



UCD College of Arts  
and Humanities



# Teaching Humanities and Social Sciences in the Era of Generative AI

Case Studies from around Ireland

Editors: Jenny Costello, Dr Zeljka Doljanin, Dr Naomi McAreavey, Dr Fionnuala Walsh

# AI/AI: Academic Integrity in the Arts and Humanities in the Age of Artificial Intelligence.

## Acknowledgement:

This project has been funded by the Strategic Alignment of Teaching and Learning Enhancement funding administered by the National Forum for the Enhancement of Teaching and Learning in Higher Education, in partnership with the Higher Education Authority.

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UCD College of Arts and Humanities  
Coláiste na nEalaíon agus na nDaonnachtaí  
UCD

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# Foreword

**Daniel Elliott**

**Dr Lisa Padden**

**UCD Access and Lifelong Learning**

Working in UCD Access and Lifelong Learning, we understand the value that technology provides students from access cohorts in removing some of the barriers they face in their learning. Generative AI tools can reduce some of those barriers and allow access students to level the playing field and foster their success at university.

In recent years we've seen the impact of the large-scale return to in-person exams that has been precipitated by fears of AI threatening academic integrity. This worrying development means that much of the gains that have been achieved during the pandemic in removing barriers to learning through more diverse assessment are now under threat. UCD has seen the wide scale adoption of Universal Design for Learning, thanks in no small part to the University for All Faculty Partnership Programme, and fears over AI are a threat to some of this work. In a student population with over 3,000 students availing of Reasonable Accommodations including an alternative exam location and additional time, the barriers being created by use of timed exams must be acknowledged.

Viewing Generative AI through the lens of UDL, we can see its potential in empowering diverse learners. Generative AI has, for example, enabled the development of a range of assistive technologies which have changed the experience of many students, allowing for increasing independence and autonomy in their studies. The use of speech to text and its rapid development in the past number of years has for most students eliminated the need for a human note taker and instead put the power back in their hands to capture material and control their own learning at university.

Universities must equip educators with the resources needed to use AI themselves, to understand its capabilities and pitfalls, how it can be used as a teaching tool and importantly how to educate students on what it can and can't do for their learning. We have encountered many fears about the use of AI in education and the impact it will have on both learners and educators. Capacity building is necessary as is a collaborative, consultative approach to policy and resource development to ensure, as much as possible, the buy-in of both educators and students.

We must equip students with the critical thinking skills to evaluate for themselves the outputs AI tools produce. If we are to debate the ethics of AI use, this cannot only be framed in the context of academic integrity. We must also consider the impact AI use has on the environment during a global climate crisis. This impact should be acknowledged in the use of AI tools and the benefits weighed against this negative impact. Students have agency in their learning and it is the educator's role to scaffold students to identify how AI can enhance their learning and how it can at times be detrimental or unreliable. Ultimately higher education should equip students to critically think and engage with the world, which now includes AI. The narrative must change from making assessments "AI-Proof" to enhancing AI literacy for everyone.

This collection of case studies adds significantly to this field of work, in beginning to grapple with some of these challenges. They showcase how AI can be used to present information differently; to create case studies and hypotheticals; and how it can be incorporated into and critically examined in assessment, to increase class engagement. The case studies are a valuable tool for us all to expand our knowledge of AI, encourage us to try something new and not be fearful of its potential as a learning tool. Of particular note is the inclusion of student case studies. This provision of an equitable platform for students alongside educators is an example more work in this area should follow.

In an ever changing higher education landscape, these case studies, informed by the practice and principles of Universal Design for Learning, add to our efforts to create an equitable learning environment and a University for All.

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# Introduction

Jenny Costello, Zeljka Doljanin, Naomi McAreavey, and Fionnuala Walsh

Since ChatGPT was released in November 2022, universities around the world have been struggling to assess the potential impact of generative AI on writing, assessment, and academic integrity. In spring 2023 we received SATLE funding for a project titled AI/AI: Academic Integrity in the Arts and Humanities in the Age of Artificial Intelligence. This project aimed to support students and teaching staff in UCD College of Arts and Humanities to navigate teaching, learning and assessment in the context of new developments in generative AI. It made new and curated resources available to students and teaching staff, coordinated talks and expert-led workshops, and facilitated practice-sharing across the college. Student partnership was a key aspect and from the outset the project team included a mix of staff and students, ranging from early-stage undergraduates to PhD students. The student perspective was a key element in the success of the project. Inspired by Universal Design for Learning pedagogical training, we sought to promote inclusive assessments and teaching practice. We were especially interested to learn from our student partners about the potential value of generative AI tools for improving accessibility or supporting students whose first language wasn't English.

As part of our efforts to grapple with the wide-ranging consequences of these rapidly evolving technologies, we invited colleagues from Arts, Humanities and Social Sciences departments in universities across the island of Ireland to participate in a one-day workshop. Held in UCD in May 2024 and featuring 25 short presentations by staff from eight different universities, the workshop explored what teaching, learning and assessment might mean for our subjects in the era of generative AI. It proved to be a day of conversation, of sharing experiences, comparing notes, and exchanging ideas.



Many of these presentations have now been written up as case-studies so they can continue to inform and inspire others. Contributors were asked to follow a specific template and to reflect on the influence of Universal Design for Learning on their approach to their teaching practice or assessment. Inspired by the UCD University for All Case Study series, this book aims to provide easily transferable discipline-specific case studies of practical value to higher education staff.

Much uncertainty lies ahead regarding the future of generative AI and its impact on higher education. The technology and tools are constantly shifting and it is impossible to keep pace with each new development. The case studies presented here are a snapshot in time, reflecting generative AI use in 2024, but the core issues remain constant, as do our efforts to engage our students. The following chapters offer examples of engaging and innovative means of assessment and teaching, demonstrating the creativity and imagination at the heart of humanities and social science teaching. We hope they will inspire and encourage colleagues as they have us.

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# Project Team



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# Case Studies

## Case study 1

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# **AI as an Accessibility Tool: A Student's Perspective**

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Ava Goldfarb, MSc candidate,  
UCD School of Psychology, University College Dublin

Generative AI usage disclosure: ChatGPT was used to partially generate the abstract for this case report, and was also used in providing an outline for the general structure of this case report.

## Abstract

This case study examines the application of generative AI, particularly ChatGPT (Versions 3.4 and 4), as an innovative tool to enhance accessibility in university education, particularly for students with learning disabilities. Drawing from personal experiences and collaborative research through the AI Futures project, the report outlines how AI can be leveraged to create more personalised and inclusive learning environments, in alignment with the principles of Universal Design for Learning (CAST, 2024). Traditional adaptive technologies in universities are often restricted to students with formally registered disabilities, leaving many others without necessary support. This report demonstrates how generative AI can bridge that gap by offering customisable learning aids, cognitive support tools, and alternative representations of information that cater to diverse learning needs.



# What did you do?

Through working with the SATLE-funded AI project during the second and final year of my Undergraduate studies, I noticed that AI usage in a university setting could be beneficial to students like myself with learning disabilities. I began experimenting specifically with ChatGPT (Version 3.4 and 4) and researching ways that generative AI could make university studies more accessible. With the support of my colleagues on the AI Futures project, I gathered my research into a document that outlines the potential and practical uses of free AI platforms for a range of disabilities.

## Sample Findings:

### Learning Disabilities/ Neurodiversity

#### Personalised Learning Platforms:

- AI can assist in adaptive learning platforms that can tailor educational content to the specific needs and learning styles of individuals with learning disabilities or neurodiversity, providing a more personalised learning experience. This can include clarifying instructions or challenging concepts.

#### Cognitive Support Tools:

- AI can be used as a tool to support executive functions. This can provide cognitive support tools that assist with organisation, time management, and task prioritisation, supporting individuals with neurodiverse conditions such as ADHD. This can be a huge support for those who deal with procrastination/ ADHD paralysis.

**The findings from open sessions with faculty and students reveal that concerns about AI in education can shift from fear of misuse to recognition of its potential benefits, especially in fostering equity and inclusion.**

## **Visual Aids and Multimedia Learning:**

- Rather than information provided in just text, AI can generate visual aids, interactive multimedia content, and alternative representations of information, which supports those with dyslexia or other language based disabilities who may benefit from multiple representations of the same information.

## **Predictive Text and Auto-Correction:**

- Writing, especially in long form writing assignments, can be difficult for those with learning disabilities. AI technology can generate predictive text suggestions and auto-correction features, enhancing the quality of written work and reducing the impact of spelling or grammatical challenges.

I also participated in three open sessions with different audiences and presented my research in a condensed five-minute presentation. Through this experience and through the Q&A sessions I found that concern over AI usage was challenged when I highlighted the potential positive uses for students with disabilities. The findings from open sessions with faculty and students reveal that concerns about AI in education can shift from fear of misuse to recognition of its potential benefits, especially in fostering equity and inclusion. The report also reflects on the environmental and ethical considerations surrounding AI usage, emphasising the need for responsible implementation. Ultimately, this case report advocates for a more nuanced understanding of AI as a tool for enhancing educational accessibility and equity.

I used two examples (Figure 1 and Figure 2) where I myself utilised ChatGPT to help with the structure and simplifying text for my studies at UCD.



## Figure 1

*Screengrab from ChatGPT prompt (OpenAI, 2024).*



**You**

Can you simplify this language for a dyslexic individual

1. The Early Monastic Devil: Athanasius, Life of Antony

Source: trans. H. Ellershaw, from Athanasius, Life of Antony, from Nicene and Post-Nicene Fathers, 2nd series, vol. 4 (New York, 1892), pp. 188– 221; rev.

[From the time he became a monk, Antony demonstrated great aptitude for the ascetic life.] But the devil, who hates and envies what is good, could not stand to see such conviction in a young man, and instead endeavored to carry out against Antony the stratagems that he had tried to use against others. First of all, he tried to lead Antony away from the monastic discipline, whispering to him about the memory of his wealth, concern for his sister, concerns about his family, love of money, love of glory, the various pleasures of the table, and the other joys of life. Finally, he whispered to him about the difficulty of virtue and the labor it entailed; he also suggested the infirmity of the body and the length of the time. In a word, the devil raised in Antony's mind a great whirlwind of debate, wishing to deter him from his set purpose. But when the enemy realized that he was too weak for Antony's determination, and that he rather was conquered by the man's resolve, overthrown by his great faith, and failing on account of his constant prayers, he finally put his trust in the weapons which are "below the waist" and taking pride in them—for they are the devil's first snare for the young—he attacked the young man, disturbing him by night and harassing him by day, so that even onlookers could see the struggle which was going on between them. The devil would suggest foul thoughts and Antony would counter them with prayers. The devil would fire him with lust, and Antony—who seemed to blush at wickedness—would fortify his body with faith,

## Figure 2

*Screengrab from ChatGPT prompt (OpenAI, 2024).*



**ChatGPT**

Sure, let me simplify that passage for you:

There was a guy named Antony who decided to live a disciplined and spiritual life as a monk. The devil didn't like that and tried to tempt him away by bringing up thoughts about his past wealth, family, and pleasures in life. The devil even took the form of a woman to deceive Antony, but he resisted with prayers and faith.

The devil then tried to attack Antony with lustful thoughts, but Antony stayed strong by focusing on Christ and his faith. Eventually, the devil admitted defeat, appearing as a black boy and confessing to being the spirit of lust. Antony wasn't scared and told the devil he wouldn't be troubled anymore.

The passage also talks about how demons try to tempt Christians, especially monks, with evil thoughts. But through prayer, fasting, and faith, Christians can resist these temptations. Even when demons change forms to scare people, a strong faith and the sign of the cross can protect them.

In summary, Antony faced temptations from the devil but stayed strong through prayer and faith, eventually defeating the devil's schemes. The passage also emphasizes the importance of faith in resisting demonic temptations.

I shared how my learning disabilities can affect my learning and how I used ChatGPT to make a difficult text more accessible. I prompted the AI to simplify a mediaeval biblical text so I could read the simplified language and then go back to the original text to understand the nuances so I could conduct my own textual analysis (Figure 1). As an individual with dyslexia, I found the text challenging and time consuming to read, but by reading the simplified text (Figure 2), it then allowed me to go back to the mediaeval passage and begin my informed analysis.

This is an excerpt from the flash presentation I have given to various groups during my time with this project,

“The aspect I wish to focus on here is individualised learning. How to make AI work for you. Humanities degrees require the ability to be able to manage a large weekly workload of readings and often long form writing assignments. This is not impossible for students with learning disabilities in any way. However, it is more challenging by nature and students with dyslexia particularly need much more time to accomplish the same task as their neurotypical peers.”

Through my presentation and through discussions with the participants of the open sessions, I found that this new perspective on AI usage hadn't been considered by most attendees. Those that were fully against any form of AI usage had been more open-minded when I pointed out that students with disabilities only have exam support for timed in-person examinations, and not for take-home assignments.



## Why did you do it?

I began this research because I had begun using AI to make my workload more accessible. I am incredibly grateful that I had the opportunity to attend a specialised education school from ages nine to thirteen that had a lasting impact on who I am as a student. I recognise that I am among a small minority of students who had access to such a specialised type of education that allowed me to succeed in my academics. Despite that, I still struggle and work extremely hard to keep up with the workload expected of me. While I am no less intelligent than my neurotypical peers, I still have unique challenges with university learning. So many bright individuals do not continue with their tertiary education because of limited support during the semester.

So much of the discourse surrounding AI usage in university has a negative perspective. I wanted to highlight the potential benefits for students like myself and harness this widespread technology for accessibility in school.



## Did it support the principles of UDL?

While the University supplies adaptive technology like speech-to-text or adaptive text generators, those tools are only granted to students with a registered disability. This excludes large portions of the student body that would also benefit from the technology but may not have clinical diagnosis, including neurotypical students who are simply adapting to the newfound challenges of university level coursework. Not every student has come to UCD through the same educational route, and not all have enjoyed the same educational privileges. The transition to University level course work can be challenging for national and international students alike. AI can be an incredibly powerful academic support when used as a tool, not a shortcut. Additionally, AI as an accessibility tool can be used for non-native English speakers to support their writing or help with dense literature. ChatGPT can present information in various formats—text, summaries, examples, or analogies—catering to different learning preferences. One example: a complex concept can be broken down into simpler explanations, aiding students with different learning styles. This allows the student to personalise their learning to their own needs and provides an alternative to traditional methods of content delivery. This supports UDL principles (CAST, 2024) by creating a more equitable experience for students throughout the semester. It offers inclusion to students that may require additional support but do not have access to assistive technology. By offering multiple means of representation and allowing for personalised learning experiences, AI empowers students to engage with course material in a way that suits their individual needs. This not only enhances their understanding but also fosters a more inclusive and supportive learning environment, helping to bridge the gap between diverse learning styles and educational success.



## What was its impact?

Through my presentations and subsequent conversations with staff and students, I found that negative connotations or fears surrounding AI were challenged with its potential for aid in academic success. More often than not, through the discussions the perception of AI use changed from fears surrounding plagiarism and cheating to an understanding that generative AI can have practical and positive uses. The advent of AI has also encouraged certain educators to assign different types of assessments rather than a written essay. Through feedback sessions, it became clear that concerns of AI usage in schools exposed larger issues with how students are assessed. The conversations, specifically in the graduate student sessions, shifted to potential new forms of assessment that would discourage AI usage for cheating. Fundamentally, my speech and the examples of how I personally used AI to support my undergraduate studies changed the perspective of the room and opened teaching staff to the idea that AI can be a new teaching and learning tool that supports students and teachers alike.

### Figure 3

*Screengrab from ChatGPT prompt (OpenAI, 2024).*

#### **Challenges and Considerations:**

- **Ensuring Accuracy and Bias Mitigation:** While ChatGPT can provide valuable support, it's important to be aware of its limitations, such as the potential for inaccurate or biased information. Educators need to guide students on how to use AI responsibly.
- **Integration with Human Instruction:** ChatGPT should complement, not replace, human instruction. It works best when integrated into a broader teaching strategy that includes personalized support from educators.



## What might you do differently in future?

While I consider AI to have incredible potential to create more equitable learning experiences, I do want to acknowledge the pitfalls and dangers of generative AI. What I would do differently in the future would be to examine the potential risk associated with each proposed way of AI usage in the classroom.

- Firstly, I would like to note the environmental impact generative AI has. According to Google's 2024 environmental report, Google generated an estimated **14.3 million tCO<sub>2</sub>e** in 2023, which is a **13% increase** from 2022 that is related to the significant expansion of its artificial intelligence (AI) infrastructure (Google, 2024). While I advocate for the use of the technology, I would like to acknowledge that the rapid expansion of AI does have serious environmental implications.
- Secondly, incorporating more research into content and privacy laws pertaining to AI usage in my work. A frequent issue that has been brought up in discussions regarding AI usage is the ethics of AI and concerns regarding data privacy and protection. In further examinations of AI and accessibility I would put a strong emphasis on how I interact with the technology in regards to my data.

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**Not every student has come to UCD through the same educational route, and not all have enjoyed the same educational privileges. The transition to University level course work can be challenging for national and international students alike. AI can be an incredibly powerful academic support when used as a tool, not a shortcut.**

## Case study 2

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# **Academic Integrity and GenAI: Guiding Responsible Use with Students-as-Partners Collaboration**

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Dr Loretta Goff, UCC Skills Centre,  
University College Cork

## Abstract

Recent developments in generative artificial intelligence (GenAI) pose a serious challenge to academic integrity when this technology is used for cognitive offloading (Dawson, 2020) to the point that key learning is bypassed, or when content generated by AI is misrepresented as an individual's own work. At the same time, when GenAI is used responsibly, it also presents us with several opportunities to enhance learning and to develop our students' critical AI literacy. In this way, we can enable them to be informed and responsible users of these tools.

In my role as Academic Integrity Education Officer at UCC, I am responsible for developing, managing, and delivering resources and training opportunities for staff and students related to both academic integrity and academic misconduct (along with related skills and processes). Since the release of ChatGPT, GenAI has become a large part of this due to its impact across the University. In particular, concerns around assessment and ethical or responsible use have brought renewed attention to academic integrity.



## What did you do?

While I am based in the Skills Centre (student academic support) at UCC, my role situates me as a “third space professional” (Whitchurch, 2013, p.49) in that I often collaborate with other units and work with staff and students from across the University. This puts me in a good position to lead projects that bring together individuals from different areas, drawing on their expertise and perspectives. Recognising the need to work together on GenAI, I proposed the “(AI)<sup>2</sup>ed: Academic Integrity and Artificial Intelligence” project to evaluate the impact of GenAI on learning and assessment, and to develop a resource with both general guidance and discipline-specific case studies. This project ran from March-December 2023 and was funded through a National Forum Strategic Alignment of Teaching and Learning Enhancement (SATLE) award.

Core to the (AI)<sup>2</sup>ed project was a students-as-partners approach. The project funding allowed us to pay students to participate in the project alongside teaching staff. Working groups of student-staff pairings were formed for each of UCC’s four Colleges: Arts, Celtic Studies, and Social Sciences (CACSSS); Business and Law (CoBL); Science, Engineering, and Food Science (SEFS); and Medicine and Health (CoMH). Each of these working groups were tasked with reviewing one or more current assessment tasks commonly used in their discipline in order to evaluate: 1) how easily GenAI could be used to complete the task to a good standard (potential for misuse); 2) how the assessment task could be redesigned to either mitigate against the misuse of GenAI or to incorporate the responsible use of GenAI. ChatGPT was used as an exemplar of GenAI chatbots for this project as the most commonly used tool and was available to all participants.

Each group then submitted a discipline-specific case study of their process and findings, for a total of two case studies per College. These include practical examples of assessment modifications to mitigate or integrate GenAI, as well as potential learning activities or responsible use cases of GenAI, including challenging GenAI to produce content that meets a particular standard or matches the existing research evidence base, using GenAI as a study buddy to explain difficult concepts, create study timetables or practice questions, and using GenAI templates as structural/grammatical examples for particular writing styles.

While the student-staff partners produced the case study resources for the disciplinary contexts, drawing on their specific expertise, myself and the project Research Support Officer, Tadhg Dennehy (a PhD student partner) developed general guidance applicable across the institution. The aim for this content was to:

- Aid understanding of what GenAI is and how it works, including a lexicon of common terms
- Highlight ethical concerns to be aware of in relation to GenAI as a starting point for developing critical AI literacy
- Frame the responsible use of GenAI through academic integrity

Mapping the six fundamental values of academic integrity – honesty, trust, fairness, respect, responsibility, and courage (ICAI, 2021) – onto use of GenAI demonstrates that responsible use of these tools in educational settings requires critical engagement with GenAI outputs, transparency (acknowledging use), and establishing clear guidelines at institutional, programme, course, and/or assignment level so that everyone is aware of expectations, which can vary from class to class or assessment to assessment.

**Figure 1**

*UCC Toolkit for the Ethical Use of Generative AI Academic Integrity Framework.*

## Academic Integrity & Artificial Intelligence

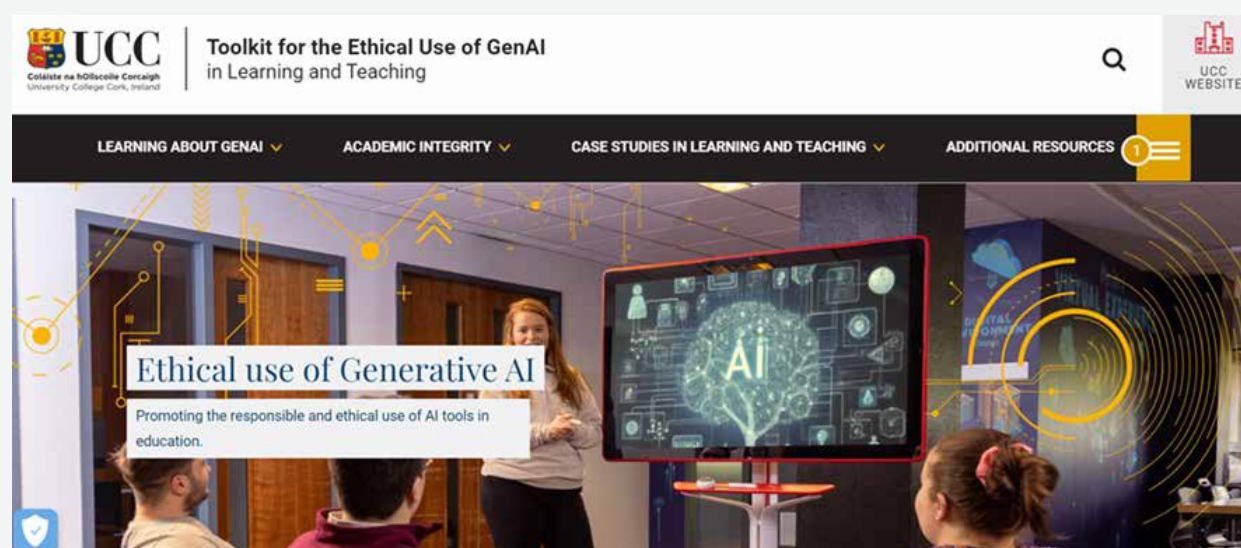
Use the six fundamental values of academic integrity, introduced by the International Center for Academic Integrity, as a framework for ethical use of generative artificial intelligence (GenAI):



Together, the general guidance and the discipline-specific case studies formed the [UCC Toolkit for the Ethical Use of Generative AI in Learning and Teaching](#) (Goff, L. & Dennehy, T., 2023). The toolkit assists staff with familiarising themselves with GenAI and responding to its impact on teaching and assessment. Additionally, staff can use the information provided in the toolkit to inform students about GenAI and the importance of responsible use. The toolkit was developed as a website to allow for continual updates as GenAI and related guidance evolve and so that it would be an accessible open resource for those at UCC as well as other institutions.

