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Generative Artificial Intelligence (AI) Education Policies of UK Universities

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Abstract Generative artificial intelligence (AI) technologies are becoming integral to academic and professional landscapes, with universities rapidly developing policies that govern ethical and effective usage. Yet such efforts are fragmented across institutions, from outright blanket bans to bespoke frameworks supporting AI application. Seeking to offer evidence of this fragmented approach, this study conducts a systematic content analysis of AI policies of UK Russell Group universities, with specific focus on learning and teaching. The analysis reveals differences in policy comprehensiveness, enforcement mechanisms, and educational initiatives, demonstrating varied institutional priorities and approaches. This includes widespread methods of integrating the technology within the learning experience or academic integrity governance strategies. Findings also indicate that while some universities have robust frameworks promoting AI literacy and ethical usage, others provide minimal guidelines, reflecting disparate levels of readiness and commitment to integrating AI into the curriculum. This study underscores the importance of clear, comprehensive policies in fostering equal access and ethical use of AI among students whilst supporting AI literacy. Recommendations include adopting uniform policy elements across institutions to standardise AI usage norms and enhance student preparedness for an AI-driven future. This research contributes to the discourse on educational policy development, emphasising the need

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for adaptive and forward-thinking strategies in higher education to address AI learning requirements.

Keywords: AI policy; Higher education; AI in education; Curriculum development; Teaching innovation; AI literacy; Educational inequality

Introduction

The widespread applications of generative artificial intelligence (AI) tools offer the potential to redefine and revolutionise the learning and teaching experience (Tan, 2023). Its very existence however presents complex challenges that universities must respond to, from creating equal and equitable access (Chan et al., 2023), facilitating skills development (Bates et al., 2020), and maintaining academic integrity in assessment and degree classifications (Kumar et al. 2024). In response, there is increasing urgency to define educational policies that govern its application within teaching practice and use by students (Chan 2023; Schiff, 2022).

The Russell Group (RG), an association of 24 UK-based research-intensive and often highly ranked universities, has published five principles on AI use that all member vice-chancellors have endorsed and forms the basis of many institutional AI policies. These include supporting AI literacy of staff and students, the integration of AI within the learning experience, ethical use in teaching and assessment, upholding academic integrity, and sharing best practices regarding its use (Russell Group, 2023). Demonstrating the disruptive potential of the technology within education and the urgency to respond (Katsamakas et al., 2024), along with the broader global influence of RG institutions, Sales de Aguiar (2024, p.320) found how these principles are also influencing policy development of non-RG universities as “even the most conservative institutions now embrace literacy on generative AI.” However, despite all RG universities endorsing the same five principles, a diversity of AI policy approaches is observed among each institution.

As universities attempt to control and mitigate the impacts of the technology, varied approaches to AI governance create uncertainty regarding what current policies or learning and assessment frameworks are fit for purpose (Hashmi & Bal, 2024; Kietzmann & Park, 2024). Given the assortment of policies, a lottery exists where student AI literacy may depend upon their university's governing approach of the technology. Combined with employer expectations of a graduate workforce skilled in the areas of AI, big data, analytical thinking, or technology literacy (Attewell, 2023; World Economic Forum, 2023), concerns are raised regarding greater educational inequalities resulting from varying approaches to AI policy and governance (Bulathwela et al., 2024).

Are universities complicit in widening educational inequalities among the student population, where integration of AI within the learning experience rests upon the university's policy or definition of acceptable use? To explore such issues, a systematic content analysis was undertaken of all 24 RG university policies that control AI use within education. In doing so, the aims of this paper in demonstrating the diversity of both application and restriction of AI technology across universities is achieved. Findings uncovered widespread yet assorted AI policies that present both opportunities and challenges to the wider Scholarship of Teaching and Learning (SoTL) community. Specifically, varying approaches towards AI policy and governance definitions, maintaining academic integrity, provisions of support and guidance, and equitable access of AI technologies were emergent themes identified. This paper culminates in a reflection of AI policy divergencies and the consequences upon SoTL, before recommendations are offered for policy creation and practical integration.

