Jisc

Student perceptions of generative AI

May 2024

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Student perceptions of generative AI

Following our initial Student Perceptions of Generative AI report last year, we recognised the need to continue the discussion with students/learners as the technology continues to evolve.

Over this past winter, we ran a series of nine in-person student discussion forums with over 200 students across colleges and universities to revisit student/learner perceptions of generative AI. Our goal was to understand if and how views on generative AI have shifted, identify emerging usage and concerns, and explore the developing role students/learners want these tools to play in their educational experience.

As institutions grapple with developing policies and guidance and the complex pedagogical shifts, capturing the authentic student voice remains crucial to inform responsible AI integration that both empowers students/learners and maintains academic integrity.

Key changes since Spring 2023

The adoption of generative AI in education by students/learners is undergoing a remarkable transformation, mirroring the rapid evolution of the technology itself. Over the span of just nine months, since our **previous report** we have seen a distinct change in how students are utilising generative AI, and a maturing expectation of their institutions to support them in their journey into employment in an AI enabled world.

Transition to Collaborative Learning: Students/Learners increasingly view generative AI as a collaborative tool to coach and support active learning and critical thinking, using these tools as a digital assistant rather than seeing them purely as answer providers.

Emphasis on Future Skills: Students/Learners emphasised the importance of generative AI-ready skills relevant to their future industries. There's a growing demand for an education to integrate generative AI across the curriculum and reflect the AI enabled world we all now inhabit.

Ethics, Equity, and Accessibility Concerns: Students/Learners are increasingly aware of and concerned about equity, bias, and accessibility issues related to AI, advocating for measures that address these challenges to ensure a safe, inclusive, and responsive educational experience.

Comprehensive Integration and Educator Competence: There's a clear expectation by students/learners for comprehensive generative AI integration across education, with competent usage by educators and policies that ensure a fair and effective AI-enhanced learning environment.

2024 Student perceptions

How students are currently using generative AI

Most students/learners are using free versions of tools such as ChatGPT and Wordtune, as well as AI features within social platforms like Discord and Snapchat. Some students/learners are paying for access to improved tools such as Midjourney, Photoleap, Notion, Scholarcy and ChatGPT Plus. Students/Learners are willing to pay for tools that aid accessibility and neurodiversity needs as well as career focused tools. Other tools mentioned included Perplexity, Motion, Photoshop, Deep L Translation, and Microsoft Copilot. Students/Learners are leveraging these tools in the following areas:

Communications and content creation

Students/Learners we spoke to say generative AI tools are providing essential support to help craft clear, effective, and targeted communication in both personal and academic settings. Generative AI is empowering them to produce high-quality content efficiently, guiding them through research-backed writing processes adding a layer of polish and professionalism. They told us it significantly enhances their capabilities by:

- Improving the politeness and friendliness of emails.
- Editing text for clearer more structured text.
- Transforming bullet points into professional emails.
- Adapting tone and style to suit context.
- Providing English language support to non-native English speakers.
- Breaking down complex information to aid comprehension.
- Supporting content creation, from job applications to blog posts, improving quality and structure.
- Clarifying complex concepts and offering reading recommendations.

Learning

Students/Learners told us that generative AI is supporting them on their learning journey, particularly out of hours, as it is always responsive. There is no feeling you are asking a stupid question, with AI, students/learners can iterate until they have full understanding, a process they feel uncomfortable adopting with teachers and peers. For maths we found students/learners using the tools to explain equations, often even where they felt the answer to be wrong, they were finding it helpful to use the generative AI workings to get to the correct answer themselves. We also found students/learners using generative AI to produce their own tailored revision materials, often using the tools to identify knowledge gaps and produce tailored resources to fill these gaps. Other uses include:

- Acting as a personal tutor to guide learning.
- Understanding different perspectives.
- Addressing gaps in knowledge, adding depth and removing tangents.
- Facilitating the learning of English and other languages for non-native speakers.
- Supporting individuals with SEND and Neurodiversity needs by helping them stay focused and organised.
- Creating tailored study aids including MCQs and flashcards.
- Checking answers and providing initial immediate feedback.

