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AI Creates the Message: Integrating AI Language Learning Models into Social Work Education and Practice

Jonathan B. Singer , Johanna Creswell Báez , and Juan A. Rios 

ChatGPT, the OpenAI language model, has been making waves in the world of technology and education. While its ability to generate human-like responses has been praised by some, others have raised concerns about its effect on social work education and the ethical considerations surrounding its use. In this editorial, we will explore the pros and cons of ChatGPT in social work education; provide recommendations for using ChatGPT in teaching, research, and practice; and suggest a possible future for social work with artificial intelligence (AI).

The title of this editorial, “AI Creates the Message,” is a reference to the past and the future. In 2014, the *Journal of Social Work Education* published an editorial called “The Medium is the Message” about the possibilities that social media held for “radical changes in [social work] education” (Robbins & Singer, 2014, p. 387). That title was itself a reference to Marshal McLuhan’s famous 1964 proclamation about the importance of understanding and thinking critically about mediums used to communicate messages, not just the messages themselves.

Today, we are at the dawn of a new era, one where technologies like ChatGPT do not just broadcast (as in Twitter) or display (as in Instagram) the messages we write, but they write the messages themselves. As an example, the first paragraph of this editorial was written by ChatGPT with the prompt, “Write a 500-word editorial arguing the pros and cons of ChatGPT in social work education, research and practice.” If you just reread the first paragraph (a reasonable thing to do) how do you feel knowing it was generated by AI? Are you excited about the possibilities or terrified by the implications? The prospects of unregulated AI prompted members of the U.S. House and Senate to talk with OpenAI’s chief executive officer, Sam Altman, 8 weeks after ChatGPT was made available to the public (Lieu, 2023). Are you wondering whether using ChatGPT’s generated content is considered plagiarism (it is not) or whether ChatGPT can be listed as a fourth author (it cannot)? Publishers have already determined that AI programs like ChatGPT cannot assume ethical responsibility for content because each person owns the output you create (OpenAI, n.d.) and publishers have already decided that programs like ChatGPT cannot be listed as an author (Sample, 2023) [Figure 1](#).

A brief primer on AI mostly not written by ChatGPT

AI is a rapidly growing field involving the simulation of human-like functions using algorithmic computing that expands the notion of person and environment (Goldkind, 2021). AI systems are designed to perform human cognitive functions, such as learning, problem solving, and pattern recognition. For example, computer algorithms have been used in customer service for decades. When you hear “this call may be recorded for training purposes,” AI is processing the words you are saying in real time, putting your call into a category, and recommending to the call representative responses that have the highest likelihood of resolving your concern (Steiner, 2013). The field of AI is diverse and encompasses a wide range of subfields, including machine learning, computer vision (facial recognition), and natural language processing (NLP). One subfield of AI that is particularly relevant to social work is NLP or “chatbots,” which involve the use of algorithms to understand, interpret, and generate human language (Asakura et al., 2020).



Figure 1. Image created by Jonathan Singer with the AI generator, Midjourney (version 4), with the prompt: "Social workers looking behind a curtain at a massive computer with lots of wires, steampunk, unreal engine, eternal space."

One example of an NLP-based AI system is ChatGPT, a language model developed by OpenAI. ChatGPT is trained on a massive dataset of text to generate human-like responses to prompts. ChatGPT was trained on data from the internet through 2021 and written by humans (OpenAI, n.d.). However, this AI model is continually being trained by those who are using the system and adjusts as it learns relationships between inputs and desired outputs to create patterns in the data. ChatGPT and similar models are designed to improve with every user input (OpenAI, 2022). The result is a rapidly evolving system that will likely be able to train itself one day [Figure 2](#).

Why should social work care?

Picture a world where social work education and practice are revolutionized by the next wave of AI technology innovation (Mintz et al., 2018). It's a world where AI offers new tools and resources for learning and practice, providing indispensable support for social workers in their mission to address society's most pressing problems (Bidwell & Báez, 2023). But with great power comes great responsibility: social workers must play a pivotal role in helping AI developers understand how these technologies can either exacerbate or alleviate existing social and structural inequities (Patton, 2020).

