REPORT: EXPLORING STUDENT PERSPECTIVES ON GENERATIVE ARTIFICIAL INTELLIGENCE TOOLS AT THE UNIVERSITY OF NORTHAMPTON: A SURVEY-BASED STUDY

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Introduction

Institutions are on a journey with generative Artificial Intelligence (GenAI) and are having to make changes and decisions based on the most recent information. As with any trip it is essential to know where you are starting from (and ideally where you are going). This second University of Northampton (UON) student survey not only provides us with the 2024 position – it also allows us to see the journey which has already been travelled since the first survey in 2023.

The seismic changes in education and society since the advent of GenAI have left many institutions struggling in its wake with guidance and policies having to be rapidly updated. During 2024 there has been a turning point, with many now addressing the issues which have been raised. There is obvious potential in understanding and effective use of these tools which impact not only on our current operations and work but also on potential employability implications for ourselves and our students. The wider world is rapidly adopting this technology where it can positively impact on ways of working and on the bottom line. The value of increasing our own and our students digital GenAI literacy cannot be underestimated. We all need to have a basic appreciation of the tools which are now available and their benefits and limitations.

These survey results not only reflect the growing awareness and understanding of the positive value of GenAI (particularly for international and neurodiverse students), but they also show greater understanding of the ethical issues that are raised through their use. Students are increasingly questioning where the information that is provided by these systems is coming from and to what extent it may be relied upon. The vast majority of students strongly believe in maintaining the academic value of their studies and will not undermine this through the use of these tools. Some are consciously avoiding these systems whilst others are using them to help in the production of academic work. Institutions have a responsibility to help students understand the extent to which GenAI may be used without infringing academic integrity.

The journey with GenAl is shared with all the key individuals in the institution. Whilst it may not be fully clear at this stage what the ultimate destination will be, important checkpoints such as this report may be used to guide our path in order to make the best choices over our direction



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Disclaimer:

This text was written by human authors using GenAl as an assistive technology to summarise notes and improve the sentence structure in some areas during drafting, but not to generate the final output, alter the meaning, content or the structure of the report.

GenAl Images:

All images in this report were Al generated using Stable Diffusion 2024, using the Prompt: 'futuristic student learning'







Prologue

Upon the launch of ChatGPT (2022), the developer OpenAl articulated its mission statement as aiming 'to ensure that artificial general intelligence benefits all of humanity.' (OpenAl., 2024) This vision was initially reflected in offering free public access to the tool, a model that was subsequently emulated by major corporations such as Google and Microsoft (2023), who also provided free access to their generative Al (GenAl) technologies.

However, critics of GenAl tools have identified a range of issues with these technologies. Concerns include biases in data inputs and outputs, inaccuracies in data, unethical use of personal information, data security and privacy risks. As well as; the potential for misinformation and manipulation through deep fakes and fraud, risks of job displacement, and copyright infringements.

There is a recognition within current literature of GenAl's transformative potential. Studies have highlighted how it can enhance productivity across various professional sectors, including academia and research, by automating the production of textual material and fostering the development of creative content. (Kwame et al., 2024). Furthermore, GenAl tools such as ChatGPT are seen to support students with diverse needs, including neurodiversity, by aiding with grammar and helping generate ideas, thus allowing for a more inclusive learning environment (Chan & Hu, 2023).

Nonetheless, this optimistic view is tempered by calls for careful integration and ethical considerations. The introduction of the AI Assessment Scale for ethical GenAI assessment in education aims to help educators integrate these tools responsibly. It's designed to ensure that GenAI is used in a way that is transparent, equitable, and supports learning outcomes, while also providing a policy framework for institutions (Perkins et al., 2023).

As GenAl continues to evolve, it becomes increasingly important to thoroughly examine its uses, impacts, and the difficulties it introduces, in order to better understand its potential role in the future of education. This investigation is essential to grasp both the positive and negative aspects associated with GenAl's integration into educational settings (Bahroun et al., 2023).





