AI in creative education: opportunities and challenges for assessment

This article reviews current academic literature on Artificial Intelligence (AI), and use of Generative Artificial Intelligence (GenAI) in higher education, to investigate its impact on assessment in creative subjects. It looks at secondary research and explores ways that GenAI is proposed, or already incorporated, in current creative education and assessment initiatives. The review examines literature on critical thinking and human intelligence and considers how GenAI tools can be explored and supported by learning theories. The aim was to analyse and investigate practical ways that this research can be applied to assessment and learning design, particularly for international students and creative business courses. The findings indicate a need to support AI literacy, communicate policy updates transparently, and review assessment to encourage critical thinking in order to create authentic assessments.

Introduction and definitions

The impact of AI tools is being felt across business, society, and education (Farah and Ambrose, 2023; Roose, 2021; QAA 2023a). The purpose of this article was to explore the impact of AI tools on creative disciplines in higher education in order to consider the consequences for international students. I also wanted to rethink and support methods of assessment and assignments for creative subjects, especially for the creative business courses that I teach.

There are many definitions of AI. in 2006, the Oxford Dictionary defined AI as "the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages" (Oxford Dictionary of Phrase and Fable, 2006). But as AI technology has developed, so has the definition, and in 2023 UNESCO stated that "there is common agreement that machines based on AI … are potentially capable of imitating or even exceeding human cognitive capacities, including sensing, language interaction, reasoning and analysis, problem solving, and even creativity." (UNESCO IESALC, 2023:7).

Summary of literature review

Following the widespread public access to ChatGPT in the academic year 2022-3, many articles and advice have been published. The current article does not attempt to provide a comprehensive review but, in the time available, I reviewed some secondary sources, including current advice on AI tools in education including from Gov.UK, the UK Quality Assurance Agency (QAA, 2023a; QAA 2023b) and UNESCO (2023). I have also looked at articles from the current higher education debate and creative industry trend sources (Compton, 2023; Cormier, 2023; Illingworth, 2023; Learning 2023; Nerantzi et al., 2023; Rocca 2023a). I also looked at some older texts (Roose, 2021; Bates et al., 2020), as the latter included useful information on assessment and evaluation in terms of profiling and prediction and the challenges, ethics, and future questions of AI implications for HE. However, it is important to note that some of these were written prior to the widespread public access of ChatGPT. My focus in this article is exploring the impact of GenAI tools such as Chat GPT and Google Bard (also referred to as LLMS, or Large Language Models) on students' assignments.

Opportunities and challenges

"There is no doubt that AI brings significant change to education. As with any other technology, it extends and enhances human abilities and may be used both in a positive and a negative way" (Foltynek et al., 2023: 3-4)

I started to read "Future Proof" (Roose, 2021) last year whilst teaching a project on digital futures. I am interested in trends and evidence to support the promotion and value of creative thinking, creative skills, and critical thinking, which this book explored. Informed by this, I began my research into GenAI tools and the impact of this technology on creative education. Roose explores how different careers have been automated and how this trend accelerated in the pandemic. He highlights how many of our daily actions and interactions are supported by AI and observes the already transformative effect of AI on society and business. Roose shares examples of the positive and negative AI impacts that can occur in business and society, particularly if unmonitored, and discusses the limits of AI.

This book, however, also emphasises the positive business and social examples, and opportunities highlighted by GenAI to strengthen our creativity, critical thinking and develop our individuality – what he calls our "uniquely human skills" (Roose, 2021: xxv). Noting that the most sought-after career skills are the hard to automate skills, like creativity, mindfulness, and collaboration, (ibid,194), Roose argues that we all can develop these skills and points out that already skills such as "analog ethics" (Roose, 2021: 176-7 and 194) are being taught at New York University as a critical skill of the future.

Roose's insights led me to explore ways in which education and learning design can support both the critical use of GenAI tools and develop these human intelligence skills. In

a <u>LinkedIn Live discussion, Dr. Sean McMinn</u>, Director of the Hong Kong University for Science and Technology, again emphasised the importance of "keeping human" and proposed useful options for assessment in creating design thinking assessment and group tasks. The discussion also highlighted the importance of students developing their critical awareness of GenAI and offered some useful ideas around assessment, scaffolding tasks, the role of learning design and the importance of supporting the power of AI literacy for learners going into the workplace.

Supporting academic integrity in assessment

Highlighting the rapid development of AI tools and importance of the impact of AI tools in education, the Quality Assurance Agency (QAA) have published three updates in 2023 related to AI tools. The initial briefing paper (QAA, 2023c) published in January provided clear actions to support integrity in assessment, protect standards and inform practice. These included communicating with students about the limitations of AI tools, the risks of bias and inappropriate referencing, and the subsequent risks of students undermining their own qualification.

