

# SPARKING STUDENTS' CURIOSITY AS AN ANTIDOTE TO ACADEMIC CHEATING AND PLAGIARISM IN THE ERA OF ARTIFICIAL INTELLIGENCE.

Dr. Giancarlo Ianulardo, University of Exeter (UK)

Prof. Aldo Stella, University of Perugia (IT)

ChatGPT New Challenges & Threats

What to pay attention to when marking exam papers

Little-Think vs Big-Think: critical thinking in economics

An example

Integrity as collective endeavour



OUTLINE

# CHATGPT NEW CHALLENGES FOR ACADEMIC INTEGRITY

- ▶ Maybe **useful** for teaching (for Economics see Cowen & Tabarrok 2023; Geerling et al. 2023) but
- ▶ Poses some **threats** to Academic Integrity (Cotton et al. 2023; Uzun 2023; Kasneci et al. 2023; Eke 2023; Sullivan et al. (2023) review debate):  
**Plagiarism, Fabrication, Misrepresentation, Contract Cheating**
- ▶ Traditional Turnitin is ineffective
- ▶ Online assessments/dissertations are affected more

## DETECTION TOOLS

- ▶ Turnitin for AI
- ▶ ChatGPT Zero
- ▶ **Problems:** Compliance with GDPR and actual effectiveness
- ▶ Most Universities has **NOT** yet approved the use of AI detection tools and these should therefore not be used.
- ▶ Any 'evidence' obtained from one of these tools would **NOT** be admissible as part of an Academic Conduct investigation.

# WHAT TO PAY ATTENTION TO WHEN MARKING EXAM PAPERS: A NON- EXHAUSTIVE LIST

1. Reference List (or absence thereof);
2. Use of definitions and repetition thereof;
3. Frequent change of tenses at short distance (present, past, future);
4. Some inconsistent sentences or expressions, e.g., sentences with no ending, or expressions completely out of context;
5. Unfounded claims, e.g., “the above findings show”;
6. Lack of connections among different parts of the essay, or even section/paragraph;
7. Citations may lack page numbers, or they may appear in the text, but not in Reference List;
8. False claims

► Three proposals:

1. **AI is banned** - no use of AI allowed, where use is suspected, it will be referred.
2. **AI is permitted**, but must be used carefully and the AI source must be referenced as per any other source - fabricated references etc will be referred
3. **AI is incorporated into the assessment design and use of AI is expected.**

# CURRENT DEBATE AND WAY AHEAD



# COLANDER AND SIEGFRIED (2022): BIG THINK & LITTLE THINK

- *“Critical thinkers are curious. They do not accept claims at face value. They ask many “how” and “why” questions; they possess the virtues of intellectual integrity, humility, civility, and a sense of justice”.*
- **Little Think:** tools, models, methods that economists find useful in understanding some aspects of economics. (Inside the box – Reproductive knowledge)
- **Big Think:** grounded in the methodology of philosophy/humanities rather than science; no empirical test but relies on reflection and “instinctive feelings”. (Outside the box – Reflective thought)

## OVERCOMING THE DIVIDE: BIG-THINK IN LITTLE-THINK

- “In order to “think critically,” one must have an attitude toward inquiry that is open-minded, honest, and accepting conclusions only if they are derived from unbiased evidence” (p. 73)
- **They claim: Objective – deductive – Evidence Based**
- **To the contrary,** we claim that **objectivity is the ideal** not the factual starting point; deductive is still “inside the box”; Evidence depends on the methods of inquiry
- Science is contextual (Kuhn, Hanson etc.) and students should be trained to grasp the limits of validity of models, methods, tools and ... their own statements!



# EXAMPLE: HOW TO STIMULATE CRITICAL THINKING

- **Q: Why McCloskey's explanation of the Great Enrichment did not materialise in the XVIII century?**
- **ChatGPT:** Timing and Context; Institutional Factors; Technological limitations; Global Context and colonialism
- All were discussed at length and discarded by McCloskey as determinants of the GE. ChatGPT makes no reference to the lack of "rhetoric", liberty, ideals of dignity and equality among all men etc.
- When asked, ChatGPT produced fake evidence, nuanced response and an ... invitation to consult "range of sources and scholarly perspectives will help develop a comprehensive understanding of the topic"

