

# Beat the Cheat!

## Resources for Preventing and Detecting Misuse of AI and Plagiarism in Graduate Nursing Education

### 2024 Conference of the National Organization of Nurse Practitioner Faculties

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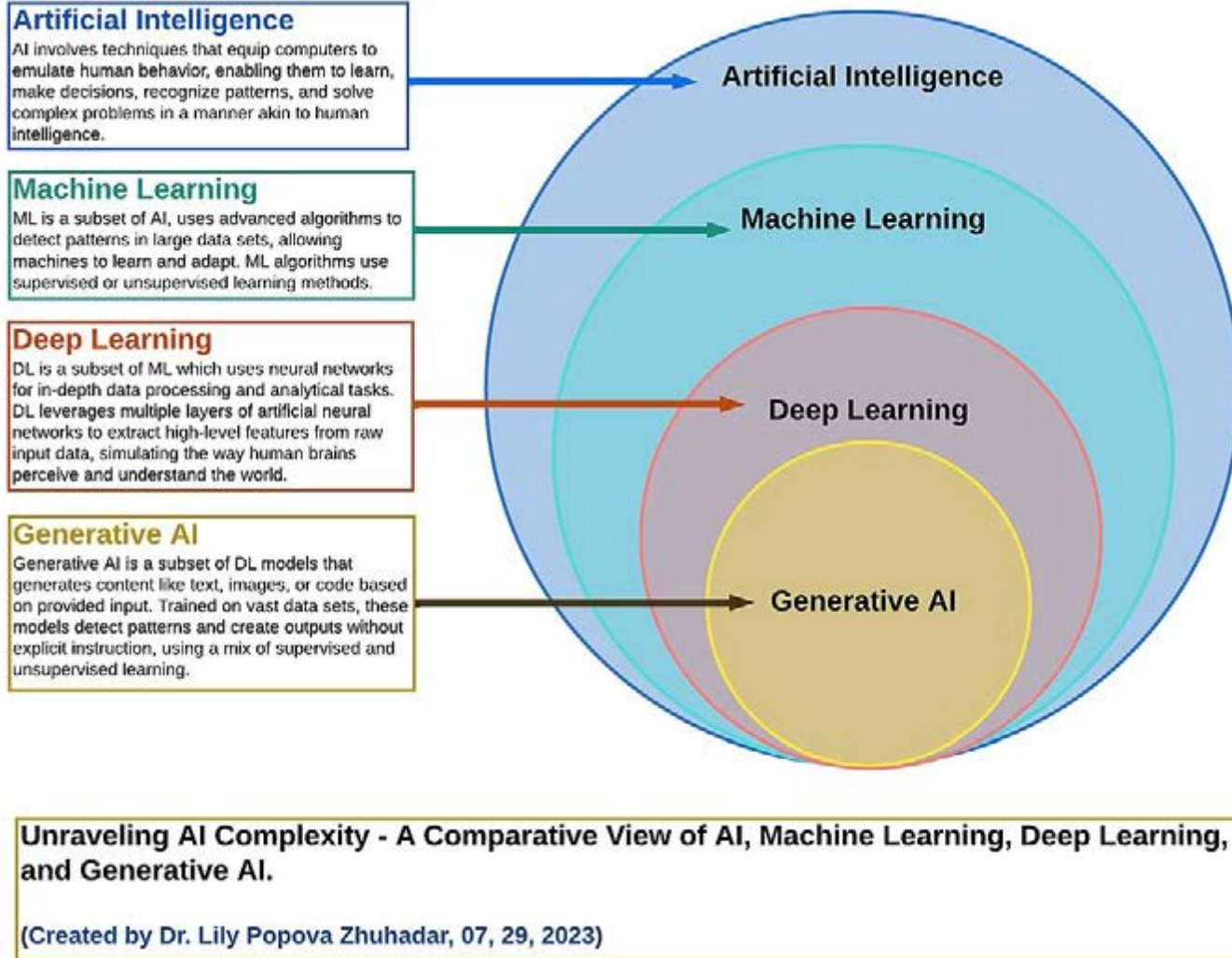
Orlando, Florida



# Disclosures

- This nursing continuing professional development activity was approved by Maryland Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.
- Participants will be awarded contact hours after they have attended all registered sessions and completed the corresponding evaluation forms.
- The presenters have no conflicts of interest to declare.

# What is Artificial Intelligence?



- Note. From *Unraveling AI Complexity - A Comparative View of AI, Machine Learning, Deep Learning, and Generative AI* [Figure], by L. Popova Zhuhadar, 2023, Wikimedia Commons ([https://commons.wikimedia.org/wiki/File:Unraveling\\_AI\\_Complexity\\_-\\_A\\_Comparative\\_View\\_of\\_AI,\\_Machine\\_Learning,\\_Deep\\_Learning,\\_and\\_Generative\\_AI.jpg](https://commons.wikimedia.org/wiki/File:Unraveling_AI_Complexity_-_A_Comparative_View_of_AI,_Machine_Learning,_Deep_Learning,_and_Generative_AI.jpg)). CC BY-SA 4.0.

