# **Education in Practice**

Dawood, M. and Suleymenova, K. (2025) 'University of Birmingham students' dual lens on GenAI: Ethics and equity explored', *Education in Practice*, 6 (1), pp. 41-56.

ISSN 2057-2069

# University of Birmingham students' dual lens on GenAl: Ethics and equity explored

Mary Dawood and Kamilya Suleymenova, Department of Economics, Birmingham Business School

Contact: m.h.dawood@bham.ac.uk

#### **Abstract**

This study explores the perspectives of UoB students regarding the ethics and equity aspects of GenAl use, focusing on their experiences, perceptions, and attitudes. Through semi-structured focus group discussions with Business School undergraduate and postgraduate students between mid-June and early July 2024, we investigate the ethical considerations and practical implications of GenAl use in academic contexts. Our findings highlight two main areas: the uncertainty students face regarding the ethical use of GenAl and the disparity in their proficiency with these tools. The study reveals that while students generally view GenAl positively for its efficiency and convenience, concerns about accuracy, ethics, and long-term impacts on learning and critical thinking persist. Additionally, the lack of clear (definitive) and comprehensive guidelines on the responsible use of GenAl in assessments contributes to students' apprehensions. The paper concludes with recommendations for universities to provide clearer policies and support to promote responsible use and equitable access to GenAl tools, ensuring that all students can benefit from these technological advancements without compromising academic integrity.

#### Introduction: setting the scene

The rapid advancement of generative AI (GenAI) presents both opportunities and challenges for the HE sector (O'Dea, 2024). Since 2023, we observed a fast-growing field of educational literature<sup>1</sup>. Conversely, different studies focus on different stakeholders: e.g. Lee *et al.* (2023) or Suleymenova *et al.* (2024a) investigate staff perceptions; while Yang *et al.* (2024) focus on students' perspectives; Guillén-

<sup>1</sup> e.g. books by Beckingham *et al.* (2024) or Chan and Colloton (2024); a special edition of *Studies in Higher Education* of 2024, (Volume 49, Issue 5), dedicated to the analysis of these challenges and opportunities, from broad conceptual papers (e.g. Sharples, 2023) to investigations of GenAl impact on specific aspects of education (e.g. critical skills by Essien *et al.* (2024).

Yparrea and Hernández-Rodríguez (2024) or Hernández-Leo (2023) investigate both staff and students.

Inevitably the concerns over ethical use, both in the narrower sense of academic practice with integrity and broader understanding of responsible use of these new tools, were at the forefront of many of studies (e.g. Cotton *et al.*, 2023; Wang *et al.*, 2024). No less naturally, many of these discussions progress to proposals concerning assessments design, for example by proposing an assessment framework embedding ethical use of GenAl (e.g. PAIGE by Shanto *et al.*, 2023) or institutional recommendations (Grove, 2024). In short, there is a wide consensus that ethical and equitable use of GenAl is essential to ensure that all students benefit from these technological advancements without compromising academic integrity.

As established by Biggs (1999), students' perceptions of their educational experience affect their success through influencing their approach to learning. Thus, to be able to design an effective learning environment and appropriate assessment, we need to understand students' comprehension of what is and what is not ethical use of GenAI in an academic (and wider) context.

Yang et al. (2024), Petrič (2024), and Chan and Hu (2023) deploy the survey method to examine students' experience of usage of GenAl. The three studies, conducted in different countries and across different types of students, find that while some students express reservations as to the quality of output, they mostly see GenAl as helpful or beneficial to their studies. Interestingly, Petrič (2024) establishes that a non-negligeable proportion of students use GenAl in their assessments in a potentially unethical way but does not explore the perceptions of ethical use further. Chan and Hu (2023) explore students' ethical and moral attitudes and show that some express reservations concerning the long-term use of GenAl, questioning its impact on careers and human values more widely. Going further, Mvondo et al. (2023) propose a theoretical framework showing the impact of different factors specifically on students' perception of the ethics of GenAl use. They show that students' attitudes are influenced by educational climate, but also individual moral consciousness, thus concluding on the importance of developing a climate fostering a responsible attitude.