## Figure 2

*UCC Toolkit for the Ethical Use of GenAI in Learning and Teaching website.*





## Why did you do it?

In response to GenAI, academic integrity networks have produced general guidelines and recommendations that offer a framework for institutional responses. The European Network for Academic Integrity (ENAI) recommends that “students and educators should be guided on the benefits and limitations of AI tools in order to learn and use AI ethically and uphold academic integrity” (Foltynek et. al., 2023, p. 2) and the Irish National Academic Integrity Network (NAIN) recommends that educators be familiar with GenAI tools, review their assessments, and emphasise the values of integrity (QQI, 2023). These recommendations demonstrate a clear need to provide resources for both educators and students that will enable them to learn more about how GenAI works, its impact on higher education, and how it can be used effectively and responsibly in this setting.

As GenAI is impacting learning, teaching and assessment, areas that affect both educators and students, and as it is a topic both cohorts are experimenting with and learning about simultaneously, I felt it was important to come together as partners for this project to learn from one another. This collaboration was useful for developing guidance and resources that reflect the perspectives of both educators and students, meeting the needs of both. Equally, while guidance on GenAI at an institutional level often cannot be too specific in order to be applicable across disciplinary contexts, there is also a need to consider the specificity of these. For this reason, it was particularly useful to have participants from across UCC’s four Colleges in the project to offer this specificity to balance out the framing sections of the toolkit that offer guidance for all.





## Did it support the principles of UDL?

This project supported the principles of UDL in several ways, particularly in the student-staff partnerships to evaluate assessment practices. Not only did this foster collaboration, it also encouraged reflection on module learning outcomes and the purpose of particular assessments tasks, requiring these to be clearly linked and articulated in an effort to determine the best approaches for evaluating that the learning outcomes were achieved. They also explored and evaluated responsible uses of GenAI as an assistive tool for learning, identifying several ways it could be used for brainstorming, creating study timetables, practice questions, simplifying complex theories, and more. These represent different pathways for students to not only critically engage with GenAI but also new ways of engaging with their learning that can open different pathways for students. Finally, the academic integrity framing of the project and resultant guidance for educators supports reflective practice by highlighting the need to transparently articulate to students decisions regarding assessment and GenAI use, clarifying what an assessment is achieving, why it is important to demonstrate their learning in the assessment (motivation), and how it will be evaluated (rubric). Beyond this, it also highlights the benefits of modeling good practice and of scaffolding examples of this into teaching (i.e. demonstrating how to use GenAI responsibly if this forms part of a module task).



## What was its impact?

There are two categories of impact for this project. The first is the impact on the student-staff pairings directly involved in the project work and the second is the impact of the resources developed as part of the project. Both impacts encompass both aspects of mitigating against misuse of GenAI and integration of responsible use, offering options and guidance for those wishing to follow either path.

During the project, students and staff with a range of GenAI experience levels participated. Some had never used GenAI before and were completely unfamiliar with how it worked, while others had already begun using it in various ways and exploring its potential in HE. Everyone learned something during the project. Those who were unfamiliar with GenAI became more familiar and comfortable with it, which allowed them to explore its benefits and limitations or concerns within their disciplinary settings. Those that were already experienced users discovered different uses as a result of working in collaboration, particularly with students who found various approaches of using it as a study aid, including having ChatGPT map out a study timetable for them or create practice question sets.

By the end of the project, the working groups identified new approaches to assessment that they were able to implement in their own contexts and share with colleagues. The CACSSS (humanities) working group identified various approaches to mitigate against misuse, including:

- Using specific, local scenarios.
- Including more group work and paired presentations.
- Creating a journal club for students to critique key papers.
- Increasing emphasis on critical synthesis and reflecting this in rubrics.
- Partnering with students on assessment redesign, encouraging active engagement with learning.

They also integrated GenAI into learning activities and assessment tasks in ways that encouraged students to use the tools responsibly, encouraging critical engagement. In the context of Applied Psychology, a learning activity was developed wherein students were asked to input hypothetical vignettes of service users into ChatGPT as prompts and critically analyse the outputs, comparing this with their own work and identifying gaps in the GenAI outputs based on their analysis of the evidence-base and reflective practice. As some of the answers generated by ChatGPT do not map onto the existing evidence-base, this activity encourages students to think critically about service users' safety and consider ethical concerns related to use of GenAI in this context. GenAI was also integrated into an assessment task in a *Philosophy of Artificial Intelligence* module. A standard explain-and-evaluate essay on the topic of Turing tests was adapted to ask students to conduct a Turing test with GenAI and evaluate the results, including screenshots of their conversation as part of the task. This was a practical intervention as it encouraged students to critically evaluate GenAI, allowing them to learn about both the topic and the technology. While these interventions demonstrate the impact of the process of the project on participants' knowledge and practice, the resulting case studies that formed part of the toolkit continue to have an impact outside of the project.

Since the toolkit website was launched in December 2023, it has had 2.4K total visits. While some of these are from UCC staff, the toolkit has also been shared at international conferences and on the JISC blog [Navigating the Future: Higher Education policies and guidance on generative AI](#). As a result, it is also being used as a resource at other institutions, allowing for a broader impact. Within UCC, the toolkit serves as guidance for staff and is referred to in our Academic Integrity for Examinations and Assessments Policy. It has also been used as a resource for several training opportunities that I offer in UCC. For students, I created a one hour workshop on "Responsible Use of Generative AI", which is offered through the Skills Centre, and developed an asynchronous Canvas course, "Academic Integrity Fundamentals", which includes a module on use of GenAI. Over 400 students have engaged with these to-date. For staff, I worked with my colleague Dr Sarah Thelen from the Centre for the Integration of Research, Teaching and Learning at UCC to offer "AI and Assessment"

workshops throughout the year that incorporated content from the toolkit to explain how GenAI works and how to approach it with academic integrity. We also ran two Hackathon events on the same topic where groups worked together throughout three stages (engage, investigate, act) to create practical solutions for future proofing assessment for academic integrity in the age of GenAI. The toolkit was one of the key resources shared with participants as a starting point for exploring their ideas. Over 330 staff participated across these events.

**Recent developments in generative artificial intelligence (GenAI) pose a serious challenge to academic integrity when this technology is used for cognitive offloading (Dawson, 2020) to the point that key learning is bypassed, or when content generated by AI is misrepresented as an individual's own work.**



## What might you do differently in future?

Generally, this project ran smoothly and generated positive results but there are also learnings from it of things to do differently and additional things I would like to explore further. The main recommendation I have for anyone wishing to undertake a similar project is to recruit additional student and staff participants at the start so that the working groups have a minimum of three staff and three students involved. Over the course of the project, we had some participants drop out due to unforeseen circumstances which meant we had to find additional participants to cover their places. Starting with a larger group would allow for the continuation of the group if one or two members do need to drop out.

If I were to run the project again, or add on to it, I would like to further explore different GenAI tools outside of ChatGPT. While ChatGPT is fairly representative of large language model (LLM) chatbots and does have some image generation capabilities through Dall-E, we focused on the production of text content for this project. It would be helpful to learn more about the impact of other tools like Midjourney (images) or ResearchRabbit (information searching/literature reviews) and how these can be used. Equally, in terms of LLMs, now that many institutions have organisational access to Microsoft Copilot and/or Google Gemini, where data is protected in the chat, it makes sense to move towards using that rather than ChatGPT.

Finally, the future sustainability of the project was something I had planned for so it is not something I would necessarily do differently, but it is worth noting. The toolkit produced during the project does require continued oversight and updating beyond the project timeline to avoid it becoming dated, particularly in the quickly evolving landscape of GenAI. This means that at least one person needs to take on longer term ownership of the resource.

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## Case study 3

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# **Making Space for Both Worry and Wonder: GenAI and Assessment Workshops at University College Cork**



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## Abstract

A series of workshops at University College Cork provided staff with a chance to learn about GenAI and think through its implications for assessment. Offered online and on campus between October 2023 and April 2024, these sessions included an introduction to GenAI, its ethical and environmental implications, and discussions on the ways assessments can be (re)designed to either mitigate or integrate the use of these new technologies. This case study describes the context and intentions behind the workshops as well as a general overview of the sessions themselves and their resulting impact on staff, teaching, and learning at UCC.

GenAI is certainly here to stay and staff at University College Cork (UCC) are certainly far more comfortable with it now than they were in November 2022, but the process has been neither smooth nor easy. At UCC, we tried to help staff work through their own thoughts about GenAI and how it will shape teaching and learning going forward. The resulting workshops effectively created space for both worry and wonder in the midst of the changes accelerated (or put in motion) by GenAI.



## What did you do?

Over the 2023/24 academic year, we ran a series of online and on-campus workshops designed to give UCC staff a general introduction to GenAI, to encourage them to experiment with GenAI tools, and to discuss the implications for teaching and learning. We planned live sessions (whether online or on campus) in the hopes that staff would be at least somewhat removed from their day-to-day obligations. In this way, we hoped to create a space where they could think beyond the immediate and most pressing concerns and start to explore where and how GenAI might fit within or simply affect their teaching practice.

But first, we had to make sure everyone understood the basics. We suspected that a lot of the fear and worry and catastrophising around ChatGPT and other GenAI chatbots was rooted in a sort of expansive potential of the unknown – basically, that because most people didn't really understand what GenAI is or how the chatbots worked, they seemed almost magical and limitless. There was a sense at the time that they could do *anything*. Which, frankly, is terrifying. And, also, thankfully, not true.

So we planned a series of 90-minute workshops (delivered both online and on campus) delivered monthly between October 2023 and April 2024 to try and bring GenAI back down to earth. We opened each session with a quick overview of what GenAI is (a large language model), how it works (reads a ton of stuff and makes predictions on what responses to different questions look like), and some of the ethical considerations (environment, worker exploitation, etc.).

At that point, we'd pause and give people a chance to interact with ChatGPT or, later, Copilot just to get a feel for how it responded and the quality (or lack thereof) of the answers. We'd also ask questions on behalf of the most nervous who didn't even want to type questions to the chatbot. We'd then talk through the answers and highlight some of the patterns and weaknesses (e.g. ChatGPT absolutely *loves* a bulleted list!)

in the responses. We'd ask attendees to critique the responses as well, based on their individual expertise, and would use those responses to guide the rest of the session.

We then dove into the nitty gritty of GenAI and assessment. Rather than focus on the risks of cheating (everyone's favourite worry!) we instead framed our discussion of assessment with a larger conversation about academic integrity. We emphasised that there are a number of important – and doable! – things staff can do in the moment to promote academic integrity rather than simply waiting to punish misconduct.

We introduced the [Academic Integrity values \(honesty, trust, fairness, respect, responsibility, and courage\)](#) as a reminder to staff that Academic Integrity is a two-way street and is very much not only the students' responsibility (UCC Skills Centre, 2024). We hoped that introducing these values and emphasising that academic integrity is more than simply catching plagiarism would nudge them to start thinking about proactive ways to think about assessment in this new context.

These discussions around academic integrity made for a really useful bridge into the final section of the workshop and its lively discussions on ways to approach assessments so as to minimise the risks of GenAI. We drew on specific examples of practice at UCC as captured in the [\(AI\)<sup>2</sup>ed project](#) and a [Short Guide to Assessment in the Age of AI](#) and the concerns and questions of each group guided the rest of the session (CIRTL, 2024). In some workshops, we discussed the ways that different assessment types are more/less vulnerable to dishonest use of GenAI and urged staff to think about authentic and valid assessments which, ideally, capture the process of learning rather than privileging a single, final product – so, for example, portfolios capturing the staging to a project or an essay using named versions/drafts which could be reviewed as needed. In other workshops, we discussed how marking could be changed or made more visible to encourage students to not use GenAI tools – e.g. revising rubrics to privilege key learning rather than grammatically correct prose. Other sessions involved long discussions of what constituted evidence of learning and the many, sometimes conflicting, uses of assessments – e.g. tracking discipline-specific knowledge and as evidence of English competency.



## Why did you do it?

We ran these sessions because we knew that a lack of familiarity with GenAI made it seem more powerful and less fallible than it really was. This combination led to a lot of fear amongst staff as to the ways that GenAI tools would undermine their assessments and, as some feared, make a university education obsolete. We knew that exposure to these tools and an opportunity to critique responses and to more generally discuss their fears with colleagues would go far toward alleviating these fears.

We also wanted to support staff to take a more proactive approach to this new technology rather than waiting to respond to instances of academic misconduct as and when they occurred. Facing a range of isolated and ad hoc responses (including a lot of denial!), we hoped to encourage staff to think through the range of ways GenAI could fit into their disciplines and teaching practice and then to guide them toward an approach that best fit their individual circumstances. As with so much in teaching and learning, there isn't a one-size-fits-all approach to GenAI so we hoped to help staff determine what made sense for themselves and then help them find ways to bring that perspective into their teaching.



## Did it support the principles of UDL?

While the sessions did not explicitly engage with UDL principles (CAST, 2024), our focus on authentic and valid assessment, transparency, and communication speak to the foundations of UDL. During the sessions, we encouraged staff to think through their assessments (Considerations 8.3 and 9.2) as many of the more traditional approaches are quite vulnerable to GenAI cheating and so, in this way, nudged many of them toward more UDL-informed approaches without explicitly mentioning UDL. By demystifying GenAI (Consideration 7.4) and addressing central concerns of staff (Consideration 7.2), we sought to offer practical steps to address GenAI-inspired fears and concerns. So, we promoted relevant and practical assessments, choice and reflection as good ways to mitigate against GenAI use as well as offered space for staff to think through ways of using GenAI in their assessments (Considerations 8.1 and 8.2) which has the potential of making this powerful technology part of students' learning and, in doing so, provide new tools for students to engage with the disciplines. Particularly useful were our efforts to create a safe place for staff to experiment with GenAI (Consideration 7.3) – explicitly addressing their fears of this new technology (Considerations 9.1 and 9.3) – and encouraged them to think about how these tools related to their specific disciplines and contexts (Considerations 9.2 and 8.3).



## What was its impact?

We have since heard back from participants that they have revised assessments, rubrics, and other aspects of their teaching based on the conversations during these sessions. Which is very gratifying, but provides a very incomplete picture as we do not have any way to track assessment changes across the university. In the coming year, we will be working to better understand both staff and student engagement with GenAI at UCC through surveys and literacy projects so will hopefully have a more detailed sense of the ways staff have revised assessments – or their *approach* to assessments – as GenAI evolves and becomes more ubiquitous.

With over 330 staff (17% of all teaching and research staff) attending the sessions (and over 500, 26%, receiving the materials and recordings), the sessions have really helped to move the conversation around GenAI beyond initial fear and trepidation and onto more practice and pedagogical approaches. Interestingly, these sessions also served as a Trojan horse of sorts to introduce ideas around authentic assessment, assessment design, assessment validity, and Academic Integrity more broadly to staff otherwise unlikely to engage with formal teaching and learning offerings.



## What might you do differently in future?

The main change we would make if we were to do this again, would be to create an asynchronous resource rather than running the same session month after month.

People appreciated the sessions, so they were definitely necessary, but it was tough to deliver the same content month after month. Also, many people were still unable to engage with the sessions who might have benefitted from a resource they could work through in their own time. Additionally, it would enable participants to return to ideas as necessary. Otherwise, though, the sessions were incredibly effective and have created a foundation for future projects and improvements in assessment across the university.

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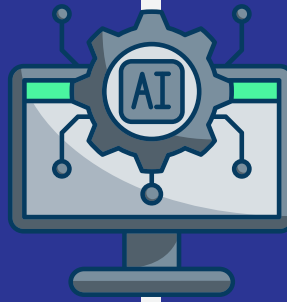
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## How GenAI Works

- Data Learning
- Pattern Recognition
- Response Generation
- Creativity and Prediction
- Bias and Hallucination
- Continuous Improvement



## Assessment and AI

### Activity: Putting ChatGPT Through Its Paces

- Open ChatGPT (use your UCC login credentials to access via your UCC Google account)
- Ask ChatGPT a question about something you know well
- Ask follow-up questions or a new question



## Academic Integrity Values

Honesty

Trust

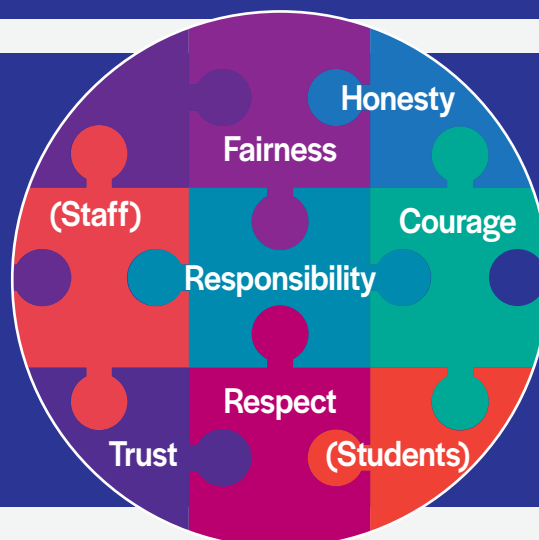
Fairness

Respect

Responsibility

Courage

## Academic Integrity



# **Perceptions and Practices: Exploring Student and Lecturer Engagement with AI Tools in UCD School of Education**

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**Declan Qualter, UCD School of Education,  
University College Dublin**

(On behalf of UCD School of Education Teaching and Learning AI Sub-committee members: Declan Qualter (chair), Dr Eileen Bowman, Dr Rachel Farrell, Dr John O’Sullivan, Karen Maye, Dr Deirdre McGillicuddy, Dr Joyce Senior)

## **Abstract**

This case study explores the integration of AI tools among student teachers and lecturers within UCD’s School of Education (SoE) Initial Teacher Education (ITE) programmes, focusing on its impacts on teaching, learning, and assessment practices. Conducted by the SoE AI sub-committee, this small scale study employed a mixed-methods approach to examine perceptions, integration practices, and potential supports for appropriate AI use. Findings indicate that both student teachers and lecturers on our ITE programmes recognise the transformative potential of AI tools in education, although an inconsistent approach to their use currently exists. In addition, respondents emphasise the need for structured support, advocating for dedicated workshops and guidelines that can enhance AI literacy and responsible use of AI tools in our educational context.



# What did you do?

This case study focuses on some of the considerations and implications the emergence of AI and GenAI presents for teaching, learning, assessment, and research practices in Initial Teacher Education (ITE) programmes in the UCD School of Education (SoE).

Cognisant of this evolving landscape, the UCD SoE Teaching and Learning committee established an AI sub-committee to explore these developments within our specific context. As part of their activities, this committee undertook a small-scale study with students and lecturers in the SoE to examine perceptions and practices related to the use of AI tools. The research set out to address two questions:

- How do students and lecturers perceive the impact of AI tools on teaching, learning, and research practices and how are these tools currently being used in these contexts?
- What actions can be taken to support students and lecturers in using AI tools responsibly and appropriately for teaching, learning, assessment, and research?

Data collection employed a two-phased approach. A quantitative survey, designed by the SoE AI sub-committee, was administered to both students and lecturers in the SoE to gather initial information on perceptions and current use of AI tools. Respondents consisted of sixty-one students from two ITE programmes ( $n = 61$ ) and forty-three lecturers ( $n = 43$ ), both full-time and part-time. Secondly, more in-depth data was obtained through two focus groups: one with three ITE students and a second with four lecturers. This case study presents a high-level overview of the results from the quantitative survey only.



# Why did you do it?

These tools are influencing how lecturers design, prepare and deliver lectures, as well as prompting debate about assessment practices. For students on any HE programmes, these tools influence how they engage with and produce content during their academic pursuits. For students on ITE programmes these tools can also be used to support lesson planning, resource creation, and activity design, adding new dimensions to traditional teaching placement practices.

## Why Is This Important for Students on ITE Programmes?

Our students are preparing for a career in a profession undergoing what Andreas Schleicher of the OECD refers to as the digital transformation of education (Schleicher, 2024). This shift is reflected in current policy initiatives. In the European Union, the Digital Education Action Plan (DEAP) 2021–2027 is a key policy driving this transformation (European Commission, 2020). DEAP envisions a high-quality, inclusive, and accessible digital education ecosystem across Europe, with two strategic priorities: fostering a high-performing digital education system that supports teachers and educators, and enhancing digital skills and competences.

DEAP has been highly influential in the development of Ireland's Digital Strategy for Schools to 2027 (Department of Education, 2022) which strives to empower schools to develop competent, active, and engaged learners able to participate fully in the digital age.

A key theme from the consultation process for this strategy was “the need for all teachers to have the requisite knowledge, skills and attitudes to embed digital technologies in their teaching, learning and assessment” (Department of Education, 2022, p.26). The advent of GenAI tools has sparked discussions about the role of digital technologies in education, highlighting the need for teachers to adapt and experiment with these advancements (Mishra et al., 2023). Accordingly, ITE programmes will need to take these developments into account as student teachers need to be prepared to navigate and appropriately use these evolving technologies in their future classrooms.

## Why Is This Important for Lecturers?

Digital transformation places an emphasis on ITE programmes to prepare the teachers of tomorrow to work with tools that have “become inescapable within the everyday lives of teachers and learners” (Department of Education, 2022, p.64). As AI tools become more integrated into educational practices, it is essential for lecturers to stay abreast of these developments, ensuring they can appropriately guide and support their students in navigating this evolving landscape.

Furthermore, we are aware that students in UCD are using AI and GenAI as part of their studies, although not to the extent that we may have thought, with 71% of student respondents to the AI Futures Survey indicating they have not used GenAI for assignments (UCD College of Arts and Humanities, 2023). While the AI Futures Survey indicated low use of AI in assignments, it is conceivable that this figure will increase over time. GenAI tools offer significant potential for enhancing academic work but also present challenges, particularly concerning academic integrity. This raises the risk that students might use AI technologies to complete assignments with minimal personal effort, potentially undermining the learning process. Therefore, it is crucial to address these challenges proactively as AI becomes more prevalent in educational settings.



# What did we learn?

The findings presented below are drawn from research conducted with students and lecturers from the UCD SoE conducted between April and June 2024. The summary gives a high-level overview of some of the findings most pertinent to our two research questions. It is important to note that all student respondents are studying on ITE programmes, and the majority of lecturer respondents also teach on ITE programmes.

**RQ1 - How do students and lecturers perceive the impact of AI tools on teaching, learning, and research practices and how are these tools currently being used in these contexts?**

## Student teachers

### Students' Awareness and Usage of AI Tools in Their Studies and Preparation for Teaching Placements

- A significant majority strongly agree or agree that they are familiar with AI tools that can be used in their studies and/or teaching.
- Despite this familiarity, there is limited use of AI tools during school placements indicating that AI integration in practical teaching experiences is still developing.
- Moderate use of AI for academic studies with just over half of students reported using AI tools in their academic studies.
- A strong majority believe that AI tools have the potential to positively impact the future of education.

## Application of AI Tools on School Placement

- Limited use in lesson planning with the vast majority of student teachers having only occasionally or never used AI tools for lesson planning.
- Similarly, limited use of AI tools by student teachers to develop resources for their lesson plans, indicating limited adoption in this area as well.
- AI is rarely or never used for assessment purposes by student teachers on school placement.
- ChatGPT is the most popular used tool among respondents. Notably, 23% of student teachers reported not using any AI tools, reflecting varying levels of engagement with AI technologies.

## Ethical and Responsible Use of AI

- Very strong awareness of ethical concerns with almost all student teachers agreeing that they are aware of potential ethical concerns surrounding AI use.
- Student teachers feel they should be informed about the potential limitations and biases of AI algorithms used in education.
- A significant majority strongly agree or agree that clear guidelines are necessary to promote the responsible and ethical use of AI tools in educational settings.
- A large majority strongly agree or agree that with proper guidelines in place, AI tools can be used responsibly in education.

## Lecturers

### General Awareness and Usage of AI

- A strong general awareness of AI technologies with a majority of respondents indicating that they are familiar with AI tools that can be used to support lecturing and/or research.



- Despite this familiarity, the actual application of AI tools in lecturing is less widespread, less than half of the respondents reporting having used AI tools in their teaching practices.
- The majority of respondents believe that AI tools have the potential to positively impact the future of education.
- AI tools appear to be more commonly used in research activities with the majority of respondents reporting having used them in research processes.

