Chapter 5

*Generative Artificial Intelligence (GenAI)

@ University of Greenwich

Context: The University of Greenwich desires to be at the cutting edge of learning technologies and to prepare our students for the 21st-century workplace. As part of this, we are working with staff and students to ensure they develop digital literacies around GenAI. With a diverse institution and ever-changing technologies, we decided to gather evidence of existing practice and perceptions among students and staff across the institution. Student perceptions, as Chan & Hu (2023) note, are key to responsible and effective integration of GenAI in higher education. By understanding staff and student perceptions, the study aimed to inform guiding principles and strategies for effectively integrating GenAI technologies and their multimodal affordances into the university context. In this chapter, we outline what we found, commonalities and differences between staff and student viewpoints, and the implications this has for future practice. We outline the findings of the staff and student surveys, then elaborate on some of the thematic discussions from the focus groups. In 'Routes to Practice' we also include case studies of current usage to inspire future innovation.

Read 'Student-centric approaches to the university of the future', a chapter by University of Greenwich Vice Chancellor and CEO Professor Jane Harrington in the Higher Education Policy Institute's *Technology Foundations for Twenty-First Century Higher Education*.

What we did

We used a mixed-methods approach (surveys and follow up focus groups) to gather data from two distinct cohorts: students and staff members. We asked for responses from anyone within those cohorts and made it clear that this was not just for GenAI enthusiasts or experts. In the survey we tried to gauge existing knowledge, confidence and awareness of tools, current practices and views on issues such as GenAI detection tools in assessment. We used focus groups to explore themes emerging from the survey in greater depth. During these sessions, participants were guided to expound on their perspectives surrounding generative AI in higher education settings. This mixed-methods approach allowed for triangulation of quantitative and qualitative data, enhancing the validity and richness of the findings. The study was conducted by two staff and two students working as co-researchers.

Generative AI: the story so far

'Generative AI' refers to tools powered by artificial intelligence that can generate content: this may be text (most famously in OpenAI's ChatGPT), but also can be images, video, audio or any variant of these. The increasing ability of GenAI tools to create content has shaken up many fields, from computer science (generative AI can not only write but debug code for many uses), to the creative industries such as film and television.

Higher education has been no exception to this large-scale disruption. GenAI tools have been used to create course outlines, teaching materials and even assessment & feedback (Naseer et al, 2024). The OECD's 2022 Expert Survey on Skills and Abilities Automatability suggests that AI systems could potentially automate specific teaching skills, including tailoring learning activities to students, recommending course modules, and selecting instructional methods (Lassébie and Quintini, 2022). The use of GenAI tools in higher education raises ethical questions, such as the environmental impact of these tools, sharing information and copyright issues. Although GenAI tools like ChatGPT can process information and create content, potentially benefiting diverse learners (Baidoo-Anu & Owusu Ansah, 2023; Mhlanga, 2023), access to the more powerful frontier GenAI models is often restricted to premium users (Lim et al., 2023). It also raises questions of institutional change and governance: what guardrails and guidelines should universities provide to their staff and students? Will GenAI entrench digital inequality as students who can pay for more powerful tools are at an advantage? Or will its content-creation abilities allow for more personalised, inclusive education?

One of the biggest concerns has been the role of GenAI in assessment. It has been established that tools such as ChatGPT can pass common higher education assessments (Raftery, 2023; Terwiesch, 2023), and students are known to be using GenAI tools. This raises questions about academic integrity: if a student uses ChatGPT to generate an essay or a piece of code for a project, is this plagiarism? Tools produced to detect GenAI use, such as Turnitin's, have a high false-positive rate, possibly leading to reduced trust between students and teachers (Khalil & Er 2023; Ma & Yi, 2023; Ventayen, 2023). Moreover, most agree that simply detecting GenAI use will not solve the deeper problem which is that if GenAI can pass an assessment task, the skills that this task assesses are no longer exclusive to humans.