Survey data: Student perceptions of Generative AI

The first survey in May 2023 was among the first to explore student perceptions of AI and has played an important role in shaping the direction of GenAI at the university of Northampton. (Byles et al., 2023)

Despite the widespread excitement surrounding Generative AI in early 2023, the survey revealed that a majority of students (62%) had not yet engaged with these tools for learning, primarily due to ethical considerations and personal values. However, those who had utilised these tools reported finding them beneficial for a variety of tasks.

2024 student survey on uses of Generative AI.

The 2024 survey was released on the 29th of February after a successful ethics application and ran until the 12th of April. It was hosted with Version 3 of Jisc's Online Surveys App and was made available via the student VLE (Blackboard) and on digital signage within the campus using a QR code. It was also publicised by members of the UON AI society and received 138 responses. This was an increase of 7% from 129 responses in 2023.

To build on the knowledge gained from the 2023 survey and the evolving nature of GenAI within education, it was necessary to alter the survey questions. Questions to gather more explicit data about the uses of GenAI at the university were added along with questions to delve deeper into student's thoughts and feelings about some of the perceived benefits and limitations of GenAI in education. It was also important to elicit student's perceptions about the university's support and guidance with GenAI to ensure that student voice could play a pivotal role in helping to shape this.

Likert scaled questions and open responses allowed for both quantitative and qualitative data to be examined.

Demographics

Of the respondents to the 2023 and 2024 surveys, the majority of these were in the 18-24 age group with a slight increase of respondents in the 25-34 age group in 2024.



1. Age of survey respondents

In both 2023 and 2024 most survey participants were studying Business (this was categorised as Business and Law in 2023 but separately, as just Business, in 2024).



For the 2024 survey a question to identify international students was introduced and the data showed that 43% of the respondents were international.



4. Are you an international student?

It is important to note that percentage of currently international students at UON is 34%, (as provided by the Business Intelligence & Mgmt Information Unit) indicating that this survey is over-represented by this group.

Student's use of GenAl and their perceptions of it

In 2023, 32% of surveyed participants said they used GenAl in their studies, in 2024, this number has risen to 52%, suggesting an upward trend. However, upon further analysis of the 2024 data, a distinct division in the use of GenAl tools between International and UK students can be seen. With 57% of international students using GenAl tools, compared to 29% of UK students.

Age was not a deciding factor in GenAl usage in 2023, with even distribution across all groups. However, in 2024, fewer students aged 18-24 used GenAl, while adoption increased among those aged 25-34.





6. Uses of GenAl rated helpful/very helpful - Students 2023 and 2024:



2023 2024

When given a list of specific uses for GenAl to categorise in terms of helpfulness, students cite summarising content, generating ideas, and summarising notes as the most helpful in 2024.

This marks a shift from 2023, when creating new written content was the most valued use. Additionally, editing text has gained popularity as a use for GenAI compared to the previous year.

Among all 2024 users, 47% use GenAI regularly (daily to weekly), and 53% use it occasionally (a few times a month or less). Survey data from both 2023 and 2024 showed ChatGPT to be the most popular GenAI tool. Students in 2024 value the tool for its assistive abilities in summarising texts, explaining theories, and enhancing discussions. They also feel that it supports with grammar, paraphrasing, coding, data extraction, and improving writing quality. Additionally, students find GenAI beneficial for research, particularly in creating practice exams and literature reviews. For assessments, it aids in planning, drafting feedback, question explanations, and idea generation. Students in 2024 were also asked about their use of GenAI as an assistive tool to support specific needs (e.g. dyslexia, autism), While a significant number of respondents (59%) had not used GenAI in this way, those who had, found it helpful. Students using GenAI also felt that it could improve the accessibility of content, though non-users were more divided on this point.

Students also identified where ChatGPT was least useful and highlighted the inaccuracy and relevancy of the output as an issue along with the data not being up to date. They also pointed out that the writing 'style' of ChatGPT can often be limiting, producing either monotonous writing or conversely, too effusive.