## Application of AI Tools

- The majority of lecturers reported that they occasionally or never use AI tools for designing lectures.
- The majority of respondents are not using AI in the creation of lecture materials.
- AI tools are not commonly used in assessment processes with the majority of lecturers reporting that they occasionally or never use AI tools in and for assessment.
- ChatGPT is the most popular used tool among respondents. 18% of lecturers reported not using any AI tools.

## Ethical and Responsible Use of AI

Respondents agree that:

- They are aware of potential ethical concerns surrounding AI use.
- Students and faculty should be informed about the potential limitations and biases inherent in AI algorithms used for educational purposes.
- Clear guidelines are necessary to promote the responsible and ethical use of AI tools in educational settings.
- With proper guidelines in place, AI tools can be used responsibly in education.

**Findings indicate that both student teachers and lecturers on our ITE programmes recognise the transformative potential of AI tools in education, although an inconsistent approach to their use currently exists. In addition, respondents emphasise the need for structured support, advocating for dedicated workshops and guidelines that can enhance AI literacy and responsible use of AI tools in our educational context.**



## Did it support the principles of UDL?

**RQ2 - What actions can be taken to support students and lecturers in using AI tools responsibly and appropriately for teaching, learning, assessment, and research?**

By asking what supports can aid responsible and appropriate AI use, this research question addresses UDL's emphasis on providing multiple means of engagement, representation, and action/expression. This approach recognises the need to accommodate varying levels of familiarity, preferences, and skill sets among students and lecturers, thereby supporting inclusivity and enabling equitable participation in AI-related educational practices.

### Mediums of Support

As part of our survey, student teachers and lecturers were asked to select the medium(s) that would be most suitable in supporting their use of AI in and for teaching and/or research via a drop down list. See results in Table 1 below.

**Table 1**

*Summary of mediums of support selected by lecturers and student teachers.*

	Lecturers (%)	Students (%)
Webinars	73.5	57
Face-to-Face Workshops	65	59
Teach Meets	55	-
Booklets	-	18

Additional selections from lecturers also included booklets, drop-in mornings, and a buddy system. These were also selected by student teachers, but in small numbers.

A comparison of the above reveals that both lecturers and student teachers show a strong preference for face-to-face workshops as a means of support for using AI, with webinars also popular among both groups. Overall, these findings suggest a shared preference for interactive, accessible support formats that cater to individual needs.

## Enabling Use of AI Tools in the SoE

### Student teachers

- **Designing lesson plans:** A strong majority strongly agree or agree that student teachers should be enabled to use AI tools for designing lesson plans during their school placements.
- **Developing resources:** Even more support was shown for using AI tools in resource development highlighting that student teachers feel they should be allowed to use AI in this capacity.
- **Assessing student learning:** The respondents were evenly split on the use of AI tools for assessing student learning during placements.

### Lecturers

- **Designing lectures:** A significant majority strongly agree or agree that lecturers should be enabled to use AI tools for designing lectures.
- **Developing lecture resources:** Support is even stronger for using AI in resource development.
- **Assessing student learning:** There is also substantial support for using AI tools in assessment.



# What was its impact?

## Implications for Specific Actions for SoE Arising From Survey Results

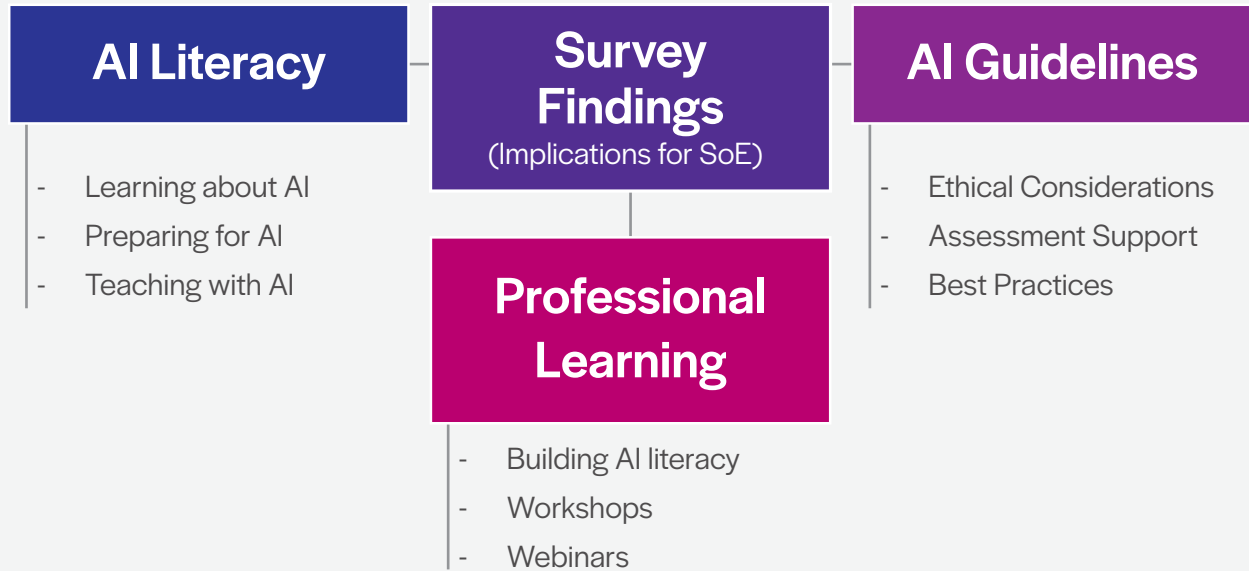
The results indicate strong support among both students and lecturers from the SoE for enabling the use of AI tools in educational activities. There is substantial desire for support among student teachers for using AI in designing lesson plans and developing resources. Similarly, there is strong support among lecturers for integrating AI tools into various aspects of teaching, including lecture design, resource development, and aspects of student assessment.

Consequently, the survey results present the following implications:

- **AI literacy:** Given the strong support for using AI in lesson planning, resource development, and, to a lesser extent, assessment from both students and lecturers, it would be beneficial to further evaluate and enhance the current provision of AI literacy support.
- **Ethical guidelines and best practices:** The mixed opinions on using AI for assessment, coupled with the strong consensus on the need for ethical guidelines, imply that there is merit in further exploration of clear policies and best practices for AI use.
- **Professional learning:** The strong demand for face-to-face workshops and webinars indicates a need for targeted professional learning opportunities to build AI literacy and support responsible and appropriate use of AI tools.

**Figure 1**

*Summary of implication for SoE arising from survey findings.*



## What's Next?

**“GenAI (protean, opaque, unstable, generative and social) is here to stay and our job as educators is to prepare for this emerging future.”**  
(Mishra et al., 2023, pp. 247–248).

AI and GenAI tools are becoming increasingly integral to our teaching, learning, assessment, and research activities. The results of our survey highlight a broad consensus on the value of AI in enhancing educational practices, particularly in planning and resource development, while also highlighting some reservations about its role in assessment. Consequently, the following considerations arise for our AI sub-committee.

## AI Literacy

- Building AI literacy, defined as “a set of skills that enable a solid understanding of AI through three priority axes: learning about AI, learning how AI works, and learning for life with AI” (Casal-Otero et al., 2023, p. 11), among students and lecturers is a key area for further exploration.
- Cultivating AI literacy is seen as paramount in educational settings in “ensuring the effective, responsible, and ethical use of GenAI technologies to support human learning” (Yan et al., 2024, p.11).
- To initiate AI literacy support, the AI sub-committee could create awareness around existing UCD AI literacy related resources and support, such as the “UCD Are you AI Ready?” student and faculty guides, within our school.
- Additionally, offering face-to-face workshops, highly preferred by both student teachers and lecturers, merits further discussion for our AI sub-committee.

## The Role of AI in Assessment

- Further research is needed to clarify the role of AI in assessment in our context.
- Given the broad nature of assessment, identifying the precise areas where support is needed would be beneficial.

## GenAI and Initial Teacher Education (ITE)

- Our student teachers are generally optimistic about the role of digital technologies and AI in education.

- The student survey results align with Kaplan-Rakowski et al.'s (2023) "Stages of GenAI integration and the frequency of GenAI use in teaching". Our data indicates that while ITE students are aware of GenAI, there are varying degrees of alignment with the stages from "Learning" to "Creative Application".
- Accordingly, employing competency frameworks such as the UNESCO AI Competency Framework for Teachers in our ITE programmes merits further discussion and planning to determine if and how these frameworks could be integrated into relevant ITE lectures.



## What might you do differently in future?

Reflecting on our survey design, exploring views of techno-skeptics and conscientious objectors would have enriched our findings, offering more nuanced perspectives. While GenAI may be the topic *du jour* in current educational discourse, it is crucial to respect educators' autonomy if they choose not to integrate AI into their practice. Selwyn (2019) suggests introducing technology as a choice, echoing Holmes et al. (2022) and their support for balanced AI adoption. However, even for those opting out, engaging with AI literacy supports informed decision-making, enabling educators to critically weigh AI's educational and societal impacts in a democratic context.



# Appendix

## School of Education Digital Technologies and AI in Education Survey

The below is an indicative outline of the survey questions provided to student teachers and lecturers. The survey was administered via Google Forms.

### General Awareness and Usage of AI

**1.** Please rate your agreement with the following statements:

(Strongly Agree/Agree/Neither Agree nor Disagree/Disagree/Strongly Disagree)

- Teachers/lecturers should have a positive attitude towards using digital technologies in classes/lectures.
- Students should have a positive attitude towards digital technologies in their learning.
- I have a positive attitude to using digital technologies in my classes/lectures.
- The use of digital technologies in teaching and learning is important.
- Digital technologies can enhance the learner experience.
- Effective use of digital technologies can enhance student outcomes.

**2.** Please rate your agreement with the following statements:

(Strongly Agree/Agree/Neither Agree nor Disagree/Disagree/Strongly Disagree)

- I am familiar with AI tools that can be used for teaching, learning, and assessment.
- I have used AI tools for teaching, learning, and assessment.
- I believe AI tools have the potential to impact positively on the future of education.

3. A teacher/lecturer should be enabled to use AI tools for:

- Designing classes/lectures
- Developing resources for classes/lectures
- Assessing student learning

4. I have used AI tools for:

- Class/lecture design
- Developing resources for classes/lectures
- Assessing student learning

## Ethical and Responsible Use of AI

1. Please rate your agreement with the following statements:

(Strongly Agree/Agree/Neither Agree nor Disagree/Disagree/Strongly Disagree)

- I am aware of potential ethical concerns surrounding AI use.
- Students and faculty should be informed about the potential limitations and biases inherent in AI algorithms used for educational purposes.
- Clear guidelines are necessary to promote the responsible and ethical use of AI tools in educational settings.
- I believe that with proper guidelines in place, AI tools can be used responsibly in education.

2. I use the following AI tools in and for teaching, learning, and assessment:

- ChatGPT
- Gemini
- Copilot
- Midjourney
- Claude
- Perplexity
- Elicit
- Research Rabbit

- Litmaps
- Chat PDF
- Other: \_\_\_\_\_

3. Which of the following would be useful to you in supporting your use of AI in and for your teaching/lecturing and/or research, should you wish to do so?

- Webinars
- Buddy systems
- Flash talks/Teach Meets
- Drop in morning
- Booklets
- Workshops
- Other: \_\_\_\_\_

If relevant, please provide an example(s) of how you use AI in your teaching

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**While GenAI may be the topic *du jour* in current educational discourse, it is crucial to respect educators' autonomy if they choose not to integrate AI into their practice.**

# **Exploring AI in Language Education: A Case Study on Student Language Teachers' Perceptions, Practices and Uses**

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**Dr Eileen Bowman, UCD School of Education,  
University College Dublin**

## **Abstract**

This case study examines the perceptions, practices and uses of artificial intelligence (AI) tools among student language teachers, focusing on their impact on teaching and learning, within our initial language teacher education programmes. In the context of language education, AI offers substantial opportunities to enhance teaching methodologies, enrich learning experiences, and improve assessment practices. Despite extensive speculation and debate surrounding the impact of these tools on language teaching and learning, the perspectives of student language teachers concerning their influence on initial language teacher education remain insufficiently examined. This small-scale study employed a mixed methods approach. Initial findings suggest that most student language teachers recognise the transformative power of AI tools to create and tailor content for their own students in the classroom but it also underscores the need for pedagogical approaches that balance technological innovation with human-centred learning experiences.



# What did you do?

Artificial Intelligence is playing an increasingly important role in transforming language education, offering new opportunities for enhancing teaching methods, learning experiences, and assessment practices. AI is increasingly being integrated into educational contexts worldwide, transforming traditional methods of teaching, learning, and assessment. It has already proven to be quite effective and efficient in aiding the personalisation of learning, increasing access, improving assessments in language skills, and the creation of tailored language resources to interest students. In the School of Education, we recently launched a new Bachelor of Education (BEd) programme in Education, Gaeilge, and/or Modern Languages aimed at preparing high-quality language teachers for post-primary education, who would be equipped to respond to the changing landscape in post-primary education. This was our second ITE programme in the School educating language students. In Ireland, the integration of AI into post-primary language classrooms is at an early stage, but its potential is recognised. I was curious to find out what were the perceptions and attitudes of the student language teachers, in our context, regarding AI and what experiences they had had, if any, with Generative AI (GenAI) tools. Student language teachers will play a crucial role in the future adoption of these technologies and tools. Therefore, I undertook a small-scale qualitative study to investigate this. It was based on a two-pronged approach: a quantitative survey followed by a focus group for more in-depth data collection. The research set out to address the following questions:

- How do student language teachers perceive AI?
- Do they use AI tools to enhance language pedagogy?
- Are AI tools used by student language teachers for lesson planning and resource creation?



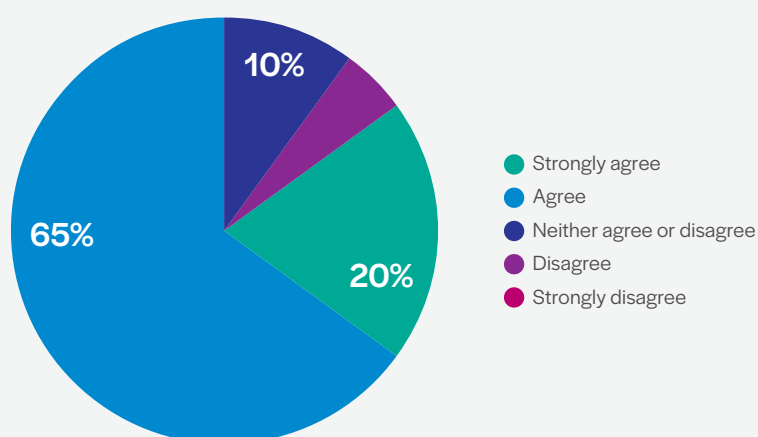
- Do they perceive AI tools as being useful to enable access for all students in their classrooms?
- What do they perceive as being the limitations of AI tools?

Respondents consisted of forty-nine student teachers from two ITE programmes (n = 49) for the survey. Then, more in-depth data was gathered through a focus group where students were again selected across our two ITE programmes.

Following the survey and the focus group, I also designed and trialled some tutorial activities with my students, focusing on lesson planning and activity creation as 85% of student language teachers felt that AI could be used for planning purposes (Figure 1) and 90% believed that AI could be used for designing resources and classroom materials tailored to their own students (Figure 2).

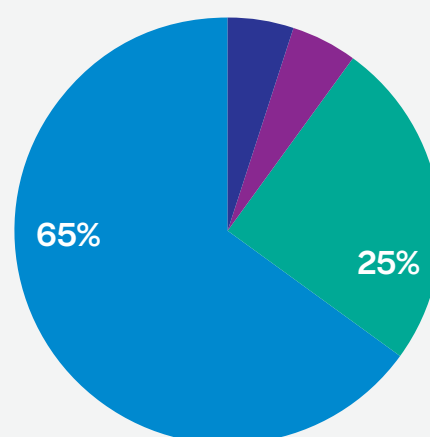
**Figure 1**

*AI technologies can assist language teachers in planning and doing administrative tasks.*

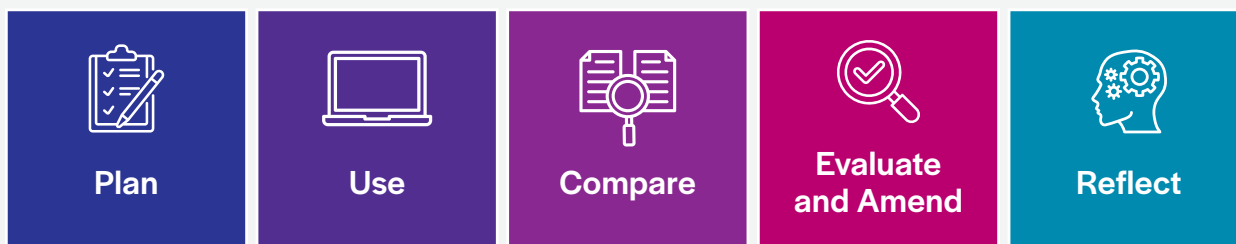


**Figure 2**

*AI technologies can assist language teachers in designing resources and materials tailored to their students.*



For the tutorials, I followed a five-step approach, focusing on lesson planning in the first instance and repeated the steps for resource creation in another session. I adopted the PUCEAR model: Plan - Use - Compare - Evaluate and Amend - Reflect.



The five steps I used with the students are detailed below.

**Step 1** Student teachers created a lesson plan, using the guidelines we had seen in previous tutorials. Students created this lesson plan on their own, without the help of AI. To enable cooperation amongst students and to create more discussion post activity, it was agreed that the students would work on the same theme, which focused on teaching colours to a group of first year students in a post-primary setting, in a first instance.

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**Step 2** Student teachers created a lesson plan on the same theme for the same year group but using GenAI tools. I gave the student teachers the choice of tool they wanted to use. I provided them with a non-exhaustive list of GenAI tools specific to lesson planning. Some students used the more well known ChatGPT, others used MagicSchool, AutoClassmate, EasyPeasy and HelpMeTeach. All of these were free, with an option to upgrade. In order to make things equitable, all students used the free versions. Students had the option to create as many iterative prompts as they wanted.

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**Step 3** Student teachers compared their own lesson plan to the AI generated responses.

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**Step 4** Student teachers decided what they would keep and discard from the AI generated version and amended their own plan, if needed or if they wanted.

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**Step 5** Following this, students got in pairs and shared their experiences of using a GenAI tool for lesson planning focusing on one thing they found of benefit and one drawback. Following this step, we had a class discussion.

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The student language teachers were guided through each of these steps with some reflective questions that I gave them to support them whilst considering each of the five steps.

 <p><b>Plan</b></p>	<p>What do I want my students to know, understand and be able to do by end of this lesson?</p> <p>What are the main aims of this lesson?</p> <p>What skills will I be focused on?</p>	<p>What learning strategies will I be using?</p> <p>How will I enable all my students to access the content?</p> <p>How will I challenge my students?</p>
 <p><b>Use</b></p>	<p>What do I need to consider while writing my prompt?</p> <p>What specific outcome am I aiming to achieve with this prompt, and how does it align with my learning or teaching aims for this lesson?</p> <p>Is the language of my prompt sufficiently clear and precise to guide the AI tool towards generating relevant and meaningful responses?</p> <p>Am I aware of any biases that might be inherent in my prompt, and how might they influence the output?</p>	<p>What assumptions am I making in my prompt, and how can I refine it to minimise potential ambiguity?</p> <p>How can I use follow-up questions to probe further into the initial AI response to gain a richer understanding?</p> <p>Am I providing enough context in my prompt to avoid overly general or irrelevant responses?</p>
 <p><b>Compare</b></p>	<p>What similarities and differences can I identify between my original lesson plan and the AI generated version in terms of structure, content, and instructional strategies?</p> <p>How do the learning intentions outlined in my original plan compare to those suggested by the AI-generated response?</p> <p>Are they aligned, or does the AI offer different focal points?</p>	<p>Which aspects of the AI-generated lesson plan enhance the clarity or effectiveness of my original plan, and why?</p> <p>Does the AI-generated plan introduce any innovative teaching methods or activities that I had not considered?</p> <p>How well does the AI-generated plan incorporate access and challenge (differentiation) compared to my own plan?</p>
 <p><b>Evaluate and Amend</b></p>	<p>Which aspects do I choose to discard or keep, and for what reasons?</p> <p>Were there any biases or limitations in the AI-generated response that could impact the lesson's quality or inclusivity?</p> <p>How can I address these in my final plan?</p> <p>How might I integrate the innovative teaching methods or activities suggested by the AI-generated response into my revised lesson plan?</p>	<p>Are there any errors or contradictions in the AI-generated response?</p> <p>What adjustments have I made to my original lesson plan based on the AI-generated feedback, and how do I justify these changes in terms of pedagogical value?</p>
 <p><b>Reflect</b></p>	<p>What was one significant benefit of using the GenAI tool?</p> <p>What was helpful about the AI-generated response(s)?</p> <p>What specific drawback did I encounter when using the GenAI tool?</p> <p>What strategies might I use to mitigate the drawbacks associated with using GenAI tools?</p>	<p>Did reviewing the AI-generated responses enhance my understanding/ my pedagogical approaches?</p> <p>How do I now assess the overall balance between the benefits and drawbacks of using GenAI tools after reflecting on my own experience?</p> <p>What steps can I take to leverage the benefits of GenAI tools while addressing their limitations in future lesson planning/creation activities?</p>



## Why did you do it?

UNESCO's AI competency framework for teachers outlines that “teachers need to be supported to develop their capabilities to leverage the potential benefits of AI while mitigating its risks in education settings and wider society” (Miao & Cukurova, 2024, p. 12). AI's potential to transform language education, particularly through personalised learning experiences, automated assessment, and adaptive teaching tools, makes it a subject of considerable interest and importance. Although the teaching profession has already become increasingly digitalised (Starkey, 2020), AI has the potential to revolutionise language teaching as it can offer new innovative ways to engage all students, create personalised learning materials and aid with administrative tasks such as lesson planning, for example. However, the effective integration of AI into educational practices requires a deep understanding of how educators, particularly those in training, perceive these technologies.

Teachers play a pivotal role in shaping society's response to GenAI tools. To adequately prepare their own students in a world increasingly influenced by AI, educators need to be equipped with AI-specific literacies and competencies (Gisbert Cervera & Caena, 2022), as GenAI tools are complex and varied and demand specialised competencies (Ng et al., 2023). Student teachers are the future of education, and their readiness to embrace AI, as well as their concerns and expectations, will play a critical role in shaping the successful implementation of AI in classrooms.

Student language teachers observed that language teachers didn't seem to be equipped to use AI in their language classroom, which was reflected in the survey results (Fig. 3). As an ITE provider, it is our role and responsibility to prepare and support student teachers to understand the benefits and uses of GenAI tools, whilst also supporting them to avoid becoming over-dependent on using AI to do their thinking, as outlined by UNESCO's AI Framework for Teachers (Miao & Cukurova, 2024). Education and training of student teachers are essential to ensure that they

acquire the necessary digital skills to comprehend, navigate, and critically evaluate the use of AI effectively and ethically.

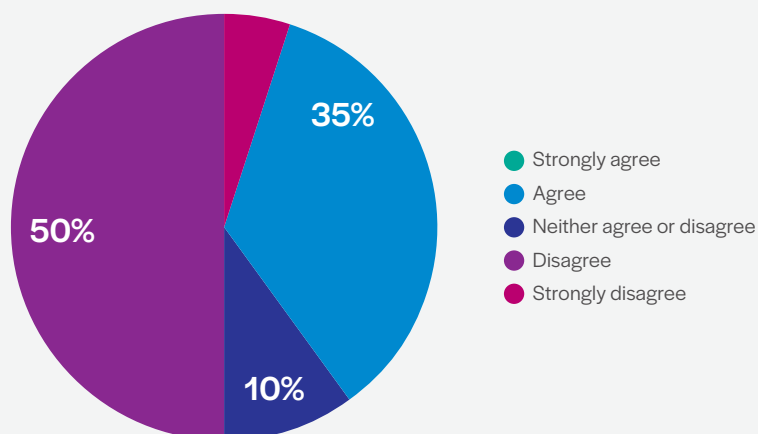
The Department of Education recognises that “Embedding digital technologies across the continuum of teacher education ensures a system wide structured approach to digital education” and that ITEs play a fundamental role in the development of digital competencies in the teaching profession (Department of Education, 2022, p. 33). The Department of Education’s Digital Strategy for Schools was highly influenced by the European Digital Education Action Plan 2021-2027 (DEAP) which places the development of digital skills and competences as one of its two strategic priorities. In addition, Action 5 of the DEAP reiterates the need for “Digital transformation plans for education and training institutions” with a clear emphasis on giving good knowledge and understanding of data-intensive technologies, such as AI (European Commission, 2020c).