Literature review

In 2022, OpenAI launched ChatGPT, a Large Language Model (LLM) chatbot credited with jumpstarting the AI boom (Waters, 2023). Universities worked rapidly to mitigate potential risks the technology presented to academic integrity and the wider educational

experience (Dempere et al., 2023). Given the urgency, initial institutional responses to AI governance ranged from the outright prohibition of the technology with particular emphasis in assessment activities or, cautious acceptance and adoption with final judgement made at a local teaching level to determine its relevance and method of application (Chan et al., 2023; Ghimire & Edwards, 2024). However, universities have now had the opportunity to develop and explicitly define their AI policies regarding its use within teaching and learning specifically, where significant shifts to acceptance and adoption within the teaching curriculum has been observed (Wang et al., 2023). Differences in defined acceptable use, practical integration, and support strategies are just some consequences of a fragmented approach of governing AI technology (Chan et al., 2023). Concerns of educational inequalities or perpetuating accessibility issues among the student population exist as a result (Alasadi & Baiz, 2023).

Compounding such diversities is a lack of research that connects AI integration with educational theories or frameworks (Chen et al., 2020), given the complex and multidimensional facets of the technology and its potential application. Ohlsson's (1992) learning theory of feedback may uncover how AI tools support assessment activities, specifically where students can obtain critique on written work before submission (Zhai et al., 2021). AI may also offer a personalised learning experience or a method to adapt existing curricula to support a diversity of learning styles, yet scholars reinforce how effective integration requires grounding within appropriate learning theories (Chen et al., 2020). *Behaviourism theory* that considers AI as facilitator of cognitive learning, *social constructivism theory* that recognises AI as a collaborator to support learning, or *adaptive system theory* where AI is used to empower learners take agency are some initial recommended educational frameworks that may facilitate AI integration within learning and teaching (Ouyang & Jiao, 2021; Xu & Ouyang, 2021). Practically, Chan (2023) proposed that effective AI policy requires three key considerations for effective management and practical integration: (1) pedagogical to improve learning and teaching; (2) governance to address privacy and security concerns; and (3) operational considerations regarding training, accessibility, and integration. Each are explored in the following section.

Integrating AI within the educational experience

Overreliance of AI is a frequently cited pedagogical concern, believed to negatively impact student metacognition development (Upsher et al., 2024), including critical thinking (Chan & Lee, 2023) and problem-solving skills (Salinas-Navarro et al., 2024). However, an emerging body of literature argues how AI may develop metacognitive skills or enhance the self-regulated study experience of learners (Verma et al., 2024). Nevertheless, concerns regarding academic misconduct including plagiarism or maintaining integrity of assessed work are often key factors that AI policies seek to address (Sullivan et al., 2023). Driving such policies are studies demonstrating how AI can create high originality content capable of evading conventional plagiarism detectors (Khalil & Er, 2023), where the quality of work produced is equivalent to graduate-level knowledge and understanding (Lim et al., 2023). Innovative approaches to assessment methods are recommended to navigate the impacts of potential misconduct whilst maintaining academic integrity, instead of imposing outright AI restrictions (Swiecki et al., 2022). Luo (2024, p.662) calls for renewed understandings of originality within assessed work that reflect multifaceted applications of AI within education, where polices should “support students in producing original work that is meaningful to their learning” instead of being purely mechanisms of surveillance to identify issues.