The search for answers and solutions to the above remains ongoing and may never be complete. What is clear, however, is the need for professional development and guidance around GenAI for

staff in higher education, as well as support for students who will likely be preparing for (or perhaps already work in) the GenAI-enabled workplace (Xia et al, 2024). In order to develop a supportive, AI-literate educational community, we need to establish current levels of understanding. The following sections outline the levels of confidence and understanding, as well as practice and opinions, within the staff and student cohorts surveyed.

The University of Greenwich's [Guidance on the Use of Artificial Intelligence (AI)](#) states that GenAI can be a very useful tool to aid learning. It emphasises that effective and responsible use of GenAI is likely to be a desired trait for employers. The guidance also stresses the importance of using GenAI with awareness of the risks it poses and in accordance with principles of academic integrity.

Staff Views on GenAI

Thirty-two staff at the University of Greenwich participated in the survey that explored staff perceptions of generative GenAI and its potential impact on higher education. Staff participants were asked to rate their agreement with various statements using a Likert scale of 1 (strongly disagree) to 5 (strongly agree) and answer yes/no and open-ended questions.

Staff think AI will reshape their roles and may be helpful, but are less confident to customise content & not sure it will reduce workload

Around a third of staff participants were likely to incorporate AI-generated content into their future modules (average rating: 3.45). Confidence in effectively implementing generative AI tools was moderate (average rating: 2.87). Staff participants expressed lower confidence in customising AI-generated content (average rating: 2.8). Staff participants had used a wide range of generative AI tools, including conversational AI, text-to-image, text-to-video, text-to-voice, AI coding assistant, presentation and open-source tools. The more popular generative AI tools used by participants included ChatGPT, Bard, DALL-E and Adobe Firefly. The table below shows staff answers to the question 'Which of these Generative AI tools have you used in your teaching?'.

Tool	Number
ChatGPT	18
Bard	9
GPT-4	7
DALL-E	7
Adobe Firefly	5
Text-to-voice tools	5
Midjourney	4
Claude	3
GitHub Copilot	3
Text-to-video tools	3
AI presentation tools	3
Stable Diffusion	2
Other	6

Figure 1: Data from Staff Survey: Staff use of GenAI tools in teaching

Staff participants' opinions were divided on whether generative AI would reduce their workload (average rating: 2.65). They had moderate confidence in addressing student concerns about AI-generated content (average rating: 3.52) but were more confident explaining the use of AI content to students (average rating: 3.67).

Staff believe AI will offer tailored materials, feedback & learning support, but are less sure on overall quality & new curricula

Staff participants believed that generative AI technologies would play a pivotal role in personalising learning experiences and creating content for specific educational tasks. They overwhelmingly indicated a 'very likely' prospect for AI-powered personalisation of learning materials and development of educational tools tailored to individual needs. Moreover, a preponderance of 'very likely' responses was observed for generative AI's capacity to generate targeted materials such as assessment tasks, quizzes, and practice exercises, underscoring the perceived utility of these technologies in content creation for circumscribed objectives.

Staff participants also envisioned likely applications of generative AI in augmenting assessment practices and providing supportive instructional roles. While a mix of 'very likely' and 'somewhat likely' responses emerged concerning AI's ability to offer real-time feedback to students, the data suggested a belief in the potential for AI-powered tools to evaluate student work and provide feedback, albeit with some uncertainty regarding the quality of such feedback. Similarly, the presence of 'somewhat likely' and 'very likely' responses for the development of virtual tutors indicated a perception of AI's capacity to assume supplementary learning support roles, potentially functioning in tandem with human educators.

However, the data revealed a lack of consensus regarding the likelihood of generative AI's ability to develop new curriculum materials. While some staff participants considered this prospect 'very likely,' others expressed uncertainty, with responses ranging from 'somewhat likely' to 'somewhat

unlikely.' This discrepancy underscored the perceived complexity of curriculum development as a task, potentially requiring a synergistic integration of human expertise and generative AI assistance.

