



MAY 29-31, 2024

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In Conversation: HBCU and TCU Perspectives on Generative AI in **Teaching and Research**

May 31, 2024



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EXPLORING AI IN SOCIAL WORK EDUCATION: PERSPECTIVES FROM AN HBCU

Presenter: Dawn Thurman, Ph.D., LCSW-C

5/31/24

AGENDA

Study Overview Survey Demographics Current Understanding Perceptions AI Ethical considerations Challenges and Opportunities What's Next







Funded by CEAMLS at Morgan State University

One of two studies on AI and Social Work



Methodology

Cross-sectional

Mixed Methods

Participants: faculty/staff and students

STUDY OVERVIEW

STUDY OBJECTIVE(S)







Critically examine and understand the ethical implications of artificial intelligence (AI) in social work education

Enhance the pedagogical integration of AI by assessing its current use and potential impact among students, faculty, and administrators across various universities

Foster awareness and readiness for AI utilization in educational settings and professional practice



Sample profile for *AI Usage in Social Work Survey* Study (*N* = 119)

SURVEY DEMOGRAPHICS

UNDERSTANDING AI

Query Responses: How would you describe your understanding of AI and its applications in social work education?



85% have heard of AI38.26% actively use AI tools

Types of AI Tools: Chatbots, virtual simulations, writing assistance

Subgroup Responses: How would you describe your understanding of AI and its applications in social work education?



Query Responses: How do you perceive the effectiveness of AI-based tools in enhancing the learning experience for social work students?



PERCEPTION OF AI EFFECTIVENESS

Subgroup Responses: How do you perceive the effectiveness of AI-based tools in enhancing the learning experience for social work students?



ETHICAL USE OF AI

Query Responses: How confident are you in the ethical use of AI in social work education?



Main ethical concerns: bias, privacy, loss of human interaction

Subgroup Responses: How confident are you in the ethical use of AI in social work education?



ETHICAL GUIDELINES Query Responses: There should be specific ethical guidelines or regulations in place for the use of AI in social work education.



Total Sample *N* =119

Subgroup Responses: There should be specific ethical guidelines or regulations in place for the use of AI in social work education.



CHALLENGES & OPPORTUNITIES

CHALLENGES

For Students

- Accessibility: Students unfamiliar with technology may find it challenging to engage with AI tools, leading to a potential learning curve.
- Data, Privacy and Security: Safeguarding sensitive client information is vital, and using AI tools may present risks if not properly secured.
- Depersonalization of Interaction: Overreliance on AI for communications and feedback might lead to a lack of personalized human interaction, affecting the learning process.
- Ethical Dilemmas and Bias: Al algorithms might unintentionally reinforce existing biases, affecting the fairness and ethical grounding of decisions

For Faculty

- Lack of Technical Expertise: Instructors might face resistance or discomfort in adopting new technology, requiring training and ongoing support.
- Ensuring that AI doesn't replace but supplements human judgment is critical, especially in complex or sensitive situations
- Ethical Considerations: Ensuring the ethical use of AI requires understanding potential biases and implications in different social contexts.
- Curriculum Development: Difficulty in designing a curriculum that balances AI knowledge with core social work values.

OPPORTUNITIES

For Students:

- Enhanced Learning Experience: Personalized learning materials, tutoring, and simulations.
- Accessibility Support: Create accessible content and tools for students with disabilities.
- Efficient Feedback and Assessment: Automated grading and instant feedback enable consistent and timely evaluations.
- Skill Development and Practice: Simulation and role-play using AI can provide safe environments for practicing critical fieldwork skills.
- Research Assistance: Brainstorming ideas, content curation, and information retrieval.

For Faculty:

- Enhanced Learning Experience: Use of virtual simulations and AI-driven case studies for practical training.
- Administrative Efficiency: Al can automate administrative tasks (I.e., student assessment and feedback processes).
- Ethics Training Support: Development of ethical dilemma scenarios and guided discussions can enhance ethics training.
- Professional Development and Continuous Learning: Access to up-to-date research and best practices through Al-powered content curation.



- Leveraging survey data outcomes to develop a structured AI training program for faculty and an awareness campaign for students
- Aim to enhance the integration of AI tools into social work education ethically and pedagogically
- Disseminate findings through publication in academic journals and presentations at educational conferences
- Long-term implications include offering a framework for ethically integrating AI in social work education
- Submission of a new affiliated project: Implementing AI in Social Work Education: Developing Training Modules for Social Work Educators and Students

RESEARCHERS & STAFF



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Generative AI and ChatGPT: the good, the bad, the ugly What faculty need to know!