Our case study contributes to this literature by an in-depth investigation of students' perception of GenAl use via structured focus group conversations. Our broad project aims to explore how universities in general, and Business Schools in particular, can better support students in utilising GenAl for their academic studies and beyond in an ethical and equitable manner. Our findings from the quantitative and qualitative analysis of the discussions aim to provide an understanding of the current state of perception of GenAl tools by students with a focus on their ethical use predominantly in an academic context. Our results highlight two broad areas: the *uncertainty* that our students face, and how *sophisticated* their use of GenAl is. Knowing the challenges that our students face especially regarding the responsible use of GenAl should enable us to design a culture of embedding GenAl skills as part of learning and academic integrity.

### Methodology: data and analysis

Our case study<sup>2</sup> focuses specifically on students at the University of Birmingham (UoB), Birmingham Business School (BBS). Participants include undergraduate and postgraduate students who had prior experience using GenAl tools in any of their assessments. Through focus group semi-structured discussions, participants shared their thoughts, experiences, and perspectives on the ethical and equitable use of GenAl in their academic work. We moderated these discussions to ensure a respectful and inclusive environment, with strict confidentiality measures in place to protect participants' privacy. The ethical approval from UoB was received prior to the data collection (ERN 2485-Apr2024).

In response to an open call for participation in the focus groups, we received several expressions of interest. Following the dissemination of the case study information sheet and the acquisition of consent forms from willing participants, we conducted five online focus groups between mid-June and early July 2024. As an incentive, each student was presented with an Amazon voucher valued at £15 upon the conclusion of their participation. Each focus group was attended by an average of 3-5 students and lasted approximately one hour. During the sessions, we posed four

<sup>&</sup>lt;sup>2</sup> This study is part of a wider QAA-funded project led by Christine O'Dea at King's College London. The larger project covers five universities across the UK and Australia. We are grateful to QAA Collaborative Enhancement Projects for providing the necessary funding. Link to the project page can be found here <a href="https://www.qaa.ac.uk/membership/collaborative-enhancement-projects/generative-ai/transnational-perspectives-on-ethical-uses-of-gen-ai-in-assessment">https://www.qaa.ac.uk/membership/collaborative-enhancement-projects/generative-ai/transnational-perspectives-on-ethical-uses-of-gen-ai-in-assessment</a>

primary open-ended questions, supplemented by several polling exercises conducted via <u>Mentimeter</u>. The discussions were audio/video recorded and subsequently transcribed.

The data collected from the focus groups underwent a comprehensive analysis. Quantitative analysis was conducted on the polling data, utilising statistical methods to identify trends and patterns in the responses. Meanwhile, qualitative analysis, using thematic coding, was applied to the transcribed answers to the open-ended questions. Key themes were identified from the text through the repetition of keywords and the entire text was subsequently coded.

Figure 1 presents a graphical summary of the responses and discussions from the focus groups. The tree map is divided into three main categories: usage of GenAl (in grey), ethical considerations (in orange), and equitable access to the tools (in green). Each category contains four sections, with responses represented by boxes. Larger boxes indicate larger parts of the whole, similar to larger slices in a pie chart.

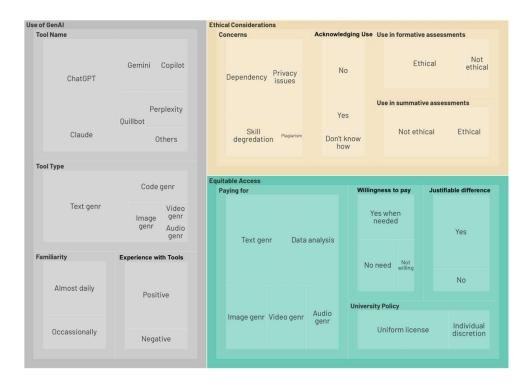


Figure 1: a summary of focus group discussions

The first discussion question, "What is your experience with GenAl tools?", aimed to explore students' usage of GenAl tools in both their academic and personal lives,

including the type of tools, which tools they used, their familiarity with these tools, and their overall experiences. The second question, "Give examples of what you consider to be ethical/acceptable use of GenAl and what is not," focused on students' perceptions on the ethical aspects of using GenAl tools in formative and summative assessments, and how they would acknowledge the use of GenAl in their assessments. The third question, "What concerns do you have regarding the privacy and security aspects of using GenAl?", addressed students' apprehensions and fears when using GenAl tools. Finally, the fourth question on the equitable access to GenAl tools, "How do you feel about the differences between free and paid versions of GenAl tools?", explored students' willingness to pay for GenAl technologies, which type of tools they are currently paying for, and the justifiability of the differences between free and paid versions. We also sought their opinions on whether the University should provide a uniform GenAl license for all students or leave the choice to individual students to pay for the services they prefer.