In 2023, students not using GenAI mainly cited concerns about cheating and its perceived lack of necessity. In 2024, these concerns remain, with an additional worry that GenAI might limit creativity alongside concerns about privacy of data. Some students also described GenAI as gimmicky, expressed fears of reprimand for using it for their studies, and raised environmental concerns.

"It has hallucinations, it forgets what writing style you are using often correcting its own corrections" (Health student aged 45-54 using GenAl weekly)

You cannot rely on the information itself. I feel it provides a starting point but is not through research. (Business student aged 25-34 using Al a few times a month)

"Writing longer paragraphs or texts that tend to lack creativity and be monotonous/ predictive." (Business student aged 35-44 using GenAl most days)

"It involves the theft of other people's work. It is also harmful to the environment" (Art student aged 25-34 not using GenAI) Ultimately, my concerns about Generative AI could not be fully addressed as I feel that using it in studies is cheating. However, a good start would be AI companies being held accountable about where their data is being sourced from."

(Technology student aged 18-24 not using GenAl)

"open honesty about the sources the AI is fed to get it's 'information' from, that or a critical review of how they aren't actually intelligent and just chop up already existing content to generate amalgamations with no redeemable unique qualities to them" (Society student aged 18-24 not using GenAI)

"Understanding how these could be used as a means of improving my interactions with patients. Also how this would be valuable in studies ie overviewing my writing/ reviewing spelling and grammar etc" (Health student aged 35-44 not using GenAl) Students from the 2024 survey not using GenAl were asked about how their concerns of use could be addressed. Key issues included addressing ethical dilemmas such as academic integrity and the equitable use of these tools in educational settings. Additionally, there was emphasis on ensuring that data utilised by GenAl tools is provided consensually and obtained ethically. Students also expressed that further training and guidance could also help address their apprehensions.

In terms of overall perceptions of the use of GenAI tools, the survey data consistently shows that students who use GenAI tools tend to view them more positively. In 2024, 46% of GenAI users have a positive opinion of these tools, compared to only 25% of non-users.

7. Student perceptions of advancements in GenAl



However, the 2024 data also shows that there is a marked difference between the perceptions of UK and International students. International students are overwhelmingly positive about the advancements of GenAI compared to the majority of UK students who feel negatively or neutral.

8. UK and International students perceptions of advancements of GenAI



Student perspectives on developing their awareness and use of GenAl.

Both 2024 users and non-users agreed with the following statements in their use of GenAl tools as shown in the table below, in order of agreement.

Statements	All responses	Users	Non Users
I have considered ethical issues in the use of GenAI in my studies	74%	82%	66%
I feel that the use of GenAI should be a personal choice	68%	76%	57%
I feel that it is important to develop critical GenAl literacy	67%	83%	50%
I have concerns about copyright issues with GenAI tools	66%	56%	77%
Students trained in the use of GenAl tools will have more opportunities in the future	63%	76%	47%
I have concerns about the privacy of information with GenAI tools	61%	53%	70%
I would like to be trained in the use of GenAl tools to support my studies/role	61%	80%	40%
I feel that GenAl tools should be available to ALL students	60%	82%	35%
The use of GenAl could improve the accessibility of content available to me	59%	80%	35%
GenAl tools are widely used in industry I hope to work in	46%	66%	22%
I am unsure about how to use GenAI to support learning/my role	34%	20%	49%

The data shows that all users, regardless of current GenAl usage, agree that ethics and personal choice are important considerations in the use of these tools. However, non-users express greater concerns about copyright issues and privacy of information.

Students who use GenAl are keen to be given further training and feel more strongly that GenAl tools should be made available to all students. They also believe that GenAl could help make content more accessible and will also be important within the industries that they hope to work in.

Student Perspectives on using GenAl within their studies and within the wider institution

The table below shows student's responses to statements about the use of GenAI within learning in order of agreement of all respondents. The difference between the agreement of users and non-users is also shown.