Dr. Michele Rozga, Dr. Ashley Haines, Dr. Samuel Olatunbosun

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What is our position on AI use in higher ed?



What is AI?

- Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems.
- Specific applications of AI include expert systems, natural language processing, speech recognition and machine vision.

Source: <u>https://www.techtarget.com/searchenterpriseai/definition/AI-Artificial-Intelligence</u>

• Two main types of AI: Targeted (traditional) & Generative

Targeted AI vs. Generative AI

Targeted:

- Specialized, created by specialists for a task
- "A target function, in machine learning, is a method for solving a problem that an AI algorithm parses its training data to find." (https://www.techtarget.com/whatis/definition/target-function).

• Example

May 04 2023

"WASHINGTON – U.S. Sen. Mark R. Warner (D-VA) today announced \$1,820,000 for Virginia universities to research and develop AI capabilities to mitigate cyberattacks. Federal funding will allow the University of Virginia and Norfolk State University to study innovative AI-based approaches to cybersecurity." (https://www.warner.senate.gov/public/index.cfm/pressreleases?ID=4DB0B243-B733 -4F0D-A4B5-E43A01761372)

Generative:

- Un-specialized, trains on large data sets
- "Generative AI models use neural networks to identify the patterns and structures within existing data to generate new and original content*." [*new combination averaged/ compiled across its data]
- Generative AI enables users to quickly generate new content based on a variety of inputs. Inputs and outputs to these models can include text, images, sounds, animation, 3D models, or other types of data". (https://www.nvidia.com/en-us/glossary/data-science/generative-ai/)

• Example

User Input: "ChatGPT, you just wrote me an essay about the 9 Muses but you did not cite your sources. Did you know that"?

ChatGPT Response: " I apologize for the oversight. As an AI language model, I strive to provide accurate informative responses to users, and I understand the importance of citing sources...the information I provided about the Nine Muses is widely available in many different sources, including books, articles, and online resources. However, in the interest of transparency and accuracy, it is always best to cite specific sources..."

What is ChatGPT?

- ChatGPT is an artificial intelligence (AI) chatbot developed by OpenAI and released in November 2022.
- A chatbot is a computer program designed to simulate conversation with human users, especially over the internet. "chatbots often treat conversations like they're a game of tennis: talk, reply, talk, reply"; GPT stands for generative pre-trained transformer.
- Has garnered attention for its detailed responses and articulate answers across many domains of knowledge.
- Its propensity to confidently provide factually incorrect responses has been identified as a significant drawback.

ChatGPT



Examples

Capabilities

"Explain quantum computing in simple terms" → Remembers what user said earlier in the conversation

Limitations

May occasionally generate incorrect information

"Got any creative ideas for a 10 year old's birthday?" → Allows user to provide follow-up corrections May occasionally produce harmful instructions or biased content

"How do I make an HTTP request in Javascript?" → Trained to decline inappropriate requests

Limited knowledge of world and events after 2021



Let's try it out!

- Access ChatGPT using the QR code or at <u>https://chat.openai.com/</u>
- Create a login
- Paste in a prompt from a paper or other open book assignment, or enter a math or chemistry problem
- Really don't want to create an account? Paste your prompt in the chat.

Discussion

- What's your reaction?
- What surprised you?
- What encourages you?
- What worries you?
- Next, what might you do differently?

Potential Issues for Generative AI

- Results depend on the data used to train the system
- Results come from an "undocumented Black Box" ability of user to apply results accurately and ethically depends on prior knowledge of the user
- Created content in the results not attributed to the creator or creators
- We could be facing some long-term cognitive and social issues, akin to problems with social media
 - Well-researched information exists on attention spans, cognitive capabilities, and so on; article in Nature on how even using GPS reduces our "spatial memory" (https://www.nature.com/articles/s41598-020-62877-0)

Generative AI - Potential Negative Issues for Student Writers...replacing themselves with AI results can cause

1. Structural harm to student writing

• No source documentation, no sentences created by writer, no thought development in conjunction with choosing words, phrases, and connections

and

2. Harm to the learning process

• No reading completed or choices made; no information literacy in understanding, finding, and choosing appropriate sources, and so on

Generative AI - Potential Positive Issues for Student Learners

- The system can be introduced to students so that they can be ethically and civically involved in our society's AI changes and develop their voices based on facts and contexts that involve everyone
- Facts can be sought from Generative AI, and then compared to a textbook as a form of critical thinking and discussion
- Al's lack of sourcing capability can be used to teach information literacy and the importance of the particulars of the history of knowledge
- Closed-ended questions that do not shut off student thought can be posed, much like a Google search, such as "What are some ways I can organize a research paper?"

