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Generative AI and Mentorship: Guidelines, Challenges, and Recommendations

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Mentorship is an important part of students' college experience and can be especially impactful in the selection and preparation for future careers. Mentorship in the form of academic advising and academic coaching can play a crucial role in the success and retention of a student throughout their educational experience (Alzen et al., 2021; Canaan & Mouganie, 2021; Swecker et al., 2013; Young-Jones et al., 2013). Mentorship can also influence student academic trajectories: for example, female students are more likely to pursue a STEM field if they match with a female identified science mentor (Canaan & Mouganie, 2021). Additionally, mentors can improve students' understanding of careers and confidence in the job search process (Hamilton et al., 2019), which can improve their options for professional placement after graduation. It is important to understand what kinds of practices contribute to effective mentorship because of its high potential for positive impact on undergraduate students' success.

Generative artificial intelligence (AI) is computational technology that creates content from training data (Feuerriegel et al., 2024). Previous reports have explored the wide range of applications for AI in educational and other professional spaces (e.g., Halaweh, 2023; Kasneci et al., 2023; Lo, 2023; Rahman & Watanobe, 2023; Sallam, 2023; Sok & Heng, 2023) and its now commonplace presence in university settings has impacted the lives of both faculty and students. Generative AI has presented new challenges for faculty mentors as they work to provide academic and professional guidance for their students, as they are now finding themselves simultaneously learning about this new technology while also considering its applications in education, research, and the workplace. Within this last decade, another major disruption, the COVID-19 pandemic, has taught us that providing effective mentorship requires faculty to be receptive to learning about new tools and technologies, and we have seen firsthand the importance of making ourselves capable of supporting our students as they, too, try to adapt during times of change. With the ongoing integration of AI into a variety of professional environments, faculty must continue to adapt their mentorship to ensure that it is informed by an awareness and understanding of how generative AI impacts our respective disciplines.

This manuscript has been written as a dialogue between two psychology faculty members examining the impact of generative AI on mentorship. We believe that psychology serves as a "model discipline" for other academic areas that have varied career opportunities, which may include human service work as well as scientific research. L. W. supervises graduate students in counseling psychology, which is a human service-oriented field; W.S. works with undergraduate students with interests in biological psychology, a mostly experimental field. First, we will review the recently published policies

and procedures for the use of AI, including an identification of some current applications and challenges. We will then share our recommendations for mentorship in the age of AI and will discuss how these connect with salient practices of mentorship (see Shanahan et al., 2015; Thiry and Laursen, 2011).

Generative AI Guidelines, Uses, and Challenges

The central organization in our field, the American Psychological Association (APA), recently published policies on the use of generative AI in scholarly materials ("APA Journals policy," 2023). The policy outlines three main points: (a) when generative AI is used in the drafting of a manuscript, the use of that software must be disclosed in the methods section and cited appropriately, (b) generative AI cannot be an author, and (c) generative AI is cited as software, and the methodology will include specification of "how, when, and to what extent AI was used" ("APA Journals policy," 2023). Authors are also required to include generative AI output as supplemental materials.

APA's recommendations reflect the perspectives that have been offered by other professional entities, including the Committee on Publication Ethics (COPE) and the U.S. Copyright Office, which means that these standards are not specific to psychology and can likely be applied across multiple disciplines. COPE's 2023 position statement begins by identifying that AI tools cannot be listed as an author and goes on to specify that this is specifically because the tool cannot harness responsibility for its work, nor can it enter into agreements associated with license/copyright or identify conflicts of interest ("Authorship and AI tools," 2023). It then goes on to identify that authors must communicate with transparency how and which AI tool was used not only in writing, but also in image/graph generation and in data collection/analysis. This position statement is largely coherent with APA's, offering more specificity on what might fall under what APA calls "scholarly materials" or considers to be "[use] in the drafting of a manuscript for an APA publication" ("APA Journals policy," 2023) to include text, graphical, and analytical applications of the software.

