

Reimagining the first-year experience in MTU: Scaffolding academic integrity in a GenAI world

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ABSTRACT

This *On the Horizon* paper presents the vision and development of the *MTU Ethical Learning with GenAI* project, a cross-institutional initiative that aims to address the ethical challenges and opportunities posed by generative artificial intelligence (GenAI) in higher education. Grounded in the principles of academic integrity and critical Artificial Intelligence (AI) literacy, the project builds on prior Strategic Alignment of Teaching and Learning Enhancement (SATLE) work at Munster Technological University (MTU) and leverages evidence from a multi-disciplinary student survey, staff focus groups, and national academic policy networks.

This project introduces a multi-tiered strategy: updating *Courageous Conversations* guidelines, embedding GenAI and integrity-focused induction for first-year students, and evaluating GenAI's role for first year students in tutoring within the Academic Learning Centre (ALC).

Keywords: first year students, generative artificial intelligence, student perceptions, Gen AI project

Introduction

In the rapidly evolving landscape of higher education, the rise of GenAI technologies such as ChatGPT and other Large Language Models (LLMs) has introduced a profound shift in how knowledge is accessed, processed, and demonstrated. As universities globally adapt to the challenges and opportunities presented by these tools, questions around academic integrity, GenAI literacy, and ethical learning are coming sharply into focus. For higher education institutions like Munster Technological University (MTU), which spans six campuses and serves over 18,000 students and 2,000 staff, responding to these developments is not simply a matter of compliance, but a strategic imperative.

This article introduces the *MTU Ethical Learning with GenAI* initiative, a three-year, cross-disciplinary project funded under the Strategic Alignment of Teaching and Learning Enhancement (SATLE) scheme, funded by the National Forum for the Enhancement of Teaching and Learning in Ireland. Rather than treating GenAI as purely a threat to academic standards, the initiative reframes it as an opportunity to deepen student engagement and co-create a culture of academic integrity that is relevant to the post-AI era.

The urgency of this work is reinforced by sectoral research. As Cotton et al. (2024) notes, the arrival of tools like ChatGPT has blurred the line between human and machine-generated content, demanding a re-evaluation of assessment practices and learning support models. Further challenges are to ensure that academic work reflects the student's own reasoning and skill, particularly in assessments that were not designed to accommodate AI involvement (Panukhnyk, 2023).

Background

Gen AI tools and LLMs are beginning to occupy a visible and sometimes contested place within higher education. Their integration into students' academic practices appears to be uneven but is growing, with usage driven by perceptions of usefulness, compatibility with study routines, and ease of interaction. Surveys conducted across various educational contexts show that students often associate GenAI tools with potential gains in efficiency, improved access to feedback, and support for learning tasks that would otherwise require more time or human assistance (Chan & Zhou, 2023). Recent HEPI reports (Freeman 2024; Freeman 2025) reveal a sharp rise in student use of AI during 2025. Nearly all students (92%) reported using AI in some capacity in 2025, up from 66% the previous year, and 88% had used GenAI specifically for assessments, compared to 53% in 2024. According to the survey, GenAI was most commonly used to explain concepts, summarise articles, and generate research ideas. However, a notable proportion of students also admitted to incorporating AI-generated text directly into their assignments. Similarly, a large-scale survey in Sweden by Malmström et al. (2023), involving nearly 6,000 students, found that most respondents perceived GenAI as having a positive effect on their learning.

In turn, evidence from first-year mechanical engineering students at California Polytechnic State University illustrates this gradual permeation of GenAI into student life. A notable portion of these students, 42%, had already engaged with such tools, while 75% expressed intentions to use them in the future (Peuker, 2024).

First-year students, in turn, occupy a distinctive position in discussions surrounding GenAI use within higher education, as they are simultaneously acclimatising to new academic norms and negotiating the incorporation of emerging digital tools into their study habits. Their relatively fresh exposure to university-level expectations and assessment structures seem to influence both how they experiment with AI and how they interpret its possible benefits or drawbacks (Saúde et al., 2024). Many are inclined to try AI applications as supplements to traditional resources. Yet, without extensive prior experience in critically appraising these technologies, their approaches can reflect a blend of curiosity, convenience seeking, and tentative caution.

In Science, Technology, Engineering and Mathematics (STEM), first-year students encountering primarily low-level coding exercises may find conversational interfaces like ChatGPT easier to apply than tools embedded in professional integrated development environments (IDEs), which have steeper learning curves (Simon et al., 2024).