Practices to promote academic integrity include stressing the importance of students building key skills in "critical thinking, evaluating evidence and academic integrity", and the risks associated with the "uncritical use of AI tools" QAA (2023c:2). The QAA guidance also highlights the role of educational providers in explaining the value of academic integrity, and signposting students towards guidance and support with good academic practice. Providers should aim to actively engage students with this advice and guidance, highlight updates in policy development, and promote community responsibility for maintaining academic integrity.

The second paper published in May 2023 (QAA, 2023a) provided updated advice, highlighting the rise of AI software and the potential risks for academic integrity. The QAA acknowledged that since writing the initial paper, both AI technology and the debate around the use of AI in academic practice had evolved. The guidance again highlighted the issues with plagiarism detection (Webb, 2023), and the need to develop institutional policies to support AI literacy.

The QAA advise that providers adopt a supportive and sensitive approach in such a fast-changing environment and address initial breaches of academic integrity with relevant student support. However, they also note that if a student persists in demonstrating poor academic practice through use of AI tools, they should be referred to the misconduct process. The QAA (2023b:7) emphasise that academic misconduct is unacceptable, and that responsibility for the integrity of the submission lies with the student. Their suggestions also included updating student declarations, policies and practices in academic misconduct, and emphasising the need to" partner with students and build trust in assessment processes that are co-created, iterative and supportive of critical thinking" QAA (2023c:2).

Policy implications

The QAA research indicates the need to be agile as GenAI technology advances in both its ability to produce text outputs but also visual artefacts, which is significant to creative practice education. Their research highlighted how LLMS are now being integrated into word processing and other software tools. This has led to "hybrid submissions" (QAA, 2023a: 2) where AI tools are used to "generate ideas or to refine the final submission by correcting grammar/spelling" or reduce word count. In response to the varied approaches from providers, the paper then encourages reflection on the Academic Integrity Charter UK HE (QAA, 2020). This document includes a section on managing the assessment of students in the academic year 2022-23 during which the rapid advancement and accessibility of AI tools occurred.

These QAA reports are predominantly intended to reassure providers and help them explore future policies. The findings highlight the value of having clear institutional policies, agile policy review, and regular updates on the inappropriate use of AI tools and academic misconduct. The QAA encourages communication with students to set expectations regarding the use of AI tools and to include information at induction and refresher support in digital literacy. Doing so will empower students as they enter employment as they will be more familiar with AI tools and will also understand their ethical use and their limitations.

Developing AI literacy

With regard to planning the 2023-24 academic year, The QAA advise providers to develop. an institution-wide strategy in AI literacy to cultivate "an ability to know how to use artificial intelligence tools, when it is appropriate to do so, and how to critique the credibility and accuracy of their output" (QAA (2023a: 5). This led me to research discussions on ethics, definitions, and practical suggestions on AI literacy (Bali, 2023; Caines, 2023).

To support new and returning students and build their confidence, the following were suggested: accentuating the positive, explaining the rules of engagement, equality, accessibility and ensuring support for international students. The literature noted that a community-wide effort is required to develop AI literacy for students and in others (QAA, 2023a: 5).

The UK Department of Education (DoE) also notes that while "generative AI tools are good at quickly analysing, structuring, and writing text or turning text prompts into audio, video and images", the content they produce "is not always accurate or appropriate as it has limited regard for truth and can output biased information" nor "cannot replace the judgement and deep subject knowledge of a human expert." (DoE, 2023:4). This again supports the need to help students develop their critical thinking skills.

Equity, accessibility, and data protection

The literature also highlighted issues specifically relevant to international students on accessibility to technology and the varied global social and regulatory responses to GenAI tools. Learners will have a diverse experience of these tools which implies support is required, especially for those studying abroad for a UK award. The impact and concern of equity and accessibility for students raised here was also noted in other reports released at this time (UNESCO IESALC, 2023; DoE, 2023), along with the need to change approaches to assessment in the long-term QAA (2023a:1).

The DoE confirms students should be supported in their use of AI and reminded of the limitations. Their report acknowledges that the education sector needs to prepare the students to work safely and appropriately in changing workplaces and with emerging technologies. This includes understanding the limitations, reliability, and potential bias of GenAI (DoE, 2023), concerns which were also noted by Zhou and Schofield (2023). Their paper stresses that steps need to be taken to prevent malpractice including introducing data privacy implications and protection, such as not putting personal and sensitive data into AI tools, be mindful of cyber security protect students against harmful content.

Reconsidering assessment

Many academic institutions are beginning to identifying the current opportunities in assessment and assignment tasks (Cormier, 2023; MMU, 2023; Nerantzi et al., 2023; Pirrone, 2023; QAA, 2023b). Cormier highlights how the release of ChatGPT on 30th November 2022 has made it increasingly easy for students to evade the intent of assessments in HE. Taking a neutral position regarding the student decision to use such tools, Cormier highlights how the tracking tools used to identify issues of academic integrity also had time consuming, ethical, and unreliable limitations.