# Introduction

- AI does have the potential to enhance nursing education(Glauberman et al., 2023):
  - Can enhance the development of learners' clinical judgement.
    - This application of AI is already in use in clinical practice, allowing NPs to provide more timely and appropriate interventions informed by AI-generated predictions and clinical care suggestions.
  - Providing individualized tutoring for learners:
    - Allow nurse educators' capacity to adapt lessons to specific learning needs.
    - For example:
      - AI tutors could assist learners through simulated patient interviews
      - Provide instantaneous feedback on assignments such as drafting succinct clinical documentation.



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Reference: Glauberman G, Ito-Fujita A, Katz S, Callahan J. Artificial Intelligence in Nursing Education: Opportunities and Challenges. Hawaii J Health Soc Welf. 2023 Dec;82(12):302-305.

PMID: 38093763; PMCID: PMC10713739.

# Introduction

- AI does have the potential to enhance nursing education (Gluaberman et al., 2023):
  - Simulation and Virtual Reality:
    - AI has the potential to supercharge simulations that are hyper-realistic and tailored to learners' individual learning deficits.
    - AI-enhanced robots can interact with learners in ways that are more clinically representative than current modalities, such as through use of high-fidelity mannequins.
    - AI is also being integrated into virtual reality and augmented reality to develop immersive virtual simulation experiences:
      - Simulation of clinical environments that are difficult to access in the “real-world.”
      - Simulation scenarios might include emergency and critical care practice, where AGACNP learners could practice skills that might otherwise be hard to reproduce in traditional education settings.



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Reference: Gluaberman G, Ito-Fujita A, Katz S, Callahan J. Artificial Intelligence in Nursing Education: Opportunities and Challenges. Hawaii J Health Soc Welf. 2023 Dec;82(12):302-305. PMID: 38093763; PMCID: PMC10713739.

# Introduction

- The emergence of artificial intelligence (AI) has also introduced a new threat to academic scrupulousness that has provided new means of generating inauthentic coursework.
- Often, graduate learners are misinformed about proper provision of references or lack the knowledge on how to implement standardization of formatting for written assignments.
- Plagiarism, incorrect use of paraphrasing, and misunderstanding about use of referencing remain a salient issue in graduate NP education.
- Other times, learners may actively choose to misuse AI or commit plagiarism out of convenience, wanton attitudes towards graduate coursework, or in search of a time-saving measure.
- These actions can have drastic and negative consequences for learners, ranging from assignment failure to programmatic dismissal.



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# Artificial Intelligence Resources

## Article

- Harvard Online: [The benefits and limitations of generative AI: Harvard experts answer your questions](#)

## Position Statements and Other Guidelines

- American Nurses Association: [The Ethical Use of Artificial Intelligence in Nursing Practice](#)
- U.S. Copyright Office: [Copyright and Artificial Intelligence](#)
- Online Manuscript [ChatGPT Assignments to Use in Your Classroom Today](#) (Page 55)
- Journal Policies (JAMA, NEJM, etc.)