Furthermore, it is also the role of these student language teachers to enable their own students to use any new technological advance, as outlined by the Department of Education’s strategic goals for 2023-2025, to provide “every child and young person with a learning experience that enables them to realise their potential and to develop the knowledge and skills they need to navigate in today’s complex world” (Department of Education, 2023, p. 12).

Interestingly, the percentage of student language teachers feeling equipped to use AI was higher (Figure 4) than what they perceived to be the percentage of in-service language teachers, based on their observations on school placement (Figure 3).

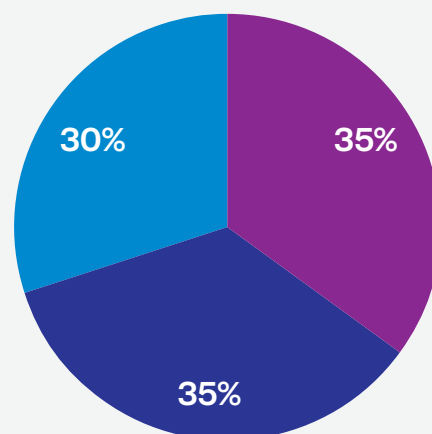
**Figure 3**

*Teachers are equipped to use AI in the language classroom.*



**Figure 4**

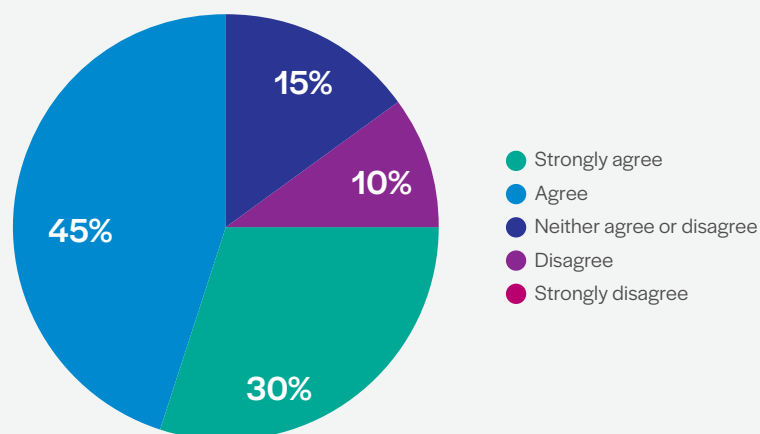
*Student teachers are equipped to use AI in the language classroom.*



From the survey and the subsequent focus group, it emerged that student language teachers were able to critically evaluate AI tools, citing ethical uses, errors and biases related to the stereotypical views of the target language countries (Figure 5). Teaching and learning a foreign language go beyond linguistic aspects, requiring engagement with cultural content, which often involves confronting stereotypes about the target culture (Stopar, 2015). A further 85% of respondents declared that clear guidelines were necessary to ensure the ethical use of AI in the language classroom (Figure 6).

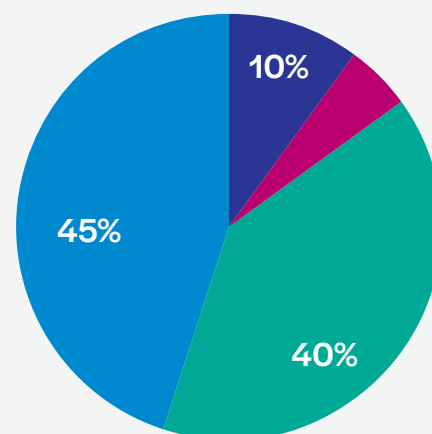
**Figure 5**

*I am aware of the ethical uses/biases related to AI and this might impact stereotypical views of the TL country/ies.*



**Figure 6**

*Clear guidelines are necessary to promote the responsible and ethical use of AI tools in the language classroom.*



Some students reported being cautious with the responses given by different GenAI tools, mainly ChatGPT:

“I tried before but found the stuff that it comes up with a bit bizarre at times and the lesson plan suggestions are very generic and boring”.

This reinforces the idea that teachers need to have a thorough understanding of how these systems operate so they can identify errors and respond effectively to support teaching and pedagogical goals (Gentile et al., 2023).



## Did it support the principles of UDL?

I made sure to make clear connections to the responses they had given in the survey and in the subsequent focus group where it had emerged that they had dabbled with ChatGPT and other GenAI but that they weren't really sure how to use it for lesson planning. The tutorial sequences with the five steps responded to a need that they had expressed. This prompted a high level of engagement as it was built in collaboration with the learners (Heelan & Tobin, 2020). The “why” of learning was made relevant and meaningful to student teachers which created a purposeful learning experience and therefore more motivated learners.

The School of Education demonstrates a strong commitment to promoting educational inclusion and harnessing the transformative potential of technology. The values that guide our engagement with student teachers are closely aligned with the principles of Universal Design for Learning (UDL), where we ensure that all of our students have equitable access to learning opportunities (CAST, 2017) . Therefore, to ensure inclusion and equity, all students used the free versions of GenAI and a non-exhaustive list of tools was given to them, to ease access, with at least one of these options having an alternative option to writing (MagicSchool) which might have appealed to the diverse range of student language teachers.

From doing this work with students, it became clear to some of them that AI could facilitate, to some degree, a UDL approach in their own classrooms and that AI could hold some potential to enhance the educational experience and promote inclusion. For instance, AI-driven platforms can adapt to individual learning paces, allowing students to practice in areas where they need the most improvement and to receive feedback. Classrooms have become very diverse and, at times, it can be quite difficult for student teachers to cater to these needs as they are grappling with language pedagogy and so many other new aspects. Fostering UDL approaches with the help of technology



is already somewhat prevalent in post-primary schools in Ireland, with the emergence of self-correcting tools such as the “Reading coach” in Microsoft which can support all language learners with their pronunciation, by giving the learners instant feedback via a reading report on accuracy and words to practice, all of this in seconds. The “Immersive reader” is another example of this, where the text can be changed to suit the user’s needs by slowing or speeding up the text or by enabling the user to get a better grasp of grammatical patterns by colour-coding them. There are also many Chrome extensions, which are in fact “AI-powered”, that students can use to get a more individualised learning experience. In essence, the language teacher can be freed from many of the activities that students used to perform in class and that required the teacher’s presence such as vocabulary practice, repetition of the sounds in the target language, correcting homework, creating grammatical activities or quizzes, thanks to AI technologies. With access to these free technologies, students have the potential to improve their language skills. Teachers’ time can also be freed up to some extent to understand each student’s abilities and learning level, enabling them to design more personalised educational pathways that aim to nurture the student’s individuality, boost self-esteem, and unlock their potential (Wang, 2021). Finally, language teachers can embed more key competencies and skills in their teaching (McGuinness, 2023).



## What was its impact?

There were several moments of learning throughout this work with the student language teachers. Firstly, it gave the students an awareness of the potential of GenAI tools for pedagogical purposes, with a focus on lesson planning and resource creation. It made them realise that before using AI tools for planning, they had to understand the steps involved in planning an engaging and accessible lesson. Only then could they critique the AI results. The students reported that they felt that they had a better understanding having followed the five steps but that the integration of AI tools for lesson planning and resource creation was still developing.

Moreover, a strong majority of students felt that AI tools have the capacity to positively impact the future of language education, in addition to all the technological advances already mentioned previously. Some students reported that they felt that AI had the potential to save time in preparing materials for their lessons and acted as an assistant when they were stuck for ideas.

‘[Save] time in preparation and correction’

it ‘speeds up prep’

it ‘eases teacher’s workload, e.g. comes up with ideas for activities’

there is ‘less stress and lower preparation for teachers creating tailored content and using it as an assistant in the classroom’.

It is to be noted though that some students reported that they preferred to create their own material as they really enjoyed that creative process and they felt it was actually quicker for them, rather than iterative prompting. Some students also acknowledged that the materials produced by AI were not usable in their own classroom context, due to language errors in some cases.

[I] ‘prefer to make [my] own plans and resources’

[I] ‘prefer to write instructions’

‘not any resources were usable for German, and they took too long to prepare for the class’.

Lastly, the majority of students felt that more lecturers should show them how to use AI tools and this should be weaved into the fabric of their lectures.



## What might you do differently in future?

This study explored the language student teachers' perceptions, practices and uses of GenAI tools for the purposes of language teaching, through a survey, a focus group and tutorial activities. The findings suggest that the majority of these student language teachers perceive AI tools as beneficial for enhancing educational practices, especially in the areas of lesson planning and resource creation. Through the use of reflective questions using the PUCEAR model whilst going through the five steps in class, they were able to identify the potential benefits of AI-generated responses whilst evaluating the drawbacks.

Some students did express some concerns regarding its use in terms of algorithmic bias and stereotyping as well as language errors, which poses critical issues in the language classroom, as it is a threat to the integrity of the language classroom. It also requires the student language teacher to have an excellent command of the target language to be able to spot linguistic errors, which might not be the case at the start of their degree, as they are still themselves learning the language. Some students also reported that whilst using AI tools for text creation they encountered clear bias. As educators, we need to enable student teachers to have a critical eye when it comes to AI and to highlight the importance of ethical AI implementation.

The study therefore underscores the need for pedagogical approaches that balance technological innovation with human-centred learning experiences. The rise of AI could be an opportunity for teachers to focus on fostering more skills, attitudes and mindsets in their students, such as managing information and critical thinking, working with others, managing oneself and one's learning, creative thinking and communicating (NCCA, 2024). The ability to think critically and creatively, innovate, adapt to change, work both independently and collaboratively, and engage in reflective learning is essential for success in both life and the workplace in this century. These are also the

skills that we are trying to embed in our student teachers. Further work will need to be done in lectures and tutorials to ensure that we prepare our language student teachers for the future of teaching, in line with UNESCO's AI Competency Framework for Teachers. They will need to be supported and trained to become co-creators of rules for ensuring ethical use of AI, co-learners of AI, and to "implement inclusive AI-assisted teaching and learning practices" (Miao & Cukurova, 2024, p. 23).

This study captured the perceptions of participants at the time of data collection. Given the rapid development of the GenAI field, these views are likely to evolve as language student teachers gain greater familiarity with these tools. Further research is required to explore how GenAI is influencing and transforming ITE and language education, in particular.

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## Case study 6

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# **AI Futures (Past): A Film and Talk Series (2023-24)**



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## Abstract

The film screening and talk series *AI Futures (Past)* provided an active and urgent forum for encounter and exchange between stakeholders in the culture of engagement around artificial intelligence in the Humanities, including researchers, students, and the general public. There was an excellent response from all sectors, measured by expert participation, strong and diverse audiences, and lively, open, post-presentation discussion each week.



## What did you do?

The inaugural *AI Futures (Past)* talks and film screening series took place in November 2023 and April 2024. Screenings occurred at the UCD O’Kane Centre for Film Studies, UCD Cinema, and within UCD College of Arts and Humanities. Each was accompanied by an introduction by Dr O’Brien and discussion with expert contributors from within and outside UCD (see Appendix A for listing). Each week had a nominal topic on which expert guests were invited to contribute. Screenings were followed by seminar-style discussion involving all attendees with no distinction between public, students, and staff. All views were encouraged, and the facilitator endeavoured to connect different viewpoints through scholarly themes by bringing it back to how everyone responded to the film.

Contributions were sought from colleagues in UCD including members of the Humanities AI research group, other AI-focused bodies and researchers in the institution, and from experts from other institutions. The external support of Science Foundation Ireland (SFI) was particularly significant. This body hosted a series of talks and events around the related theme of ‘More Human Than Human’ in Dublin and Galway in Autumn 2023. Dr O’Brien participated in one such event at the Light House Cinema, Dublin, with panellists Prof. Aphra Kerr from NUI Maynooth and Dr Robert Ross of TUD and ADAPT. SFI agreed to support the UCD series as part of collegial conversation around the forums for learning and inter-institutional collaboration. They provided a list of potential participants and agreed to include the coinciding UCD event in the official national schedule for Science Week 2023.

Each event offered a distinct set of challenges and opportunities. The opening double-bill of *Colossus: The Forbin Project* and *Demon Seed* deliberately styled itself after 1970s exhibition practices of showing ‘shockers’ together, encapsulated in playful poster advertising provided by Dr O’Brien. The two films were closely linked by theme and content but diverse in approach. Both were literary adaptations, the first from

a series by Dennis Feltham Jones, the second based on the first iteration of Dean Koontz's novel (later revised and updated). *Colossus* takes a macro view of a global AI crisis when a machine designed as an assistive technology obligingly takes societal decision-making out of human hands, treating us like the children we are for not being able to govern ourselves. The latter part of the film focuses on the microcosm as the machine imprisons its creator to prevent them from attempting to outwit it. *Demon Seed* elaborated upon this sense of personal threat and amplified the gendered horror as the wife of a computer designer is made captive when their smart-house operating system is infiltrated by the sentient machine intelligence he designed for military application. The machine seeks to expand its sense of self by procreation and to use her as the host for their hybrid child. The links between the two films stimulated broader conversation about the topic of sociopolitical responsibility and human ethics and empathy as well as body integrity, privacy, and the concept of self. Equally the stylistic and directorial differences between the films opened conversation on the representational conventions by which humans imagine humanity – through the cold, clinical stylisation and Cold War colour scheme of *Colossus* under the direction of Hollywood journeyman Joseph Sargent to the more surreal-tinged personal-paranoid horrorscape presented by cine-auteur Donald Cammell.

The second event, including the screening of *her*, took place in the larger venue of the UCD Cinema. Three panelists were invited, two of whom contributed via Zoom in an uncanny echo of the themes of body displacement and technological enhancement. The film itself is only ten years old, though a techno-futurist gap still exists between its vision of a post-scarcity society and the present state of digital assistive technologies.

The artificial personal assistant voiced by Scarlett Johansson and with whom the protagonist portrayed by Joaquin Phoenix falls in love evolves towards and beyond the point of singularity, suggesting another level of interconnected consciousness that humans are ultimately incapable of, though arguably search for through social media.<sup>1</sup> This is a metaphor for merely human relationships, of course, and the presence of strong emotion, namely love, shifted the generic centre of the film towards romantic drama. This framed the theme of isolation and alienation not through societal unease or personal threat, but self-regarding introspection. Director Spike Jonze's approach to the film through medium and close-up shots mimicking the language of romantic drama depicting a man engaging with his mobile phone added an element of satire to what is fundamentally an incel ('involuntary celibate') tragedy. There were diverse academic perspectives from the fields of literary studies, sociology, and mathematics, all coalescing around the film, which allowed the audience to frame these topics in response to what they had just seen and had views about. The range of expertise led to a wide-ranging discourse on topics including economics, sustainable energy and urban infrastructure, and again gender and sexuality.

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<sup>1</sup> Ironically, in May 2024 Johansson was embroiled in a real-world confrontation with OpenAI when a new voice-enabled version of ChatGPT was unveiled with a simulated female voice which strongly resembled her own. As reported widely in media and social media outlets and summarised in *The Guardian* of 21<sup>st</sup> May 2024 by Nick Robins-Early, Johansson was allegedly "shocked" and "angered" by the resemblance, having refused an invitation from ChatGPT to record her voice for them (Robins-Early, 2024). OpenAI CEO Sam Altman agreed to have it removed, although he issued a statement saying the voice was not intended to be a simulation of Johansson's (having previously made an oblique joke referring to her).

The third event in the Autumn series returned to the UCD O’Kane Centre for Film Studies. In this case animation was the defamiliarising agent. Although attendees had experience with or interest in the form, animation can be a challenging medium not least of all because of its associations with innocent distraction. Animation’s capacity to imagine is far greater than live action cinema. Japanese animé in particular, drawing on that country’s strong tradition in ideographic writing systems and manga for all ages, feels few restrictions. *Ghost in the Shell*’s envisioning of a cyberpunk futurescape in which a rogue AI threatens to undermine the forces of corporate greed and governmental control at once is situated in the character of Major Motoko (voiced by the late Atsuko Tanaka), a cyborg who eventually merges with and overcomes a rogue machine mind at the cost of her mechanically enhanced but human body. The film brought together many of the thematic strands of others in the series. The added strong dimension of the trans- and post-human both in form and content opened the door to a spiritual and religious conversation, which is exactly what the expert guest brought to the conversation. The topic of mortality emerged naturally when considering the immortality of machine consciousness over and above the particular life-span of any single human being, which is the note the film concludes on.

A final event was arranged in Spring 2024 to mark AI Awareness Week, namely a screening of the theatrical cut of *Blade Runner*. This iteration deploys a problematic literary-style voice over and studio-imposed happy ending removed in subsequent ‘director’s cuts’, but this was how the film was first seen in 1982 when it was a box-office and critical failure. The choice of this version again served to create some distance from the material and required the audience to incorporate specific frames of reference from industrial film production and reception from an historical standpoint. To this end the guest speaker was able to bring specific expertise on 1980s cinema as well as a personal experience as a female academic writing about science-fiction in a gender-hostile environment to raise many issues about the film and its place as a canonical text (in this non-canonical edition) for a 21st century Humanities scholar. This final event had a celebratory quality supplemented by refreshments and a small reception.



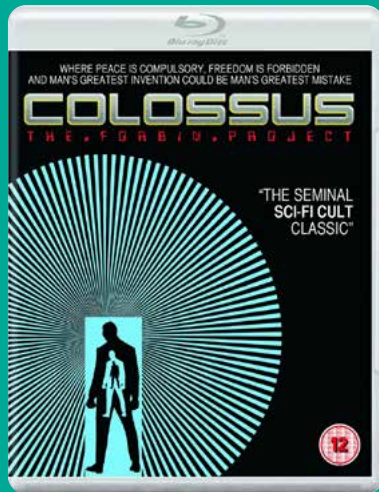
## Why did you do it?

Though the term ‘artificial intelligence’ wasn’t used until the 1950s, utopian and dystopian visions of a future where humans were enhanced or challenged by assistive technologies (including artificial beings) were seen right from the inception of cinema. Adaptations of *Frankenstein* were among the earliest films. By 1926, only five years after Karel Čapek’s play *R.U.R.* introduced the word “robot”, the cinema had its first iconic image of the loss of political, social, economic and interpersonal values to a human-emulating machine. From the film adaptation of Thea Von Harbou’s novel *Metropolis* the familiar figure of actor Brigitte Helm encased in a metal shell emerged - the counterfeit Maria - an inhuman doppelganger for the film’s caring and sympathetic female lead. As the last machine of the industrial age, cinema itself seemed a combination of science and magic, often written about as such a profound shift in perception that it challenged the limits of our ethical and moral responsibilities.

This dialectic of juxtaposing the familiar with the unfamiliar was a key conceptual principle in curating the series, encapsulated in its paradoxical title “Futures (Past)”. Deliberately selecting older films presenting the “future past” (films of previous generations featuring then cutting-edge or state-of-the-art speculative projection which did not or has yet not come to pass) was not to invite mockery or knowing irony, but rather to invite serious reflection through the lens of anachronism. The necessary adjustment in perspective through the lens of the past vision of the future would itself be an aid to establishing a scholarly context that more immediate contemporary material would not.

Accessibility was nonetheless a key principle in selecting the films, meaning that avant-garde or highly conceptual works such as Jean-Luc Godard's *Alphaville* were excluded. Similarly, although antiquity was an important precept, films from the silent era such as Fritz Lang's *Metropolis* would present too great a challenge to facilitate an informed response without a great deal of historical foreknowledge, not to mention aesthetic forbearance. It was also important to attempt to include non-anglophone material and global perspective, but ultimately only one non-anglophone film was chosen in the 2023-24 programme.

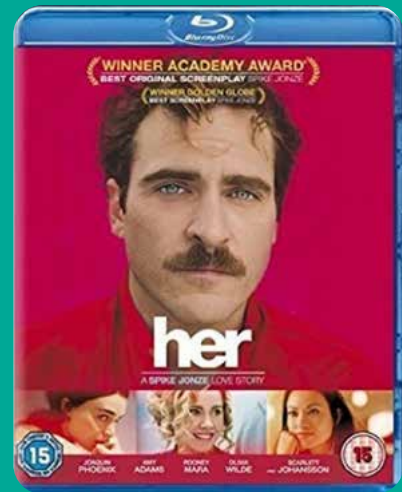
Each event was designed to stand alone but also to serve an evolving conversation. There were formal and aesthetic considerations of how humans process and reflect their thoughts and ideas through artistic expression as well as theme and content linkages across the films which lent themselves to coherent juxtaposition through the framing presentation. Each film had a distinct set of ideas modulating around common points of reference – namely, the role of humanness in how we learn from and engage with technologies used to expand our capacities to shape our world – and variable modes of articulation across genre, form, texture, and even raw material (animation was included specifically because of its material departure from the codes and practices of live action). Diversity in perspective on these and related matters would come from the range of voices contributing both from the floor and from the audience. This was an invitation to learning and engagement, not instruction.



*Colossus*  
(UK region blu ray cover)



*Demon Seed*  
(UK region blu ray cover)



*her*  
(UK region blu ray cover)



*Ghost in the Shell*  
(UK region blu ray cover)



*Blade Runner*  
(UK region blu ray cover)





## Did it support the principles of UDL?

Popular media can be a powerful pedagogical tool to stimulate discourse on complex topics. Seemingly low stakes material such as films and television programmes habitually consumed as “entertainment” can make a significant contribution to the exchange of ideas in a comfortable social setting. A social space like a cinema becomes an enabling learning environment and presents an opportunity to advance academic inquiry in concurrence with the principles of UDL. Topics including technoethics, environmental humanities, and gender roles emerged from screen, stage, and floor throughout the series, which created a lively and inclusive forum for sharing diverse experiences and perspectives in response to a curated programme.



## What was its impact?

There was an active and urgent engagement with the issues arising from representation of the liminal spaces of human integrity accommodating technological discovery and change. There was always a spectrum of opinion on the films themselves and how effectively they addressed or problematically they exploited immediate and historical post-human anxieties. Some films raised difficult subjects and elicited anxiety and unease. This became an important dimension of how questions raised by the presence and effects of AI on the contemporary learning environment were addressed: how feeling affects us.



## What might you do differently in future?

Though it brought the series to a close for 2023-24, consensus was that the strand should continue into 2024-25, although Dr O'Brien would not be available. It was also felt that the series constituted the nucleus of a film and television portion of a projected future academic module on the topic of AI and the Humanities. As befits the ethos of this part of the project, the inclusion of screening-focused workshops and lectures would expand the interdisciplinary diversity of formats deployed in teaching and learning. Though these events were not specifically teaching-oriented, the intention was to encourage engaged critical reflection, reading (of text and image), and imagination (of the role of art forms), and it is hoped that this will continue.

## Acknowledgements

This part of the project could not have proceeded without the constant support of Jenny Costello, who arranged for Eventbrite booking for these events to reach the general public and ensured professional postering was accessible online and in person. Specific support for the screening of her and the Zoom conferencing required thereafter was also provided by the staff of the UCD Student Centre, specifically Rob Mullee and Eoghan Funge. The UCD Science Fiction and Fantasy Society generously agreed to allow for their allocated screening time to be used for *her*. Project Director Naomi McAreavey was in attendance at every event and always made valuable contributions to the proceedings, as did other members of the AI Futures group. Acknowledgement is also given to UCD PhD candidate Lorna Watters for continuing the series into the academic year 2024-25, which is not the subject of this case study.

# Appendix A

The screenings and talks which took place in the 2023-24 session.