The Social Work Health Futures Lab has identified AI as one of the top three trends to consider, right alongside climate change and the fight for a just and equitable society (Nissen, 2021; Zaidi, 2020). The importance of technology should come as no surprise. For years, the implicit goal of the Social Work Grand Challenge, "Harness Technology for Social Good," has been to convince social workers that information and communication technologies are essential to our practice, scholarship, and education (Singer et al., 2022).



Figure 2. Image created by Jonathan Singer with the AI generator, Midjourney (version 4), with the prompt: “Social worker reading a giant book, open to pages that are made up of large and small words, unreal engine, steampunk, eternal space, circle background.”

The COVID-19 pandemic has only accelerated this trend, making it abundantly clear that we must reckon with a “technologically evolved human ecosystem” (Goldkind, 2021, p. 373). Students need real-time experience and practice with the opportunities and challenges of AI. As a generative technology, AI will integrate more seamlessly into social work than the social media described in the 2014 editorial because social work often involves analyzing large amounts of data and using an informed decision-making process. AI can help as a tool to support some of these processes and assist social workers in identifying patterns, trends, and potential solutions. Further, AI could help social workers personalize their approaches by providing more tailored recommendations. It’s time for social work educators to play a greater role in teaching, learning, developing, and researching AI technologies (Asakura et al., 2020; Dali & Caidi, 2022; Goldkind, 2021; Hodgson et al., 2022).

Some institutions have already taken the lead in this regard. The Columbia School of Social Work offers a minor in Emerging Technology, Media and Society (Patton & Cogburn, 2019), while the University of Southern California (USC) has a Center for AI in Society (USC Center for AI in Society, n.d.). Eric Rice, cofounder and director of USC’s Center for AI in Society, has coedited a guide to using AI for social good that explores approaches and ethical principles for using AI in social work practice (Tambe & Rice, 2018). And the Brown School at Washington University in St. Louis offers a postmaster’s certificate on AI (Brown School, 2021).

The bottom line is this: We believe it is unethical for social workers not to learn and teach about technology-mediated social work. With AI poised to transform the way we approach social work, we must embrace this change and work together to ensure that it is used in ways that are ethical, equitable, and socially just.

Embracing ChatGPT as a tool for faculty

The following are some examples and ideas for using AI in social work education:

- (1) **Developing or revising a syllabus.** If you are developing or revising a syllabus, consider asking ChatGPT to identify 14 topics that should be covered in a course on “X.” Then, ask ChatGPT to write a 14-week syllabus, with each week focusing on one of the topics identified, as well as identifying three peer-reviewed journal articles and one podcast episode for each week. As with all the examples, the results must be checked for accuracy.
- (2) **Creating tests, quizzes, or tailored assignments.** Faculty have limited time and resources to update and tailor educational materials. ChatGPT has unlimited time and resources to create resources for various specialized areas or subgroups, explain and provide a breakdown on the material, create scenarios of potential outcomes of designed thinking, and collectively world-build.
- (3) **Responding to a student.** If you need to craft a diplomatic e-mail to a student, but are concerned about the tone, ask ChatGPT to “write an e-mail addressing the following topics and suggest three solutions in a supportive tone.” Or, put in the student’s e-mail (removing identifying information) and ask it to respond to this e-mail in a supportive tone.
- (4) **Generating ideas.** When you are generating ideas, ChatGPT can create outlines based on informational prompts. For example, you can provide an abstract or overview and ask ChatGPT for an outline. ChatGPT can also help identify visual metaphors for different concepts you want to illustrate in your teaching (e.g., the root causes of trauma as a tree with roots and branches).
- (5) **Writing dialog.** ChatGPT excels at writing realistic dialog. For example, “Write a one paragraph story about a 13-year-old who is angry with her parents and runs away. Include dialog between the daughter and her mother in Spanish.” This prompt resulted in a realistic scenario with grammatically accurate English and Spanish [Figure 3](#).
- (6) **Using ChatGPT for research.** ChatGPT can be used for quantitative and qualitative analysis. How many times have you wracked your brain trying to think of the code for running an analysis on SAS or Statistical Package for the Social Sciences (SPSS)? ChatGPT can generate code for SAS and SPSS. Are you tired of manually converting point totals to letter grades at the end of the semester? Ask ChatGPT to write an Excel formula. If the code or formulas are not correct the first time, let ChatGPT know so that it can learn, as sometimes it takes several “chats” to produce the correct code. Qualitative researchers can also enter de-identified interview text and ask ChatGPT to identify the emotional tone of the text, summarize the main ideas, or anything else you want to know to help with theme development or analysis.
- (7) **Editing manuscripts.** ChatGPT can be asked via a prompt to update sentences or paragraphs for grammar and style. A sentence could easily be updated into the active voice or you could ask it to update the sentence to be more persuasive. We have found ourselves using ChatGPT more and more as our personal editor or to double-check the grammar and style for sentences.