# Generative AI Tool Examples

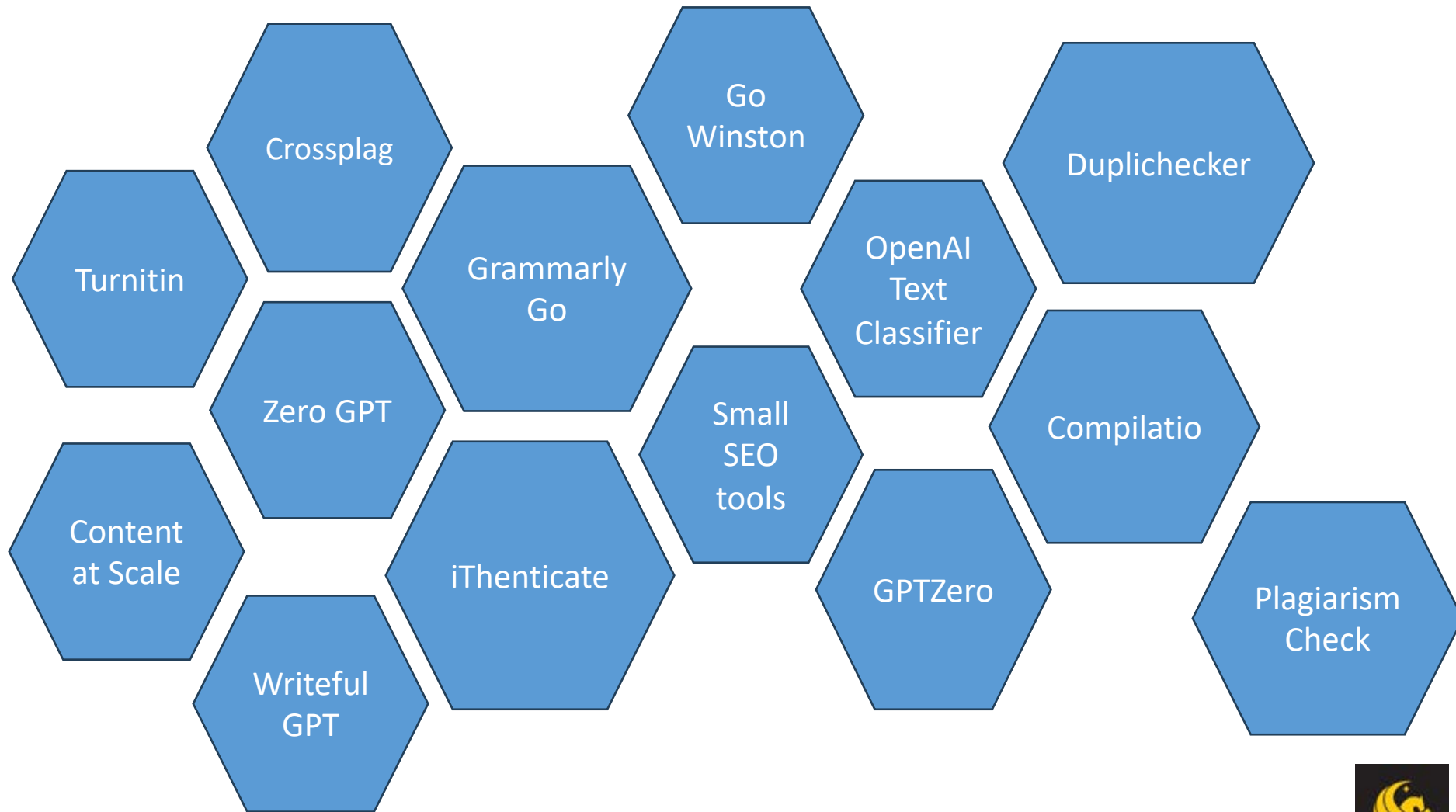
- Chat GPT 3.5 (Open AI)
- GPT-4 (Open AI)
- Gemini [formerly known as Bard] (Google)
- Co-pilot (Microsoft Bing)
- Grammarly Go



*Note.* Adapted from *Clear mannequin on blue background* [Photograph], by T. Winstead, 2021, Pexels (<https://www.pexels.com/photo/clear-mannequin-on-blue-background-8386364/>). Pexels license.



# Generative AI Detection Tool Examples



# Generative AI Detection Variation

Tools vary by:

- Availability
- Cost
- Number of characters processed
- Accuracy
- Labeling
- Output

# Selected Generative AI Detection Tool Studies

Anil, A., Saravanan, A., Singh, S., Shamim, M. A., Tiwari, K., Lal, H., Seshatri, S., Gomaz, S. B., Karat, T. P., Dwivedi, P., Varthya, S. B., Kaur, R. J., Satapathy, P., Padhi, B. K., Gaidhane, S., Patil, M., Khatib, M. N., Barboza, J. J., & Sah, R. (2023). Are paid tools worth the cost? A prospective cross-over study to find the right tool for plagiarism detection. *Heliyon*, 9(9), e19194. <https://doi.org/10.1016/j.heliyon.2023.e19194>

Elkhatat, A. M., Elsaid, K., & Almeer, S. (2023). Evaluating the efficacy of AI content detection tools in differentiating between human and AI-generated text. *International Journal for Educational Integrity*, 19(1), 1-16. <https://doi.org/10.1007/s40979-023-00140-5>

Odri, G.A., & Ji Yun Yoon, D. (2023). Detecting generative artificial intelligence in scientific articles: Evasion techniques and implications for scientific integrity. *Orthopaedics & Traumatology, Surgery & Research: OTSR*, 109(8), 103706. <https://doi.org/10.1016/j.otsr.2023.103706>

Weber-Wulff, D., Anohina-Naumeca, A., Bjelobaba, S., Foltýnek, T., Guerrero-Dib, J., Popoola, O., Šigut, P., & Waddington, L. (2023). Testing of detection tools for AI-generated text. *International Journal for Educational Integrity*, 19(1), 1–39. <https://doi.org/10.1007/s40979-023-00146-z>

