

## Open Access Commentary-Rapid Review

# The Unique Role of ChatGPT in Closing the Awarding Gap

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**Abstract:** In the United Kingdom, there is a target to reduce the higher education awarding gap by 2031. This awarding gap refers to the educational achievement (measured by the proportionate awarding of first and upper-second classifications) between groups of students on the basis of - among other characteristics - their ethnicity, socio-economic status, and gender. The introduction of the popular artificial intelligence powered chatbot, ChatGPT, presents a unique opportunity for academics to work alongside their students to help close this awarding gap. Discussed in the context of potentially nefarious means by which ChatGPT might be used to cheat the academic system, this commentary highlights contemporary international discussions of how ChatGPT might be used positively to help students better understand complex topics and apply their understanding to alterative fields of study and employment. Though limitations exist, such as the need to both discuss the wider ethical implications of its use as well as better understand the corpus from which said knowledge is derived, this commentary acts as a 'call-to-action' for academic working parties to empirically test the efficacy of ChatGPT as a means of closing the awarding gap.

**Keywords**: ChatGPT, Pedagogy, Awarding Gap, Artificial Intelligence, Large Language Model.

#### Introduction

On the 30<sup>th</sup> of November 2022, San Francisco-based tech company OpenAI released ChatGPT, a large language model in the form of an artificial intelligence (AI) powered chatbot. Released on a free-to-use basis during a feedback period, ChatGPT became available to everyone and amassed over one million users within a single week (Vallance, 2022). Through mimicking the statistical patterns of language trained via a database of text collated from the Internet, ChatGPT creates intelligent, convincing, and well-structured responses to user prompts (Stokel-Walker, 2023). Such prompts can be revised through re-phrasing and clarification until the output matches the desires of the user. In practice, such follow-up questions enable the user to modulate the focus (e.g., "Re-write this with the focus on student outcomes"), the length (e.g., "Expand the output to 300 words"), and the perspective of the output (e.g., "Re-write this from the perspective of an associate professor with over a decade of experience in higher education provision in the UK").

Owing to this immediate and mainstream impact, academic discourse has already begun to raise concerns about the potentially nefarious role of ChatGPT within higher education as well as broader ethical implications of its use. Indeed, Stokel-Walker (2022) posits that needing to increase awareness of the use of ChatGPT for the creation of essays will only add to the existing pressures of workload, underpayment, and the need to publish that academics face on a daily basis. Though readers may have reservations about the efficacy of AI-generated essays, ChatGPT has already been used to generate abstracts of fake papers that have passed academic scrutiny (Blanco-Gonzalez et al., 2022) as well as a response to a university assignment (writing a letter to a relative giving advice regarding online security and privacy) set by Professor Dan Gillmor of Arizona State University (USA) who suggested that the output contained factual and wellwritten material that he would have given a "good grade" (Hern, 2022, para. 5). Though ChatGPT is not impervious to making mistakes, Professor Sandra Wachter of the University of Oxford (UK) summarises such concerns about academic integrity by stating "If we're now in a situation where the experts are not able to determine what's true or not, we lose the middleman that we desperately need to guide us through complicated topics" (Else, 2023, para. 2).

Of comfort to most academics, the concept of essays mills (i.e., paying for a third party to construct an essay on your behalf) is not new, and so this is not an issue which has not been overcome before (Stokel-Walker, 2022). Moreover, ChatGPT is prone to making factual and/or referencing mistakes (Criddle & Staton, 2022; Godijn & Have, 2023) and is neither currently able to access information post-2021 or information which is stored behind an academic paywall. Thus, students submitting essays using such technology should theoretically be easily detected, or at least receive

lower grades. However, the core position of universities currently is to safeguard against the use of AI to generate essays through both detection (i.e., further development of the plagiarism detection software Turnitin; Chechitelli, 2023) and designing assignments which navigate the capabilities of the ChatGPT software, such as narrated posters, podcasts, and exams (Criddle & Staton, 2022). Of interest, this latter point has also featured in recent discussions of how to close the awarding gap in (higher) education (Adebisi et al., 2022).