Also in 2023, the U.S. Copyright Office published a statement of policy that outlined the way generative AI factors into applications for copyright (U.S. Copyright Office, 2023). Much of this policy statement deals with the question of human authorship, with one of the major takeaways being that non-humans cannot be authors. However, the report also acknowledges there is complexity in that in certain situations, and AI-generated materials may be used in what is ultimately human-authored work. To quote from the report: "In each case, what matters is the extent to which the human had creative control over the work's expression and 'actually formed' the traditional elements of authorship" (U.S. Copyright Office, 2023, p. 16193). The report also offers guidance for copyright applicants that includes a description of an applicant's duty to identify the use of AI in their work and to also describe the human contributions.

Other publication styles used in academic settings have also created guidelines on the use of AI. The Modern Language Association of America (MLA) states that users should cite generative AI whenever incorporating AI-generated content and directly acknowledge the way it was used ("How do I", 2023), and the organization's main journal, *Publications of the Modern Language Association of America*, does not allow AI to be an author ("Submitting manuscripts to *PMLA*", n.d.). The Chicago Manual of Style (Chicago) adheres to COPE's position on authorship and requires identification of AI-generated text, including a publicly accessible link for citations in a reference list; without a public link, Chicago recommends the use of a numbered footnote or endnote, which can include the input prompt ("Citation, Documentation of Sources," 2024). The Associated Press (AP) has also published guidelines in which ChatGPT (mentioned specifically in this instance) cannot be used to create content for publication, that generative AI output be treated as an "unvetted source," and that AI should not be used to make images that might be "false depictions of reality" or to change elements of photos, videos, or audio ("Standards around generative AI", 2023).

The guidelines of these organizations identify several of the potential uses for AI in writing, editing, and creating/altering other forms of media. Extending this, we will briefly review some of the applications and challenges associated with the use of generative AI in the human service and research domains of psychology that may also be relevant to other academic areas.
The human service sector has seen many new developments regarding the use of generative AI. Xian et al. (2024) conducted a literature review on mental health publications using generative AI and identified several major uses, including detection of mental disorders and counseling assistance. Additionally, Abrams (2023) describes some uses for AI in clinical care, such as for documentation and processing data from sessions. However, the American Counseling Association (ACA) has advised caution while utilizing artificial intelligence: due to the unpredictable nature of AI, it should not be used in place of a human counselor, as AI may provide harmful recommendations for clients, specifically those in a state of crisis or emergency ("Recommendations for Client Use," n.d.). While generative AI may be used to help support counselors in managing their clients' data, it could compromise the confidentiality of protected health information (Rezaeikhonakdar, 2023). The concerns that have emerged regarding the expression of biases in generative AI (e.g., Hacker et al., 2024; Srinivasan & Uchino, 2021; Zhou et al., 2024) also raise obvious questions concerning healthcare recommendations that would emerge from the use of this technology.

Research training represents another important area for student mentorship and has been significantly impacted by the introduction of generative AI. AI can modify and even generate questionnaires (Zou et al., 2024), and can be used to process raw text inputs, which means it can extract information from questionnaires, interviews, or other types of text transcriptions (for a review of generative AI in qualitative research, see Owoahene Acheampong et al., 2024). Generative AIs can create computer code, although outcomes vary across the AI that is used and the coding language (Idrisov & Schlippe, 2024). AI introduces new means of finding and processing background literature, such as the "ScholarAI" plugin, although the outcomes of using this plugin for literature searches can be underwhelming (Schmidt & Meir, 2024). Additionally, Generative AI is also prone to making mistakes in various research-related tasks, such as generating incorrect information during literature searches and failing to complete calculations (see Supplemental Materials for specific examples).

Our review of the guidelines, uses, and challenges highlights the need for mentors and students to discuss their plans for the use of generative AI early in the research process. Table 1 presents several specific questions that we recommend for discussion prior to the start of mentored work.

Recommendations for Mentors

Having identified the current applications of generative AI, we would like to offer recommendations for how mentors might advise and educate students in the presence of this new tool, with case examples to demonstrate implementation.

Critical Examination of Generative AI Output

AI output can provide opportunities for mentors and mentees to generate and review examples of work plans while discussing important decisions related to their work. Here, we present two examples of a mentored activity that emphasizes the critical evaluation of a work plan generated by AI.