Embracing ChatGPT as a tool for students

The following are some examples and ideas for using AI with social work students:

- (1) **Improving engagement and learning outcomes.** A systematic review of chatbots found improved learning and subjective satisfaction from learners. Further, as research advances on ChatGPT, we might be able to better understand the differences between students using ChatGPT in learning activities compared with traditional lecture-style methods (Kuhail et al., 2022).



Write a one paragraph story about a 13-year old who is angry with her parents and runs away. Include dialogue between the daughter and her mother in Spanish.



Maria was a 13-year old girl who had been feeling neglected by her parents lately. They were always too busy with work, and she felt like they never paid attention to her. One day, after a big argument with her mother, she decided to run away from home. She grabbed a backpack and some essentials and headed out the door, determined to show her parents just how upset she was.

As she was walking down the street, her phone rang. It was her mother, and Maria hesitated for a moment before answering. "¿Sí, mamá?" she said, her voice tense.

"Maria, ¿dónde estás?" her mother asked, her voice filled with worry.

"No estoy en casa, ¿verdad que no les importa?" Maria replied, her voice trembling with anger.

"Claro que nos importa, hija. Por favor, regresa a casa. Podemos hablar y solucionar esto juntos", her mother pleaded.

Figure 3. Screenshot of ChatGPT 3.5 prompt and partial response.

- (2) **Editing papers.** Using ChatGPT to improve grammar and flow can be particularly helpful to students who struggle with written communication and might need extra support. Although university writing centers can sometimes provide this support, it can be more efficient and time-wise effective to use ChatGPT.
- (3) **Deepening their understanding of key social work concepts.** ChatGPT can be used to augment learning in the classroom, such as providing definitions and ways to explore through chat prompts key concepts and theories in social work
- (4) **Supporting time management and study strategies.** Students can use ChatGPT to create plans for staying organized and managing stress. ChatGPT could provide a personalized chart for supporting time to study and time to relax.
- (5) **Generating project ideas.** Prompts can help assist students with literature review searches, by helping to identify gaps in the research and relevant sources.

Discussing AI in your syllabus

When integrating or restricting the use of language learning models such as ChatGPT in social work courses, it is crucial to use openness, fairness, and provide context in the course syllabi as well as talking directly with students. The syllabi should specify how the technology will be used during the course, as well as any applicable constraints. This transparency allows students to comprehend what is expected of them and facilitates clear communication between student and instructor. For instance, certain technologies may only be applicable during specific assignments or in class discussions. Providing this background can aid in ensuring that students know when they are able to access and apply ChatGPT technology. In addition,

as this technology is new and developing, instructors might need to revisit their policies on ChatGPT to adapt to the students learning or with new insights.

Many universities have issued formal guidelines to instructors on the use of ChatGPT. For example, Columbia University's Center for Teaching and Learning has provided an excellent resource with additional related linked resources, "Considerations for AI Tools in the Classroom" (Columbia Center for Teaching and Learning, n.d.). Some additional ideas to consider for your syllabus include:

- (1) Adding official language about academic integrity and address AI-assisted plagiarism to set clear expectations for students about submitting authentic and original work.
- (2) Noting when you will use AI detector services like GPTZero to check for AI-generated text.
- (3) Reviewing assignments when developing your syllabus with colleagues to ensure that they are asking for critical thinking or integration of personal experiences in a way that could not be replicated by AI.