The following sections will present the results from both types of analysis, incorporating direct (anonymised) quotes from the students' conversations to highlight key points and provide a richer understanding of their perspectives.

# Key Results: GenAl Usage

As illustrated in Figure 2, students use GenAl tools for multiple purposes, primarily text generation for academic and professional writing, brainstorming ideas, paraphrasing text, summarising content, and planning essay structures. Other uses included code generation for programming tasks, audio generation for language learning and listening convenience, image analysis for identifying content in photos, and image generation for graphic design.

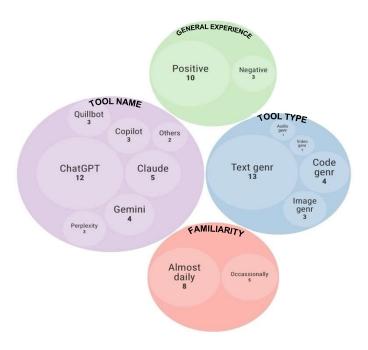


Figure 2: Responses related to the usage of GenAl

Most participants reported using ChatGPT as their main tool (92% of participants mentioned this tool). The other two commonly mentioned tools included Claude and Gemini, while lesser common tools were Quillbot, Perplexity, MS Copilot, and ChatPDF.

Over 76% of respondents reported broadly positive experiences with GenAl tools, while also acknowledging some limitations. Students appreciated the tools' efficiency and convenience in generating personalised information quickly. However, negative experiences were also prevalent. Issues with accuracy, superficial content, and the risk of potentially inaccurate (hallucinations) or generic outputs were common concerns:

- I've never used it to generate text. I don't trust [...]. (P12)
- What I see there is always it's trying to hallucinate and come up with answers which has nothing to do with my question that I have asked and it gives me reference links which goes nowhere just gives error 404, not found. (P1)

Despite these drawbacks, the adaptability and time-saving benefits of GenAl tools were generally acknowledged, making them indispensable for many students. As illustrated by the quotes below, some participants use these tools heavily in their day-to-day life and academic activities:

- During my assignments and my general studies as a management student, I have to go through research papers. [...] So what I use these days is ChatPDF. I can ask it questions directly out of that pdf, like what's the context of this entire pdf, for example, what are the key insights. [...] So it gives me an interactive one-to-one like as if I'm chatting with a chatbot or something. So that's something new which I'm adding towards my skill as well. (P11)
- I use it every day. And I feel like my life is basically dependent on this. [...], maybe my brain is not coming up with the correct words, perhaps because I come from another country. Sometimes when I email, when I write a birthday card or [...] something, I always use Generative AI to help me to paraphrase [...] being professional, being nice or polite. But it has actually really improved the way I write. (P5)

Furthermore, some students reported using GenAl tools for explicitly educational purposes, particularly when they feel uncomfortable asking questions to their lecturers or peers:

- When I came here, it was a bit difficult. I have changed my career path, and understanding each and everything is very difficult. Asking questions to the professor is sometimes not possible, because there might be some silly questions or really tough questions. So, when it comes to AI tools, it is really helpful to understand things and I can ask the tools whatever I like. (P13)

#### **Key Results: Ethical Considerations**

In our discussions with the students during the focus groups, two primary categories of ethical considerations were identified regarding the use and impact of GenAl tools. The immediate, short-term impacts pertained to utilitarian ethics, encompassing concerns such as privacy, personal information security, and plagiarism. Conversely, the long-term effects were more focused on theoretical ethics, particularly the implications for human 'savviness'. These included issues related to knowledge acquisition, dependence on GenAl tools, and their influence on writing and critical thinking skills. Figure 3 summarises the student responses on these two different aspects.