In healthcare, AI can be used for treatment planning (Mulukuntla, 2022; Sai et al., 2024), although it may not currently be capable of providing a holistic treatment plan that considers cultural factors, identity factors, and access to resources. As a case example, we used ChatGPT to develop a treatment plan for a client with symptoms of a specific anxiety disorder (see Supplemental Materials, case example #1), and then reviewed the output for discussion points that could be raised with

students. The output included short- and long-term treatment goals and objectives, intervention strategies, ways to measure progress, and identification of potential barriers to success. The output also introduced many teaching opportunities, such as emphasizing the need for specificity when describing client problems, the importance of selecting a therapeutic approach that aligns with a provider's expertise, multicultural considerations for the selection of treatment plans, and discussing the challenges that emerge during treatment.

Similarly, AI can also be used for instruction on experimental design, development, and implementation. As a case example, we provided ChatGPT with the input prompt to develop a research study examining the effects of a neurotransmitter on animal learning (see Supplemental Materials, case example #2), and similarly reviewed the output for discussion points. The output included a statement of research objectives, a hypothesis, a proposed methodology, a plan for data collection and analysis, and an identification of ethical considerations. This case also presented many teaching opportunities, such as the need for intentional choices and specificity in experimental design, the significance of different measurements and methods of statistical analysis, and ethical considerations associated with research. The plan also takes for granted important elements of experimental design that require background research and justification, such as the type of drug used, the instrumentation, and the number of animals assigned to the project.

Across these examples, we observed that the AI recommendations appear to be complete, however neither case example can serve as a final product for reasons that are easily identified by an expert. Surprisingly, the unique value of AI is that it generates examples that are flawed in ways that mentors might not typically think of, even when developing training exercises in which examples are deliberately imperfect. AI outputs create excellent opportunities for critical evaluation of third-party recommendations and emphasize the need for background information to justify decisions, as well as weighing initial ideas against potential alternatives.

We also attempted several other input prompts outside of psychology to examine opportunities to adapt this exercise across other disciplinary areas. We found that ChatGPT was able to develop a marketing strategy, outline an educational plan for a specific topic, draft a floor plan and construction timeline for a building project, and design an apparatus with assembly instructions (see Supplemental Materials for example inputs across disciplines). These findings suggest that the critical evaluation activity can be used across many academic areas.

Emphasizing Alliance Versus Over-Reliance

Generative AI should be used for assistance and collaboration, not replacement (Fui-Hoon Nah et al., 2023; Halaweh, 2023, Kasneci et al., 2023). Mentored student work involving AI should be balanced with using traditional techniques to avoid the creation of over-reliance or dependency on specific types of software and technology (see Campbell et al., 2007; Zhai et al., 2024). Academic writing is an area that is especially affected by the growth of AI, and here we present two mentored exercises, one in note taking, and the other in writing consultation, to guide the development of those skills in parallel to traditional methods.

Live note taking is a skill that students can use in a variety of mentored work settings, such as taking meeting minutes, recording information during client meetings, and maintaining a laboratory notebook. Developing note taking skills can also enhance classroom performance and help prepare students for post-graduate programs that involve academic work. Generative AI can create meeting summaries, either from annotations or text input, and Zoom Workplace now includes a "Meeting Summary" feature along with its AI Companion Features to streamline the process further ("Using Meeting Summary", 2025). However, this technology cannot be reliably used to replace a skilled human note taker for several reasons, including its vulnerability to transcription errors, inability to

censor/filter sensitive information, and circumstances in which people do not consent to the use of this technology during meetings.

To demonstrate the use of AI to create a meeting summary from a transcription, we used a combination of two generative AIs. First, we used ChatGPT to generate an artificial transcription of an investment meeting between co-workers. The meeting transcription was then edited to remove behavioral descriptors and sent to Google Gemini to create a summary of the meeting (for documentation of the inputs and outputs, see Supplemental Materials, case example #3). Finally, we examined the content of Gemini's meeting summary to determine the features of those notes and how they might function in parallel with student-generated notes. Google Gemini's output contained a succinct identification of the "key considerations", "differing perspectives", "proposed solution", and "next steps". Of all these sections, the "proposed solution" and "next steps" portions matched the typical objectives of human note taking. The "key considerations" section was redundant with pre-meeting preparation, and the "differing perspectives" section denoted no actionable items; however, it created a record of recommendations for accountability.