Statements	All responses	Users	Non Users
GenAl tools can help students to plan their work.	75%	86%	63%
GenAl tools can help students to organise their thoughts.	66%	81%	50%
GenAI tools can help students with their written skills.	61%	78%	41%
I feel that the use of GenAI should be made explicit in an assessment brief	60%	58%	61%
The use of GenAl tools can reduce study workload	59%	71%	45%
GenAl tools can help students by providing feedback on their drafts	57%	68%	45%
Students who develop their skills with GenAI will be better prepared for employment in their chosen industry	43%	56%	30%
I feel that it is OK for students to use GenAl tools to complete their assessments as long as they are clear where they have done so.	42%	54%	30%
The use of GenAl in education may give an unfair advantage to students.	41%	29%	56%

Although the majority of respondents agree that the use of GenAl can support written skills, there is a significant difference in agreement between users (78%) and non-users (41%). Users are also more in agreement that GenAl helps to organise their thoughts. Both groups of students are more united in their agreement that GenAl can support in the planning of their work and in providing feedback. One area where students do agree is in whether the use of GenAl should be made explicit in assessment briefs, with nearly two-thirds of both users and non-users agreeing that it should be clearly stated.

"I have not and will not use Generative AI within my studies. It is unable to feel, empathise, to question. Generative AI is thus damaging not only to student learning but perhaps societal advancements more broadly."

(Society student aged 25-34 not using GenAl)

I understand the guidelines and rules for ethical AI use in assignments. Most students I know simply use it to better understand their topics, and research for quick note-taking and information promptly as textbooks can be overwhelming. (Business student aged

25-34 using GenAl a few times a month)

The usage of GAI might increase the accessibility of information provided to students, allowing them to be more creative and pushing the AI to its limits. AI should not be banned or suspected, but rather give more workshops on its usage, advantages, limits, and plagiarism to assist students.

(Business student aged 18-24 not using GenAl)

"I think that if used correctly, GAI can be an invaluable resource to students as well as staff." (Science student aged 55-64 using GenAI less than once a month)

Assessment

Student views on GenAI and assessment at UON are varied. As the chart below shows, we can see that GenAI users are more positive towards the use of GenAI tools in assessment, keen to embrace change, and more likely to view these tools as assistive tools for assessment work than those who are not using them. However, a significant number remain neutral. In terms of using GenAI for assistance in assessed work, 77% of users support it, whereas non-users show more uncertainty.



9. Generative AI and assessments 2024

"I do believe in the strengths of GenAI, it could be a guiding tool to help students plan their work, give a starting point and rearrange ideas when stuck, it is an aid. Because of its presence and the major use of it, it would be hard to forbid the use and avoid students from further use, therefore I do believe a better approach could be taken, where tutors do present and explain how to effectively and ethically use AI." (Society student aged 18-24 not using GenAI) "As long as all students have the same access to the same GenAI and are taught how to appropriately use it, I do not see an issue with it. I think that there will always be a need for a human being (lecturer) to look at work as they have an understanding of the context of both assignments and the students whose work is being marked, I don't believe GenAI could accurately mark work due to this." (Arts student aged 25-34 not using GenAI)

Conclusion

The latest student survey reveals an upward trend in the use of GenAl technologies among UON respondents, alongside a noticeable shift in student uses and perceptions of these tools year over year. As with the 2023 survey, students' values of integrity and ethics significantly influence their decision to adopt GenAl tools.

Students already using GenAl tools continue to perceive their use and impact more positively, a trend observed since 2023. These students emphasise that GenAl tools, particularly ChatGPT, enhance learning by assisting in planning, organising thoughts, and writing, rather than merely generating finished outputs. A significant finding was the positivity among international students, and this suggests a need for further exploration into their specific usage and benefits of these tools. While most students haven't used GenAl for specific needs such as dyslexia or autism, those who have found it helpful. Additionally, GenAl is viewed as potentially improving content accessibility, though non-users have mixed opinions.

However, a significant portion of the student population, particularly among UK students, remains sceptical about the use of GenAl tools. Their concerns primarily revolve around the perception that GenAl tools may negatively affect their learning experience. Despite these opposing views, both groups of students were clear in the survey data that the use of GenAl should be a personal choice.