Researching

Some of the students/learners described how using generative AI tools streamlines the research process, making it easier to explore new topics quickly. Summarising lengthy research articles and academic papers to identify relevant works that are worth spending time to digest, saving students/learners hours of research. Other uses include:

- Providing concise and clear explanations of complex topics and academic papers.
- Discovering new sources and relevant literature.
- Enabling focused searches, complementing traditional search engines.

Programming

We found computing students/learners were using generative AI to enhance productivity and creativity by:

- Identifying coding errors and aiding in script development.
- Encouraging creative problem-solving in coding.

Creativity and Idea Development

Generative AI is not just a tool but a collaborator in the creative process, offering new possibilities and inspiration. Students/Learners described how they are using these tools to build on their own ideas and develop those further, pushing creativity. Generative AI is sparking creativity and helping to materialise ideas by:

- Generating new ideas and fostering creativity.
- Producing visuals and design mock-ups.
- Providing prompts for creative exploration in tools like Midjourney.
- Finding, reframing, and merging images to suit project needs.
- Manipulating and reframing images for specific purposes.
- Providing rough outlines and timings for storyboards.

Productivity and Task Management

Generative AI's role in personal organisation is akin to a digital assistant, tailored to individual schedules and priorities. Students/Learners described how it ensured they met deadlines and could manage or rearrange their schedule around emerging priorities easily giving them more family/free time. Uses include:

- Helping re-prioritise tasks and manage calendars.
- Assisting with daily routines and organising schedules.
- Providing support for last-minute tasks, enabling quicker research and writing.
- Condensing reading materials and PDFs to save valuable time.

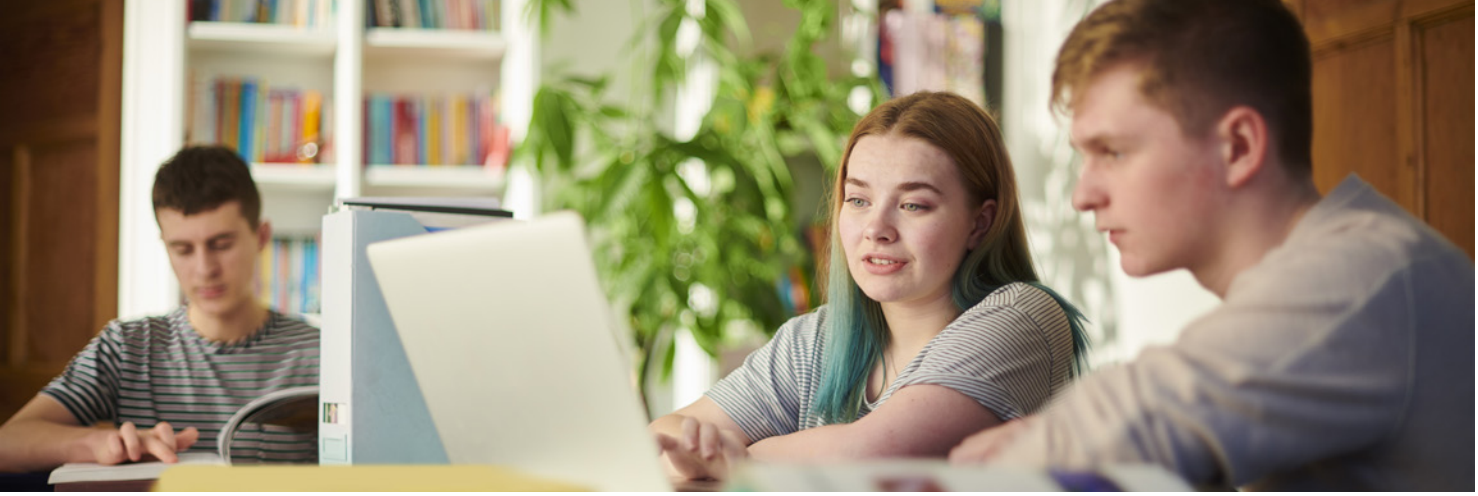
Personal Support

On a more personal level, generative AI is often acting as a guide and support tool. Some students/learners mentioned using generative AI to help them overcome fears such as Imposter Syndrome to become more confident contributors. Uses include:

- Always available.
- Serving as a guide and coach.
- Motivating users to stay focused and on track with their tasks.