If this simulation had been an actual meeting, we would have asked a student to take notes in parallel to AI while the meeting occurred and reviewed the student notes alongside the AI-generated summary after discussion was complete. The "proposed solution" and "next steps" content could serve as a double check with a supervisee's notes; in fact, conflicts between human- and AI-generated notes might even create important verification checkpoints. Importantly, the parallel and nondisruptive use of AI separately from the student notes would help hone skills on identifying and verifying important meeting action items without creating a dependence on technology.

Across disciplinary lines, if the meeting content does not contain sensitive data or information, this parallel note taking activity can be applied with little need for modification from what we have recommended here. For meetings that might contain protected information, such as doctors' office visits, therapy sessions, or private client consultations, mentors should refer to disciplinary guidelines associated with the distribution and storage of sensitive information and consider the use of models that are compliant with the Health Insurance Portability and Accountability Act. Two examples of current technology used in counseling psychology are Clinical Notes AI (https://www.clinicalnotes.ai/) and Mentalyc (https://www.mentalyc.com/).

Another way that AI can be used in an alliance with writing skill development is as a structured, pre-meeting writing consultation activity for students. The purpose of this activity is to help students navigate the ethical use of AI to evaluate their work while also maintaining a clear distinction between human and AI-related contributions. Students submit their own writing for AI to review using a series of pre-determined prompts and then bring the output of those prompts to a mentor meeting for further detailed discussion.

As a case example, we asked ChatGPT to generate a low-quality, five-paragraph essay on a historical figure in psychology. We then submitted the text to Microsoft Co-Pilot to identify portions that required sources, specificity, and clarity (for input prompts, see Supplemental Materials). Importantly, none of these prompts asked for re-writes because the purpose was only to identify potentially problematic areas that deserved further attention and discussion. Co-Pilot identified 14 instances of text that required sources. We reviewed these recommendations and agreed with 8 of them; the others still warranted further discussion. Next, Co-Pilot identified 9 instances in the text that required more specificity, and 5 of these we agreed with. Lastly, Co-Pilot identified 6 general portions of the essay that required more clarity, and we agreed with one.

Altogether, approximately half of AI's recommendations overall (14 of 29) represented talking points that we agreed with and could have been used to enhance the productivity of a conversation about student writing. Although the quality of the writing input was intentionally low, output feedback was still mostly focused on larger issues rather than misspellings or word choice. This suggests that AI can be used to help students who are still developing writing skills without making that the primary focus of the consultation. Also, in each prompt, we asked the AI to specifically "say why" they identified the portion that they did. This was generally useful to identify the AI's "reasoning", and we would recommend including this to give mentors a starting point for further discussion. However, the AI feedback was not always accurate, and any specific recommendations for changes can create new risks for plagiarism. As such we recommend that students review these recommendations along with their mentors prior to implementing any AI-recommended changes into their writing projects.

In this example, we used input prompts that may be helpful for scientific writing, especially in areas that emphasize the use of background literature such as anthropology, biology, and economics. To extend this activity further, instructors can modify these prompts to create discussion points around common areas of student development in their respective disciplines: for example, consulting on topics such as argument strength, stylistic choices, and methods of capturing and maintaining your reader's attention. However, we would caution against using input prompts that recommend specific changes, since those would increase plagiarism risks.

Maintaining Transparency and Openness

The emergence of AI has created new stressors for students and faculty, but it has also opened opportunities to support students by working alongside them in a shared learning environment. Shared learning experiences can create stronger relationships that improve mentoring interactions (Curcio & Adams, 2019), and reimagining a mentor's identity from "expert" to "co-learner" mirrors the recommendations of Kram and Higgins (2009), who advocate for a shift away from traditional expert models of mentoring. This may be especially impactful for students that are struggling with their own sense of belonging in an academic discipline, and for whom the opportunity to contribute and share new knowledge with others may lead to heightened feelings of competence and confidence in their problem-solving abilities.

Student-led presentations on the capabilities of AI can help create an open, shared learning environment. These presentations can be at one-on-one meetings or in group settings, the latter of which also introduces the benefits of peer mentorship and learning from fellow students. For these presentations, students describe a challenge associated with their mentored work that can be addressed using the capabilities of generative AI, and review what tools currently exist to support this work outside of AI. Students can then show how AI can be used to address the challenge they identified, either using a prepared, documented case example or through a live demonstration. Students then present a summary of their findings, with an evaluation of how AI compares to other standard techniques for addressing the challenge, as well as the benefits and risks they see with using AI technology in this context. Following the presentation, there can be opportunities for group discussion and feedback from mentors and/or peers.