Staff are aware of ethical issues & want improved policy and support around GenAI

Overall, staff participants reported a high awareness of ethical considerations surrounding generative AI (average rating: 4.0). The most significant ethical concerns included data privacy violations, amplification of existing biases, copyright issues, lack of transparency and explainability, undermining academic integrity, and unequal access to AI tools. Additional concerns included hindering critical thinking, innovation, and potential equity issues.

Staff participants had limited familiarity with AI content detection tools (average rating: 2.65). While they saw benefits in plagiarism prevention and improved work quality, concerns existed regarding the accuracy of detection tools, potential bias in these tools, difficulty integrating them with assessment workflows, and negative impacts on students (stress, anxiety, mistrust).

In terms of support resources for effective and responsible AI integration, staff participants requested clearer university policies on generative AI use, ethical guidelines for generative AI applications, technical training on implementing generative AI tools, allocation of time and resources for AI implementation, streamlined processes for curriculum updates, and personalised support for staff integrating AI into their programmes and modules.

To support the responsible use of generative AI in teaching and learning, the University of Greenwich's Academic and Learning Enhancement team provides academics and professional services staff with an overview of generative AI and advice on how we can use these tools responsibly in teaching, learning and assessment.

Student Survey Results

Eighteen students participated in the survey, representing a range of academic disciplines. The majority (13) were from the Faculty of Liberal Arts & Sciences, followed by Education, Health & Human Sciences (3), Engineering & Science (1), and Greenwich Business School (1). Postgraduate students comprised 62% of the participants & were spread across the disciplines.

Students agree with staff that GenAI will reshape education & has diverse benefits, but are more optimistic about workload

The survey revealed a moderate level of understanding among student participants concerning the impact of generative AI on university education, similar to staff (average rating: 3.94 out of 5). Student participants expressed moderate agreement (average rating: 3.59 out of 5) that AI technologies could reshape the role of educators in the future, which was slightly lower than the

staff score of 4.16 on the same question. Students indicated awareness of the diverse educational applications of generative AI, including personalised learning experiences, engaging instructional methods, real-time feedback mechanisms, automated grading systems, virtual tutoring, and novel curriculum and assessment tools.

Regarding the perceived value and benefits of generative AI, student participants expressed a moderate level of agreement (average rating: 3.22 out of 5) regarding its potential to enhance teaching effectiveness, and a slightly higher level of agreement (average rating: 3.28 out of 5) regarding its potential to improve learning effectiveness. In addition, student participants saw value in leveraging generative AI for optimising assessment design and workflow (average rating: 3.33 out of 5). There was a moderate to high level of agreement (average rating: 3.78 out of 5) that generative AI would likely be employed in producing course materials in the future, and student participants largely agreed (average rating: 4.00 out of 5) that such technologies could reduce the workload of educators. This is significantly higher than staff rating of the same question, which only averaged 2.65.

Students are moderately confident with generative AI tools and think they will change many aspects of education, but like staff, are mixed on its use for curriculum development

Regarding confidence and familiarity with generative AI tools, student participants reported a moderate level of confidence in using such tools (average rating: 3.39 out of 5), as well as a moderate level of comfort in customising AI-generated content (average rating: 3.50 out of 5). Among the student participants, popular generative AI tools included ChatGPT, GPT-4, DALL-E, Midjourney, and GitHub Copilot. However, familiarity with tools for detecting and assessing the authenticity of AI-generated content was relatively low (average rating: 2.72 out of 5).

The study further explored the perceived likelihood of different generative AI applications in higher education. Highly likely uses, according to many student participants, included personalisation of learning experiences (e.g., tailoring content and assessments) and content creation for specific tasks such as assignments or quizzes. Likely uses, as perceived by some respondents, encompassed assessment with limited scope (e.g., real-time feedback) and supportive instructional roles (e.g., virtual tutors working alongside educators). Meanwhile, the likelihood of automated curriculum development was uncertain, with a mix of responses ranging from 'very likely' to 'somewhat unlikely.'