Acknowledging the current limitations of AI in social work education

The following are some examples and ways that AI is limiting in social work education:

- (1) **Producing incorrect answers.** ChatGPT's knowledge is based on the data on which it was trained through 2021, and its responses may be limited by the range and quality of those data. ChatGPT might also misunderstand a prompt or produce biased responses that reflect the data on which it was trained. For example, on February 17, 2023, ChatGPT identified only White social workers in response to the prompt "who were the founders of the profession of social work?"
- (2) **ChatGPT is not a trained and experienced social worker.** Although ChatGPT can sound sentient at times, it is a machine that lacks the ability to understand and empathize, along with not having hands-on experience in social work. While it might be able to develop a logical and seemingly accurate treatment plan, AI language models do not have the experience to know if the treatment plan is reasonable.
- (3) **Simulated dialog.** Although students practice asking basic interview questions, the current version of ChatGPT does not allow the program to simulate a person with a disability, psychiatric illness, nor will it pretend to have engaged in unlawful acts. For example, we asked ChatGPT to pretend to have bipolar disorder. The response was, "As an AI language model, I cannot pretend to have bipolar disorder, as that would not be ethical or respectful to those who truly live with the condition. However, I can tell you what bipolar disorder is and how it can affect someone's life."
- (4) **ChatGPT could perpetuate bias and discrimination.** ChatGPT is trained on a dataset that reflects the biases and limitations of the data on which it has been trained. It is important to be aware of these limitations and address any potential biases and discriminatory effects in the use of ChatGPT.
- (5) **ChatGPT does not ensure privacy and confidentiality.** Information that is provided to ChatGPT can be reviewed by OpenAI trainers to improve their system or to ensure compliance with their policies and safety requirements. We need to be thoughtful with the information provided in our prompts to not release confidential student or client information.
- (6) **ChatGPT needs ethical consideration.** This tool is not intended to be used to promote plagiarism. In discussing ChatGPT with students, we need to frame this as a tool, not as a stand-alone text generator for academic work. We can talk with students about how to use this ethically following academic guidelines, such as updating information generated by ChatGPT with social work references and cross-checking output.

ChatGPT in social work practice: Technological justice

In his writings, author (Cyberpunk Pioneer William Gibson, 1993) famously said that “[t]he future is already here—it’s just not very evenly distributed.” This idea begs the question of whether it is ethical and just to allow ChatGPT’s powerful capabilities to be limited to only a select group of individuals in society. We believe social workers have an ethical responsibility to provide education, support, and access to those who have historically been excluded from technological advances to bridge the gap in technological justice. This is another form of cultural capital that can help to dismantle oppressive systems of socioeconomic division.

Within the first two months of public access to ChatGPT, social workers were already using the platform to address concrete social work problems. In fact, @socialworkmentor, a YouTuber, published a series of videos that demonstrated how he used ChatGPT to create treatment plans and write child welfare reports (<https://www.youtube.com/@socialworkmentor>). One of us (JR) used ChatGPT as an advocacy tool with clients to write letters to case workers for visitation changes, letters to employers requesting raises based on performance, and letters to probation officers advocating for liberties.

The future of AI in social work

The advent of ChatGPT has understandably stirred up excitement in academic, professional, and client communities, with its potential to revolutionize the way we operate. However, we must be cautious of the idea of a “tech utopia” and not assume that technology alone can solve all our problems. As noted by Leopold (2007), the notion that technology alone can resolve social problems, bring about equity, or eliminate bias is misguided. The technology is simply a tool to improve our efficiency and effectiveness, not a cure-all for practice or education issues.

The effectiveness of this tool depends on our ability to think creatively, ethically, and divergently, and how well we integrate it into our thinking. Those of us who are excited about the potentials of technology can be dismissive of social workers who are uncomfortable with technology. We can be dismissive when we assume that our colleagues’ discomfort comes from a place of not knowing or not wanting to learn. If, however, that discomfort comes from a recognition that there is some aspect of technology that seems to be inconsistent with social work knowledge, values, and skills, then we need to honor that. Although the profession of social work has historically been reluctant to embrace technology, as we progress toward an increasingly technology-driven future, it is crucial that we remain vigilant and ethical in our integration of these innovations (Hitchcock et al., 2018; Parga & Schwartz, 2023; Sage & Singer, 2022). Our profession must engage in practices that incorporate social workers into tech design spaces and tech legislative oversight to center our values of human dignity and social justice. Social workers are often tasked with responding to complex and interconnected problems at the micro, mezzo, and macro levels, which due to their difficulty or impossibility to solve are commonly referred to as “wicked problems” (Rittel & Webber, 1973). We believe that a fundamental question moving forward is, *How can social workers use language learning models such as ChatGPT to exponentially grow our collective knowledge in addressing these wicked problems?*

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No potential conflict of interest was reported by the authors.

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