Students expect to be equipped with the skills and knowledge for effective AI use, with graduate employers also demanding such competencies of recruits, highlighting an urgent need to identify how best to support AI literacy within education (Ahmad, 2020; Mezhoudi et al., 2021). Wang et al. (2023, p.1326) define AI literacy as the knowledge and skills required to “be aware of and comprehend AI technology in practical applications; to be able to apply and exploit AI technology for accomplishing tasks proficiently; and to be able to analyse, select, and critically evaluate the data and information provided by AI.” Yet, educators themselves are required to understand how AI works and where to effectively integrate it before any attempt is made to teach students (Luckin et al., 2022). Such efforts may require alternative thinking, underpinned by theoretical and epistemological views of AI being a *black box*, where

less emphasis is placed upon understanding the intricacies of the technology but instead focused upon engaging with it productively (Bearman & Ajjawi, 2023). Doing so creates opportunities for pedagogical development that supports general AI literacy or identifying subject-specific applications (Wang et al., 2023), whilst instilling competencies of managing complexity and uncertainty (Bearman & Ajjawi, 2023).

According to Ghimire and Edwards (2024, p.300), "the governance of AI in education involves balancing technological benefits with ethical risks," reflecting the importance of both AI practicalities and principles. Responsible integration and use underpin any effective governance, yet Schiff (2021) caution how ethical considerations regarding AI in education are ill-defined or overlooked within policy. Similarly, Ghimire and Edwards (2024) highlight the lack of specialised policies for ethical use of AI or caution how key issues regarding privacy or transparency are often ignored. A collaborative, interdisciplinary approach to policy creation is advocated that carefully considers ethical use (i.e. Baidoo-Anu et al., 2023; Ghimire & Edwards, 2024) as without, the benefits of AI may not fully be realised, or the risks fully mitigated against.

The development of AI has the potential to further digital inequalities within society. Modern definitions of the *digital divide* encompass the physical access, effective use, and digital literacy of technologies whilst recognising the factors contributing to such digital inequalities between "individuals, households, businesses or geographic areas" (Vassilakopoulou & Hustad, 2021, p.1). All Universities risk widening the digital divide among the student population without effective operational policy supporting the use or availability of AI (Bulathwela et al., 2024). Inconsistent approaches towards acceptable AI use, lack of knowledge and skills development, or variable integration within the curriculum may widen inequalities unless equitable access to AI educational resources are offered (Li, 2023). Such concerns reinforce the need to overcome inequalities within education generally (Reich, 2020), but highlight the ability for the technology to perpetuate inequalities significantly (Bulathwela et al., 2024). Given how the use of AI tools offer the potential to improve student success (Chen et al., 2022), careful thought

and understanding of integrating the technology into the learning experience is paramount.

Universities acknowledging the opportunities of AI in creating an inclusive learning experience, particularly for students with diverse learning and support requirements, is vital to the success of any equality, diversity, and inclusion (EDI) commitments (Schiff, 2022). The benefits of incorporating AI into the educational experience of students with developmental, learning, or intellectual disabilities is specifically advocated (Kharbat et al., 2021). Furthermore, AI offers the potential for the creation of inclusive pedagogies where all students have an equal opportunity to contribute and participate (Garg & Sharma, 2020). Despite evidence demonstrating how AI can support students with learning needs, which directly links to the inclusive education global objective (Goal 4) of the United Nations Sustainable Development Goals (Vincent-Lancrin & van der Vlies, 2020), a lack of EDI-specific representation within educational policies governing its use is continually emphasised as a key limitation (Cachat-Rosset & Klarsfeld, 2023). In summary, whilst the importance of clearly defined polices that promote AI literacy and accessible AI use within the educational experience has been evidenced, concerns regarding varied approaches of integrating the technology among university institutions exist. The divergent institutional policies of RG universities that govern AI are explored in the following sections.

Methodology

This investigation employed a content analysis approach, allowing for a structured examination of public-facing RG university policies regarding AI governance within an educational context. The data collection phase was conducted using the documentary research methods of Payne and Payne (2004) which included: (1) systematically identifying and searching for relevant documentation or webpages of each RG university; (2) categorising documentation or webpages whilst recording the source; and (3) the content analysis itself. If an institution did not have immediately accessible information regarding AI policy, then a comprehensive search of the university's website was undertaken (relevant for three institutions at the time of data collection).