Students are concerned about ethics & academic integrity, and want support & guidance in using GenAI

Furthermore, the findings indicated a relatively high level of awareness (average rating: 4.06 out of 5) among student participants regarding the ethical considerations surrounding the implementation of generative AI in educational contexts. Very high levels of concern were expressed regarding the dissemination of false information and the distribution of harmful content through generative AI. High levels of concern were reported for data privacy violations and the amplification of existing biases in educational materials or assessments. Moderate levels of concern were associated with copyright

issues, lack of transparency and explainability of AI output, undermining academic integrity, and unequal access to AI tools.

Equal and continuous access to GenAI tools is an ethical issue for higher education as better versions of these tools become available for paid subscribers. At the Medway Teaching and Learning Conference, University of Greenwich educators considered the risks of unequal access to the technology, and explored ways to democratise generative AI in higher education settings.

19. How concerned are you about the following ethical issues of using generative AI in higher education?

More Details

■ Very concerned   ■ Somewhat concerned   ■ Neither concerned nor unconcerned   ■ Somewhat unconcerned
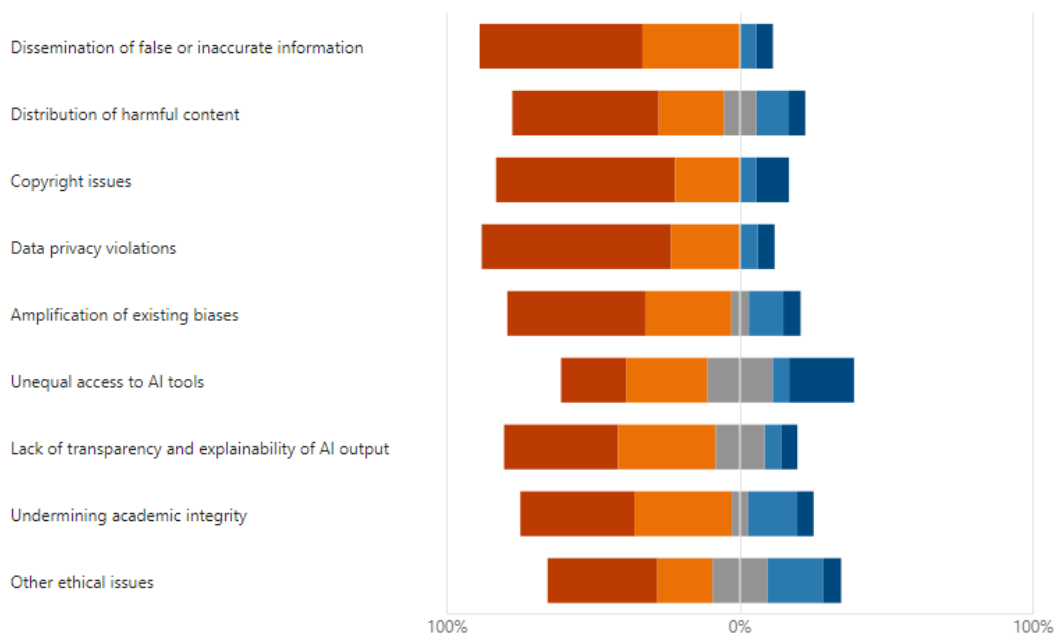■ Not at all concerned

Figure 2: Question from Student Survey

Regarding the adoption of AI-content detection tools, around two thirds of student participants favoured universities implementing such tools, primarily for plagiarism prevention and improving the quality of student work. However, potential challenges were identified, including inaccuracy and unreliability (false positives), negative student impacts (stress, anxiety, mistrust), ethical concerns (user privacy, data security, potential bias), and integration difficulties with assessment workflows.

Student participants anticipated challenges such as distinguishing reliable information from unreliable sources, over-reliance on AI, plagiarism concerns, and student dependence on AI for assignments. To address these challenges, respondents suggested providing support and resources, including training sessions on proper AI usage, access to workshops and online courses, and guidance on ethical AI usage.