Ethical concerns around plagiarism or cheating also remain intertwined with broader debates about legitimate AI support versus misconduct. Students can often recognise clear boundaries between permissible uses and rule violations in principle (Stone, 2025), yet actual enforcement mechanisms within institutions vary greatly in transparency and trustworthiness. Bringing these elements together builds a portrait not only of varied uptake rates but also shifting relationships between learners and intelligent systems. While many first-year university students approach GenAI with optimism centered on productivity enhancement or skill development opportunities, acceptance is rarely unconditional. It really seems to come down to whether the tools fit the needs of a course, and whether there is open and clear conversation about using them ethically in line with the values of academic integrity that apply across all subjects. Observations in Saudi Arabia similarly revealed willingness across age groups to integrate AI technologies into research and coursework despite identified shortages in training provision and institutional support structures (Al-Zahrani, 2024).

Starting university is a major transition for any student, but for first-years especially, the adjustment to new academic expectations can feel overwhelming. At Munster Technological University (MTU), we've seen that questions around academic integrity and the use of digital tools often begin early — sometimes within the first few weeks. First-year students are navigating unfamiliar systems, learning how to cite and reference, understanding what is considered plagiarism, and increasingly, trying to figure out where GenAI fits into all of this. The guidance they receive (or do not receive) during this time can shape their confidence and habits for years to come.

The *MTU Ethical Learning with GenAI* project emerged from that very real need: to better support students, and in particular, first-year students in building a strong, practical understanding of academic integrity — one that reflects the current realities of digital learning environments. In particular, feedback from first year students during previous SATLE-funded work revealed uncertainty, anxiety, and, at times, unspoken assumptions about what tools could or should be used to complete assignments. Some first year students admitted using GenAI tools like ChatGPT without fully understanding the ethical implications. Others avoided these tools altogether, unsure of whether they were even allowed. Many simply had not been told one way or the other.

What became clear was that students were not trying to 'cheat'. They were trying to adapt. They were asking smart questions: about fairness, authorship, effort, and efficiency, but not always getting clear or consistent answers (Grimes et al., 2024). In that gap, assumptions and confusion thrived. For first-years especially, it was easy to feel like the goalposts were always moving. If one lecturer discouraged AI tools and another encouraged them, how were students supposed to know what was expected?

The project team recognised that we could not address these issues through policy alone. We also knew that a one-off workshop or handout wasn't going to be enough, so we proceeded with the *MTU Ethical Learning with GenAI* project. We built this project on the foundation of the 2022 SATLE initiative *Courageous Conversations*, which, among other things, encouraged staff and students to talk openly about issues of integrity. This project is, at its core, a response to those first-year experiences. It is about helping students find their footing in a complex academic environment, and ensuring that conversations about integrity and technology are not postponed until they have 'settled in'.

Survey highlights

In MTU, we started the project by launching an MTU-wide survey to understand students' perceptions of academic integrity and GenAI use. The team had a great response from over 600 students, 244 of which were first-year students. We first note that there was a fairly even split across gender (129 male vs 114 female), and across faculty (138 business/humanities, 104 science/engineering). Only a small minority (10) of first year respondents were mature students, with the majority being in the age range 18-22.

In terms of general awareness of academic integrity, only one third of first year students said they had been informed of academic integrity policies in MTU, while a further 30% said they were not sure. Of those who said they had been informed, most said they had been informed by lecturers, with less than a fifth of the students referencing the central source of the MTU website.

Students were asked how often lecturers discussed different aspects of academic integrity. While 60% indicated lecturers often discussed plagiarism, this dropped to only 40% for lecturers often discussing GenAI. This may reflect the uncertainty in the academic community with regard to what should be allowed with respect to GenAI, and how best to handle it in the context of non-exam based evaluation.

We next assessed students' familiarity with AI tools for producing text. ChatGPT was the only GenAI tool where the majority (75%) said they were familiar with it (compared to Bing, Bard, CoPilot). However, less than a third of first year students said they used ChatGPT. Indeed, more students stated that they regularly used writing assistance tools such as Grammarly than ChatGPT.

The above finding was also reflected in students' perceptions, with less than 20% agreeing with the statement that 'GenAI use is common among students', and only one quarter of students agreed that overall they had a positive attitude towards the use of GenAI in education. Still, nearly 30% of students agreed with the statement that 'GenAI / chatbots generate better results than I can produce on my own', and 20% agreed with the statement 'In the next three years students will be unable to gain a high qualification without using AI'. Surprisingly for the latter, this number rose to 30% for students in later years of study, indicating that the university experience was increasing this feeling among students.