Data was compiled between May and June 2024. We acknowledge that universities under investigation may have introduced new policies or updated existing ones since, therefore results presented are representative of AI policies at the time of data collection. Data was collected from public-facing documentation. However, institutions may have specific, internalised guidance that was inaccessible or unknown to the authors and therefore not included in the analysis. We defined AI policy as any text that provided guidance, rules, or instructions regarding the use of AI within the educational experience, with key considerations on student use and within assessment. Using a deductive thematic analysis, the compiled data from each institution was examined across three category codes, informed by the framework of Chan (2023) introduced within the previous literature review and defined as pedagogy, privacy and security, and operational factors. Coding rules were created following the methods of Mayring (2014) and followed the best practices of directed qualitative content analysis by Assarroudi et al. (2018). This involved extracting the definition of each category from literature that allowed for a clear distinction between each. For example, based upon the framework of Chan (2023), the category of pedagogy was defined as:

- Pedagogical dimensions focused on the teacher and student
- Pedagogy should relate to assessment and examinations, student holistic competencies and skills, student employability skills, technology adoption strategies

Defining categories from literature allowed for theoretical grounding whilst reducing conflict during the analysis, thereby increasing trustworthiness and reliability (Nowell et al., 2017). Following the holistic policy content analysis procedures of Cardno (2018), data collected was checked and coded by two researchers to ensure accuracy. This included adopting a reflexive approach of iteratively examining the varied data sources under analysis, where four distinct themes were uncovered: (1) inconsistent approaches and definitions; (2) academic integrity; (3) support and guidance; and (4) equitable access.

Key findings

The RG's defined principles of AI use within education have been endorsed by all member vice-chancellors to develop the AI literacy of students and staff (Russell Group, 2023). However, differences were observed regarding policy and governance both across and within institutions.

Inconsistent approaches and definitions

All universities had accessible public-facing policies governing AI usage within learning, teaching, and assessment. However, availability, volume of information, and acceptable usage varied significantly. Where detailed documentation was unavailable to access, AI policy had simply been included within academic conduct regulations rather than a dedicated policy document or webpage created. All universities broadly advocated for responsible and ethical use of AI, demonstrating attempts of maintaining integrity in academic work (Sullivan et al., 2023).

Policy type was scrutinised along two key avenues: *centralised*, being university-wide policies or *devolved*, where individual departments, programmes, or staff were responsible for managing AI use. Such approaches arguably contribute to the diversity of policies observed across higher education (Hashmi & Bal, 2024). The flexibility of devolved policies varied among institutions, although responsibility for widening or limiting AI use was often observed by those responsible for delivering the curriculum (i.e. tutors or lecturers). Of note, King's College London provided a comprehensive guide supporting AI integration at different institutional levels. This included macro (university) level information detailing equal access commitments, value statements, and academic integrity governance, compared to meso- and micro-level policies where AI use was encouraged to suit specific devolved requirements.

Academic integrity

All universities permitted AI for general revision and learning, underpinning its significance as an assistive companion or research tool for students in developing subject-specific knowledge and understanding. This supports the claims of Chen et al. (2023) where the technology can offer practical advantages to the learning experience. However, assessment policies differed significantly. For example, the University of Durham and University of Cambridge permitted AI use to support writing skills, including proofreading, grammar checking, or writing refinement. The University of Manchester permitted generated content within work, but advised AI should be used critically.

The University of Birmingham had greater restrictions, where AI use was permitted but content limited within assessments to a percentage of overall wordcount. The University of York did not permit AI for paraphrasing or for large amounts of translation. London School of Economics and Political Science and the University of Liverpool adopted detailed controls, imposing sanctions unless usage was explicitly stated within assessment material and evidencing a devolved approach where teaching staff have the ultimate decision. Regarding the wider learning experience, defined acceptable use included ideation assistance, mechanisms for developing understanding such as using AI to explain key concepts, collating secondary research, debugging (relevant for computer science programmes, for example), or to offer feedback and critique written work.