Thematic discussion from focus groups

Current practice using AI in education

Staff and students from the focus groups outlined some ways they were using, or had seen others use, generative AI tools in practice. The student participant used ChatGPT for initial inspiration: 'it creates a lot of information, so it can trigger your creativity', and to outline an initial draft; they also used it as a thesaurus and grammar checker when writing. They also used an image-creation tool to generate visuals for a poster assignment. Here we see how just one student, moderately informed, can enhance their learning experience with GenAI tools in a number of different ways.

Staff had used generative AI in various ways too, and one common technique involved asking students to critique or interact with content produced by generative AI. This was used in disciplines such as design and the humanities. However, for most staff, their use was occasional and ad-hoc. For one staff member who used generative AI more systematically, the tools functioned as a 'sounding board' and 'constant companion' (FG4), which mirrors the usage by the student above.

> **EXPERIENCE**: Engagement with cutting-edge technologies is complex and multifaceted. Both staff and students use GenAI tools in a variety of ways, weaving them into their existing practice. Training and support must acknowledge the diversity of users and needs.

Future visions of AI in education

Staff and students agreed that generative AI would transform education, and most participants felt a mixture of optimism and trepidation: no participant expressed unqualified support or simple denial. The student participant viewed the integration of AI into education as inevitable, similar to how the internet, computers, and calculators became commonplace tools – and envisioned it providing 'a more flexible teaching and learning environment for both students and teachers' (FG5). One staff participant envisioned future students having AI assistants 'from birth' that 'learn with you' and can 'act on your behalf' with permission, potentially requiring a 'reformation of how we see teaching and learning and assessment' by academics. (FG2).

Other participants felt GenAI would help educators by reducing extraneous effort and allowing them to refocus their energy. For one, it would 'get rid of the repetitive, unnecessary thinking or look[ing]

for information' (FG4) while for another, GenAI would enable a reduction in bureaucracy with 'one frontline form […] you don't have to fill that in again and again' (FG2). Staff participants also highlighted GenAI tools' potential to help educators, and perhaps students, produce content in a variety of media formats even when they lacked proficiency. This was echoed by the student, who had used Midjourney to produce images: 'it just created the thing in my mind' (FG5).

Participants acknowledged that the material made available by GenAI tools might provide more personalised or tailored support for students. For example, one participant felt GenAI could provide 'more personalised tuition' (FG3) while another noted how text-based generative AI tools could simplify lecture notes or translate them into a different language (FG4). Several participants highlighted the potential for GenAI to provide personalised feedback to students as well as content.

Pedagogical concerns

While participants noted GenAI tools could increase personalisation by providing more content, one staff participant noted a risk of the opposite: that GenAI might push education towards standardisation by automating processes and removing the human element from interaction, including not just assessment but support:

> *'I was really lucky in my high school education to be in an environment where I sat down once a week with my teacher one-on-one […] that hour of one-on-one feedback massively accelerated all of my learning because I got to hear the feedback but then also understand, like, the reasoning for the feedback' (FG1)*

This concern with dehumanisation was echoed by the student participant, whose optimistic vision of AI-enabled education was tempered with, 'if the AI doesn't improve its human-like features […] students and the teachers feel that deficiency' (FG5). For other participants, GenAI was seen as providing *more* personalised feedback; one noted that it would have a 'allow a little bit more personalisation […] an element of, OK, this is where you're a bit weak' (FG4). This reveals a fascinating divide. For some, GenAI was the key to enhancing personalised feedback: for others AI-generated feedback did not count as personalised.