How do we respond to this new technology?

- Address the issue of AI use directly with students and/or in syllabi
- Use controlled testing environments
- Flip classrooms so writing takes place in class
- Choose assignment formats that are creative and for which AI tools are not easily applicable
- Focus on multimedia or oral format assignments
- Create assignments based on novel, student-driven research
- Create assignments that focus on student experiences and student interest
- Convince students that they have a voice and that their opinions are valued.

Example Syllabus Statements

• Academic Integrity & Honor Code: Academic integrity and honesty are central components of a student's education, and ethical conduct should be maintained. Under the University's Student Code of Conduct, students have the responsibility to uphold the principles of academic integrity in all their academic work. Forms or violations of this academic integrity policy include, but are not limited to, cheating, plagiarism, falsification, using CHAT GPT, RYTR, or any other AI content generator that replaces you as the content-creator, multiple submissions, using works from another class assignment without instructor's permission, attempting or assisting another classmate with a graded assignment without instructor's permission, etc. Penalties for violating an academic integrity issue can include a grade penalty up to and including a failing grade for the course.

Princeton: We encourage faculty to be explicit about their AI/ChatGPT policy in their syllabus, on Canvas, and during class. We offer two sample syllabus statements below:

- 1. Intellectual honesty is vital to an academic community and for my fair evaluation of your work. All work submitted in this course must be your own, completed in accordance with the **University's academic regulations.** You may not engage in unauthorized collaboration or make use of ChatGPT or other AI composition software.
- 2. Students must obtain permission from me before using AI composition software (like ChatGPT) for any assignments in this course. Using these tools without my permission puts your academic integrity at risk.

AI detector examples

- <u>https://gptzero.me/</u>
- <u>https://copyleaks.com/ai-content-detector</u>
- <u>https://www.zerogpt.com/</u>
- BUT, they are imperfect, and so far, AI generated essays are easy to spot because they "sound" so much different from the student's voices...

Other Resources & Info

- Supiano, Becky. <u>"Will ChatGPT Change How Professors Assess Learning?"</u> Chronicle of Higher Education, 5 Apr 2023.
- Zumbrun, Josh. "ChatGPT Needs Some Help With Math Assignments." Wall Street Journal, 10 Feb 2023.
- Kenney, Josh. <u>"10 Ways to Use ChatGPT in Your Classroom."</u> Chem Ed Exchange, 2 Mar 2023.
- Fergus, Suzanne. "Evaluating Academic Answers Generated Using ChatGPT." Journal of Chemical Education, 31 Mar 2023.
- Podcast: <u>"What Biden's Top AI Thinker Concluded We Should Do."</u> The Ezra Klein Show, 11 Apr 2023.
- Prakah, Prarthana. "The Godfather of A.I.' just quit Google." Fortune, 1 May 2023.
- Bogost, Ian. "ChatGPT Is Dumber Than You Think." The Atlantic, 7 Dec. 2022.
- Grobe, Christopher. "Why I'm Not Scared of ChatGPT." Chronicle of Higher Education, 18 Jan. 2023.
- McMurtie, Beth. "AI and the Future of Undergraduate Writing." Chronicle of Higher Education, 13 Dec. 2022.
- McMurtie, Beth. "Will ChatGPT Change the Way You Teach?" Chronicle of Higher Education, 5 Jan. 2023.
- Marche, Stephen. "The College Essay is Dead," The Atlantic, 6 Dec. 2022.
- Shane, Snow. "AI Writing is the Opposite of Thought Leadership," Forbes, 5 May. 2023.

ChatGPT Post Workshop Survey



https://forms.office.com/r/HSwCD6i9q4

We need your insights!

Please take a few moments to take this survey about AI and HBCUs





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We need your insights!

Please take a few moments to take this survey about AI benefits





We need your insights!

Please take a few moments to take this larger survey about AI









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