Student-led presentations can displace the typical power structure of a mentor/mentee relationship by centering discussions on student needs, interests, and creativity. We recommend including them periodically throughout a multi-week period of supervision so that these meetings can be responsive to new developments and emerging AI models. Importantly, these presentations should be a low stakes form of assessment and conducted in a setting that allows students and mentors to use their knowledge to benefit each other without the expectation of AI technology expertise on either side. This activity is especially well-suited to cross-disciplinary adaptations, since students can examine the use of AI in any way that applies to their mentored work. The presentation format itself can also

change to fit the technical training objectives and desired student learning outcomes across disciplines: for example, a mentee in business or marketing could share it as a sales pitch, a mentee in theater could present it as a performance, or a mentee in education could present it as a lesson tailored to a specific student age group.

To facilitate openness and transparency in mentoring, we also recommend the use of clear, mutually understood guidelines for what needs to be submitted if AI is used in student work. These guidelines should be written into a syllabus, grading contract, or other form of official documentation that can be reviewed, referenced, and shared with other members of the university. These guidelines should emphasize that generative AI is not unique insofar as the policies on ethics extend precedents that students may already be familiar with regarding the use of other forms of technology or software. Lastly, they should emphasize why there is a need for these guidelines (importantly, that they help protect students from plagiarism-related issues) and that mentors are learning about the technology alongside their students, so there are mutual benefits to having open lines of communication (see Supplemental Materials for an example of an AI guidelines statement written in syllabus language).

Finally, since professional recommendations are one of the most direct forms of support mentors can provide their students, it may be helpful to communicate how prospective employers and/or graduate programs may ask questions about writing, communication, and sometimes even creativity, critical thinking, and analytical abilities. In the interest of transparency, mentors should clearly emphasize when the ability to demonstrate these abilities independent of using AI is necessary to reach the highest levels of assessment.

Connections with Salient Practices of Mentorship

Prior research examining student mentorship has highlighted the importance of several key "salient" or "critical" practices (see Shanahan et al., 2015; Thiry & Laursen, 2011). Shanahan et al. (2015) specifically emphasizes ten salient practices of undergraduate research mentorship, including strategic pre-planning (salient practice #1), setting clear and well-scaffolded expectations (salient practice #2), teaching technical skills/methods/techniques (salient practice #3), balancing rigor with emotional support (salient practice #4), dedicating time to one-on-one mentoring (salient practice #6), explaining the norms of the discipline (salient practice #8), and creating opportunities for students to be mentors to other students (salient practice #9). Although these salient practices are described in the context of research mentorship, they are broadly applicable across disciplinary lines. Here, we will describe how the generative AI guidelines and recommendations we have shared present opportunities for mentors to incorporate these best practices.

In the guidelines section of this manuscript, we have summarized the policies and procedures for the use of AI across several professional organizations. Reviewing disciplinary standards for the use of AI with students represents teaching technical methods and techniques. Additionally, review of the policies and procedures gives mentors the chance to explain disciplinary norms in the context of AI-related policies, such as the responsibilities of authorship and managing professional reputations. Lastly, it allows for the clear communication of expectations regarding citing and documenting the use of AI in mentored work, as well as planning for how AI can be used throughout a mentored research project.

In the first part of our recommendations section, we reviewed how critical examination of generative AI output could be used as a developmental activity, and we found opportunities in our specific case examples for discussions about practicality, expertise, and the use of professional judgment. The clearest connection this activity has is with the salient practice of teaching methods (e.g., comparing therapeutic interventions, determining the size of a study); however, they can also present important opportunities to discuss the disciplinary norms that inform the specific decisions made at the

planning stage of professional work. Lastly, these AI-generated evaluation activities are well-suited to promoting one-on-one mentorship opportunities because they can be specifically crafted and adjusted to create learning scenarios that match students' specific interests, questions, and goals.