Regarding assessment, as with the 2023 survey data, student views on GenAl are varied. While GenAl users tend to have a positive outlook on using these tools for assessment, seeing them as assistive and beneficial, non-users are more uncertain. This divergence suggests that while there is potential for integrating GenAl into assessment practices, it is crucial to address concerns and ensure equitable access and understanding for all students.

These mixed perspectives highlight the importance of providing support and guidance to ensure the effective, skilled, and ethical use of GenAI. It is also vital to remain mindful of the personal views of those students who do not wish to utilise such tools. The knowledge and understanding of academic staff will be a key factor in this process.

Within the 2024 data, numerous comments were expressed about the impact of GenAl on students' studies. There was a strong desire for training and guidelines on the ethical and effective use of GenAl, along with a need for more information about these technologies. This represents a shift from the 2023 data, where student comments were more focused on general thoughts about Al advancements and the importance of maintaining human involvement. Therefore, it is essential to continually explore the impact of GenAl on teaching and learning through ongoing research.

The integration of GenAI tools in educational settings is an evolving process with shifting acceptance among both students and staff (McDonald et al., 2024; H. Wang et al., 2023). However, this acceptance comes with reservations about the potential academic and ethical implications. Incorporating regular student feedback into the development of GenAI guidance and resources can ensure that these reflect the needs and values of our student body.



"Use of GAI tool in the context your studies and in the context of inter-disciplinary usage should be differentiated. CS majors need to learn how to code, are judged accordingly; but I'm a business major and my usage of any coding (either learnt or by GAI) is simply as a tool to get my actual work done, so it's not something I am judged on, just like how I am not judged on whether I did the sums in my head or using a calculator, I am judged on what I do with those numbers "

(International business student aged 35-44 using GenAI a few times a month)

GenAl at UON

Developments in GenAl within 2023-24 at UON include; research projects, training sessions, debates, talks, resources, guidance for use, case studies and the development of learning communities including the Al steering group chaired by Chris Powis and the CADE Al special interest group co-led by Rob Howe and Karl Downing.

The Study Smart Project lead by Rob Howe (Head of Learning Technology) and Helen Caldwell (Associate Professor at the University of Northampton) have examined GenAI in relation to teaching and learning, assessment, research, inclusion and creativity, providing structured talks and a forum to discuss AI in relation to these areas and have helped to build a supportive community of practice.

In addition, since 2023 the authors have been supporting <u>CADE</u> as researchers, gathering case studies on how GenAI technologies are employed to assist teaching and learning and in the creation of an AI toolkit.

In three examples presented here, Deputy head of Fashion, textile, footwear and accessories, Jane Mills and a number of her students discuss how GenAI is supporting their creative process. Jane explains how the introduction of a new digital log book has given the students the confidence to use these tools critically and ethically.

The second example, shows how Learning Development tutor Anne-Marie Langford employs generative AI to produce sample passages of academic writing for analysis and refinement in development workshops, and looks at impact of this within her approach to supporting students.

In the last example, UON BA acting students discuss how they have collaborated with independent theatre director Matt Bond on a new play called "PlayAI," the script of which was created wholly through prompting ChatGPT. Here we see how technologies can serve as a catalyst for innovation while expanding student's digital literacies and prompting ethical considerations in AI engagement.

Through these case studies we have aimed to show the uses of Generative AI in teaching and learning scenarios, highlighting the benefits and considerations of use.



BA Fashion, Textiles, Footwear and Accessories 2024



GenAl Text to Enhance Academic Writing



Artificial Intelligence Meets Drama

Outputs

The authors are presenting their paper "The evolving role of GenAl at UON; developing an inclusive approach to shifting student perspectives" at The UON Learning & Teaching conference in 2024, where they will discuss their survey findings and suggest methods for engaging students critically in the use of GenAl tools in ways that are inclusive.

As part of the presentation attendees will trial new learning resources designed to prompt discussion on students' use of GenAl technologies.

Top. Button badges created for inclusivity and GenAl activity



Bottom. Different messages presented as posters for GenAI discussion.



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