All universities stated that use of AI must be acknowledged by the author within assessed work to avoid accusations of academic misconduct. Guidance on referencing AI text varied. Some simply necessitated a written statement confirming its usage, whereas others required formal references and explicit identification of AI content (and some demand both). For example, the University of Birmingham and the University of Manchester provided templates for formal acknowledgement, such as referencing statements for generated images and text-based content. Similarly, Kings College London required the inclusion of a standardised acknowledgement statement when AI is

used. The University of Sheffield stated that AI cannot be referenced within work as it is not an author and therefore required students to use their bespoke referencing framework. The University of Edinburgh and the University of Exeter required students to reference AI content as personal communications.

The accuracy of AI detection tools within assessed work is debated (Cotton et al., 2023; Steponenaite & Barakat, 2023). Alternative methods of assessing students' knowledge are often argued in response (Swiecki et al., 2022). Most universities had opted out of Turnitin's AI detection tool due to reliability concerns of identifying AI content, providing false positives, or other data protection issues. However, some institutions did explicitly permit the use of AI detection tools. The University of Liverpool flags submissions that exceed a 20% match of AI content for further investigation. Although the University of Nottingham had disabled the tool as standard, staff were permitted to engage with detection software if concerns regarding authenticity existed. The University of Bristol permitted the use of AI detection tools but advised caution to staff regarding its reliability, whereas the University of Newcastle had chosen to adopt the software (having initially opted out when launched). The University of Glasgow allowed the tools to be used when fictitious references are identified or generated content is suspected. All universities generally stated that any attempt to misrepresent AI content as the student's own work without acknowledgement constitutes academic misconduct. Defined inappropriate AI use differed however, varying between plagiarism, falsification, contract cheating, and false authorship. Regardless, noncompliance of AI policy was penalised.

Support and guidance from the universities

Although the amount of detail varied, most universities offered student and staff support for AI use including guides, training, lectures, or courses. For example, the Student Union Society at University College London offered bespoke student support, whereas the University of Oxford provided detailed guides consisting of example prompts for idea generation, revision, and feedback. The University of Edinburgh offered a

comprehensive guide and training opportunities via Massive Open Online Courses (MOOCs). The University of Newcastle offered learning courses on Student Charter, whereas the University of Glasgow had developed bespoke lectures.

Equitable access

It was observed that the provision and accessibility of AI tools diverged across institutions. Many universities did not explicitly provide information regarding types of access. The University of Birmingham and the University of Durham provided access to Microsoft Copilot, whereas the University of Sheffield offered access to Google Gemini. Some institutions advised against AI tools for research due to inaccuracy concerns, ability to generate fictious references, or the general unreliability of the technology. However, others recommended users to seek guidance from their own ethics faculty before engaging with AI explicitly for research.

EDI representation and other accessibility factors within policy provision was limited. Whilst minimal, often general acknowledgements of AI supporting inclusivity or accessibility were represented within policies, the University of Oxford specifically provided support and referenced the benefits of AI among users with disabilities or learning requirements. Such findings offer evidence EDI representation within policy is limited (Ghimire & Edwards, 2024; Schiff, 2022). The University of Sheffield highlighted concerns regarding environmental impacts of AI use, a similarly underrepresented topic (Tanveer et al., 2020). Most other institutions communicated concerns regarding copyright, intellectual property, and data protection. Of note, Queen's University Belfast had developed a bespoke framework (RAISE: Responsible use, AI best practice, Integrity, Support and Equitable access), one of only a number of limited institutions to fully acknowledge equitability of AI provision.

Discussion

Maintaining academic integrity of degree classifications whilst integrating AI within the teaching and learning experience to support learners' technological literacy and develop employability skills is seen as an increasingly important yet difficult balancing act to achieve (Goulart et al., 2021; Gulumbe et al., 2024). Challenges regarding how the technology is simultaneously integrated, accessible, and governed exist (Berendt et al., 2020). The infancy of the technology in both application and understanding, along with the multifaceted complexities it presents to the educational experience, may offer one explanation accounting for the diversity of policy and governance mechanisms observed among universities, despite all endorsing the RG principles of AI use. However, findings demonstrated that these world-leading institutions possess inconsistent approaches which may limit initiatives seeking to create accessible learning environments or overcome digital inequalities in education.