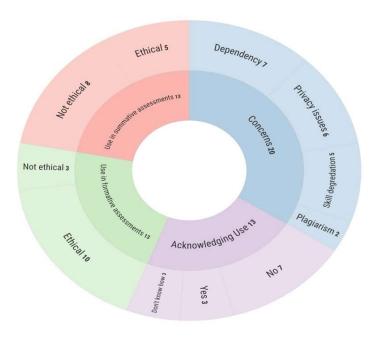


Figure 3: Responses related to the ethical considerations of GenAl

#### **Immediate Impact**

Many students emphasised the importance of using GenAl tools ethically. This includes using GenAl to enhance their learning and productivity while ensuring that they do not misrepresent Al-generated work as their own original efforts. Specifically, they agreed that copy-pasting GenAl outputs directly into their work and assessments is unethical.

Ethical use involves properly acknowledging the assistance of GenAl tools. However, the main concern at this stage is the lack of understanding as to how to acknowledge GenAl (institutional guidance may be slow in being adopted and used in teaching contexts) and what is permissible. Hence, students fear that an incorrect disclosure will penalise them in the marking. This is especially compounded by mixed messages from different members of staff (as well as background differences and what they hear in the media). As a result, about 77% of the students reported not acknowledging the use of GenAl in their assessments:

I think the policy is you have to acknowledge it to some extent, but we're not told how to do it properly. So I just don't. I just don't claim any use of it, if everybody else is not claiming it. If I claim it, I fear it may probably get me into some trouble if I do it improperly. (P3) - It's not often told to students, [...] from my understanding of what one of my lecturers said that we're allowed to use it. However, they didn't tell us in depth how to use it and where it's just not appropriate. [...] More guidance should be provided by the university in terms of how to use it, where to use it, and where not to. (P2)

Led primarily by this concern, only 38% of the students considered it ethical to use GenAl tools in summative assessments, while more than 70% said that it would be acceptable to use it for formative coursework and activities, where the use of these tools is more widely permissible, and the acknowledgement of their use is not required.

Furthermore, 20% of the respondents were alarmed about the potential for unethical use of GenAl tools. This includes instances where students might use Al to complete assignments dishonestly, leading to plagiarism and academic misconduct.

- The easy way to make content with AI can make some students avoid real learning and not develop their skill, which hurts their education and breaks university rules about honesty. (P13).

When asked about privacy and security, it was perhaps somewhat concerning that many participants didn't have any concerns or didn't even consider these issues: 'I don't have any privacy or security concerns' (P8). This view was explained either by faith in 'terms and conditions' of the service used or by the large volume of data, which would make individual recognition impossible. However, some students (about 30%) did acknowledge that they have considered these issues and try not to input personal data. They questioned how their data was being used and stored by these platforms. In general, the more balanced view can be summarised by this comment: 'So it entirely depends on the situation. I think it's important to understand the privacy and security aspects of it' (P11).

# Long-term Impact

Most interestingly, we observed how some students expressed long-term concerns about the impact of GenAl on higher education and the pragmatic functioning of universities.

 It kind of takes away the real purpose of university, especially for the students that just use it [GenAl] as an answer. It doesn't allow them to add any thought or depth into the assignments (P9).

Over 50% of participating students were concerned about the potential over-reliance on GenAl tools and their more general impact on knowledge acquisition and retention at a societal level. They worry about the misuse of GenAl in academic settings, which could lead to questions about originality and intellectual growth. The challenge lies in balancing Al assistance with personal effort to ensure genuine skill development and learning integrity.

- So I believe the assessments that are given to us are for us. We are here to develop our own thinking and thought process. So if we just give this to the AI and just get it to generate the output and then submit it, then what are we doing here? That's the point where I draw a line. Nobody will know if we have used AI or not. That's a different thing. But we are here for something bigger, and we should develop our own thinking. (P12)

More generally, about one third of the students expressed genuine worry regarding the impact of GenAl use on future generations, particularly in terms of practical intelligence and potential skill degradation.

- It's scary that future generation will not be as smart as we are, like street smartness, or like having the presence in the room and awareness of what is going around us. Right now, if you see GenZ, they are on their phones all the time to search for everything. It's not that they hit the libraries or textbooks first to search. Is it reliable enough? No, because I think the age is gonna change soon [...] we are entering the age of the world wide web 2.0. (P6).