Beyond the descriptive statistics, the survey responses revealed a clear underlying theme: first-year students were actively trying to understand how GenAI fits within the expectations of academic integrity. Many respondents expressed uncertainty about what constituted acceptable use of these tools and indicated that guidance across modules was sometimes inconsistent. As one student explained, "A lot of students including myself use [AI] for summarising notes and simplifying difficult concepts, not to copy and paste assignments". Others highlighted the potential value of these tools when used responsibly, noting that "AI can be used as a tool to expand on poor notes provided by lecturers [...] it can help students without them using it to directly cheat". At the same time, some students raised concerns about fairness in how institutions might respond to GenAI use. One respondent cautioned that "AI detection tools have a very high false positive rate which is unfair to honest students". As well as that, many students did not have any education prior to entering third level: "We never heard of any of it in school". Taken together, these responses suggest that students might not be clear in what exactly constitutes academic misconduct, and need clarity in how emerging technologies should be used in their learning.

These insights directly informed the development of the *MTU Ethical Learning with GenAI* project, which prioritises dialogue, clearer guidance on acceptable AI use, and practical support for students navigating academic integrity in a rapidly evolving technological landscape.

Our Project: MTU - Ethical learning with GenAI

The project set out therefore with a clear aim: to respond meaningfully to the challenges and questions raised by first year students and staff about how GenAI is reshaping learning, assessment, and academic integrity in higher education. The first year of work (2024–2025), underpinned by the principles of NAIN (*National Principles and Lexicon of Common Terms*, NAIN, 2021), has already led to important progress, both practical and cultural, within MTU and beyond.

In practical terms, the project operates across several complementary strands designed to embed academic integrity and GenAI literacy into everyday student learning experiences. These include the development of dedicated induction activities for first-year students that will introduce the ethical use of AI tools alongside foundational academic integrity concepts. Also, it includes the revision of the *Courageous Conversations* framework to support important dialogue between staff and students about emerging technologies. In parallel, within the Academic Learning Centre, we examine how GenAI tools can be used responsibly to support tutoring in subjects such as mathematics and statistics. Together, these initiatives aim to move the conversation beyond enforcement or detection and towards a more educational approach, where students

are supported in developing the judgement and skills needed to engage critically and ethically with AI-assisted learning.

One of our first priorities, therefore, was to revisit and refresh the *Courageous Conversations* guidelines, which is a resource that helps staff and students talk openly and honestly about academic integrity. These conversations have always been important, but with the rise of GenAI tools like ChatGPT, they've become even more complex.

We reviewed the original guidelines in light of new emerging technologies and insights from student surveys and staff feedback and made sure that they are aligned with the new MTU's *Academic Integrity Policy*, adopted by the Academic Council in 2025. The result is a new version of *Courageous Conversations* that explicitly tackles GenAI-related issues — from plagiarism and contract cheating to the grey areas of AI-assisted writing. These updated guidelines were piloted across several departments in the Faculty of Business and Humanities and are already being used to support more nuanced, forward-looking conversations in classrooms and support centres.

Another important strand of the project focused on the Academic Learning Centre (ALC). Could GenAI be used to support student learning — especially in problem-solving subjects like Mathematics and Statistics? To explore this, we ran a small pilot comparing student experiences using GenAI tools (like ChatGPT) with more traditional resources (notes, videos, tutor drop-ins). Students' opinions were mixed. They liked the instant, conversational help that GenAI offered. They said it made studying feel more interactive. But they also pointed out that the AI was not always right and sometimes it gave confusing or even wrong answers. The key takeaway? GenAI works best when it's *guided, scaffolded*, and used in combination with human support. This will shape how we train students (and staff) to use AI tools in the future. Ongoing work in the ALC will give us more understanding of how students use GenAI in the ALC context — which will enable us to build the necessary scaffolding for them. We are also now running a more detailed comparison between free and paid GenAI tools, to understand what kind of access and support will be most effective — and sustainable — across the institution.