Scholars have suggested that specific subjects may offer a more natural or logical fit of AI technology, yet its integration into assumed relevant courses may neglect any widespread efforts to develop consistent, equal opportunities for all (Dobrin, 2023). This may explain the number of policies observed within the analysis that allow local-level adaptability, suggesting that blanket rules governing its use are ineffective or that there is no one all-purpose approach. Consequently, AI policies that apply to RG universities that typically teach across a spectrum of subjects may be different to those that are subject-specialist institutions or operate within different international contexts, highlighting a practical necessity to require bespoke policies. However, as AI literacy is rarely defined within subject-specific contexts but emphasises, as according to Chen et al. (2024, p.5), "cognitive understanding, practical application and critical evaluation," promoting equal access may require consideration of general competencies and subject-specific applications as separate learning needs to ensure total restrictions are avoided or that digital inequalities on campus are mitigated against. Policies may require flexibility to account for subject-specific requirements regarding its use, but there is arguably a wider need to offer standardised guidance that supports AI literacy of all students to address concerns of widening digital inequalities or equal access opportunities (Filgueiras, 2023; Schiff, 2020).

A lack of theoretically grounded educational frameworks to support AI integration within the curriculum may influence the effectiveness of initiatives to support either subject-specific or general AI competencies (Chen et al., 2020), particularly if educators lack the necessary skills, knowledge, or understanding of the technology and its relevance to their courses (Celik et al., 2022). The creation of both equitable and equal access policies that govern AI use yet acknowledge the practical considerations of doing so within the wider educational experience may become increasingly important factors for consideration in policy development. Future studies may want to build upon such suggestions, such as identifying best practices of both AI governance and curriculum integration, underpinned by educational theories or frameworks, to address concerns of AI literacy and technology access.

Limitations

The methodological approach permitted a systematic collection and review of AI policy and governance initiatives. Limitations of the study are acknowledged including accessibility of relevant insight. As only publicly available resources were reviewed, the findings presented may not be wholly representative of one institution's AI policy as internalised governance inaccessible to the authors may also exist. Furthermore, given the speed of AI development, universities may have updated or introduced newer policies since the study was undertaken. Insight presented therefore offers a snapshot of policies at the point of data collection yet allows for a critique of AI policy divergency and associated consequences.

Conclusion

This study uncovered the diversity of AI policy and governance among RG universities, despite all endorsing the RG principles of AI use within education. Defined, accepted, or permitted use of AI differed significantly both between and within universities, particularly within assessment contexts. Unacknowledged use of AI-generated content

typically constituted academic misconduct, although the acceptance of AI assistance in assessed work varied considerably. The provision of guidance materials to develop AI literacy also varied from comprehensive course offerings to no support at all. Lastly, there were significant gaps in addressing accessibility and the potential supportive benefits of the technology for students with learning requirements.

Individual institutional freedoms concerning bespoke development of decentralised policies may be complicit in the creation of a graduate workforce that possesses widely different competencies, knowledge, and experiences of AI. Although variation of AI integration within a curriculum may result from subject-specific requirements and therefore account for differences, the components of AI literacy arguably transcend disciplinary boundaries, as both scholars and graduate employers alike recognise the all-encompassing importance and applicability of this technology. Such instances may inadvertently widen the digital divide or promote digital inequalities both within the institution and across wider society (Davis, 2024; Duah & McGivern, 2024). Whilst our findings captured the heterogeneity of AI policies across RG universities, they also demonstrate a need for considered governance and practical support to ensure equal, supportive access and integration of the technology too.

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Ethics

This research did not involve any human subjects and was therefore not required for ethical approval by the University's ethics review board.

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