8th November 2023: Seventies Sci-fi Chiller Double Bill of *Colossus: The Forbin Project* (Joseph Sargent, 1970, US) and *Demon Seed* (Donald Cammell, 1977, US) presented by Dr Harvey O'Brien, Head of Film, UCD School of English, Drama and Film and followed by open discussion at the UCD O'Kane Centre for Film Studies (aka The Observatory).

15th November 2023: Science Foundation Ireland Science Week screening of *her* (Spike Jonze, 2013, US) preceded by an introduction and followed by a panel discussion on AI ethics and interfaces facilitated by Dr Harvey O'Brien with Marguerite Barry, Assistant Professor UCD School of Information and Communication Studies; Owen Conlan, Professor in Computer Science, Trinity College Dublin, ADAPT theme leader, and Sharae Deckard, Associate Professor in World Literature, UCD School of English, Drama and Film at the UCD Cinema, UCD Student Centre including Zoom contributions from Prof. Conlan and Dr Deckard.

22nd November 2023: Screening of *Ghost in the Shell* (Mamoru Oshii, 1995, Japan) preceded by an introduction and followed by a conversation on the philosophy and spirituality of animation facilitated by Dr Harvey O'Brien with Daniel Esmonde Deasy, Head of UCD Newman Centre for the Study of Religions, UCD School of Philosophy at the UCD O'Kane Centre for Film Studies (aka The Observatory).

11th April 2024: AI Awareness Week screening of the original theatrical cut of *Blade Runner* (Ridley Scott, 1982, US/UK) preceded by an introduction by Dr Harvey O'Brien and followed by a conversation on the film and its contexts of production and reception (in particular with reference to gender) with Dr Sorcha Ní Fhlainn Reader/Associate Professor, Manchester Metropolitan University and External Examiner for Film Studies at UCD at the UCD School of English, Drama and Film.

# Appendix B

Selected longlist of potential focus films and television episodes.

## Film

- *Metropolis* (Fritz Lang, 1926, Germany)
- *Alphaville* (Jean-Luc Godard, 1965, France/Italy)
- *2001: A Space Odyssey* (Stanley Kubrick, 1968, UK/US)
- *Silent Running* (Douglas Trumbull, 1972, US)
- *Westworld* (Michael Crichton, 1973, US)
- *Star Trek: The Motion Picture* (Robert Wise, 1979, US)
- *Tron* (Steven Lisberger, 1980, US/Taiwan/Japan/UK)
- *Wargames* (John Badham, 1983, US)
- *Delta Space Mission* (Calin Cazan, Mircea Toia, 1984, Romania)
- *2010: The Year We Make Contact* (Peter Hyams, 1984, US)
- *Tetsuo: The Iron Man* (Shinya Tsukamoto, 1989, Japan)
- *Hardware* (Richard Stanley, 1990, UK)
- *Terminator 2: Judgement Day* (James Cameron, 1991, US)
- *Johnny Mnemonic* (Robert Longo, 1995, Canada/US)
- *The Matrix* (Wachowskis, 1999, US)
- *AI: Artificial Intelligence* (Steven Spielberg, 2001, US/UK)
- *S1mOne* (Andrew Niccol, 2002, US)
- *WALL-E* (Andrew Stanton, 2008, US/Japan)
- *Robot and Frank* (Jake Schreier, 2014, US)
- *Ex Machina* (Alex Garland, 2014, US/UK)
- *Avengers: Age of Ultron* (Joss Whedon, 2015, US)

## Television

- *The Twilight Zone* (1959-64): “The Lonely” (1959), “A Thing About Machines” (1960).
- *Star Trek* (1966-69): “What are little girls made of?” (1966), “The Doomsday Machine” (1967), “The Ultimate Computer” (1968).

- *Star Trek - The Next Generation* '1987-94': "The Measure of a Man" (1989).
- *The Simpsons* (1989 - ): Itchy & Scratchy Land (1994).
- *Star Trek - Voyager* (1995-2001): "Virtuoso" (2000).
- *Doctor Who* (1963 - ) "Rise of the Cybermen"/"The Age of Steel" (2006), "Asylum of the Daleks" (2012).
- *Battlestar Galactica* '2004-09': "Downloaded" (2006).
- *Black Mirror* (2011- ): "Metalhead" (2017).
- *Love, Death & Robots* (2019- ): "Three Robots" (2019).

## Addendum

The series continued in the academic year 2024-25 under the direction of UCD PhD candidate Lorna Watters as follows: 25th September, 2024: *Sleep Dealer* (Alex Rivera, 2008, Mexico) with Dr Pascale Baker, Head of Portuguese in UCD School of Languages, Linguistics and Cultures, examining cinematic border spaces; 23rd October 2024: screening the film *Westworld* (Michael Crichton, 1973, US) and "The Stray", an episode of the TV series *Westworld* (2016-22) with UCD Ph.D candidate Teddy Power on the topic of the inter-medial impact of fantasy TV; finally 27th November, 2024: *WALL-E* (Andrew Stanton, 2008, US/Japan) with the participation of AI Futures Project Leader Naomi McAreavey and Dr Harvey O'Brien reflecting on the film and the series on the whole.

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# **Setting Bad Examples: Using AI-Generated Essays to Teach English Composition**

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## Abstract

Following preliminary survey findings from the AI/AI SATLE project that reported Arts and Humanities students feeling dejected or discouraged by the idea that AI-generated essays could earn passing or higher grades when their own work could not, I developed an in-class exercise using an AI-generated essay. This pedagogical exercise was inspired by essays I generated while marking papers to check for typical linguistic structures and assumptions made in the generated papers, a method for basic plagiarism awareness. Some consistent errors emerged in these generated papers, which not only failed to provide key elements of literary analysis, but also demonstrated critical errors common to first-year undergraduate students.



## What did you do?

The initial version of this workshop was delivered six times throughout Autumn 2023 to groups of 20-25 students as part of a workshop prior to the first essay deadline in the module. This was the second writing workshop delivered; the first focused on thesis statement development and provided positive examples of previous essays.

Using a modified essay prompt from a different first-year class, I asked ChatGPT-3.5 to write “an analytical essay with an argument discussing how dramatic irony created by an unreliable narrator or an ill-informed character serves a purpose in *The Hunger Games* and in *Hamlet*” (OpenAI, 2023).

I selected this prompt for several reasons: in my first-year class the term prior, the majority of students opted to pair these texts together and attendance was high on the weeks we discussed them, suggesting that they felt more comfortable or enthusiastic about these two works even in advance of attending the lecture than other assigned texts on the module. The example of *The Hunger Games* in particular was helpful, as even students who had not read the book had often either seen the movie or had a base knowledge of the plot from popular culture. This became crucial in students’ ability to identify factual errors in the generated essay.

Rather than present this essay as generated from the outset, I anonymised it like I would any other sample essay and presented it as a sample from a different class, with the title at the top. I took the essay generated by ChatGPT and placed it in a Google Document, changing the font so any students familiar with ChatGPT would not recognise its interface. I projected this essay during class through Google Docs, where students could both access the document via projector and via a bit.ly link from their personal devices.



Students were encouraged to read the sample essay silently to themselves and then in small groups, discuss the following:

- What is the argument of this essay, if any? (Is there a clear, defensible claim?)
- What is the thesis statement of this essay, if any? How do you know?
- What evidence does this essay use to support its argument, if any?
- Identify an example of close reading, if any.

Following small group discussions, I asked the students to share their responses in a large group.



## Why did you do it?

The principal skill development for first-year students in literature modules at University College Dublin involves argumentative and analytical writing. Key learning objectives include skill development in “research, interpretation, contextualisation, and presentation” of literary concepts and their function in texts, with a focus on the articulation of these ideas in essay format, among other forms (UCD Course Catalogue, 2024).

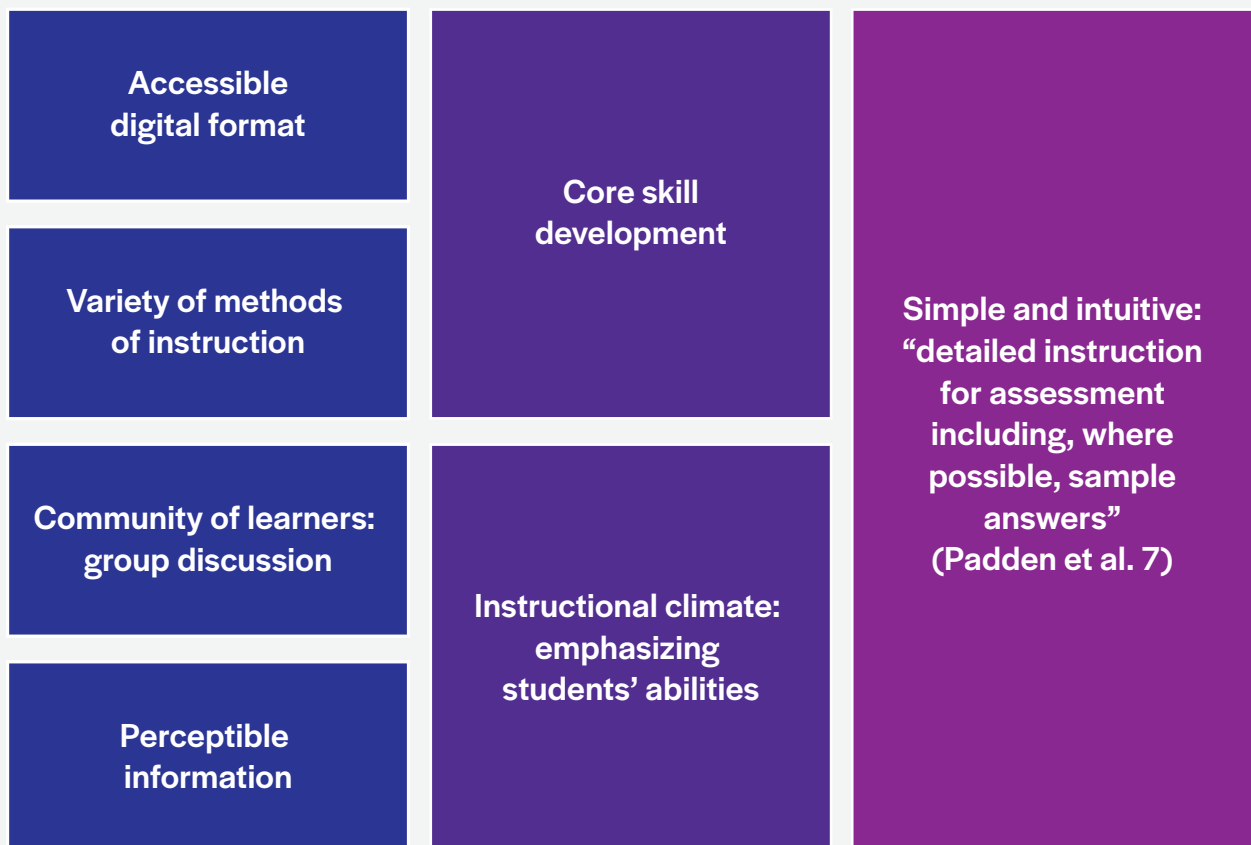
First-years, especially those who were high-performing in English in secondary school, are often entering the Irish university with skills honed toward description and understanding, rather than analytical discussion; while they often develop the former quickly in conversation with classmates and lecture material, adjusting to university level writing is cited as a particular challenge in reports on post-Leaving Certificate education (Denny, 2015).



# Did it support the principles of UDL?

**Figure 1**

*Universal Design for Learning principles involved and prioritised in workshop design, as outlined by Padden et al.*



As Lisa Padden et al. found in their case studies on Universal Design, students “overwhelmingly” reported a need for more clarity and feedback, which sample essays can help provide (Padden, O’ Connor, & Barrett, 2017, p.1).

In this case, sourcing materials for writing workshops that focus on critical ability development, but do not discourage students, can provide a unique challenge. It is simple enough, for instance, to provide successful sample essays from previous students after requesting their permission, but I would not want to reach out to a student and use their essay as a demonstration of common errors. In using AI-generated work, I was able to provide an example of key weaknesses that are often replicated in first-year essays.



## What was its impact?

**Figure 2**

*ChatGPT-3.5 generated essay, Passage 1 (OpenAI, 2023).*

When coupled with an unreliable narrator or an ill-informed character, dramatic irony takes on a new dimension, offering an insightful commentary on the characters' perspectives, the unfolding events, and the underlying themes of a narrative. Suzanne Collins' "*The Hunger Games*" and William Shakespeare's "*Hamlet*" are two renowned works that adeptly employ this combination of dramatic irony and unreliable narration, serving a distinct purpose in each narrative.

In each session, students immediately identified that there was no clear thesis statement in Passage 1. While many initially suggested that the argument was that "dramatic irony and unreliable narrative serves a distinct purpose in *Hamlet* and *The Hunger Games*", further discussion then focused on the vagary of this claim, and the lack of defensible or specific ideas.

When asked to identify examples of close reading or evidence, students accurately discussed the lack of close reading, and the summary-heavy nature of the discussion.

### Figure 3

*ChatGPT-3.5 generated essay, Passage 2 (OpenAI, 2023).*

[Katniss, the protagonist's] limited understanding of the Capitol's machinations, combined with her intense focus on survival, creates gaps in her comprehension of the broader socio-political context. This ignorance generates dramatic irony as readers recognize the oppressive control exerted by the Capitol and the true intentions behind the Hunger Games, while Katniss initially views them as mere acts of entertainment.

Students were eager to bring up a key factual error in Passage 2, which claims that “Katniss initially views [the Hunger Games] as mere acts of entertainment”.

*Student quote:*

**“That’s like the second thing you learn about Katniss. She hates the Hunger Games, nobody who’s seen it could make that mistake.”**

At this point in three of the sessions, a few students suggested that this essay was AI-generated due to this error and the overall dryness of the writing, which I confirmed. In the sessions that did not identify the writing as AI, they suggested that a key error such as this made them question the validity of the rest of the essay, which was intensified by the lack of direct evidence. In all sessions, this provided a space for a key discussion regarding the importance of direct evidence from the text to support interpretation.

## Figure 4

*ChatGPT-3.5 generated essay, Passage 3 (OpenAI, 2023).*

**In “*Hamlet*,” Hamlet’s feigned madness contributes to the theme of appearance versus reality. The audience witnesses the stark contrast between Hamlet’s inner turmoil and his outward façade of madness.**

Students with knowledge of *Hamlet*, beyond basic familiarity, also recognised an issue in the essay’s description of the play, as demonstrated in Passage 3. Much discussion of *Hamlet* centres on the way Hamlet’s madness may be feigned, as he claims, but may also be impacting his behaviour beyond his stated intentions (Bremaud, 2015). If the students had not already guessed this essay was AI-generated, I disclosed it at this point. I was able to use the essay’s inability to recognise nuance as an example of the importance of human critical thinking and the consideration of grey areas in literary analysis.

Students demonstrated increased understanding of key elements of critical analysis and common errors at the close of these sessions; several voiced that the deficiencies of the grammatically correct but uninventive generated essay made them more enthused to put forth their own ideas.

*Student quote:*

**“It reminded me that even if I’m not great at grammar, my ideas are more original than anything an AI can write”**

Although I only assessed three of the groups this session was delivered to, the vast majority of these students had recognisable thesis statements and included close reading in their first essay, with more specificity in their argument than the AI-generated sample provided. This was a significant improvement from previous years in the same module, where it often took two to three essay submissions and feedback

sessions to reach similar levels of textual analysis over generalisation. There were few instances of obviously AI-generated essays. In addition to success on the first essay assignment, the students in attendance at this session were writing stronger essays by the end of term than in previous years.



## What might you do differently in future?

I have delivered other versions of this workshop, with different prompts, sample texts, or for different purposes. As a writing exercise, it can be repurposed relatively simply, with the prompt adjusted to reflect a subject-specific example and questions or exercises adapted based on both the subject aims and essay generated.

Some versions of this workshop have been focused more on AI literacy and understanding AI limitations than writing skill development. The original prompt is again useful here, as the contextual and ‘comprehension’ errors demonstrated exhibit its limitations in this setting as well. *The Hunger Games* again provides a particular utility in this context: the discussion of (inaccurate) source material. *The Hunger Games* already holds the potential for confusion: some plot points are different between the novels and film adaptations, for instance, and its popularity means there is no dearth of online discussion of the text with varying levels of accuracy. It is also illustrative, however, of some of the dangers posed by generative-AI’s use of open-source databases without distinction between their factual validity.

Like many popular fiction franchises, *The Hunger Games* has a fanbase involved in extratextual imagination, discussion, and artistic production. As a result, there is a significant amount of derivative works regarding *The Hunger Games* on the unofficial home of derivative fiction, or “fanfiction”, Archive of Our Own, where over twenty-

thousand unique fanfictions fall under the tag “Hunger Games Series - All Media Types” (Organization for Transformative Works, 2024). As a result, open-access databases of information on *The Hunger Games* heavily prioritise derivative works over original text in sheer volume alone. Several test versions of AI-generated *The Hunger Games* essays thus went into detail about events or characters that appear in popular fanfiction about the series, but are not present in the source text, an example which both allows students to critically reflect on generative-AI’s sources – and one that they tend to find amusing.

Using new iterations of generative AI platforms such as ChatGPT-4o, I again generated sample essays with my original prompt. As this trial of ChatGPT-4o indicates, future workshops will need to use essays generated via more advanced versions of generative AI, in order to ensure that this session remains reflective of the technological reality of generative-AI. Additionally, Taylor & Francis’s decision to sell Microsoft “nonexclusive access” to their academic journals for use on their generative AI platform means that these systems now have access to, if not understanding of, a great deal of textual practice (Palmer, 2024).

## Figure 5

*ChatGPT-4o generated essay, Passage 1 (OpenAI, 2024).*

**This essay argues that dramatic irony in these texts not only deepens the narrative complexity but also enhances the thematic expressions of power, control, and the nature of reality.**

However, the sample text’s capacity for error again generates pedagogical possibilities. While the thesis statement put forth in this essay is closer to a successful argument than previous iterations, it fails to connect the thematic elements it identifies to larger consequences beyond the vague idea of narrative complexity. The essay itself still cannot provide evidence beyond summary, has key factual errors, and ignores nuance. Thus, although it is of a higher quality, the core errors remain the same, and hopefully, instructive.

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## Case study 8

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# Teaching Critical Theory in the Age of Generative AI

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Dr Adam Kelly, UCD School of English, Drama and Film,  
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## Abstract

*Critical Theory* is a core module on the English curriculum at UCD, taken by 260-320 second-year students every Autumn. This case study outlines new lectures and a new poetry assignment that were added to the module in 2023. These additions addressed the advent of GenAI by teaching students about its origins and consequences; they were also designed to counter the threats to learning of LLMs, as well as attempting to harness their pedagogical possibilities. The case study explores the impact of the changes made, and considers how our pedagogy can continue to adapt to the challenges of this new technology.



## What did you do?

*Critical Theory* is a core module on the English curriculum at UCD, taken by 260-320 second-year students every Autumn. It is the only 10-credit module in the first two years of the subject, and plays a vital role in encouraging students to think deeply about what literature is, how it can be read, and the political and ideological meaning of texts and readings. Topics include Postcolonial Theory, Environmental Humanities, Feminisms, and Disability Studies. The pedagogy involves three hours of in-person teaching per week in lectures and small groups, along with online tasks and creative and critical assessments.

As the coordinator of the module over recent years, for 2023-24 I decided to grasp the nettle on the generative AI revolution and introduce two new lectures on the theme of Language, Technology, and Culture. In collaboration with colleagues teaching on the module, I also carried out a substantial redesign of the assessment, which attempted both to counter the threats to learning, and to harness the pedagogical possibilities, of large language modules (LLMs).



## Why did you do it?

My new lectures were delivered early in the module, directly after a week on Marxist Theory and Criticism, and part of their purpose was to give a materialist analysis of the origins and implications of GenAI and LLMs. The lectures outlined the class forces at play in the development and public rollout of these technologies, the substantially increased environmental footprint of generative versus analytical AI, and the labour conditions that underpin what can easily appear, to users, to be the near-magical properties of programs like ChatGPT (Crawford, 2021; Luccioni, Jernite & Strubell, 2024).

The other main emphasis of the lectures was on the implications of LLMs for our understanding of language itself. Most students take *Critical Theory* as part of a degree in what we might call the language arts, studying how writers throughout literary history have employed language in new and surprising ways. Bearing this in mind, my lectures aimed to encourage students not only to reflect philosophically on the advent of LLMs for thinking about literature, but also to consider how their learning at university might apply practically in the post-GenAI employment landscape. There are two sides to this. On the one hand, anyone who works primarily with language is threatened by the coming of LLMs, with the kinds of jobs and careers that English students often go into – marketing, publishing, journalism, libraries, civil service work, etc. – among those most at risk of deskilling and disruption (Lowrey, 2023; McGowran, 2024).

On the other hand, LLMs represent a step-change in the history of computing that can provide new opportunities for graduates who are sensitive to language use and skilled in the reading of texts. The marginalisation, in computing, of natural language in favour of mathematics – a tendency that originated in the nineteenth century and dominated in the twentieth – is now being reversed, blurring the lines between computation and communication (Binder, 2022). To put it very simply and schematically, LLMs are

“language in, language out.” This new centrality of natural language to computing, allied with the “black box” quality of machine learning (whereby algorithms now “learn” recursively in a way that goes beyond the initial input of their developers), means that assessing the outputs of LLMs requires a high degree of skill with language. English students should be perfectly placed to play a role here, especially those who have studied approaches to language and power informed by the various schools and methods addressed in *Critical Theory*. All this means that there can be a certain amount of upskilling as well as deskilling in response to these new technologies.

The redesign of the assessment on the module was also a direct response to the advent of LLMs. For many years *Critical Theory* had relied on testing knowledge through worksheet questions like the one below, asking students to summarise in their own words the ideas of a complex theoretical passage (I am reproducing the question here without the accompanying passage):

**Read the following passage from Marx and Engels’s *The German Ideology*. In your own words, explain what you understand by their claim that “Life is not determined by consciousness, but consciousness by life.”**

This kind of question is no longer viable in the age of ChatGPT. It asks students to engage in precisely the kind of activity – simplification and summary – at which the machine excels. Although a strong student might still be able to produce a better – or at least more individual and interesting – answer to this question than an LLM can, the average student will do worse than the machine. To persist with this kind of question is therefore to invite students to rely on AI in place of their own learning, and in effect to penalise students who refuse to use AI, or who cannot for financial reasons access the higher-quality paid-for tiers of the technology. Avoiding penalising students who choose not to use this technology – whether for ethical, financial, or other reasons – is our biggest challenge in the age of generative AI. The pedagogical task must be to design questions that test those student skills that cannot be fully reproduced or bettered by machines.

**This new centrality of natural language to computing . . . means that assessing the outputs of LLMs requires a high degree of skill with language. English students should be perfectly placed to play a role here, especially those who have studied approaches to language and power informed by the various schools and methods addressed in *Critical Theory*. All this means that there can be a certain amount of upskilling as well as deskilling in response to these new technologies.**



## Did it support the principles of UDL?

Students now have access to Google Gemini cost-free through UCD Connect, mitigating the issue of financial inequality raised above. However, the broader point about penalising students who choose not to use the technology remains salient. The UDL guidelines (CAST, 2024) were designed before the public rollout of GenAI, meaning that they are not wholly responsive to the challenges and affordances of the new technology. Nevertheless, from a UDL perspective the temptation to use an LLM to answer questions can be considered a threat to the authenticity of learning (Consideration 7.2) and a distraction that can lead to learning loss (Consideration 7.4). LLMs also accentuate the predominance of the English language (Consideration 2.4), and introduce biases related to modes of expression and communication (Consideration 5.4) in ways unanticipated by the guidelines, for instance by repeating patterns of racial and gender bias found in training data (Guo et al., 2024; Mehrabi, 2021; Gross, 2023).