# HUMAN VS ARTIFICIAL INTELLIGENCE

- AI cannot reflect on itself (Goldman 2023), it cannot grasp its own limits. It cannot think “outside the box”, precisely because it is programmed according to some rules and algorithms that it is programmed to follow.
- It can organise existing information according to a prescribed language. It is thus important that students, by being exposed to it, can grasp the specificity of human intelligence (nous) as opposed to computational intelligence (dianoia).
- By dialoguing with the machine, they can grasp the limits of the machine, but also their own limits and be prepared to tackle the challenges of a future dominated by AI.
- But this calls into question also lecturers when designing ILOs, tasks, types of assessments, questions

# INTEGRITY AS A COLLECTIVE ENDEAVOUR

- **Students** should seek the value of education through a reflection on what education is for them (e-ducere: taking out)
- **Lecturers** should ask themselves what they are aiming for, what the purpose of their activity is, what they want students to get out of the module. They will achieve a self-understanding of themselves as educators
- The **institution** at a collective level should question itself: what is its aim (instructing students on technical, practical and utilitarian matters) or educating it promoting reflective and critical students? If so, the Institution as well will acquire a better self-understanding.

- ▶ It allows a reflections on the structure of language, how rules of formation and transformation are obtained
- ▶ It allows to grasp the difference between thought and reasoning: critical and reflective thinking vs computational thinking
- ▶ Students can evaluate the difference between the text produced by ChatGPT and their inputs (prompts)

## INTEGRATING CHATGPT AS A DRIVER FOR CRITICAL THINKING

Thank You for Listening!

ANY QUESTION?



- ▶ Christensen Hughes, J. M. & D. L. McCabe (2006) Understanding Academic Misconduct. *Canadian Journal of Higher Education*, 36(1), 49-63.
- ▶ Cowen, T. & A. Tabarrok (2023). How to learn and teach economics with Large Language Models, including GPT. George Mason WP 23-18, pp. 1-39.
- ▶ Cotton, D.R.E, P.A. Cotton and J. R. Shipway (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*, <https://doi.org/10.1080/14703297.2023.2190148>
- ▶ Drake, C.A. (1941). Why students cheat. *The Journal of Higher Education*. 12 (8), 418-420.
- ▶ Eke, D.O. (2023). ChatGPT and the rise of generative AI: Threat to academic integrity? *Journal of Responsible Technology*, 13, (forthcoming). <https://doi.org/10.1016/j.jrt.2023.100060>
- ▶ Geerling, Q., G. D. Mateer, J. Wooten and N. Damodaran (2023). ChatGPT has Aced the Test of Understanding in College Economics: Now What? *The American Economist*, pp. 1-13.
- ▶ Goldman, D. P. (2023). Why AI can't think. *Law & Liberty*. May 30, 2023. <https://lawliberty.org/why-ai-cant-think/>

## REFERENCES

- ▶ Harte, Khaleel, (2023). Keep calm and carry on: ChatGPT doesn't change a thing for academic integrity. *Times Higher Education*. <https://www.timeshighereducation.com/campus/keep-calm-and-carry-chatgpt-doesnt-change-thing-academic-integrity>
- ▶ Kasneci et al. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103 (forthcoming).
- ▶ Rettinger, D. A. and B. Gallant, Eds. (2022). *Cheating Academic Integrity. Lessons from 30 years of research*. Jossey-Bass and Wiley.
- ▶ Siegfried, J. & D. Colander (2022). What does critical thinking mean in teaching economics?: The big and the little of it. *The Journal of economic education*, 53, 1, 71-84.
- ▶ Sullivan, M., A. Kelly and P. McLaughlan (2023). ChatGPT in higher education: Considerations for academic integrity and student learning. *Journal of Applied Learning & Teaching*, 6 (1), (forthcoming). <https://doi.org/10.37074/jalt.2023.6.1.17>
- ▶ Uzun, L. (2023). ChatGPT and Academic Integrity Concerns: Detecting Artificial Intelligence Generated Content. *Language Education & Technology (LET Journal)*, 3(1), 45-54.
- ▶ Vv. Aa. (1999). *The Fundamental Values of Academic Integrity*. The Centre for Academic Integrity. Duke University.
- ▶ Vv. Aa. (2018). *The Fundamental Values of Academic Integrity*. International Center for Academic Integrity. Duke University. [https://academicintegrity.org/images/pdfs/20019\\_ICAI-Fundamental-Values\\_R12.pdf](https://academicintegrity.org/images/pdfs/20019_ICAI-Fundamental-Values_R12.pdf)

## REFERENCES (CONT.D)