Looking ahead, an important dimension of the MTU *Ethical Learning with GenAI* project is the evaluation of its long-term impact. Success for this initiative will be measured through changes in students' understanding of academic integrity and their confidence in navigating GenAI use within their studies. To assess this, the project will continue to collect both quantitative and qualitative data through follow-up student surveys, focus groups, and feedback from staff, including staff specifically assigned to the ALC. Particular attention will be given to whether students report greater clarity regarding understanding misconduct and acceptable GenAI use, whether discussions of academic integrity and GenAI become more embedded in teaching practice, and whether students feel better supported in using AI tools ethically as part of their learning. These measures will allow the project team to track evolving attitudes and practices over time and to refine institutional guidance accordingly.

Conclusion

This project began with a simple question: how can we help first-year students to navigate academic integrity in a world where GenAI is everywhere? What we found is that students are not trying to take shortcuts — they are trying to understand the rules in a space that is changing fast. By listening to their concerns, testing new resources, and having honest conversations, we have started to build something more supportive, more transparent, and more relevant.

We are moving away from fear-based messaging and towards practical, open guidance. And while there is still work to do, this first phase has shown that with the right attitude and dialogue, both staff and students can approach GenAI with more confidence, clarity, and care.

Ethical approval

The present study operated under approval from MTU's Human Research Ethics Committee (HREC). Approval Number: HREC-MR-23-024-A.

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Biography

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References

- Al-Zahrani, A. M. (2024). The impact of generative AI tools on researchers and research: Implications for academia in higher education. *Innovations in Education and Teaching International*, 61(5), 1029–1043. <https://doi.org/10.1080/14703297.2023.2271445>
- Cotton, D. R., Cotton, P. A., & Shipway, J. R. (2024). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*, 61(2), 228–239. <https://doi.org/10.1080/14703297.2023.2190148>
- Chan, C. K. Y., & Zhou, W. (2023). An expectancy value theory (EVT) based instrument for measuring student perceptions of generative AI. *Smart Learning Environments*, 10, 64. <https://doi.org/10.1186/s40561-023-00284-4>
- Freeman, J. (2024). *Provide or punish? Students' views on generative AI in higher education*. Higher Education Policy Institute: London, UK. <https://www.hepi.ac.uk/wp-content/uploads/2024/01/HEPI-Policy-Note-51.pdf>
- Freeman, J. (2025). *Student generative ai survey 2025*. Higher Education Policy Institute: London, UK. <https://www.hepi.ac.uk/wp-content/uploads/2025/02/HEPI-Policy-Note-61-2.pdf>
- Grimes, D., M. Hurley, V. Morari, and J. O'Mahony. 2024. *Academic Integrity Differences across Faculties: A Student Survey*. In 10th International Conference on Higher Education Advances (HEAd'24). Editorial Universitat Politècnica de València. <https://doi.org/10.4995/HEAd24.2024.17312>
- Malmström, H., Stöhr, C., & Ou, A. W. (2023). Chatbots and other AI for learning: A survey of use and views among university students in Sweden. *Chalmers Studies in Communication and Learning in Higher Education*, 1(10.17196). <https://doi.org/10.17196/CLS.CSCLHE/2023/01>
- National Academic Integrity Network (NAIN). 2021. *Academic Integrity: National Principles and Lexicon of Common Terms*. <https://www.qqi.ie/sites/default/files/2021-11/academic-integrity-national-principles-and-lexicon-of-common-terms.pdf>

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- Panukhnyk, O. 2023. Policy of Academic and Research Integrity in the Conditions of the AI Revolution: Formula of Interaction [Ukrainian]. *Galic'kij Ekonomičnij Visnik*. https://doi.org/10.33108/galicianvisnyk_tntu2023.05.185
- Peuker, S. (2024, June). Evaluation of the utilization of generative artificial intelligence tools among first-year mechanical engineering students. *2024 ASEE Annual Conference & Exposition. ASEE PEER - Evaluation of the Utilization of Generative Artificial Intelligence Tools among First-Year Mechanical Engineering Students*.
- Saúde, S., Barros, J. P., & Almeida, I. (2024). Impacts of generative artificial intelligence in higher education: Research trends and students' perceptions. *Social Sciences*, 13(8), 410. <https://doi.org/10.3390/socsci13080410>
- Simon, S., Coelho, R., Marfisi-Schottman, I., & Pea, R. (2024). Generative AI tools in an undergraduate computer science program. In *Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024* (pp. 2133-2134). International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/10900/1/ICLS2024_2133-2134.pdf
- Stone, B. W. (2025). Generative AI in higher education: Uncertain students, ambiguous use cases, and mercenary perspectives. *Teaching of Psychology*, 52(3), 347-356. <https://doi.org/10.1177/00986283241305398>