#### **Key Results: Equitable Access**

Given the novelty and the uncertainty of GenAl tools, students may not only struggle to use them responsibly, but also be unsure about which tool to choose. The existence of free vs paid GenAl versions further complicates this question: if the paid versions provide a significantly better output this may exacerbate the inequality between students of different socio-economic backgrounds. This, in turn, raises questions of equality of access and opportunities between students, which is related to fairness and perception of equity between students.

Figure 4 shows that participants did not express any concerns about the existence of free/freemium and paid versions. The consensus was that paid versions do provide a

better service, enhancing their productivity and improving the quality of their work, and thus are deserving of the payment, especially if the output produced could also be commercialised.

- Yeah, I'd say having the paid version is quite fair because you get a more professional experience. And it's a higher tier service that you're receiving, so I believe that the GenAl businesses should be able to monetise it, because often you're able to monetise the outputs as well. (P2).

Students who do not have the need of such advanced features reported having sufficient access with the free/freemium tools. In fact, almost 40% of participants reported that they do not feel the need to use paid versions. Their general attitude can be summarised by the following quote:

- [...] whether you charge money or not depends on how much value you are giving out from that particular service. So, for example, I would pay for ChatGPT4 if I actually had that much of a use for it. But since I don't, I won't pay for it. That might not be the case for someone else. So, I'd say it's more of a personal choice. Thus, it can be considered fair at that point. (P1).

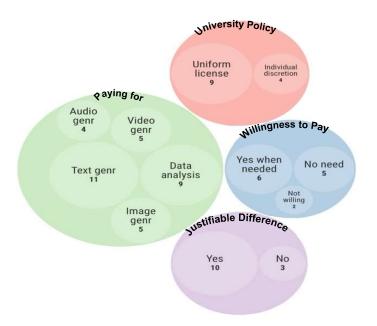


Figure 4: Responses related to the equitable access to GenAl

On the other hand, students who are willing to pay for premium versions do so on a temporary basis to meet specific needs or during peak working periods. The breakdown of willingness to pay for each of the types of GenAl is depicted in Error!

Reference source not found. Above all the other features and regardless of the assessment types, students highly valued more accurate quantitative and qualitative data analysis (with willingness to pay an average monthly subscription of £20 for this

feature) and the advanced capabilities of better text generation (with average monthly subscription of £15). Obviously, this willingness to pay is consistent with the dominant use of GenAl types. Other features were valued less, but included creative options for audio, video, and image generation, which may be less important for academic purposes.

	Text	Data	Image	Video	Audio
Willing to pay	11	9	5	5	4
Not willing	2	4	8	8	9
Average monthly payment	£15	£20	£7	£11	£12

Willingness to pay for different types of GenAl tools

When asked whether the University should provide a uniform license for all students, over 75% of participants agreed, with a few referencing the difference of resources available and financial constraints. They found this institutional-wide initiative as necessary to ensure students have equitable access to the same resources, thus levelling the playing field, and to promote fair usage among all students. This was expected; however, there were also arguments in favour of giving students individual discretion with two different types of reasoning. Firstly, some students argued that providing a license for a GenAl tool or tools would perhaps encourage excessive use of the tool:

- I feel that university should not endorse the use of GenAI this way because of ethical concerns. If educational institutions start trusting this AI, then the quality of education might fall. The institution is already supporting us with different programming tools to work with like data analytical software [...]. We trust our professors to teach us, so we trust them to give us the resources we need. So I don't think that university should actually provide a license, because then there would be no necessity to do a master's degree for me. Because, yeah, then anybody like a 4th grader, who is still at school, can actually do the work if he has generative AI in his hand. So it should depend upon the students whether they want to use it or not. But institutions should not provide it. (P6).

Secondly, several participants advocated for freedom and to leave the choice of the tool to use at the discretion of the students. For them it was almost an educational experience to be able to choose the right tool (like the right book):

Leave it at the discretion of students. The main reason is, if we are allowing students to use AI, it's like going to the library. So you can't ask students to just choose this particular book. Students should be allowed to go in and choose what they want to read and what they don't want to read [...]. It is the part where human intelligence comes into the picture to select which tool to use and which tool I should not use. So we should leave that at the discretion of the students, I believe. (P12).