In the second part of our recommendations, we reviewed ways to emphasize students' alliance with AI by using parallel note taking and AI writing consultation. These recommendations follow from the first salient practice of Shanahan et al. (2015) regarding strategic pre-planning, and specifically the need to be mindful of students' developmental level when creating a teaching experience. Overreliance on AI early in the learning process can risk the underdevelopment of important skills; hence, the examples we presented both emphasized the use of AI as a separate resource that supplements student-generated content and is not implemented as a replacement for original student work. Our activities also allow for scaffolded expectations, as the use of AI can be gradually reduced alongside increases in student skill. These activities, and especially the AI writing consultation, also provide great opportunities for one-on-one mentoring because they can be used in the context of an individual student's specific work products.

In the final portion of our recommendations, we presented examples that support a culture of openness and transparency surrounding the use of AI. The first activity we proposed, in which students research and share AI applications, can touch on two of Shanahan et al.'s (2015) salient practices by creating formal opportunities for peer mentorship (if these presentations are done in a group setting) as well as a chance to teach technical skills of the discipline. We also recommend the implementation of a clear, mutually understood statement on the use of AI in mentored work and how AI use relates to professional recommendations, both of which connect with another salient practice of setting clear expectations. Lastly, the specific wording of the statements and guidelines can be constructed to balance rigor with emotional support by clearly identifying student growth and support as the main objective of these policies and embracing this as a co-learning opportunity.

Staying Informed on Generative AI

We recommend that mentors familiarize themselves with generative AI personally by experimenting with any of the popular generative AI tools, such as ChatGPT (https://chatgpt.com/), Microsoft Copilot (https://copilot.microsoft.com/), and/or Google Gemini (https://gemini.google.com/app). Interacting with this technology can help mentors develop a firsthand knowledge of the capabilities of generative AI and help contextualize other recommendations on the use of AI from academic agencies or universities, as well as student questions and requests.

Mentors might also consider looking for guidelines for the use of AI that have been released by publishers, journals, or discipline-specific organizations. Ganjavi et al. (2024) recently conducted a bibliometric analysis of top academic publishers and journals and identified which have shared guidelines on the use of generative AI, which may be of value as a reference to identify the existence of publication standards across a variety of academic areas.

Finally, mentors might also review guidelines published by other universities regarding the use of generative AI in teaching and research. Some examples include Massachusetts Institute of Technology's Sloan School of Management (https://mitsloanedtech.mit.edu/ai/), the Morris Library at Southern Illinois University (https://libguides.lib.siu.edu/ai-for-teachers), and the Michigan Institute for Data & AI in Society (https://midas.umich.edu/research/research-resources/generative-ai-hub/generative-ai-for-research-guide/user-guide/). These resources have been written for faculty audiences.

Our goal in this manuscript has been to highlight how generative AI may present new opportunities for us to learn alongside our students, and to model the very characteristics of curiosity and

openness that we hope to cultivate in our mentees. We hope that this dialogue can serve as a starting point for faculty who may already be conducting excellent work in student mentorship, and who may be looking for ways to adapt or even augment their ongoing work in ways that are responsive to this new technology.

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Table 1. *Discussion Questions for the Use of AI in Mentored Work*

General Considerations

- Will the use of AI improve the quality and/or efficiency of our work?
- What kinds of tasks might benefit from the use of AI?
    - Does AI provide unique benefits compared with other established technologies?
- How will we document the use of AI throughout our work?
    - How can we distinguish AI-related contributions from human contributions?
- What company/institutional entities (e.g., Institutional Review Board) need to be informed about our use of AI?

Publication Standards

- What are our society's guidelines (e.g., APA, MLA, Chicago, AP, etc.) on the use of AI?
- Will the use of AI create copyright issues?
- What are our potential publishers' guidelines on the use of AI?
    - Do the policies apply to content generation and/or modification?
    - Do the policies apply to text, images, audio, and/or video content?
    - How should AI be cited?

Managing Risks

- How will we protect secure/protected data when using AI?
- If there is a breach of AI-associated use protocols, what are the consequences? Who will need to be notified?
- How will we guard against potentially harmful recommendations from AI?
- How and when will we fact-check AI output for errors and mistakes?

