

# ARTIFICIAL INTELLIGENCE LED THREATS TO ACADEMIC INTEGRITY

Thomas Lancaster<sup>1</sup>

<sup>1</sup>Imperial College London, United Kingdom

### Abstract

The academic integrity community often focuses its attention on the threat of contract cheating (Clarke and Lancaster, 2006), where a student can pay or use a third party to have original academic work produced for them for assessment. By contract cheating, a student is bypassing learning and stands to gain academic credit that they do not deserve.

Recent years have seen the world embrace the power of artificial intelligence, even though this is often considered as something of a black box by the general population, including many educators. There are automated tools out there which will generate written content (and more) for a variety of tasks, ranging from blog content, to sales copy, to social media posts, to essays and assignments. Lancaster (2022) has identified these as a major challenge to academic integrity.

The power of the systems available today extend far beyond the essay spinning and paraphrasing tools explored elsewhere in the literature.

A quote relating to how contract cheating providers will embrace robotic writing software is telling:

*“Premium content services are emerging that enable you to write essays for other people, but don't require that you deliver them yourself. They rely on AI to deliver completed*

*assignments or texts that are as good as or better than human writers. As these AI technologies mature, they will spawn a new business model in which writers, editors and proofreading companies compete against one another for custom content assignments.”*

The quoted text represents one vision of where the contract cheating industry is heading, but this isn't a quote in the traditional sense as it has been generated using an automated writing service, which has also checked this using its own internal systems that suggest this writing is plagiarism free. Now, due to the way in which much artificial intelligence based writing software works, there are likely to be similar ideas expressed online that use different forms of phrasing, but the whole quote is telling. Indeed, it is very probable that current writers for contract cheating firms are using automated writing software to speed up their production of essays and assignments and to increase their revenue.

This session will provide a case study based introduction to the artificial intelligence based tools available to students to assist with their assessments, which is intended to appeal to delegates without a specialist computing background. The focus will be on tools operating in the English language. The session is intended to help those attending to be aware of where the assessment landscape is heading

and to help them to consider how to work with technologies like the ones being explored in the future.

The outline plan for content for the session (and potential accompanying written chapter) is as follows:

- An introduction to automated writing tools and the bigger picture in which they operate, including their real-world commercial applications
- A small amount of technical detail into GPT-3 and other technologies that form the basis for automated writing, enabling attendees to understand some of the magic inside the “black box”
- Case studies of some of the tools available for automatic writing and the type of output they produce, showing that they can provide support for a variety of assessment types
- The extension of artificial intelligence-based generation techniques to assessment types other than simple written exercises, such as literature reviews and computer programming

- The current early status of work to detect text that has been automatically generated
- The implications of this technology for future assessment and how this relates more widely to the future of the contract cheating industry

This will be a largely practical and case study-based session, but some appropriate academic sources will be included as background. This is a fast-moving field, so the session content is subject to updates.

As the session will show, most current automated writing software will not produce perfect essays out of the box, but technology is improving all the time and there are Computer Scientists working on this problem, perhaps unaware of the unintended consequences for student assessment. Contract cheating became a massive threat for education precisely because this was not widely talked about from an early point. The intention of sharing this information with attendees early is to try and avoid a similar threat developing from artificial intelligence-based writing systems.

## References

Clarke, R., & Lancaster, T. (2006). Eliminating the successor to plagiarism? Identifying the usage of contract cheating sites. *Proceedings of 2nd International Plagiarism Conference*. Northumbria Learning Press.

Lancaster (2022). The past and future of contract cheating. In Rettinger, D. & Bertram Gallant, T. (Eds.). *Cheating Academic Integrity – Lessons from 30 Years of Research*. Wiley.