#### Conclusion

Overall, the results can be summarised into two categories: the usage of GenAl and the uncertainty surrounding its use. As shown in section 3, the first category highlights a generally positive experience, particularly on text generation, though participants have expressed some reservations about the accuracy and reliability of the output. This is in line with other studies, as mentioned in the literature review (e.g. Chan and Hu, 2023). We suggest that the sophistication of GenAl usage depends on students' experience and their willingness to experiment with different tools, which in turn is influenced by their environment and financial resources. These interlinked factors can be visualised in Figure 5 to show how the 'GenAl student capital' is formed:

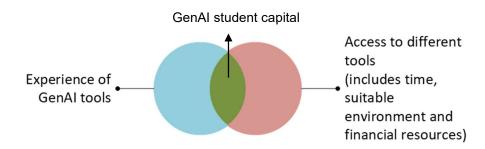


Figure 5: Formation of GenAl student capital

The second category addresses the high degree of uncertainty students feel about using GenAI, both short-term (due to unclear policies and tools' limitations) and long-term (anxiety about future employability prospects and broader human values). We note differences in understanding of what constitutes ethical and responsible use of GenAI, as well as lack of concern over privacy and data protection, suggesting that further education is needed. A future study may test our hypothesis that students with more GenAI experience are more likely to manage uncertainty better and focus on responsible practices.

More specifically to UoB, students admitted their lack of understanding of the institutional policy as to which use of GenAl tools is permissible, what is encouraged and what is prohibited. These results are also congruent with the literature presented (e.g. Yang et al., 2024). Participants touched on issues around acknowledgement/citation rules and highlighted their struggle with inconsistencies of recommendations they receive from various members of staff. In line with Petrič (2024), our results show that some students expressed reservations about the long-term impact of these tools. Some participants shared their concerns about potential skill degradation due to excessive dependence on the technology, fearing it could undermine genuine learning and intellectual growth. Related to wider ethical concerns, a perceived disparity in output quality between paid and free versions could raise the problem of equitable access. Thus, unsurprisingly, the findings show a majority of students supporting the idea of the University providing a uniform GenAl license to ensure fairness.

#### Main Takeaways

Reflecting on these concerns, several key action points emerge. It is very important for any institution to provide clear guidelines to both staff and students on the ethical use of GenAI, including how to acknowledge its use in academic work. However, the training of all stakeholders needs to go beyond the practicalities of the use of GenAI tools. We find that the concerns about over-reliance and skill degradation among students are perhaps higher than initially thought; the financial barrier to accessing advanced, paid versions has the potential to further exacerbate the perception of unfairness in the learning experience between students. This perception is important: as underlined in Budhathoki *et al.* (2024) the learning environment is highly influential on students' perceptions of GenAI and their attitude and manner of adopting this new technology.

Thus, while we are still in a transition period where the use of GenAl is associated with significant uncertainty, there should exist a baseline training for all UoB stakeholders, which is now in being developed. This training needs to focus on *critical and responsible use of GenAl*, within and outside of the academic context. University regulations and academic colleagues' recommendations for and against GenAl use in higher education will implicitly or explicitly influence the formation of "GenAl student capital". Conversely, while GenAl skills are important, they need to

be balanced with other skills (Suleymenova *et al.*, 2024b). Crucially, we need to provide a space for discussion and development of a critical understanding of long-term impact of GenAl tools on students' specialist and transferrable skills, as well as wider implications for the society in general. In other words, universities must play an important role to promote a long-term responsible attitude to GenAl in our future graduates and communities.

Additionally, another way to support a consistent practice is to provide institution-wide license to selected GenAl tool(s), helping addressing issues of equitable access. At UoB, we have proactively responded to this need by providing Microsoft Copilot licenses to both staff and students. Together these action points should enable a more consistent and practice-embedded approach to the use of GenAl tools, as well as encourage a balanced approach to using GenAl, ensuring it complements rather than replaces personal effort and learning.

#### Limitations

The limitations of our study pertain to the usual caveats of data obtained from a limited sample via selected focus groups. Additionally, as we selected only students who had at least *some* prior experience of GenAl, our findings are clustered and describe the upper bound of use, thus not showing the full extent of the digital divide and lack of understanding of these tools.

#### References

Beckingham, S., Lawrence, J., Powell, S. and Hartley, P. (eds.) (2024) *Using Generative AI Effectively in Higher Education: Sustainable and Ethical Practices for Learning, Teaching and Assessment.* Taylor & Francis.