This division on feedback was mirrored by another division in relation to coding. For some participants, GenAI's ability to generate computer code was a boon, especially to those outside computer science. A staff member in engineering stated that students no longer had to rely on adapting others' code (FG4) while a colleague in statistics asked, 'Do we really want our students to spend 20 hours writing a code […] from scratch'? (FG3). However, another staff member pointed out:

> *'you can drive a car, you can change the oil in the car, you can strip an engine down in the car. These are different levels of being a mechanic. Most people just want to drive a car and then they're quite happy to not understand how it works. […] my mission in life is to help students understand how the bits work […] there's always going to be room for people to understand how stuff works.' (FG3)*

For this colleague, the value of students learning to code, even if GenAI tools can do this, is not in the end product but in how the process of learning enhances their overall understanding.

Assessment

The division between process and product was a key theme in many participants' views on how assessment design needed to adapt to the age of GenAI. One staff member suggested that an assessment might look like 'ask your AI advisor […] then as part of the assessment, I want you to scrutinise this answer' (FG4). Another echoed this, stating that 'for me focusing on processes rather than producing products is key' (FG3). Staff noted that this did not always mean integrating GenAI tools into every process. One highlighted 'the benefit of getting stuck' and 'the process of pulling yourself out of that stuckness' without the help of GenAI tools (FG1). Another noted that while GenAI might have become as ubiquitous as calculators, there were reasons to have students complete tasks themselves even if GenAI could do them, and even to assess this:

> *'…it's very difficult to set a coursework now that cannot be solved by these tools […] learning the process of how to do things helps [students] with the understanding. And, like, we still teach kids, students at schools, how to multiply, et cetera, then they use a calculator […] they still need these steps to learn, to understand what they're doing' (FG3).*

This participant, and many others, felt that viva voce examinations were the best form of assessment. For others, assessment design needed to include 'real based scenarios and more authentic assessment and based on students' experiences' (FG2). This was mirrored by a colleague who noted that their students used no GenAI in a podcast assessment 'because they're so thrilled that their voice will be the one, and their style can be used' (FG3).

PHILOSOPHY: Authentic assessment is an often-used term, but what counts as 'authentic' differs between disciplines: GenAI integration must acknowledge the core skills and philosophies at the heart of each discipline, supporting colleagues to maintain these.

Academic integrity in assessment was a key concern of many staff, as well as the student participant. Most staff felt that the best approach to academic integrity was supportive rather than punitive: 'building that compassionate climate between us and students and building trust' (FG2), as one noted. While some staff who were surveyed had been positive about tools for detecting plagiarism, most focus group discussions focused not on detection but on the underlying issue. One staff member noted, 'any adjustments that we need to make because of ChatGPT, we needed to make anyway because of essay mills and things that existed before' (FG3). Staff highlighted underlying issues such as lack of student confidence: 'I think they're turning to it because they don't want to sound stupid. They think it's going to turn their ideas into something better'. (FG3). The student response echoed this point, noting that they used ChatGPT to refine their own writing due to a lack of confidence as they were working in a language additional to their first. (FG5). However, while staff were keen not to seem punitive, the student participant said, 'it should be restricted so that […] you can't write just to ChatGPT and say, "could you please create an essay for me […] submit it to the teacher and say I created it" (FG5). Of course, this is a single data point, but it may challenge assumptions that putting boundaries around use of GenAI is for the benefit of staff only.

Ethical concerns

Participants raised other ethical issues, aside from academic integrity, including environmental issues, reproduction of societal bias and misinformation. Some participants raised concerns about copyright and reuse (mirroring the survey results), but one noted that:

> *'…we've always in the arts used collaging, sampling processes, montaging, blending and melding, networking. […] It's a recognised method of creative making, a patterning for what already exists, of harvesting what already exists and re patterning it in different ways.' (FG2)*

Another colleague, also in the arts, referred to AI as part of a 'co-design activity' (FG1), suggesting that colleagues in creative fields are able to take a nuanced approach to the issue of agency and GenAI. Other ethical issues raised included the risks of a single platform being adopted by the higher education sector: one participant noted that Copilot 'doesn't like you challenging it', a form of 'censoring the conversation' that was made much more risky 'given that Microsoft is often the one that's adopted in universities' (FG4).' Unequal access was raised as an ethical and pedagogical issue: how can we provide equality of opportunity to tools that are increasingly becoming monetised?