Emotional support

Perhaps the most challenging finding was that some students/learners reported that they were using generative AI to provide companionship when feeling lonely. Here, we are just looking at what was reported, rather than delving into the deeper issues around it. This one, above all others mentioned, feels like a complex and perhaps concerning development, worthy of much more thought and consideration going forward.



Generative AI Literacy

Students/Learners we spoke to are becoming increasingly AI literate in terms of generating content efficiently to meet their requirements. They are utilising an evolving array of generative AI tools to find new sources of information to support their research and enrich their learning journey.

Students/Learners are experimenting with these tools to explore their capacity and limitations and understand how they can best utilise them to support and expand their learning. Creative students, in particular, are exploring how these tools can support and push the boundaries of creativity.

Student/Learners are less confident in critically evaluating outputs, with many feeling they lack the information literacy skills to assess information sources and content.

Student/Learner Concerns

Students/Learners were concerned about becoming over dependent on generative AI to produce written content and losing the ability to create it from scratch. They clearly stated their intention to not lose out on intellectual development by using generative AI tools inappropriately or excessively and also highlighted this as an area they wanted support from their institutions to manage the balance.

They expressed a need to retain their individuality and unique voices, and articulated a fear of how this would be impacted as use of generative AI tools increased.

Some students/learners expressed a desire for teachers to be more confident users of generative AI, to better support them.

Support needed

The student/learners we spoke to were overwhelmingly in favour of generative AI courses for all being provided by their institutions so that they understand the capabilities and limitations as well as how to use it effectively and responsibly to support their educational journey. They want this to include how they can best utilise generative AI tools in their specific study areas, without impacting intellectual development, and preferably at the beginning of all courses, or included within induction.

They also wanted more focus on developing information literacy skills to help them critically evaluate outputs from these tools, and to help them deal with the proliferation of misinformation across their lives.

Academic Integrity

Students/Learners we spoke to understand the need to distinguish between those who cheat and those who do not. They also discussed the complexities of where to draw the line of what is acceptable generative AI use and what is not. However, they did not agree with banning the use of generative AI tools. Instead, they spoke about their desire for assessment methods to change and be reflective of the generative AI enabled world they inhabit. Students/Learners expressed a desire for more focus on critical thinking and less focus on recall.

In general, they spoke quite strongly about the need for education to accept that generative AI is here now, with some likening it to the Industrial Revolution. Students/Learners raised the need to update education methods. They want education and their institutions to embrace this change and adapt teaching and assessment in response.

Student/Learner Concerns

There was a strong feeling across students/learners that current guidance from their institutions is either lacking, ambiguous, or applied inconsistently. They fear this lack of clear guidance on how they should use generative AI responsibly and ethically, could lead to some increases in misuse due to errors of interpretation.

Students/Learners strongly disagreed with the idea of returning to invigilated in person exams. Many students/learners had no recent experience of this type of exams due to the coronavirus pandemic and felt this approach would be damaging to their wellbeing.

Students/Learners stated they were concerned about the known bias in detection tools against non-native English speakers and felt institutions using detectors needed to respond to this and take concrete steps to mitigate this bias.

Support needed

There was a strong request for clear unambiguous guidance on generative AI use in learning and assessment, that was fair to all. They also felt a way to challenge decisions was needed, such as when generative AI detectors have been used, where they feel they have been disadvantaged.

Responsible, ethical use

Students/Learners we talked to were aware of the risks of generative AI systems containing or exposing personal data. They discussed the trade-off between privacy and efficiency when using generative AI, with some feeling resigned about the loss of personal data privacy, whilst others were less concerned about the trade off, particularly those creative students wanting to develop an audience for their work.

Students/Learners were deeply concerned about the potential for generative AI to influence human behaviour, particularly regarding the potential for misinformation spreading and increasing criminal activity with deep fakes. One of the concerning examples discussed was the rise in celebrity deep fake porn.