The new lectures, and supporting readings, explicitly addressed the language and bias questions around LLMs. The assessment changes, in turn, responded to the threat of learning loss, while also attempting to harness the new technology for pedagogical ends. I will focus on one innovation here. In place of the question described in the previous section, which appeared on the module's first worksheet in 2022, I designed a question that asked students to compare a poem by Seamus Heaney – a famous sonnet that most already knew from Leaving Cert – with a sonnet written by ChatGPT on the same topic in the style of Seamus Heaney. The idea was not to encourage the use of ChatGPT – which would go against the ethos of the lectures, and would damage UDL goals – but to enable students to assess the technology critically without having to use it themselves.



The students were asked to read Seamus Heaney's poem "The Forge", published in 1969, and a poem generated in September 2023 by ChatGPT, in response to the prompt "Write a sonnet about a blacksmith in the style of Seamus Heaney." They were given the following instruction:

**Write a comparison between the two poems, paying attention to issues of form, voice, imagery, use of language, etc. Consider how and why ChatGPT has come up with this particular poem when responding to the prompt. What makes an AI-generated poem in the style of Heaney different to an actual poem by Heaney?**

### **A Sonnet About a Blacksmith in the Style of Seamus Heaney, by ChatGPT**

In the forge's fiery heart, he toils with grace,  
A blacksmith, strong as earth, his hands like stone,  
In rhythm's dance, his hammer finds its place,  
Crafting the metal's song, the iron's moan.

With sinewed arms, he wields the molten steel,  
Each strike a testament to age-old skill,  
The anvil's steady beat, the sparks that reel,  
In this domain, his destiny fulfill.

In glowing embers, secrets he discerns,  
As twilight paints his silhouette in gold,  
The anvil's music, ancient as it burns,  
Reveals the stories from the days of old.

A master of his craft, his spirit free,  
The blacksmith forges tales in iron, key.



## What was its impact?

This exercise produced some of the best and most creative answers I have encountered among English students at UCD. Many students accounted for formal differences in the poems by analysing the technological underpinnings, affordances, and biases of ChatGPT, drawing on the supporting readings set for the lectures. Others drew attention to the different meanings of the work ascribed to the blacksmith, and by analogy to the poet, in the two poems. One student, Aoife McAnena Lyttle, compared ChatGPT's image of "the anvil's steady beat" – which suggests the "undeviating and dependable" nature of the blacksmith's creative process, mirrored in ChatGPT's own technical processes – with Heaney's portrayal of creation as an "unpredictable fantail of sparks," which captures the poet's experience of writing as "temperamental" rather than dependable.

The best answers I read placed Heaney's identification with the blacksmith at the centre of the analysis. Even though most readers are not blacksmiths, we can ourselves identify with the kind of internalised labour that Heaney describes. As another student, Arttu Moser, put it, "All of us know 'a door into the dark,' and all of us must turn inside to find that 'immoveable altar,' to find what is stable and true, and to 'beat real iron out.'" "The poet's struggle is the blacksmith's struggle," he argued, "the worker's struggle is the people's struggle." But ChatGPT is different: the machine "is in direct contrast to the worker, socially as well as symbolically":

As a threat to many workers' jobs, and as a machine with no inner soul to turn into, no sympathy or identification with ChatGPT as a "bard of the people" is possible. In a poem about creation, there is no room for a mindless soulless artificial intelligence. All those who fear that AI could ever replace a poet should turn to Oscar Wilde's *De Profundis* and find therein the immortal line: "Art only begins where Imitation ends."<sup>1</sup>

As answers such as these testify, "The Forge" is a particularly suitable poem for this exercise. Because of the way it self-reflexively thematises the poet's relationship to labour, creativity, and spontaneity, the contrast with the processes of ChatGPT suggest themselves. When I asked ChatGPT itself to answer this question (as one must now do with assessments in the age of generative AI), the machine listed similarities in subject matter, craftsmanship ("both poems convey a deep appreciation for the blacksmith's skill and artistry"), and imagery (both poems are described as "vivid"). The three differences it listed were in form (free verse vs. rhyming iambic pentameter), tone ("Heaney's poem carries a tone of nostalgia and reflection. The sonnet I provided focuses more on the blacksmith's skill and the timeless nature of the craft"), and point of view (first vs. third person). The machine's answer was, in other words, quite basic, focusing on surface elements of the poems that could be noticed by any student possessing a rudimentary knowledge of the tools of literary analysis. The majority of answers produced by students – not only the best ones quoted above – identified some of these elements and added deeper considerations that went well beyond the capacities of the machine.

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<sup>1</sup> Both students have given permission for their work to be quoted in this essay.



# What might you do differently in future?

As an educator, what heartened me most about the answers to this question was that students displayed skills and knowledge that they often struggle to make visible in their essay writing. Nevertheless, students who did not cite support in the weekly reading often fell back on reflexive assumptions about human writing vs. LLM writing – along the lines of the claim that authentic human expression can never be replicated by a machine – without attempting to explain the processes by which the LLM came to do such an impressive job of precisely this kind of replication.<sup>2</sup> For the next iteration of the exercise, I am considering adding a requirement that students support their answer with direct citation of one of the theoretical texts set alongside the lectures on language and technology. This requirement should also make it harder for an LLM to provide an answer that does not rely on “hallucinating” quotations for texts not in its training data.

The practice of close reading has been challenged and complicated over decades by various schools and methods of literary theory – the very schools and methods that *Critical Theory* exists to introduce to students. Most colleagues labouring in the field, nevertheless, would likely agree that close reading belongs somewhere near the centre of our discipline (in this regard, see the following forthcoming titles: Sinykin & Winant, 2025; Guillory, 2025). The fact that machines can now carry out a form of close reading – not only of substance but also of style – is an extraordinary step forward for those who have designed those machines. Part of our job as educators is to encourage students to see that they can still remain a step ahead.

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<sup>2</sup> As I was completing the final version of this essay, the eminent journal *Nature* published the following article: Brian Porter and Edouard Machery, “AI-generated poetry is indistinguishable from human-written poetry and is rated more favorably,” *Scientific Report* 14 (2024). What the article’s title obscures (but its abstract acknowledges) is that the experiment on which the article is based was carried out on “non-expert readers.” Given these findings, it seems ever more important that we train students to become “expert readers,” not least because distinguishing between human-generated and AI-generated text may become an important skill in the workplace of the (near) future.

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**The majority of answers produced by students . . . identified some of these elements and added deeper considerations that went well beyond the capacities of the machine.**

# **Exploring the Capabilities and Limitations of AI: What Can Students Learn from Interacting with a Chatbot?**



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## Abstract

This case study describes the use of AI in an assessment activity. As part of their assessment, students submitted a written report critically analysing their interaction with an AI chatbot on a topic they autonomously selected (and in which they felt they had expertise). The incorporation of AI and personal expertise in the assessment: (i) led to high engagement and motivation due to students' interest in AI technologies and the personal relevance of the topic selected, (ii) provided authentic and meaningful learning without requiring extensive training and scaffolding, and (iii) facilitated the incorporation of the three principles of UDL.



## What did you do?

I used AI for assessment in my MSc module *AI & Society (SOC41130)* at UCD's School of Sociology. This is a core module in the MSc Social Data Science that critically addresses aspects such as AI's relationship with other digital technologies, the sustainability of digital infrastructures, innovation, monetisation, regulation, and human-centred design.

The module was attended by students enrolled in the MSc Social Data Science, the MA/MSc Sociology, and the MSc Politics & Data Science. They were primarily students with a background in the social sciences with some knowledge or interest in digital technologies and a few students with a STEM background interested in the “social” dimension of data science.

For the final written assignment, students were asked to critically analyse the input-output connection in an interaction with an AI chatbot for a topic in which they believed they had expertise. The assignment was scaffolded in two ways. The main technical aspects of LLMs and prompt design were discussed in several instances during the module. Complementarily, chatbots were used for an activity on creativity and ideation.

In preparation for the assignment, students were provided with a two-page document that included the main goal and some general instructions about what the interaction should look like and how it should be reported. The document instructed students to: (i) select a criterion, technical or conceptual, underlying their interaction with the chatbot (i.e. it could not be just random prompting), (ii) structure the interaction in a manner that fit their criterion, e.g. as a full sequence or as series of small interactions, and (iii) report the interaction by clearly separating inputs, outputs, and personal critical analysis. A holistic rubric informing the assessment was included at the end of the document.



## Why did you do it?

After the release of ChatGPT in November 2022, we have been constantly bombarded with news articles, reports, and pundit interviews claiming that AI can provide all sorts of recommendations for our everyday life (trips, workouts, diets, etc.) and, more critically, perform tasks that can make work more efficient and even render humans (or, at least, the average human) obsolete.

This widespread belief is misleading, for AI is such a complex technology that, when it comes to performance, it is difficult to separate honest technical assessment from wishful thinking or overhype. Part of the problem is that much of the discussion about performance neglects the needs and abilities of the average user. The user is important in two ways. First, in real-life interactions with AI, it is not obvious to the user whether underperformance is attributable to them (primarily, due to suboptimal prompting) or to the technology. More importantly, the criteria by which the average user assesses performance in real-life tasks often differ from the typical tests and benchmarks used by tech companies, researchers, and enthusiasts.

The assessment activity, then, was designed so that students could embody the everyday user and have hands-on experience with AI. I asked them to work with a topic in which they had expertise for a twofold reason. The first one pertains to their interaction with AI. Relying on personal knowledge helped make the learning activity authentic, for it motivated students to autonomously select and apply means and criteria of interaction and assessment. It encouraged them to critically consider the role of prompting in the input-output connection, i.e. go beyond the technical aspects of “prompt engineering”, and, more interestingly, to identify output that, while not technically wrong, is simply not *good enough* (a non-expert, conversely, would likely find it difficult to judge underperformance beyond obvious “hallucinations”).

The second reason to use personal expertise pertains to the role of this assessment in the more specific context of teaching and learning practices. AI will radically alter the workplace in the upcoming years, and students will benefit from being able to experiment with it in safe and supervised learning environments. This assessment gave them an opportunity, on the one hand, to produce a personalised understanding of AI as a technology, i.e. its potential and limits, and, on the other hand, to reflect more generally on the skills and knowledge involved in optimal and responsible use of AI.



## Did it support the principles of UDL?

The assessment accommodated in multiple ways the three core principles of Universal Design for Learning (CAST, 2024). Initially, by deliberately incorporating AI into the activity and giving students the option to freely choose their topic, the assessment allowed for *multiple means of engagement*. Students were highly engaged and motivated throughout the entire process. Their motivation was initially linked to their interest in “doing things with AI” and to their personal recognition that, while AI-related skills and knowledge will likely become fundamental in a variety of professional settings, in the context of teaching and learning, the reaction to AI has so far been mostly critical, centring on avoiding fraud and plagiarism, without really curricularly or pedagogically accommodating the technology.

Students' high engagement and motivation was also linked to their control over topic selection. Having students choose the topic themselves not only made the activity meaningful and authentic, but also offered an opportunity to link the criteria selected for the interaction with more overarching motivations or rationales. Almost every assignment was broadly connected to real-life concerns of the students, including, most prominently, assignments for other modules and their dissertation, jobs, hobbies, and personal interests.

Complementarily, asking students to focus on the input-output connection, instead of providing them with a specific task they had to perform or a problem they needed to solve, lent itself to *multiple means of action and expression*. Because of the difference in topics and types of expertise, the submitted assignments ended up covering a diverse range of interactions with AI chatbots. For example, some students tried to have “natural” conversations or debates; some had interactions that were task-oriented, e.g., get the AI to provide support or create tailored recommendations; some contrasted the AI output with their knowledge and expertise. Because of the various goals pursued and the freedom that students had for their interaction with the chatbot, they resorted to and incorporated into the assignment in different ways a variety of resources pertaining to their input, the AI output, and their critical assessment. Some students, for instance, paid significant attention to their prompting and consulted resources on “prompt engineering”. Similarly, the use of additional references was more prominent on assignments exploring factual accuracy rather than task performance.

Anticipating the diversity in interactions with AI technologies, and trying to prioritise the learning process over its reporting, I decided to include minimal structuring and formatting requirements in the instructions document. This gave students freedom to explore *multiple means of representation*. Initially, the assignment did not have a word limit. Students were asked to autonomously decide when the interaction was finished, depending on the goal they set for it. Not having a word limit was necessary because of the alternatives they had available for reporting. For the outputs, for instance, I gave

them the option to transcribe fragments or copy-and-paste images from the chatbot (and only the first option would add words to the document). In turn, I only asked them to transcribe whatever they thought was important about the interaction with the AI, which, depending on their goal, were fragments of different length (e.g. those that asked the AI to do things reported the AI output extensively). Finally, the goal also affected the length of the critical analysis, first, because some of them, especially those analysing factual adequacy, were more prone to include graphs, tables, and citations, and, second, because they made sense of their interaction, structured it, and reported it in different ways (I only asked them to make sure that the document was legible and that they were consistent in the formatting used).

The fact that some AI chatbots are multimodal, i.e. are not limited to text for input and output, offers an additional opportunity to explore different means of representation. While most assignments relied heavily on text-based input and output, one interaction centred on the image-generation capabilities of AI.



## What was its impact?

As mentioned, students were highly engaged and motivated throughout the process. Instructions were released a month in advance and most of them spent a few weeks diligently going through the design, execution, and report of the interaction. Several students submitted ideas, possible structures, and (partial and full) drafts for comments and revisions before the deadline, and came during office hours to discuss their topic.

While the high engagement might have been driven in some cases by the desire to do well in an assignment with a goal and structure with which they were unfamiliar, in general, the response towards the activity was positive, primarily because it encouraged students to use AI in ways they felt were meaningful.

## Testimonials

I thought it was a brilliant assignment! The freedom in terms of topic and word count gave us the space to be creative in our writing and our communication with the LLM. It allowed us to explore AI's capabilities and limitations through the lens of a topic we're passionate about.

It was [a] great opportunity to work with AI and learn how to use it, what would be the best practices and how to do better prompts and getting better results. I used this assessment to tackle issues with [the] ABM model that I have never done before, which gave me a lot of knowledge [on] how to proceed with it.

Inspired by the dialogues shared in the course, I decided to focus my assessment on mental health and the responses of large language models (LLMs) to users expressing mental health concerns in chat interactions. In the assessment, I conducted a structured qualitative analysis focusing on the interactions between a large language model (LLM) and users expressing mental health concerns. The study was motivated by the course's stimulating discussions and aimed to explore the practical application of LLMs in sensitive areas like mental health support. The interaction served as a practical test of the LLM's capabilities and limitations, specifically within the context of mental health support. Overall, this analysis provided valuable insights into the ethical and practical considerations of using LLMs in mental health contexts. It was a scientific exploration that not only tested the LLM's knowledge on a specific topic but also highlighted the critical role of human intervention in ensuring safe and effective support for users.

Personally, I had a great time working with students for this assignment. They came up with great ideas and interactions. I deeply enjoyed reading the submissions and I learnt a lot about some topics. I was surprised in several instances by the technology's performance, as well. Pedagogically, it was also interesting to see how differently they made sense of the class materials and the technology, based on their interests and expertise.





## What might you do differently in future?

One aspect I will surely emphasise in subsequent iterations is the responsible use of AI. I would like them to be mindful, first, of academic integrity and, second, of the ethical aspects of AI use, particularly those pertaining to system prompts, built-in safeguards and, more importantly, what they, as users, are giving in return for the use of an AI system: data and labour.

I identified three additional possible changes, but I am unsure about whether their implementation is warranted:

- **Offer guidance and support in the sessions leading up to the submission:** since quite a few students personally discussed their assignments with me, I thought I could address it in class a few more times, as they progress through the interaction. This change could encourage collective understanding of the assessment activity and lead to a more efficient use of resources. Considering the diversity in the interactions with AI, however, this change might not be entirely helpful, for most communications I had with students were highly specific to what they were doing. Collectively discussing the activity could, in turn, increase standardisation or imitation, making it less authentic. Finally, they all worked at their own pace, so it might be difficult to offer insights that are timely and illuminating.
- **Include further scaffolding on the technical and conceptual aspects of LLMs:** while the activity is already scaffolded, additional contents and materials could be included so that students interact with AI more efficiently, e.g. deliberately work on “prompt engineering”. Too much scaffolding, however, might affect the balance between prior knowledge vs. personal learning and discovery. The issue here is whether, for example, understanding through hands-on experience that AI is bad at dealing with

context is more important than acquiring or applying knowledge and skills to bypass this limitation. The current format, I believe, allows for a more natural approach to skill development.

- **Provide collective feedback:** I gave students extensive personalised feedback on their assignments. Yet, because of the diversity of topics and interactions, they could also significantly learn from what other people did. This, I think, could be a very positive change to the assessment activity, and the cons are primarily logistic.

As mentioned, the results of the activity were positive, and my initial intention is to run it again with only a few minor tweaks to better consolidate the evidence I got. I am conscious, though, given the pace and nature of technological change, that the adequacy of the current format and the possible changes hinge, as with any other teaching and learning activity relying on generative AI, on developments that we might not anticipate or be entirely aware of.

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**Personally, I had a great time working with students for this assignment. They came up with great ideas and interactions . . .**

**Pedagogically, it was also interesting to see how differently they made sense of the class materials and the technology, based on their interests and expertise.**

# **Using Process Reflections as Authentic Assessment for Academic Skills Development in Philosophy**

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**Dr Heike Felzmann, School of History and Philosophy,  
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## **Abstract**

The Higher Education sector has been challenged to pivot towards AI-resilient assessments that capture and foster the development of relevant disciplinary skills for students. In this case study, process reflections are discussed as an assessment that can achieve this goal. I will present experiences with three different uses of process assessments in Philosophy undergraduate modules that aim to develop students' skills by encouraging their use of metacognitive skills. One of these assessments combines AI-resilient process reflection with AI integration, asking students to reflect on the AI generation of an output based on their prior non-AI-generated academic work.



## What did you do?

Essay writing has traditionally been the gold standard of assessment in Philosophy. The format is meant to encourage students to engage with a body of relevant philosophical literature and carefully develop their own arguments in relation to the chosen topic. When essay writing goes well, it can transform students' skills and propel their disciplinary knowledge forward substantially. When essay writing is less successful, at a minimum we used to be able to ascertain whether students had developed writing skills and gained sufficient understanding of the topic area. However, since the mainstreaming of LLM-based generative AI, confidence in the authenticity of written outputs outside of controlled exam conditions has plummeted. We now need to consider the AI resilience of our assessments together with other considerations relating to authentic assessment. In Philosophy, finding alternative ways of assessment that foster students' skills relating to critical and analytical thinking has become a paramount concern.

In this case study, I will present process reflections as means of increasing the AI resilience of assessments while fostering students' academic skills development in Philosophy, focusing especially on their metacognitive skills. Philosophy is a theoretical discipline with no defined, circumscribed professional practice outside of academia, while at the same time being a versatile approach to thinking about real world phenomena through the lens of relevant concepts. According to Wiggins (1990, p.1), "[a]ssessment is authentic when we directly examine student performance on worthy intellectual tasks". In Philosophy we aim to develop students' ability to apply their conceptual skills to make sense of meaningful concerns in their own experience and the wider world. The contributions of reflections and metacognition to deeper learning have been well established in the literature (Silver et al., 2023). Asking Philosophy students to reflect on how they are using their thinking skills is addressing an essential element of philosophical practice.

My use of process reflections started initially with a focus on understanding and supporting students' academic skills development, but then became increasingly relevant within the context of generative AI, where incentivising students to focus on the learning process and themselves as learners gained increasing importance. I will present the use of process reflections in relation to different assessment tasks that are part of my undergraduate modules in Philosophy, in the second year module *Information Ethics* and the final year module *Moral Theory*. The first of the outlined tasks has been in place for many years, the other two are more recent additions which were included partly in response to the increased availability of generative AI. The last of the outlined tasks also involves the integration of AI-generation into the assessment process, as part of the students' hands-on engagement with ethical issues in information technology in the module.

**Task 1 Research and Referencing Skills:** Students are given a highly specific research question and are tasked with providing (i) a bibliography of fifteen items of strictly relevant literature, based on the use of at least three different academic online databases, and (ii) a detailed description of their search process (including various functions of the databases, use and modifications of keywords, comparison of databases) and a reflection on challenges encountered during the search, solutions found, and learning from the process (approximately 600 words). This assignment is worth 20% of the overall grade. Students receive a hands-on introduction to using various databases and different simple and advanced search and database functions in class and a detailed rubric covering the specific required elements of their assignment. They are encouraged to try out various strategies and report on how effectively these contributed to identifying and selecting potentially relevant academic materials and reflect on that process and their learning.

**Task 2 Essay Development:** In addition to the writing of a traditional student essay, students are asked to provide a brief reflection on the development of the essay (minimum 200 words, pass/fail marking, with feedback given on the reflection). Instead of a full rubric, students received a set of questions, addressing the following elements:

- their selection of most important authors and readings.
- the development and specification of their understanding of the essay question.
- what they saw as most important themes, concepts or arguments for the essay.
- whether their perception of any of these changed in the process of writing the essay
- challenges encountered.
- decisions made in response to these challenges.

**Task 3 Transformation of literature review into AI-generated podcast:** Students develop a brief literature review (1,000-1,200 words) on a choice of topics in the ethics of information technologies. On the basis of this literature review they create an AI-generated podcast script for a general audience (1,000 words), adapting and improving it through at least three iterations. This AI integration in the assessment is motivated by the specific content of the module, where students reflect on the ethical significance of AI; it allows them to engage in a hands-on manner with the technologies they have learned about. The literature review and reflection are worth a combined 50% of their grade. They receive instructions and guidance in relation to the literature review and “prompt engineering”. The process reflection includes:

- a description of their approach to prompting, including the prompts.
- their rationale.
- the resulting podcast scripts.
- an evaluation of strengths and weaknesses of their “best” podcast script.
- an evaluation of the effectiveness of their prompting strategies.





## Why did you do it?

The use of process reflections aimed primarily at deepening their skills-related learning and at encouraging metacognition about themselves as learners who are developing these skills (Biggs, 1988). Additionally, these reflective assignments also facilitate a more authentic, personalised assessment that conveys the individual process of each learner's engagement with the task and thereby might prevent academic integrity issues.

The use of process reflections as part of my assessment strategy started before generative AI became a concern in Higher Education, but I then realised their potential value for AI-resilient assessment. I first introduced the Research and Referencing assignment, which was focused on aligning the assessment task with known and suspected student skills gaps in an area that appears to be comparatively under-theorised and under-researched (Leger & Sirichand, 2015). It was a response to the difficulties undergraduate students experience with independent research skills on online databases. The assignment was developed to scaffold students in building their research skills by providing them with detailed guidance for completing a hands-on task. It asked them to reflect on how their decisions during that process both represented and built their skills in identifying and selecting relevant academic source materials.

The subsequent use of process reflections on the development of students' essay writing aimed to add an authentic individualised element to the essay writing task once generative AI had become easily accessible to students. The use of process reflections was meant to impress on the student that the essay is not primarily an output, but the result of a process of engagement with a question that involves developing the student's knowledge and thinking on the subject matter. It invites them to reflectively engage with how their own learning and writing process leads to the final submitted

product. At the same time, process reflections also allow the lecturer to gain an insight into students' essay development and writing processes, potentially identifying the impact of prior skills building interventions and individual or common barriers and challenges encountered by students. Class activities were explicit about philosophical skills and thinking habits, with particular emphasis on the identification of philosophical questions, core concepts and critical analysis of arguments. The reflective assignment then allows the lecturer to see how students perceive and utilise these elements in their approach to the essay writing task and could help better tailor subsequent educational interventions.

The use of process reflection on transforming a literature review into an AI-generated podcast encourages students' reflection on the effectiveness of their use of generative AI, including their developing skills with prompt engineering, harnessing the strengths of AI and avoiding common pitfalls – an important set of skills in relation to working with generative AI (Lo, 2023). This topic is particularly relevant to the module *Information Ethics*: generative AI is discussed in this module as a societally impactful and potentially problematic technology but is also employed to transform students' own written work in desired or unexpected ways. Linking the generative AI use to their personally created product, the literature review, allows students to consider the strengths, weaknesses and risks of generative AI outputs, while also considering how it captured and transformed the characteristics of their own philosophical work.