What students and staff need

One of the key ways participants identified to overcome ethical and other challenges created by GenAI was training and information, for both staff and students. Training needs mentioned included general information about how GenAI works and practical information on how to use GenAI tools (e.g. prompt writing), but also digital literacy and what might be termed critical awareness: that is, the social and cultural context of GenAI and how that might affect its development.

Practical information was seen as key for both staff and students. One staff member laid out their vision:

> *'I love the idea of, you know, developing a really robust generative AI training based on where things are now and trends on where things are going […] not just a single day or a single discussion, but like a curriculum […] case studies of pitfalls or issues or things that come up, but then also exciting potentials' (FG1).*

For this participant, GenAI training needed to be more than a single workshop or document, but rather a thoughtful, nuanced curriculum that is both critical and forward-looking. While one participant said that 'for students, it's slightly different [to staff] and students 'probably know very well how to use it' (FG1), other participants made the case that practical training was useful for students and staff alike. The student participant took this view: 'we need to be very talented in digital skills, both the students and the teachers […] I don't know how to sometimes write a prompt in different way' (FG5). One staff member made the point that training should acknowledge different levels of expertise: 'you can catch yourself up here and you don't ever need to feel completely stupid about this' (FG2). Another participant cautioned that if the university provided an AI tool 'it has to come with guidelines and training materials. It can't just be: here's the thing we've bought, off you go' (FG3) For all these participants, practical training and information was seen as empowering and enabling future practice.

Participants cautioned that cross-institutional training might not be sufficient: 'I think it will be different in different bits of the university, and that's probably the problem with trying to have a set of sort of principles which would work for everybody […] here's the broad principles, the ups and downs. For closer focus, you need to talk to your professors' (FG1). Another noted the need for 'bespoke training' for academics on 'using AI in his own module […] his or her own environment' (FG2). Another staff member noted that common issues with GenAI – for example, written assessments – might look different in different disciplines: '[some writing is] a creative act, whereas mine is less […] I'd say it's more of a factual explanation of something, so it's, I have to start thinking, is that so important for me anymore?' (FG3). While institutional training was seen as essential, staff participants were keenly aware of the disciplinary differences that mean more bespoke support is also required.

For several staff, the training needed for students was not just how to use GenAI but how to understand and evaluate it. One commented:

> *'[Students] have no idea how to use a word processor properly or how to use a search engine properly, so they just trust that this stuff will do it right. And so when ChatGPT says that this book exists and that this historical figure said this thing, why should they doubt it?' (FG3)*

For this participant the issue of GenAI brought up more general issues of digital and information literacy, and students' inability to critically appraise AI-generated information mirrored their lack of criticality with other forms of information. Another staff member agreed: 'a compulsory course at the beginning of [students'] study in which they're taught how to develop evaluative judgment of generative AI tools is, is really important' (FG3). Another element of this digital literacy that participants wanted to engender in students was GenAI's 'black box' nature, as highlighted by one participant: 'people tend to forget that […] if you put it in there, it will remember it. It will use it again and regurgitate it to somebody else, and that probably won't be you' (FG1). One staff member noted that 'our students are going to need to know that [GenAI]'s going to change […] people are going to continue to pour billions into it' and asked, 'How do you give [students] the skills to make judgements about something which is fast moving […] they're going to come across it whether they wish to or not' (FG1). For these participants, the skills students need are not limited to *using* GenAI but include evaluation and critique.

> **PRACTICE**: Learning environments and opportunities must be designed to help students practice engaging with GenAI tools in a critical, evaluative way that enhances their broader digital and information literacy.