The awarding gap refers to the disparity in achieving 'good' degree outcomes (i.e., a first or upper-second-class degree classification) between groups of students based on characteristics such as ethnicity, socioeconomic status, and gender (AdvanceHE, 2020). Such gaps not only have implications for student attainment, but act as a barrier for said students gaining graduate-level employment, which in turn might contribute further to working environments, practices, and policies that only consider the white lens (Dobbs & Nicholson, 2022; Khattab, 2018). Regarding disparities pertaining to race, specifically, there exists a target to close the gap between white and black students by 2024-25, and to eliminate structural factors which might contribute to this in their entirety by 2031 (OfS, 2018). However, despite students from minority ethnic backgrounds accounting for approximately 25% of university students in the UK, there still existed an awarding gap of 23.4% in 2019, even after accounting for students' prior attainment (AdvanceHE, 2020). Despite calls to arms being published to advise fellow academics of how to begin to close the awarding gap through self-evaluations, mindful feedback, and the co-creation of material alongside students from minority ethnic backgrounds (Fido & Wallace, 2022; Ratcliff et al., 2016), there remains substantial work to be completed in this field. One such piece of work coming out of the UK (Wong et al., 2021) described interviews with 69 university students as to their perceptions and understandings of the awarding gap, wherein five core outcomes were discussed. These included the need to [1] provide greater economic support for minority ethnic students, [2] establish institutional commitments to challenge and eradicate all forms of racism, [3] increase representation of minority ethnic staff and students to improve the sense of belonging, [4] diversify the curriculum, and [5] be proactive to eliminate or reduce structural barriers. As such, it is clear that pedagogical reform is necessary to help close the awarding gap.

Despite current academic focus being on the potentially negative uses of the client, ChatGPT might provide one such novel means of closing the awarding gap. Yorio (2023) highlights a variety of ways that ChatGPT can be used in academic settings from both student and staff perspectives, including composing a professional e-mail to colleagues, identifying literature on core topics, and recommending books based on previously established reading lists. Moreover, Yorio (2023) posits that with careful development, ChatGPT might be used to generate databases of information that can be used to help support peers or working groups, and which might

later underpin the formation of book clubs; thus, heightening socialisation and integration of students and staff.

Moreover, Fido and Harper (2023) continue this discourse with specific reference to the awarding gap by hypothesising three distinct mechanisms by which students might be prompted to use AI technologies such as ChatGPT to benefit their studies. First, to overcome any reluctancy to seek clarifications out of fear of potential stigmatisation from their wider cohort (see McGillicuddy, 2021), students might ask the software to explain a complex concept from a different perspective (e.g., "from the perspective of a head of a charity working in [sector x], how might you define [concept y] and present it to your main stakeholders?"). This technique might also be used by academics to develop more accessible examples of the poignant points they are trying to present, as well as indicate the importance of such theories or concepts to different fields of study and areas of employment. One might even follow up this question with a prompt to compare and contrast the different definitions and perspectives to help develop skills in critical evaluation; a core feature of the critical thinking workshops set out in Simonovic et al. (2022). Second, students might use ChatGPT to both test their understanding of a given theory (e.g., "The following is my understanding of [theory x; 'user entered text'] – are there any key aspects that I have misunderstood or could develop further?") as well as test out the efficacy of the application of that understanding to a new area (e.g., "Using this understanding, how might [theory x] be applied to [sector y] and what might the barriers to successful implementation be?"). Specifically, this can help students to discuss the application of their theoretical knowledge to various sectors wherein they might be subject to interview; thus, helping to overcome institutional barriers to gaining graduate-level employment (Khattab, 2018). And third, feeding competing essay plans into ChatGPT, and asking the chatbot to compare and contrast the various essay structures to help identify the most efficient means of structuring reports without having to spend valuable time completely redrafting work afterwards. Speed and time saving, being a core benefit of ChatGPT (Shea, 2023). This utility is of particular importance owing to the movement in higher education discussed within Fido & Harper (2023). which sees academics structuring their assignments in a way that allows multiple ways to succeed (e.g., "Using a stakeholder of your choice, discuss the application of [theory x]"). Though well-meaning to allow for specific curation of ones' degree, this approach may inadvertently disadvantage students by introducing uncertainty around how to best approach or structure an assignment.

Taken together, despite caution being made around the over-reliance of such utilities impacting on the creative development of students and the general public alike (Criddle & Staton, 2022), ChatGPT might better be looked upon as a tool used by academics and students to brainstorm ideas, generate code, and aid in the production of assessment papers and research outcomes (Hutson, 2022). Of course, though it would be remiss to ignore

the likely potential that the online corpus from which ChatGPT derives comprises of a white and Westernised narrative (see Kanjere, 2019), this software shows early promise to helping reduce the awarding gap by the 2031 target (OfS, 2018). What is required next, is the formation of cross-institutional working parties to develop academically-focused ChatGPT workshops and training materials, and to empirically test and evaluate their utility in reducing the awarding gap.

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