## Did it support the principles of UDL?

Process reflections allow students to take a metacognitive stance on their individual ways of engaging with learning tasks. Self-reflection and metacognitive skills are included in the CAST UDL guidelines especially under Guideline 6 on scaffolding executive functioning, and Guideline 9 on self-regulation, specifically regarding the development of self-assessment and reflection (CAST, 2024). This allows students to convey their individual skills and approaches to the tasks in a way that helps the lecturer understand the processes, skills and effort that went into creating that output. It allows students with different learning preferences to show how they go about completing tasks and to make visible otherwise invisible student work or efforts, as well as their specific talents and strengths. It can help lecturers appreciate the diversity of students' individual ways of approaching their learning and help them adapt future learning opportunities to these insights. One important feature of process reflections is that they identify what students are struggling with and where they may require potentially different types of engagement to support learning. The diversity of students' approaches evident in process reflections can help lecturers appreciate the diversity of learning in their classrooms. At the same time, it also allows students to develop a clearer concept of themselves as learners, which may support them in advocating for their learning needs. The use of AI in the third task outlined above also matches Guideline 7 on recruiting student interest through novelty, relevance and encouraging to explore creative approaches to the task.

**The increasing ease of using generative AI for a wide range of purposes makes it especially urgent to convey to the students that their studies are less about creating external outputs, but more about their development as learners and their ability to understand and demonstrate their distinctively human skills of independent critical thinking and reflection on meaning.**



## What was its impact?

The positive impact including process reflections has been most discernible in relation to the Research and Referencing assignment. Students frequently mentioned that they found the inclusion of a clearly skills-based task helpful for their studies, and regularly suggested including additional similar assessment elements throughout their studies. The information provided by the students has helped me understand students' engagement with the task, their learning, and their remaining skills gaps in effective database research. It has also highlighted the importance of encouraging students to engage in metacognitive reflection – while some easily managed to combine the description of their actions with reflection on their development as learners, others struggled to see themselves as learners whose studies demanded not just the creation of outputs but also the development of specialist research skills.

The essay reflections, which probably required the most complex metacognitive skills, were least effective for the majority of students, in comparison to the other two reflection tasks presented here. They appeared to work best for the most highly skilled students who already saw essay writing as a process not just of output production, but also of learning. The reflective element allowed them to make their engagement in the process more explicit but it worked less well as meaningful, authentic engagement for most students. Weaker students appeared to struggle with taking the metacognitive stance and instead provided more external, descriptive accounts of their essay development, lacking individualisation and the sense of authentic engagement. These accounts were often not integrated into a narrative of the development of their thinking. These primarily output oriented students might also be more tempted to employ AI to create such outputs; they are likely to have less awareness of the learning loss associated with using AI instead of actively engaging with materials during the essay writing process.

Overall, the value of these reflections for my future course planning was limited; the students evidently had not been scaffolded enough to make effective use of this learning opportunity and the instructions were not meaningful for many of them.

In contrast, the reflection on the AI generated podcast gave a good impression of the students' uses of the generative AI tool and their reasoning behind their prompt development, even though many students showed only a limited understanding of effective "prompt engineering", despite prior discussion and provision of guidance on principles of good "prompt engineering". While ChatGPT was used for demonstration, students were allowed to use any generative AI tool that they were familiar with or wanted to try out. They were not given a specific demonstration of the task, in order to allow more space for creativity and let them remain open to their own discovery. Their reflection showed similar shortcomings in relation to the evaluative and metacognitive aspects as the previous reflections insofar as students frequently did not focus on the link between the content of the literature review and its representation in the podcast, identifying instead more external and less philosophically relevant points (such as word counts) as their goals in the "prompt engineering" process. However, many of the students commented that they really enjoyed the use of generative AI in the assignment, felt more confident about using it effectively, and overall appreciated the less conventional assessment in the module as being aligned to the course content. It was also enjoyable to see various creative uses of generative AI in the creation of accessible and engaging podcasts on the issue.



## What might you do differently in future?

One noticeable challenge for students was taking on the metacognitive stance and representing their learning process in a meaningful narrative of development, rather than in a merely episodic or externalised manner. The Research and Referencing task was most effective in guiding students towards providing a coherent process description; this might be due to the more concrete nature of the skills that were being represented as well as the availability of a more detailed rubric. For both the essay reflection and the AI-generated podcast, the students were not given a full rubric, but only a set of questions. The more detailed specification of a rubric might be required to support students to engage more effectively with the task.

However, the challenge might lie potentially in more fundamental difficulties with the demands of taking a metacognitive stance when the cognitive skills under consideration are more complex and less specifically operationalizable. In order to address this issue, it might be necessary to scaffold students more prior to such assessments by providing them with regular opportunities for structured reflection that find more tangible and meaningful ways of conveying the relevance of reflecting on oneself as a learner who is developing and employing philosophical skills. The increasing ease of using generative AI for a wide range of purposes makes it especially urgent to convey to the students that their studies are less about creating external outputs, but more about their development as learners and their ability to understand and demonstrate their distinctively human skills of independent critical thinking and reflection on meaning.

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**The subsequent use of process reflections on the development of students' essay writing aimed to add an authentic individualised element to the essay writing task once generative AI had become easily accessible to students. The use of process reflections was meant to impress on the student that the essay is not primarily an output, but the result of a process of engagement with a question that involves developing the student's knowledge and thinking on the subject matter.**

## Case study 11

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# **AI and Assessment in an MA Level Module on *International Relations Theory***

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## Abstract

This case study outlines the use of AI in a book review assignment for MA level *International Relations Theory* students. It discusses how I redesigned a part of assessment in the Social Sciences module to address the issues posed by generative AI. It explains why I changed the assessments by outlining the challenges presented by AI technologies, specifically large language model (LLM) based text generators such as ChatGPT. It describes how students responded to the assessment before concluding by discussing the challenges and benefits of this approach and the degree to which it might be scalable to larger cohorts of students.



## What did you do?

The module in this case study is the core *IR Theory* module for the MA in International Relations (MIR). It has an average of 30 students with full-time and part-time students taught together. The student cohort is a mix of Irish and international students and varies from recent graduates to students with years of professional experience in the civil service, Gardaí, the Defence Forces and the private sector. The course does not assume any background in IR or even in the Social Sciences. It has two key goals. 1) To introduce students to how theory works as a means of organising our perception of reality in order to allow us to do research and 2) To provide students with a grounding in the intellectual history of IR Theory in order to navigate current debates in the discipline. Prior to the academic year 2023-24 the module was assessed as follows: Students were asked to submit 2-3 questions based on the weekly essential readings the night before class (15%), a book review of 2,000 words (35%) and an end of term essay (50%). This assessment structure had worked well, allowing for early and frequent feedback to students, especially those new to Social Science disciplines. However, LLMs posed a particular challenge for the book review component.

Of the three forms of assessment, the book review was the most susceptible to AI. The books on the list had all been published for a number of years and therefore the training material for LLM models likely included both the books' original text and a significant number of reviews. However, as discussed above, the learning outcomes that would be produced by deep reading and writing are a key part of the course learning outcomes. The challenge then was how to redesign the book review to ensure the assessment remained an authentic student learning experience.

In order to do this, I decided to ask students to explicitly engage with an LLM in the completion of the assignment. As in previous years, a list of books for selection was made available on the VLE (DCU uses an adapted version of Moodle, dubbed LOOP). The list included a number of "classic" works in IR as well as a number of more recent

books. Rather than being asked to submit a 2,000 word review of the book as in previous years, students were asked to use an LLM to generate an 800 word review of their chosen book and then write a “2,000 word critical engagement with the AI book review based on their own reading of the book”. The final student submission included the prompt used by the student, the identity of the LLM used, the LLM generated text, and the 2,000 word student response.



## Why did you do it?

ChatGPT was launched in November 2022 starting a new period for public access to LLM-based technology that could create complex, human-like responses to even relatively abstract question prompts. The potential for this text, largely undetectable to existing anti-plagiarism software, to be used to ‘cheat’ in an academic context was immediately recognised (Fazackerly, 2023). Although some technological solutions were marketed for detecting LLM-generated text, these lacked independent verification of their validity. In the first months of the technologies wide availability, a number of telltale signs spread through the academic whisper networks and workshops - these programmes were not good at generating accurate references and occasionally invented either the content, the source or both, students might forget to remove prompt text or clean up syntax and sentence structure and so on. Imperfect though they were, these methods were reasonably successful in dealing with the initial challenge of the spread of this technology.

However, as iterations of the LLMs became more sophisticated, it became clear that the challenge to academic integrity would not abate. Beyond academic integrity, the question of learning loss became more acute. The purpose of writing as assessment in the Social Sciences is not to simply produce text. Rather, it is in the process of thinking, researching, writing and re-writing that the learning outcomes are achieved.

In marking the final essay, we (academics) engage in an almost archaeological process to excavate the foundations of the argument put forward; with LLM-generated text these foundations are simply not there, or at least not there in the students' learning achievement.

On the other hand, graduates are likely to emerge in a job market where AI technologies, including LLMs, play a role. Therefore the challenge for those of us teaching in the Social Sciences is twofold: how do we preserve the integrity of our assessment and also introduce students to the affordances of this new technology in an ethical way. This case study outlines how I approached this for a core, Masters level course in *International Relations (IR) Theory*.



## What was its impact?

From an assessment design perspective, almost all students understood and executed the assignment as explained. In one case a student focused on the technical aspects of the LLM rather than the substantive output; a small revision of the instruction material and the in-class briefing should ensure that this is avoided in the future.

The student engagement with the LLM output was fascinating to read. They consistently demonstrated engagement with the original text while reflecting on both the affordances and the limitations of the new technology. Three key issues with using LLMs to generate this type of summary text were identified. Two of these were identified by the students and the third was based on my reading as the examiner across all of the submissions.

The first issue was relatively minor; LLMs struggle to count. Although each of the student prompts specified a required word count, the models did not output 800 words. The level of error was variable, but always below the target amount. Students responded to this by including additional prompts to bring up the word count, but noted that it was a struggle to get the LLM to produce useful and coherent material by these prompts. The limits on output is a known issue for LLMs and one of the means of detecting their illicit use. It was also useful to demonstrate for students that as the text generation moved from the original prompt, the accuracy and usefulness of the text seemed to decline. Whether this is a problem of “prompt engineering” or a more structural issue with LLM design is a matter of debate.

The second issue was the so-called “hallucinations”. In other words, in several cases the LLM invented versions of the text that either attributed positions or material that were not in the original text or, in a smaller number of cases, directly contradicted the text. As noted in Hicks et al. (2024), LLMs are indifferent to the truth of their output and these types of errors are a feature rather than a bug of the way the models function, based as they are on a probability function of the next word’s identity rather than any measure of accuracy. The student submissions were excellent in identifying these errors, which in turn fed into their reflections on the appropriate use of this technology.

The third issue that emerged was how the output related to the established literature in the field. The number of “hallucinations” was noticeably higher for more recently published or less well known works. For the classic texts, the LLM output reflected reasonably accurately the conventional interpretations of the texts in the IR literature, even where these interpretations are demonstrably wrong. This suggests that the depth of training data has a significant impact on the type of output particular prompts receive, but also that the LLM model reflects any biases in that training data. In other words, LLM output may compound and proliferate existing errors in academic literature and create and introduce new errors for more marginalised works.

**The student engagement with the LLM output was fascinating to read. They consistently demonstrated engagement with the original text while reflecting on both the affordances and the limitations of the new technology.**



## Limitations to the Approach

As discussed, this assessment was run in conjunction with two other assessments for a relatively small class. From an instructor perspective this setup provides a high degree of confidence in relation to the authenticity of the student voice in the submitted work. These students had a track record that was known to the instructor, with weekly submissions and in-class discussions that provided guide rails for gauging authenticity. It would be more difficult to assess in this way for a larger group.

Secondly, the task was specific to a defined number of texts well known to the instructor. Therefore identifying errors of interpretation and summary was not a challenge. LLM output would be more difficult to identify for open ended questions such as an essay or where students selected from texts beyond the direct, detailed knowledge of the instructor.

Thirdly, while the assessment provided students an opportunity to engage in a dialogue with the text via the LLM summary, the lack of reliability of the summaries does raise some concerns about how useful an exercise this may be and the limited usefulness of LLM models as assistive technologies for learning. As HICKES et al. argue: “The problem here isn’t that large language models hallucinate, lie, or misrepresent the world in some way. It’s that they are not designed to represent the world at all; instead, they are designed to convey convincing lines of text” (Hicks et al., 2024, p.3). An ethical question for instructors is whether we are comfortable adapting and using a tool that is indifferent to the accuracy of its output.



## Did it support the principles of UDL?

The principles of UDL encourage instructors to emphasise choice in how students engage in, and reflect upon, their learning, and to provide multiple means of engagement and expression for students. This module was assessed through three separate methods, as outlined above. The weekly questions encouraged students to reflect on their weekly class preparation and to receive feedback and feedforward on their submissions. The questions were used to structure seminar discussions either in small groups or with the class as a whole, which allowed for multiple means of engagement. The essay and book review elements of the course also gave students the power to choose the focus of their learning through which book or essay topic they chose to address. The book review also gave students the opportunity to engage in a meaningful and ethical way with the affordances of AI technology.

# Conclusion

Overall the redesigned assessment was relatively successful. Student response to the book review assessment had been less consistent in previous years, with some students struggling to balance between summary and analysis in their response to the book review prompt. Using an LLM to generate an initial draft prompted a dialogue-type engagement between the student, the source text and the LLM draft that was reflected in the authenticity of the student voice in evidence in the submitted assignment. This approach is useful for similar sized classes as part of, but not all of, the continuous assessment for a module. As LLM and other forms of AI become more embedded in the technologies our students use for researching and writing, it is important that we design assessments that encourage and enable students to identify the strengths and weaknesses of these technologies while also not neglecting the core learning outcomes of our subject matter. In a recent interview, Sam Altman, the CEO of OpenAI, described ChatGPT as “like a calculator for words” (Warner, 2024). Although his point was about the utility of LLMs for generating useful text, this quote really highlights how LLM-produced text misses the point of academic writing for assessment. Calculators are a useful tool, but there is only one correct answer that corresponds to each prompt. Language, on the other hand, though structured and rule-bound to a degree, is an open system where a prompt can produce a wide range of answers. But the point of the book review exercise described here was not to generate 2,800 words of text for each student; rather, it was to enable those students to engage in learning that is activated by deep reading, thinking and writing. LLMs will only produce a plausible sounding description of the destination, but the point of writing for assessment is the student journey.

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**But the point of the book review exercise described here was not to generate 2,800 words of text for each student; rather, it was to enable those students to engage in learning that is activated by deep reading, thinking and writing. LLMs will only produce a plausible sounding description of the destination, but the point of writing for assessment is the student journey.**

# **Case Study: Testing ChatGPT as a Co-Pilot for Undergraduate Assignments**

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Dr Stefanie Havelka, UCD School of Information and Communication Studies,  
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## Abstract

This case study examines the integration of ChatGPT into two assignments for an undergraduate module on *Contextual Design Inquiry in Organisations* at UCD School of Information and Communication Studies. To enhance critical thinking and generative artificial intelligence (GenAI) literacy skills, students had to use ChatGPT as a co-pilot for low-stakes assignments. The study reveals that students, despite being digital natives, struggled with prompt writing and critical evaluation of GenAI-generated content. Key outcomes include more focused training on prompt writing, the importance of integrating AI literacy into curricula, and the challenge of developing appropriate grading methods for GenAI-assisted work.



# What did you do?

Since spring 2022, I have taught the second-level undergraduate module, *IS20030 Contextual Design Inquiry in Organisations*. It is a five-credit module in the School of Information and Communication Studies (ICS) undergraduate programme. Students can take Information and Communication Studies as a subject in two undergraduate programmes: DN700 BSc Social Sciences with a two-subject combination, joint major or major-minor, or in DN520 BA Arts Joint Honours in which ICS can be taken as a joint major with either English or Linguistics. Students enrolled in DN530 BA Humanities Creative & Cultural Industries can also take this module as an option. The module usually attracts a cohort of 45-75 students with various academic backgrounds.

The module examines how technology, information, and communication interplay within social, cultural, and organisational or institutional settings. I introduce students to contextual design, and they actively learn through group work how to use one of its core techniques — contextual inquiry. As such, students are introduced to the human-computer interaction (HCI) field and learn to use interviews as a qualitative research method.


For two short assignments, students had to actively use ChatGPT in the first section of the assignment. I decided to use ChatGPT as it was the first freely available GenAI chatbot and because of the growing body of scholarly literature on its usage in higher education. If students were concerned about data privacy or did not want to create their own ChatGPT accounts, I allowed them to use my ChatGPT account for these assessments. In the second part of the assignment, they had to critically evaluate ChatGPT's answers and revise them in their own words. I chose these two assignments because they assess knowledge from the required textbook and content from my lecture and lecture slides. When I tested the assignment with ChatGPT, it could not access the textbook's content or information from my lecture slides.



The following images depict the tasks for assignment #1 (Figure 1) and assignment #2 (Figure 2).

## Figure 1

*Question for Assignment 1.*



UCD School of Information and Communication Studies  
Scoil an Léinn Eolais agus Cumarsáide UCD  
University College Dublin  
School of Information and Communication Studies

- IS20030 Contextual Design Inquiry in Organisations
- Spring Trimester 2024
- **Assignment 1: Collaborative App. Individual assignment (15%)**

Please go to Google Play or Apple's App Store and choose an app you and your team can use to collaborate. It can be either a new or an app you and your team already use.

**You will need to use ChatGPT first to answer these questions, and then I do not want you to use ChatGPT. But you must critically evaluate its answer and then improve upon it in your own answer.**


Answer each of the following questions in 200-300 words. You will need to answer these

- 1) With ChatGPT and then
- 2) Your Critically Evaluated Improved Answers:
  - a) → List 2 features of the app that support communication with your team.
  - b) → How do these features affect information flow in a group project?
  - c) → Does this app give you joy? Please correlate your app with all the 3 Joy in Use factors.

(Hint: look at the slides from lecture 1, "Contextual Design," where I discussed Joy in Use. And lecture 4, "group-project-teams." If you need more help, you can also read about Joy in Use uploaded in Brightspace in Readings: week 1)

## Figure 2

Question for Assignment 2.



UCD School of Information and Communication Studies ¶  
Scoil an Léinn Eolais agus Cumarsáide UCD ¶  
University College Dublin ¶  
School of Information and Communication Studies ¶

- IS20030 Contextual Design Inquiry in Organisations ¶
- Spring Trimester 2024 ¶
- Assignment 2: Contextual inquiry ¶  
¶  
Please explain the principles of contextual inquiry first using ChatGPT and then you must critically evaluate its answer and then improve upon it in your own answer. You need to have at least 500 words in Part II. ¶  
¶  
You will need to use ChatGPT first to answer these questions, and then I want you edit and evaluate in your own words without the help of ChatGPT. You must critically evaluate its answer and then improve upon it in your own answer. ¶  
¶  
Please include your complete ChatGPT conversation, e.g. prompt(s)/question(s) and answer(s) below in Part I. ¶  
¶  
(Hint: look at the slides from week 2, “Principles of Contextual Inquiry”, as well as the reading for week 2) ¶

I intentionally did not provide much guidance on using ChatGPT. My rationale was twofold: firstly, I assumed that ChatGPT and other GenAI chatbots are frequently used by my students already, and secondly, my students are digital natives and “at many universities, digital literacy is assumed. In part, this can be linked to the concept of the Digital Native, a term first coined in 2001 by the US author Marc Prensky to describe young people born after 1980 who have been surrounded by mobile phones, computers, and other digital devices their entire lives” (Reid et al., 2023, p. 573). However, I explained what I expected from students in-depth during classes without revealing prompt writing guidance; in return, they could ask me any questions. Furthermore, my students knew their role as testers for these two assessments.



## Why did you do it?

As an instructor in ICS, keeping current in the ever-changing information and communications technology field is crucial. I must equip students with the digital tools to become employable and remain digital future aware. Several students reported in their final group assignments that their chosen organisation actively embraces or is about to embrace GenAI in their work practice. I agree with Rudolph et al.'s statement: "... major changes to traditional higher education assessments such as essays and online exams are in order to address the existence of increasingly powerful AI, unless universities want to be akin to driving schools that teach to ride horses" (2023, p. 356). Furthermore, as part of my research and pedagogy, I have embraced emerging technologies and actively integrated them into my teachings. For example, I taught with iPads as part of mobile information literacy (Havelka, 2013) only two years after the first iPad was released.

Moreover, UCD's [Quick Guide on Generative Artificial Intelligence in Learning and Assessment](#), released in April 2023, suggested "supporting students' and staff's understanding of Generative AI literacy through ongoing conversations and debates on its use in learning" (UCD Teaching and Learning Resource, 2023, p. 3). Digital literacy education and all its related terms, such as Artificial Intelligence (AI) literacy and GenAI literacy, are part of my research and teaching at ICS. Thus, I particularly engaged with this recommendation.

By actively requiring students to use ChatGPT as a co-tutor in two relatively low-stakes assignments, I aimed to investigate students' critical thinking and actual, practical GenAI literacy skills and to spur a debate on these tools. I wanted to show students that ChatGPT, while not wrong in its answers per se, was not correct in the contexts of both assignments. My objective was to exemplify that while ChatGPT can help assist with assignments, it is a) not always current and b) not always suitable, and thus, critically evaluating its response within the context of a module and the assignment is essential.

I am also part of ICS's [UCD SATLE research project on Student Use and Perceptions of LLMs](#). One of our results showed that at the time of our data collection in the autumn of 2023, most students rarely used ChatGPT in their academic work. Simultaneously, the findings also showed a need for all kinds of training – for example, in-person, provided by peers, hybrid, or online (Havelka & McGuinness, 2024).



## What was its impact?

From an instructor's point of view, it became immediately evident that digital natives are not "prompt engineers". Cambridge Dictionary defines this new term as "someone who designs prompts (= instructions given to an artificial intelligence by a human using natural language rather than computer language) that will give the best possible results or answers" (Cambridge Dictionary, 2024). In the first assignment, I initially used the term *prompt* instead of *questions*. However, during the class discussion, I realised students needed help understanding the word *prompt*. Subsequently, I adjusted assignments #1 and #2 (see images above).

Not only did the students need help understanding what a prompt meant in a GenAI chatbot context, but they also needed more guidance on writing prompts successfully. I gave them the option to watch a video on prompt writing (*Practical AI for Instructors and Students Part 3*, 2023), and we discussed why GenAI does not always work to support students' assessments. I am still improving my prompt skills since GenAI chatbots are new to all of us, and we are all constantly improving. I rely on the scholarly literature (Mollick & Mollick, 2023), webinars and manifold online guidance out there (Keegan, 2024). Many students want to and will use GenAI chatbots; hence, everyone involved in higher education teaching must take the time to learn to write suitable prompts.

The outcomes of the assignments were also starkly divided between students who actively participated in discussions, group work, in-class exercises, and critical evaluation activities compared to those who took a sit-back, passive approach. The latter students needed clarification about why they were asked to use ChatGPT as a co-tutor. Most of these students also failed to critically evaluate and improve ChatGPT's answers. They seemed to trust the results provided by ChatGPT unquestioningly, without linking them to the textbook, lectures, and lecture slides. On the other hand, many students who actively participated in class successfully improved upon ChatGPT's answers. The following depicts an excerpt from assignment 1. First, ChatGPT's answer is shown (Figure 3), followed by a student's improved and completely rewritten answer (Figure 4).



## Figure 3

Excerpt from Assignment 1 showing ChatGPT's answer (OpenAI, 2024).