Staff and students also agreed on the general need for university policy, and perhaps what might be termed 'guardrails' to help staff and students. For one:

> *'We've got to get this the right way around: cart and horse, to use a very old-fashioned – it shouldn't be driving the thing, it is at the moment because I think we're running a bit scared. […] How we get in front of it is not by*

stopping it and getting run over. It's saying this is how you're going to use it.'
(FG1)

This philosophical view was shared by almost every participant: no participant said that GenAI should be banned or disagreed with the need for training, policy and engagement in the area. The student participant agreed that 'if they can develop guidelines or if we can develop policies about that, it should be […] immediately as soon as possible' (FG5). Several participants mentioned the need for a specific person to lead around GenAI. For one, 'The university should have a dedicated person or team […] We need an AI librarian or something like that' (FG3).

> **INNOVATION**: Some educators and students are enthusiastically experimenting with generative AI, but concerns remain plagiarism, privacy, inequality and authenticity. Training programmes that equip both staff and students with the essential skills to leverage GenAI effectively and ethically will help early adopters innovate responsibly.

Staff were divided on whether universities should specify 'approved' GenAI tools or take a less prescriptive approach. For one, 'a university sanctioned tool would make it so much easier for us […]it just makes it so much more transparent as well.' (FG3) The student participant agreed, saying that a tool should be provided 'because the students are using that and the teachers will use that as well' (FG5). This view highlights the advantage of prescribed tools in providing consistency and shared experiences. An alternative view was that 'it would be very dangerous if we only have one AI system […] to give that ability and data management to one corporation' (FG4). This participant noted that reliance on a single tool had historically led to security risks where, for example, corporations relied on Internet Explorer even after it became obsolete and insecure.

Clear from all the focus groups, and from students and staff, was the imperative for universities to engage with GenAI tools from an institutional and policy perspective, providing guidance and training from the top while also allowing staff and students to explore, evaluate and create their own solutions. One participant highlighted the role of the higher education sector in *shaping* the direction of GenAI:

> *'AI will change society again, and that's where higher education needs to be,*
> *it needs to be part of that change and helping make it a good change*
> *because we could either end up in dystopia or utopia' (FG4).*

How this can happen is uncertain, but one place to start is engagement at the ground level: in teaching and learning practices. The next section showcases some methods colleagues have already tried.

Routes to practice: Generative AI

At the University of Hertfordshire, colleagues in Design (including Dr Silvio Carta, now at Greenwich) explored how image-generation tools (Dall-E and Stable Diffusion) affect creativity by analysing students' feedback from a workshop (Turchi et al, 2023). The results of the experiment suggested students' views varied – confirming our findings above that one size does not fit all – but that they consistently struggled with GenAI's 'black box' nature, citing a feeling of decreased agency in the design process. They also learned practical skills in refining their prompts during the workshop. These results suggest that **using GenAI tools with students in a discipline-focused way can help increase practical skills as well as critical evaluation of these platforms.**

Dr Michael Okereke, Associate Professor of Engineering at Greenwich, has shared how he has helped students use GenAI for a variety of processes in coursework projects: to generate and debug code, assist with technical processes (saving the supervisor time) and find references for a literature review. A key factor for this was distinguishing between processes that were inherent to the discipline and those that were not: the example of coding mirrors the discussion above regarding whether students should learn to code manually and how AI-generated code opens up computational processes in a variety of disciplines. **In your discipline, what processes could students seek help with from GenAI tools while still demonstrating their own skills in the subject?**

Dr Gerhard Kristandl, Associate Professor in Accounting and Finance at Greenwich, recorded a podcast episode entitled 'Balancing the books in the digital age' about how he helps his students prepare to enter the GenAI-enabled workplace – in this case, of accounting – by what he does in the higher education classroom. **How might GenAI change your students' working lives, and how can your teaching practice help them prepare for this?**

One participant in the focus groups suggested an assessment for more advanced students to solve problems in real time, more like a hackathon. […] I would leave them a problem and now solve it, sort it and they can use all the tools they want' (FG3). The University of Surrey ran a GenAI hackathon in 2023, with the winning team creating a custom university chatbot that could help and support students around the clock. **How can you create a space where students are supported to experiment with GenAI tools and use them to find solutions to existing problems?**

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Key Sources

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