Student/Learner Concerns

Copyright was raised as a concern from two angles: 'Who owns work co-created with generative AI tools?' and 'How can I ensure that I am not inadvertently plagiarising someone else's work, without crediting or paying them, when I co-create using generative AI?'

Students/Learners recognised that there are inherent biases in generative AI systems, often reflecting disparities in race, gender, and socioeconomic status. They were concerned these biases would be exacerbated with the increasing use of generative AI tools.

Support needed

Students/Learners wanted clear guidance around copyright and ownership, particularly when they are using generative AI to co-create things like music, images, or storyboards.

They also wanted clarification on the use of generative AI across their institutions and how bias is mitigated, and fairness is ensured within these tools.

Students/Learners felt quite strongly that their institutions needed to ensure there was critical review of all AI-generated content to avoid perpetuating stereotypes within their institutions.

Equity and accessibility

Some of the students/learners we spoke to are currently paying for tools to support their accessibility needs to enable them to remain in study. Some students/learners stated quite starkly that without generative AI tools they would not be able to remain in education.

Student/Learner Concerns

Students/Learners felt quite strongly that where an institution's approach to generative AI isn't consistent then it will disadvantage some of them – they desire a fair universal approach.

Many of the students/learners raised the issue of increasing digital inequity with those having the ability to pay gaining access to superior tools. They see growing disadvantage based on financial ability.

Support needed

They felt strongly that institutions should restrict access to a suite of approved generative AI tools for students/learners, and to provide all of them with relevant access to suit their individual study needs.

Employment

Students/Learners raised concerns about AI replacing jobs, but the majority were also aware of the likely growth in AI created opportunities. Their main concern seemed to be a lack of knowledge on the specifics of these roles leading to a general sense of uncertainty and inability to plan for the unknown.

Students/Learners we spoke to were very clear on the need to have the relevant generative AI knowledge and skills that their industries are already embedding, to not be left behind. They were however uncertain of getting this support from their institutions currently. They also tended to understand the need to continually acquire new skills for an evolving jobs market and wanted to ensure they had the confidence to continue learning and adapting.

Student/Learner Concerns

Students/Learners in our discussion forums were concerned about acquiring the necessary generative AI skills for future workplaces. Many of them did not feel confident they were gaining the necessary skills. In some instance, this was due to current restrictions or potential bans on these tools by their institutions.

Students/Learners in more content creative subjects such as music, design, marketing etc., were much more concerned about the impact of generative AI, as they are seeing generative AI fulfilling a large part of existing roles and becoming very concerned about their future employment prospects.

Students/Learners are also aware that AI is increasingly used to assess CVs and applications for jobs and are concerned that such systems may contain bias that disadvantage certain groups, for example non-native English speakers.

Support needed

Students/Learners expressed a need for industry relevant generative AI tools to be embedded across their learning, so that they could comfortably transition into employment post study.

They also want support to keep pace with generative AI development and to feel confident that these will be embraced and embedded in current policies and teaching practices by their institutions.

Conclusion

The student/learner experience of generative AI is continuing to evolve. Students/Learners are continually exploring the capabilities and boundaries of generative AI and using these to augment their learning, seeing these tools as an effective digital assistant to support them to learn in an efficient and effective way. They also understand how these tools can improve accessibility and increase digital inequality.

However, students/learners have significant concerns around equity, accessibility, ethical use, and the potential for bias within generative AI technologies, indicating a need for inclusive, responsible approaches to integrating generative AI in education.

Students/Learners have clearly articulated the need for comprehensive support from their institutions, including access to generative AI tools that cater to a wide range of needs, the development of critical information literacy skills, and guidance on ethical use to ensure academic integrity and intellectual development.

The importance of preparing students/learners for the evolving generative AI influenced job market is also becoming increasingly clear. Incorporating relevant generative AI skills and knowledge into curricula is essential for keeping up with technological advancements and preparing them for future challenges.

Institutional responses to these evolving student/learner needs and concerns will be vital. Adopting policies that encompass the advantages of generative AI and confront its challenges is crucial. This involves promoting responsible innovation and creating inclusive learning environments ensuring everyone has an equitable chance to benefit from generative AI in education.

Thanks

We'd like to thank the following institutions for supporting our student generative AI discussion forums:

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