Biggs, J. (1999) 'What the Student Does: teaching for enhanced learning', *Higher Education Research & Development*, 18(1), pp. 57–75.

Budhathoki, T., Zirar, A., Njoya, E.T. and Timsina, A. (2024) 'ChatGPT adoption and anxiety: a cross-country analysis utilising the unified theory of acceptance and use of technology (UTAUT)', *Studies in Higher Education*, 49(5), pp. 831–846.

Chan, C. and Hu, W. (2023) 'Students' voices on generative Al: Perceptions, benefits, and challenges in higher education', *International Journal of Educational Technology in Higher Education*, 20(43).

Chan, C. and Colloton, T. (2024) *Generative AI in Higher Education: The ChatGPT Effect*. 1st edn. Routledge.

Cotton, D., Cotton, P. and Shipway, J. (2023) 'Chatting and cheating: Ensuring academic integrity in the era of ChatGPT', *Innovations in Education and Teaching International*, 61(2), pp. 228–239.

Essien, A., Bukoye, O., O'Dea, X. and Kremantzis, M. (2024) 'The influence of AI text generators on critical thinking skills in UK business schools', *Studies in Higher Education*, 49(5), pp. 865–882.

Grove, M. (2024) 'Generative AI technologies and their role within assessment design', *Education in Practice*, 45(1), pp. 15-35.

Guillén-Yparrea, N. and Hernández-Rodríguez, F. (2024) 'Unveiling Generative AI in Higher Education: Insights from Engineering Students and Professors', *IEEE Global Engineering Education Conference (EDUCON)*, Kos Island, Greece.

Leo, D. (2023) 'ChatGPT and Generative AI in Higher Education: User-Centered Perspectives and Implications for Learning Analytics (short paper)', *Learning Analytics Summer Institute Spain*.

Lee, D., Arnold, M., Srivastava, A., Plastow, K., Strelan, P., Ploeckl, F. and Palmer, E. (2024) 'The impact of generative AI on higher education learning and teaching: A study of educators' perspectives', *Computers and Education: Artificial Intelligence*, 6, 100221.

Mvondo, G., Niu, B. and Eivazinezhad, S. (2023) 'Exploring the Ethical Use of LLM Chatbots in Higher Education', *Social Sciences Research Network (SSRN*). Available at: https://ssrn.com/abstract=4548263.

O'Dea, X. (2024) 'Generative AI: is it a paradigm shift for higher education?', *Studies in Higher Education*, 49(5), pp. 811–816.

Petrič, G. (2024) 'Everyone Talks Everything With ChatGPT: Students' Uses of ChatGPT and Their Impact on Learning Performance', *International Journal of Technology and Human Interaction*, 20(1), 349225.

Shanto, S.S., Ahmed, Z. and Jony, A. (2023) 'PAIGE: A generative Al-based framework for promoting assignment integrity in higher education', *STEM Education*, 3(4), pp. 288-305.

Sharples, M. (2023) 'Towards social generative AI for education: theory, practices and ethics', *Learning: Research and Practice*, 9(2), pp. 159-167.

Suleymenova, K., Dawood, M. and Psyllou, M. (2024a) 'Essays in economics in ICU: Resuscitate or pull the plug?', *International Review of Economics Education*, 45, 100284.

Suleymenova, K., Montano, S., Smith, K. and Newman, N. (2024b) 'Employability skills not tech tools', *CABS Knowledge Sharing, Dynamic Conversation blog*. Available at: <a href="https://charteredabs.org/insights/knowledge-sharing/employability-skills-not-tech-tools">https://charteredabs.org/insights/knowledge-sharing/employability-skills-not-tech-tools</a> (Accessed: 28 January 2025).

Wang, H., Dang, A., Wu, Z. and Mac, S. (2024) 'Generative AI in Higher Education: Seeing ChatGPT Through Universities' Policies, Resources, and Guidelines', *Cornell University arXiv*. Available at: https://arxiv.org/html/2312.05235v2.

Yang, Y., Luo, J., Yang, M., Yang, R. and Chen, J. (2024) 'From surface to deep learning approaches with Generative AI in higher education: an analytical framework of student agency', *Studies in Higher Education*, 49(5), pp. 817-830.