# Generative AI Detection Tool Studies

Citation	# of AI Detection Tools tested	Methods	Findings
<a href="#">Weber-Wulff et al., 2023</a>	n=14	Test the ability of tools to distinguish between AI-generated, human-generated, non-English translated and modified texts	Accuracy varied by tool and type of text studied.
<a href="#">Anil et al., 2023</a>	n=4	One hundred manuscripts generated by AI tools in different subject categories	Detection of plagiarism varied by tool type (paid vs. free)
<a href="#">Odri &amp; Joon 2023</a>	n=11	GPT-4 generated synopsis of four websites on the topic of AI detection evasion and applied various modifications to the text before submitting to the AI detection tools.	Majority of AI detection tools studied determined that the passage was human , mostly human generated, or low AI %
<a href="#">Elkhatat et al., 2023</a>	n=5	Chat GPT 3.5 and Chat GPT 4 created paragraphs and human generated paragraphs	Results differed by Generative AI version, Human control detection variation

# Poll: Clues that a paper was created by generative AI



Go to:

<https://app.sli.do/event/uxRiEvA43uFt7M8tM9voDt>

Voting code is **2999184**

# APA Plagiarism Resources

- [Plagiarism](#) (American Psychological Association [APA], n.d.-a)
- [How to cite ChatGPT](#) (APA, n.d.-b)
- [Avoiding Plagiarism Guide](#) (APA, n.d.-c)
- [Classroom or Intranet Sources](#) (APA, n.d.-d)



# Paraphrasing Case Study– PI

- Original Article Block Quote [CC BY 4.0](#) (Thompson & McNamara, 2021):
  - APNs, nurses and other healthcare professionals need to be aware of how language can build particular identities and must learn to counter language-in-use that prevents the role from developing and reaching its full potential to enhance patient outcomes and patients' experience of health care.
- Example Text: Patchwriting or not?
  - Advanced Nurse practitioners and other clinicians must be cognizant of how language can foster specific identities. They need to learn to oppose language-in-use that inhibits the role's potential to increase patient outcomes and health care experiences (Thompson & McNamara, 2021).

# Paraphrasing Case Study– PI

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  - APNs, nurses and other healthcare professionals need to be aware of how language can build particular identities and must learn to counter language-in-use that prevents the role from developing and reaching its full potential to enhance patient outcomes and patients' experience of health care.
- Test Case
  - Advanced Nurse practitioners and other clinicians must be cognizant of how language can foster specific identities. They need to learn to oppose language-in-use that inhibits the role's potential to increase patient outcomes and health care experiences.



Let's consult the apps!

# Paraphrasing Tips

- Close source and brainstorm ways to paraphrase, then write
- Writing Center
- Consult primary sources
- Other tips?



# Plagiarism Checkers

- Bethel College Libraries: [Plagiarism: Free plagiarism checkers\\*](#)
- Turnitin
- Turnitin Draft Coach
- Ithenticate
- Grammarly
- Plagiarisma
- Others?
  
- \*Note: Some resources require a subscription and it's unclear if they access the same set of articles as and papers as Turnitin



# Higher Education Policies

- Moorhouse, B. L., Yeo, M. A., & Wan, Y. (2023). Generative AI tools and assessment: Guidelines of the world's top-ranking universities. *Computers and Education Open*, 5, 100151.  
<https://doi.org/10.1016/j.caeo.2023.100151>

# Poll: Does your nursing program have an AI use policy?

- A) Yes, we have one in place
- B) In process
- C) No, we do not have one
- D) Unsure



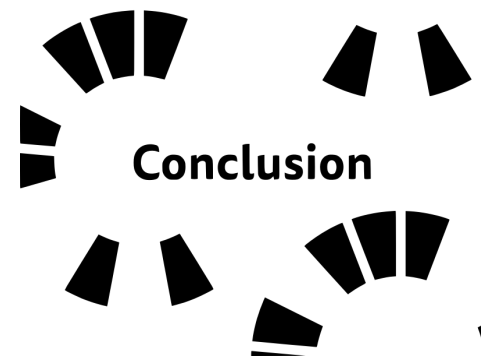
Go to:

<https://app.sli.do/event/pd3emZNsER2YjVQbn3FGGEY>

Voting code is **598027**

# Conclusion

- AI has the potential to greatly enhance NP education in the future
- Unfortunately, inappropriate misuse of AI can threaten authenticity and quality of formative and summative evaluation of learner competency, knowledge, and critical thinking
- Plagiarism also remains a major issue for NP educators
- Learners need to be equipped with the tools necessary to implement AI correctly
- Effective tools exist to detect learners' incongruous use of AI and plagiarism in the academic setting
  - Some of those tools are effective and well-developed.
  - Some of those tools, especially those to detect AI, are in earlier stages of development and may not offer strong detection or application capability



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