-lawsuit-chatgpt.html.

White House Office of Science and Technology Policy. *Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People*. Washington D.C. October 2022. www.whitehouse.gov/ostp/ai-bill-of-rights.

Whittaker, Meredith, et al. *Disability, Bias, and AI*. AI Now Institute, ainowinstitute.org/publication/disabilitybiasai-2019.

Zamfrescu-Pereira, JD, Richmond Wong, Bjoern Hartmann, and Qian Yang. "Why Johnny Can't Prompt: How Non-AI Experts Try (and Fail) to Design LLM Prompts." *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, April 2023. DOI: [10.1145/3544548.3581388](https://doi.org/10.1145/3544548.3581388).

Zhang, Muru, et al. "How Language Model Hallucinations Can Snowball." *arXiv*, 22 May 2023. DOI: [10.48550/arXiv.2305.13534](https://doi.org/10.48550/arXiv.2305.13534).

Zhao, Ruo Chen, et al. "Can ChatGPT-like Generative Models Guarantee Factual Accuracy? On the Mistakes of New Generation Search Engines." *arXiv*, 3 March 2023. DOI: [10.48550/arXiv.2304.11076](https://doi.org/10.48550/arXiv.2304.11076).

Zhavoronkov, Alex. "Caution with AI-generated content in biomedicine." *Nature Medicine*, vol 29, no 3, 7 Feb. 2023, p 532. DOI: [10.1038/d41591-023-00014-w](https://doi.org/10.1038/d41591-023-00014-w).

Zhuo, Terry Yue, Yujin Huang, Chunyang Chen, and Zhenchang Xing. "Red teaming ChatGPT via Jailbreaking: Bias, Robustness, Reliability and Toxicity." *arXiv*, 29 May 2023. DOI: [10.48550/arXiv.2301.12867](https://doi.org/10.48550/arXiv.2301.12867).

Zirpoli, Christopher T. "Generative Artificial Intelligence and Copyright Law." Congressional Research Service, 11 May 2023, LSB10922, crsreports.congress.gov/product/pdf/LSB/LSB10922.