Supplementary Materials

Example of ChatGPT Attempting to Generate a List of Articles:
https://chatgpt.com/share/71fcb99f-adb3-464c-92cd-f8ab5f0dd6b1
This provides an example of ChatGPT being used as a means of identifying articles that fall under a general theme. It also provides an example of ChatGPT generating incorrect information. All the citations contain errors, which effectively means they are identifying sources that do not technically exist. If we consider the article title to be the source that ChatGPT is attempting to identify, none of the direct quotes are contained in those specific articles. The summaries contain general information that is coherent with the content of the article abstracts but provides little value other than identifying that the articles connect with themes requested by the input request.

Example of ChatGPT Attempting to Calculate Descriptive Statistics:
https://chatgpt.com/share/12ed99ee-4083-4af5-bc89-962575b77b17
This also provides an example of ChatGPT failing to complete the requested calculation. The data provided here was checked against the Microsoft Excel formula, =(STDEV.S(50,40,20,10,60,70))/(SQRT(6)).
Excel provided the answer of 9.457507, whereas the final calculation in the ChatGPT walkthrough, 23.29/2.45, provides the answer of 9.508103.
Excel's calculations appear to be accurate, as verified by a third source: https://www.calculator.net/standard-deviation-calculator.html?numberinputs=50%2C+40%2C+20%2C+10%2C+60%2C+70%0D%0A&ctype=s&x=Calculate

Case Example #1:

- Using ChatGPT to develop a treatment plan for a client with symptoms of Generalized Anxiety Disorder.
  https://chatgpt.com/share/678948a4-b22c-8005-b3da-615a2f36b4a2

Case Example #2:

Using ChatGPT to develop a research plan for a study examining the effects of dopamine on spatial learning in rats.
https://chatgpt.com/share/67854a4b-a4e8-800b-9bdb-688dc1925607

Additional Examples of Critical Evaluation Exercises:

- Business, Marketing
  https://chatgpt.com/share/67a38ec1-c514-800b-93e3-5614b80a3ea5
- Education, Mathematics
  https://chatgpt.com/share/67a38f71-1a00-800b-ad95-22aec9675284
- Architecture, Engineering
  https://chatgpt.com/share/67a390ee-6128-800b-9a51-ffbb30442075
- Engineering, Physics
  https://chatgpt.com/share/67a38f2e-e144-800b-ac97-90989911fc7a

Case Example #3:

- An artificial meeting transcription developed using ChatGPT. https://chatgpt.com/share/67912a96-9f8c-800b-9da3-a72d060c931a

- A meeting summary of the transcription conducted by Google Gemini. https://g.co/gemini/share/acd6e905e739

Case Example #4:

- Using ChatGPT to write a low-quality student essay on Sigmund Freud. https://chatgpt.com/share/6791556b-f918-800b-8b88-c87f92667f7b

- Inputs for consultation

    - Identify claims in this text that require sources and say why they would need sources: *essay inserted here*

    - Identify portions of this essay that need more specificity, and say why: *essay inserted here*

    - Identify portions of this essay that need more clarity, and say why: *essay inserted here*

      Note: A copy of the essay has been excluded from this manuscript for space reasons but is available upon request.

Example Syllabus Language Establishing Guidelines For the Use of AI.
Generative AI ("AI", e.g., ChatGPT, Microsoft Co-Pilot, etc.) is still relatively new and fast-evolving technology. My goal for our AI policies is to help educate you on how to use AI well, both now and in the future. These policies also help me understand how AI technology works and its applications, so we can continue to communicate and learn about it together. Importantly, these guidelines will help us unify our expectations and avoid unintentional plagiarism by using AI in a way that is ethical and as a supplementary resource to student work.

AI is technology, and just like any other type of technology or software, you must plan for how and when it is to be used, especially for work that you submit for grading/assessment. If you want to use AI, you are responsible for communicating with me that you used it, as well as documenting – and if needed, reproducing – the ways you used it. Our documentation policy will help you develop the skills and planning abilities for the use of this and other forms of technology in your professional work.

If you have any questions about how to document the use of AI, set up a time for us to discuss that before you use it. Unfortunately, if you use AI for your work but do not have documentation, you may be asked to re-do your work entirely. Deceptive use of AI, or any other resource, is a violation of ethics and may result in a failing grade or a documented honor code violation. When in doubt, keep records of everything you do in a place that you'll be able to access easily. Some AI tools do this automatically, so it is sometimes a matter of using existing resources built into technology