Dept of Business Information & Analytics
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How will ChatGPT affect data analysis instruction?

Kellie Keeling, University of Denver

DASI: Brown Bag, April 13, 2023

- **Using "ChatGPT" as a Learning Resource**
- **Accepting the Charge Require more Critical Thinking**

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Using "ChatGPT" as a Learning Resource

- Specifically have conversations with students about how they can use these tools and it not be detrimental to their learning
- Reducing cognitive load = useful
  - Remembering the syntax to merge data tables in Python
- Skipping problem solving/logic = less useful
  - Tasks that require more metacognition such as determining the problem solving approach to a new problem/situation

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Using "ChatGPT" as a Learning Resource

Policies related to ChatGPT and other AI Tools – Joel Gladd

"As we learn with AI platforms, there are two principles we use to guide our class policy on AI use:

1. **Cognitive dimension:** Working with AI should not reduce your ability to think clearly. We will practice using AI to facilitate—rather than hinder—learning.
2. **Ethical dimension:** Students using AI should be transparent about their use and make sure it aligns with academic integrity."

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Sample Syllabus Statements from Languages Dept

"In general, you should not use any outside resources without permission from your instructor. They will help you learn about how to use these responsibly; typically, online dictionaries such as WordReference.com are acceptable, while translators (e.g. Google Translate), AI (e.g. ChatGPT), or seeking help from more advanced Spanish speakers other than those in the CWLC's tutoring program will be considered plagiarism. Offending students will be reported per university policy."

"*ASSISTANCE: Some students have difficulty deciding what constitutes "help" and what constitutes "cheating."*

- *Asking a friend for assistance with a particularly difficult point, discussing an assignment together after you have completed it, using online aids, can all constitute legitimate assistance under proper circumstances and unless the instructor has indicated otherwise.*
- *Working on individual assignments together, sharing answers, asking friends (or online tools) to complete assignments for you, using on-line instant translators to write compositions, constitutes cheating."*

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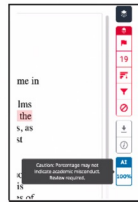
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Cautions: Turnitin AI Check

DU's Office of Teaching & Learning Instructional Designer (Kellie Ferguson) used ChatGPT prompt to give a summary of Nicolas Cage's work. She added several sentences and changed the language in several places.

Turnitin

- Turnitin now has an AI writing detection tool built into their Similarity Reports
  - Turnitin may have false positives. Always review the assignment and the report yourself before jumping to conclusions!

How much of this submission has been generated by AI? ⓘ

100%

of qualifying text in this submission has been determined to be generated by AI.

How do we detect AI-generated writing?

To learn more about Turnitin's AI writing detection model and how works, please visit our AI writing detection page.

Educator resources for AI writing

- Find strategies for approaching AI-generated text in the classroom.
- Minimize potential AI misuse with our AI misuse rubric to rev existing writing prompts for AI vulnerability, and our AI misus checklist to review options to proactively respond to potential AI

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Using "ChatGPT" as a Learning Resource

Students may be expected to use similar tools in their work so we should prepare them

We can focus on helping them to create better ChatGPT prompts

- **I'm an AI-prompt engineer. Here are 3 ways to use ChatGPT to get the best results.**

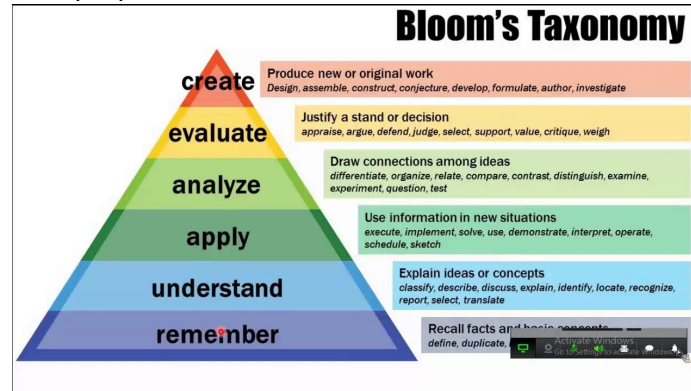- **11 Tips to Take Your ChatGPT Prompts to the Next Level**

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Accepting the Charge Require more Critical Thinking

Assume in the workplace more "junior" jobs – web page creation, blog writing, coding might be replaced by "Googling" or "ChatGPTing" – how do we prepare our students?

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Accepting the Charge Require more Critical Thinking

- Have more formative (lower stacks, shorter) assessments throughout class so you can gauge what they know and also discourage "shortcuts"

- Ask students to create their own answer and then compare to ChatGPT's answer

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Resources (From DU OTL)

- DU OTL (Office of Teaching and Learning) Resources
  - Blog: "Chat GPT, Friend or Foe in the Classroom?
  - Blog: "Chat GPT and being a student: What could possible go wrong?"
  - Blog: "Getting Proactive with ChatGPT and Other AI Tools"
  - Sample Syllabus Statements: AI Tools in the Classroom
  - Course Policies Related to Chat GPT and Other AI Tools (Dr. Joel Gladd)
- Liquid Margins 38: The Rise of ChatGPT and How to Work With and Around It
- Turnitin Resources for Academic Integrity in the Age of AI Writing
- Zotero Library for Chat GPT
- 10 Ways GPT-4 is Impressive but Still Flawed (NY Times article)
- Commentary: OpenAI's GPT-4 has some limitations that are fixable — and some that are not (GeekWire)

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Questions

- How can students use thest tools to be beneficial and not detrimental to their education?
  - Do you think the limitations could be overcome so that AI could be a tutor?
- What possibilities/concerns do you see regarding the use of AI in teaching and learning?
  - Where/When should we use vs Not Use
- How are the possibilities/concerns different inside and outside of academia?

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