He emphasises the value in developing a robust assessment strategy to focus on student engagement and trust and suggests ways of adapting the syllabus. These include teaching less and having iterative assignments such as pitch and process writing, peer reviews to support students to invest in their work, lowering the stakes of assessment and reviewing the total work hours required to complete assessments. Practical suggestions include doing more assessed work in class, reducing the length of assignments, changing the format of submissions, and encouraging decision making using "ill-structured problems' (see Spiro et. al., 1991). Ideas that might seem more controversial and need more coordination to incorporate included un-grading, contract grading, effort-based grading, and assignment integration.

I found Cormier's article provided a useful exploration of practical alternatives to support learning and assessment, as it introduced me to many new research articles on grading and assessment. This supports my research into alternative forms of assessment that encourage motivation and genuine engagement and highlights how making assessments more realistic for the learner can reduce the temptation to reach for AI.

In their paper on the ethical use of AI in education, Foltynek et al. (2023) offered suggestions including involving students in writing their own assignments, developing ethical writing skills, clearly defining rules when AI can be used, and if it is used to find ways of transparently acknowledging this.

The QAA's review of assessment suggests reducing the volume of assessment by removing elements susceptible to misuse of AI tools, shifting to assessment of synthesised knowledge (which may permit some use of AI), and developing a range of 'authentic assessments'. This could include a "synoptic element" where students "apply their knowledge and competencies in workplace-related settings" QAA (2023b:2).

A different response is to adopt more 'authentic' approaches to assessment (Illingworth, 2032; McArthur, 2023). MMU (2023) identifies opportunities to use more active learning and assessment which creates assessment material that AI platforms are less able to create. Examples include posters, debates, exhibition, event organisation, written reports (that require specific authentic elements), reflective writing and portfolio assessment, pitching, vivas, blogging, podcasting, and documentary filmmaking.

The MMU literature also highlights the value of assessing the process rather than the product. This involves asking students to produce reflections on doing and experiencing something, focusing assessment on activities undertaken in class to make them very context specific. As MMU note, "reflections on lived experience set tasks that require specific information that is not readily available" (MMU, 2023). Reflective practice is already used in many creative education disciplines. (Orr, Richmond and Richmond, 2010).

Bryant-Aird (2023) point out how portfolio-based assessment offers another way to "design assessments that utilise research skills, new technologies, fact-checking and critical thinking, delivered through alternative means including vivas and presentations". The author observes how portfolio-based assessments are often a better way of preparing students for the realities of the workplace. As portfolio assessment practice is already used and supported in many creative education disciplines, this provides another practical response to the effects of GenAI on assessment.

Conclusion

This review has highlighted the use, opportunities, and ongoing challenges of the AI tools in the Higher Education sector. Key themes emerging from the literature included the need for students and staff to develop AI literacy, and the need for universities to ensure academic integrity. This requires transparent communication regarding changes in policy, and clear acknowledgement. of the security risks, inequality, and bias that AI tools can produce. In response to the growing use of AI by students, institutions should take an audit of current assessment practices and explore if and how to support the transparent use of AI. Assessments should be revised to emphasise the development of critical and creative thinking, which can be achieved by using more authentic assessments,

collaborative in-class assessments, reflective assessment and portfolio assessment that focuses on assessing process.

Manchester Metropolitan University (MMU) acknowledges that AI technology will transform the workplace, and "we need to make sure students are best placed to take advantage of it as a tool to support their learning and when they move to employment" MMU (2023). The DoE also acknowledges that the education sector needs to prepare students for changing workplaces and emerging technologies safely and appropriately, and to help them develop their critical awareness of the limitations, bias, and opportunities of AI. They highlight that it is more important than ever for students to "acquire knowledge, expertise and intellectual capability that prepares them to contribute to society and the future workplace." (DoE, 2023: 4).

The literature indicates that there is significant potential to support student discussions around AI and to facilitate activities to explore the critical use of AI and digital ethics. Educators need to pay particular attention to international students and support them through clear policies and communication regarding the use of AI, academic conventions, and university processes. While institutions and educators need to uphold academic integrity, there is also an opportunity to be agile, review current practice and develop varied, exciting, and inclusive authentic assessments that support creative, critical thinking, reflection, and collaboration. These are all skills I feel that our students will need to succeed professionally in creative business, in society and in their future learning.

Further research

There is much scope for further research on this subject. Looking at the continued debate and response to this new technology, further research should examine how staff and providers are reformatting their assessment and teaching practice. There is an ongoing need to investigate the student voice, the impact of AI on Gen Z, and future business perspectives such as developing "digital trust" (Rocca, 2023a) and AI creative roles (Rocca, 2023b). There is need for more research into how AI tools impact international students, especially given the unequal global access and the fact that ChatGPT is blocked or unavailable in approximately 30 countries (UNESCO IESALC, 2023). Further research could also aim to examine the transparency of some AI tools in their use of translation and grammar. Finally, there is scope for further research into the intersection of AI tools in education with SDGs (Sustainable Development Goals).

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