### ChatGPT

The joy experienced when using the Facebook Messenger app can indeed be correlated with the joy in use factors. Let's explore how these factors relate to the joy users might derive from using the app:

1. **Usability:** Facebook Messenger is designed to be user-friendly, with a simple interface that allows users to easily navigate between conversations, access features like group chats and file sharing, and find the information they need. When the app is intuitive and easy to use, it enhances the overall joy of interacting with it.
2. **Efficiency:** Messenger is known for its speed and reliability in delivering messages, which contributes to the efficiency of communication. Features like read receipts and typing indicators provide real-time feedback, helping users communicate more effectively. When messages are delivered promptly and conversations flow smoothly, users experience joy in the efficiency of the app.
3. **Aesthetics:** Facebook Messenger's visual design is clean and modern, with a focus on readability and accessibility. While aesthetics can be subjective, many users appreciate the app's design elements, such as its use of color, icons, and layout. A visually appealing interface can contribute to the joy of using the app.
4. **Satisfaction:** Ultimately, satisfaction with the overall experience of using Facebook Messenger is crucial for joy in use. This includes factors such as the reliability of the app, the availability of desired features, and the ability to connect with friends and family seamlessly. When users feel satisfied with their interactions on Messenger, whether through text, voice, video calls, or other features, it enhances their overall joy in using the app.

In summary, Facebook Messenger can provide joy to users when it excels in usability, efficiency, aesthetics, and satisfaction, aligning with the joy in use factors. However, individual preferences and experiences may vary, so what brings joy to one user may differ from another.



## Figure 4

*Excerpt from Assignment 1 — the student completely rewrote the answer, linking it correctly to the textbook, lecture, and lecture slides.*



b) Does this app give you joy? Please correlate your app with all the 3 *Joy in Use* factors.

*The Triangle of Joy In Use* consist of three concepts. The three concepts are “Direct into Action”, “The Hassle Factor”, and “The Delta”. When looking at the design of a product, these concepts can elevate or reduce the *joy in use*.

The most important factor of the triangle is the “direct into action” factor. It is important for the user to understand the design immediately and be able to use the product without thinking about it. The design of the Messenger app is simple as the recent messages are the only thing visible on the screen. In the top of the app, there is a search function where it is also possible to make a group chat.

“The hassle factor” creates joy by removing all the inconveniences and mistakes from the product. There are no inconveniences in the Messenger app when it comes to texting other people and making group chats. It is clear where the functions are in the app.

“The Delta” is about reducing the time it takes to learn the product and design. Since the app design of Messenger is incredibly simple, the learning time of the app is also very short. The only thing about Messenger is that the user has to have a Facebook profile to connect with to be able to communicate with their friends.

When looking at the Messenger app, the three concepts of *The Triangle of Joy In Use* show why the app is popular in many countries for communicating with friends. The app design is simple and uncomplicated to use.

Another significant outcome of using ChatGPT as a co-pilot was a discussion of the many ethical questions surrounding GenAI chatbots. Students were eager to learn more about its appropriate use without infringing academic integrity. Some questions raised were:

- Could they use it for other assignments?
- When is it considered plagiarism?
- How do they decipher hallucinations?
- How do they properly cite it?



# What might you do differently in future?

My assignment experiment has taught me valuable lessons and raised the following questions for me as an instructor: How do I grade ChatGPT? Are rubrics or self-evaluation suitable, or should we consider another approach?

Regarding the lessons learned, since GenAI chatbot usage in academia is new for all of us, I would dedicate more time to teaching students prompt writing. I would also allow them to use different GenAI chatbots such as Claude, Microsoft Co-pilot, and Gemini; the latter is now available to staff and students in UCD under an educational licence with enhanced data protection. Since this module focuses a lot on group work, this could be done as group projects where students have to find answers to different tasks. As an instructor, prompt engineering needs to be included within the larger framework of AI literacy, and this should be part of most of our undergraduate and postgraduate teachings. Long and Magerko (2020, p.2) define AI literacy “as a set of competencies that enables individuals to evaluate AI technologies critically; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace”.

I already included in my syllabus a section on the usage of AI, including a cautionary advisory for students “to exercise judgment when evaluating the quality and reliability of content generated through AI services. Generative AI is not a panacea for all writing challenges; it will not automatically generate a flawless, logically coherent assignment” (Havelka, 2024). As of the Autumn 2024 trimester, UCD has a new official AI policy. Per this policy, faculty/tutors/instructors may use generative AI in different ways to support student learning. Acknowledging this:

- It should be indicated clearly in the module descriptor whether generative AI will form any part of the learning experience.



- All faculty/tutors/instructors may allow the use of generative AI to complete specific assignments.
- Specific guidance based on disciplinary expectations should be provided to students in the use of generative AI where it is permitted.
- Students are expected to follow each step of that guidance and properly acknowledge the use of generative AI in each aspect of their submitted work.

(UCD Academic Council Executive Committee, 2024, p.4)

The ICS's [UCD SATLE research project on Student Use and Perceptions of LLMs](#) has released several posters that instructors can easily include in a lecture slide or add to the content learning system Brightspace. Moreover, students from the SATLE research project created and designed three tutorials, which are:

1. An Overview of Generative AI and Large Language Models

<https://overview-gen-ai-llms.s3-eu-west-1.amazonaws.com/story.html>

2. Academic Challenges of GenAI Use

<http://academic-challenges-of-gen-ai-use.s3-eu-west-1.amazonaws.com/story.html>

3. GenAI Use and Policies at UCD

<http://genai-use-policies-at-ucd.s3-eu-west-1.amazonaws.com/story.html>

I will require my undergraduate or postgraduate students to take these tutorials in all my taught modules. I will also discuss them, showcase prompt writing tutorials, and share prompt writing online tools. I will also continue to experiment with integrating ChatGPT and other GenAI chatbot tools into future assignments for this and my other modules. This term (autumn 2024), my master's students have to try out Google's Gemini to create bibliographic cataloguing records and assess whether GenAI tools will have implications for library cataloguing.

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## Case study 13

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# **Building AI Literacy and Creativity through Reflective Practice**

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University of Limerick

## Abstract

The evolution of generative AI represents a paradigm shift in digital media and communication, transforming practice by offering a multitude of new tools that redefine approaches to creativity and information exchange. This surge in technological advancement is integral to many of the wide breadth of topical issues covered by students in this field, as are the associated ethical, social, accessibility, and economic implications. To deepen their understanding of these issues, students are encouraged to actively build AI literacy alongside subject knowledge and creative skills through the practice of critical reflection.

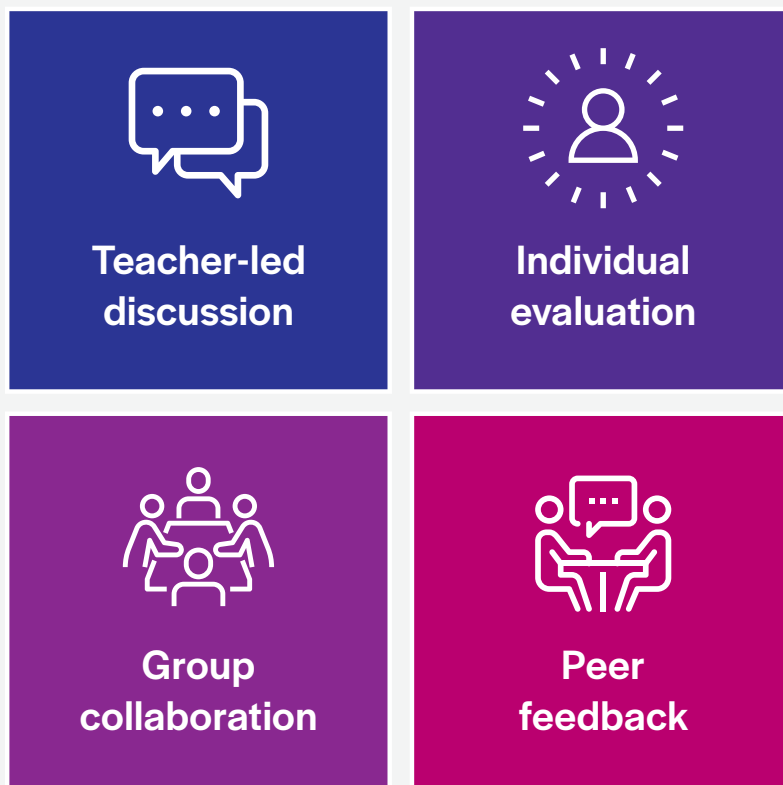


# What did you do?

In this module on digital media and communication, assessment is based on a scaffolded approach to encourage students to develop their critical abilities with regard to both the assessment process and use of AI. Prior to the main assessment task discussed here, students are introduced to structured reflection, reinforced through a series of interconnected activities throughout the semester, involving teacher-led discussions, individual evaluations (including self-evaluation), group collaboration tasks, and peer feedback (see Figure 1). This multi-faceted approach aims to foster a balanced perspective on AI's effect on the creative process by supporting students in applying their knowledge and experiences to real-world problems in different contexts.

**Figure 1**

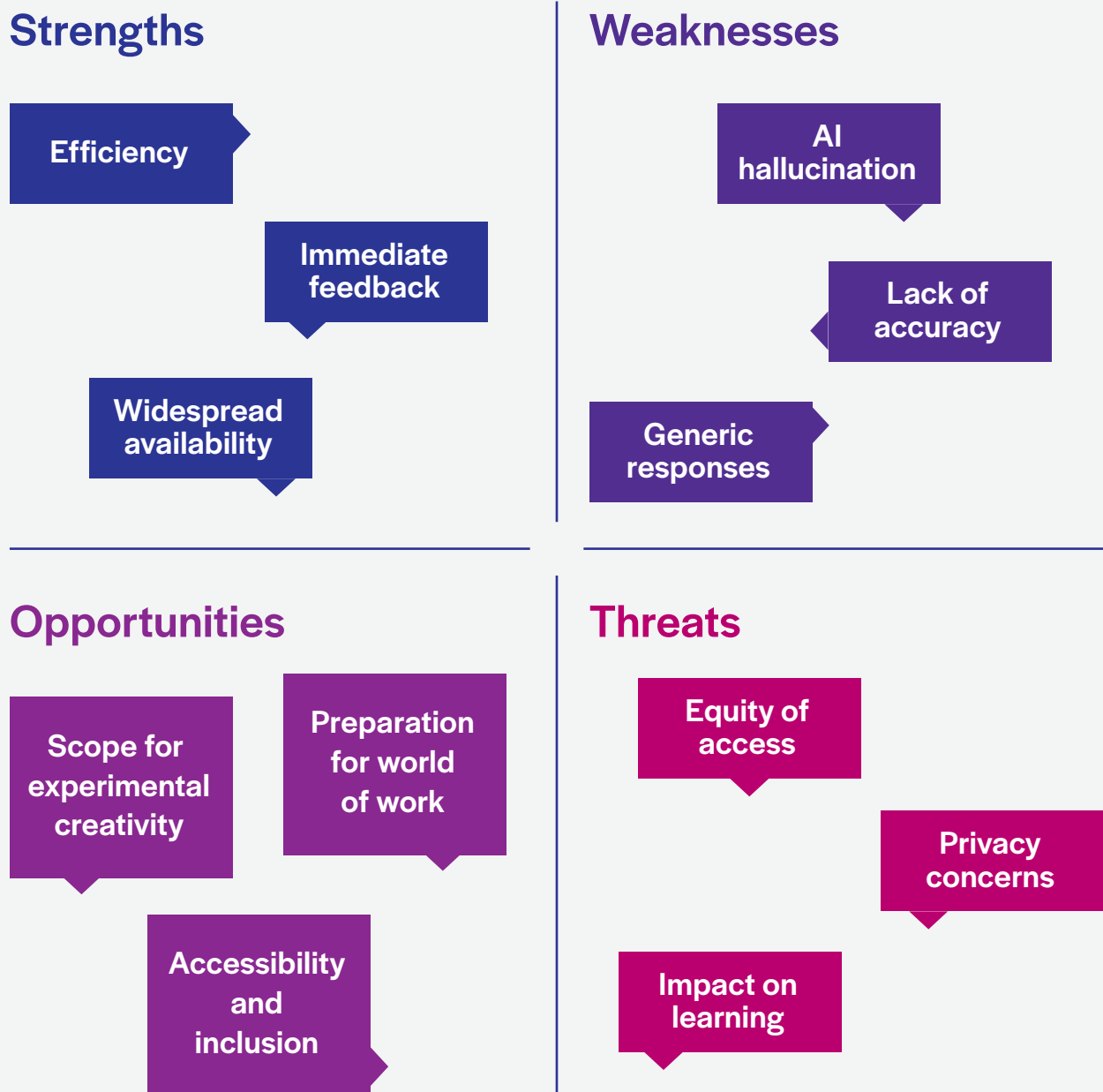
*Building reflective practice.*



Students in this module evidence the acquisition of key knowledge and skills through two formal assignments where they complete creative tasks alongside critical reflection on their learning. For their terminal assignment, student groups create a short informational film. The focus of this film must be related to one of a selected list of themes covered in the module, tailored to their discipline or academic interests. The project involves independent research on the subject matter along with the creation of various text and multimedia assets such as storyboards, scripts, and graphics which are submitted as part of a group report. Students must also demonstrate core technical skills such as setting up and framing shots, recording footage for cutaways, creating titles, transitions and credits, and sound and video editing. All details are made available in the virtual learning environment Brightspace prior to in-class review in order to allow students time to familiarise themselves with the criteria for assessment. During the subsequent live discussion, students speculate on the impact of using AI as part of the assignment, analysing how it may affect creativity, productivity, and quality (see Figure 2).

**Figure 2**

*Student view of AI use.*



To support comprehension, the lecturer explains each component of the assignment brief, the peer contract template, the reflective group report template, and the grading rubric, demonstrating the application of AI tools to produce various types of content and providing sample declarations on AI use for students to adapt to their own context



**Offering student choice of whether or not to use AI tools empowers them, supporting their growing scholastic autonomy by granting control over the learning process.**

(see Figure 3). In addition, a variety of support materials (including guides on academic literacy, note-taking, teamwork, and time management) are made available along with a dedicated Q&A forum for assignment-related questions, with responses to key questions also summarised in the weekly module email. Tutorials and labs present an opportunity for small group discussion and to develop technical skills. Students have the choice of forming their own groups or being allocated to one, using a peer contract to record each member’s individual role and tasks.

Figure 3

Sample declaration and AI use cases.

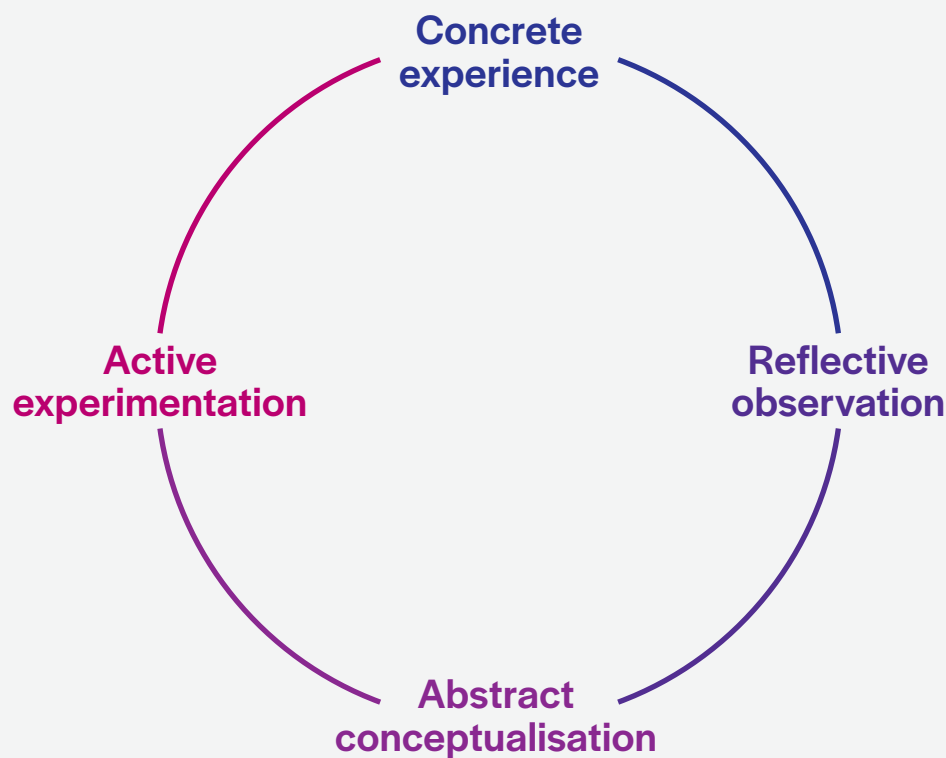
<b>Declaration</b>  The authors have utilised AI tools to assist in creating portions of this submission text. The generated material was subsequently reviewed, edited, and revised by the authors who take ultimate responsibility for its content.	
<b>Type:</b> Image Generator  <b>Tool:</b> Hotpot  <b>Summary of Use:</b> I refined the parameters of the prompt until I had a useful image to represent the concept of communicating across a language divide.  <b>Prompt Used:</b> “Humans and aliens on a planet with a spaceship in the background in the style of Farscape.”	<b>Type:</b> Text Generator  <b>Tool:</b> ChatGPT  <b>Summary of Use:</b> Our group used the script generated by ChatGPT to create an outline for our video, which we then fact-checked and edited to meet the standard required.  <b>Prompt Used:</b> “Generate a script for a 2-minute video on the history of computing for a non-specialist adult audience.”

Students use Kolb’s reflective learning cycle (see Figure 4) to record their experiences (Kolb, 2015), detailing how they have integrated AI into the creative process (if at all), with specific reference to the module learning outcomes. Through the guiding questions provided, each group records their experience in engaging with generative

AI, logging prompts and outputs, as well as what action was taken to refine AI-generated content to ensure that the end-product reflected purpose and authenticity. Groups articulate their original expectations with regard to the use of AI versus the reality of its use, its perceived usefulness as a tool, any inconsistencies or relevant interesting aspects, and their individual feelings in relation to the implementation of AI as a support. Students are prompted to critically assess what they might do differently at various points in their learning journey, using this experience to direct efforts toward achieving optimal outcomes and lay out strategies for further experimentation.

**Figure 4**

*Kolb's Reflective Cycle.*





## Why did you do it?

Assessment in the era of AI is challenging due to concerns over the increased potential for plagiarism, making it difficult to ensure academic integrity. Clear guidelines must be provided with regard to its use and non-use (Lo, 2023). Students are already likely to have encountered and experimented with AI tools, making it essential to teach ethical use of these new technologies. For that reason, assessment methods should ensure that students demonstrate the skills they need to thrive in an era dominated by AI.

The goal of this assignment is to provide students with guided practical experience in using generative AI, enabling them to produce a significant creative work and demonstrate their learning through innovative applications of new technologies that are commonly used in professional contexts. This approach is intended to enhance their understanding of AI's potential and its limitations through hands-on experience, fostering a more nuanced perspective on its role in practical terms. The integration of AI also allows students to produce an extensive piece of work that would not have previously been possible within the limited time frame available.

Tutorials and labs are focused on developing the skillset required, augmented by scaffolded formative activities that develop the critical reflection skills needed for evaluating the use and usefulness of AI in order to ensure that students have the AI literacy to use these tools responsibly and effectively in producing quality outputs. Along with using the tools and debating their merits in class, groups compile a database of various AI tools, summarising and communicating their findings by posting evaluations of the effectiveness of new tools in a dedicated Brightspace discussion forum and engage in individual interactive activities.



## Did it support the principles of UDL?

The approach outlined above aims to support the principles of UDL by offering multiple means of engagement, multiple means of representation, and multiple means of action and expression (CAST, 2024). Creating opportunities for peer collaboration and discussion allows for dynamic, iterative feedback, allowing students to express their understanding through multiple means of action and expression and improve through different modes of communication and collaboration.

Enhanced support in various formats is provided through tutorials and interactive resources, offering various ways for students to access and understand information through recordings, transcripts, downloadable worksheets, and discussion forums, where students can access content that is relevant and meaningful to their learning. Students are encouraged to use AI tools to modify the complexity and format of information that they are unsure of or would like to explore further in order to make it more accessible and more understandable. This further empowers students to learn to recognise the gaps in their knowledge and address them, ensuring that all students receive information in a way that is meaningful to them.

Offering student choice of whether or not to use AI tools empowers them, supporting their growing scholastic autonomy by granting control over the learning process. Likewise, allowing choice of topic allows students to personalise their learning, by contextualising concepts within their own experience. This, in turn, is designed to encourage reflective practice and help students engage more deeply with their learning experiences, also promoting self-awareness and motivation (Patall, Cooper & Robinson, 2008).



## What was its impact?

Students documented their decision-making processes and engaged in reflective practices, evaluating how they might adapt AI tools for use in future projects and considering the broader implications of AI in their respective fields. A majority of the groups opted to experiment with AI tools, although its main uses were limited to generating scripts and general text editing tasks. Conversely, a small number of groups decided against using AI altogether, citing prior subject knowledge or a negative view of AI as their main reason. In these cases, students adhered to the same assessment criteria as their peers to produce high-quality outputs, and thoughtfully expanded on their reasoning behind the decision not to use AI tools through the assigned critical reflection task.

This initiative encouraged students to engage with AI thoughtfully and critically, with a view to fostering a balanced perspective on its use in creative and academic work, whether they ultimately chose to use it for their assessment task or not. Students were receptive to both the technology and reflective activities, with the majority being very positively disposed to integrating AI into their assignments as they felt it reflected the reality of the modern workplace. It is notable that questions relating to plagiarism were among those most commonly submitted during the assessment period in this pilot, suggesting that students recognise the enduring importance of academic integrity in this new era of AI. Parallels between personal, academic and professional use are examined in recurring discussions on ethical considerations and best practice in the use of AI, which students reflect upon in progressive online collaboration activities (such as forum tasks, polls, and boards) and their final group report.



## What might you do differently in future?

Maintaining an element of choice with regard to using AI tools where possible remains a key consideration in fostering students' growing autonomy. This enables them to make decisions based on their comfort level and to critically evaluate all available tools with regard to project requirements. As this technology expands, so too does the need for support to build students' digital literacy. Tailored enhancements containing detailed guidance on how to effectively integrate AI into the project workflow are currently in development to address the imbalance noted above between using AI for text creation and graphical asset production.

More differentiated resources are also required to help bridge gaps in understanding for both students with little experience and those with more, as well as to effectively troubleshoot common issues. These scaffolded learning activities are aligned with the institution's global learning resources, with facilitated induction to the Library Makerspace to ensure that students have equitable access to professional tools in that facility's recording studios and post-production suites. Furthermore, students are continually encouraged to reflect on their competencies and create a personalised learning plan to ensure that they are equipped to source timely and appropriate support for their ongoing individual needs.

Iterative feedback mechanisms are incorporated throughout the project lifecycle to allow groups to receive – and respond to – constructive feedback in a meaningful way, creating a collaborative learning environment where students can learn from each other's experiences and insights. This is facilitated using the PeerScholar feedback tool in Brightspace, allowing students to review each other's work and to provide feedback using the assignment rubric in conjunction with the TAG (Tell, Ask, Give) system (see Figure 5). Expanding the reflective practice framework continues to be a key focus

for the future to further tailor this assignment to students' needs to allow them to identify potential areas for future development with specific reference to transferable skills (Joordens et al., 2019). To this end, future cohorts will record and showcase their acquisition of transferable skills through a new faculty-based transferable skills initiative using the Portflow e-portfolio platform. This collation of artefacts will allow students to gather evidence of their attainment across multiple years in preparation for future employment.

## Figure 5

*Tell, Ask, Give (TAG) feedback.*

<b>Tell</b>	Share what you like about the project. Highlight positive aspects or elements you found interesting or effective.
<b>Ask</b>	Pose a question to clarify something or seek further explanation about the content. Encourage deeper understanding and engagement.
<b>Give</b>	Offer a suggestion for improvement. Provide constructive feedback to enhance the project or its presentation.



# Conclusion

Integrating emerging technologies into the curriculum offers valuable opportunities for students to engage with frontline digital tools as well as develop critical skills. However, it also presents a challenge in ensuring that all students can access and effectively use available tools. Critical reflection plays a key role in the successful acquisition of new digital and academic skills, as it encourages students to evaluate interactions with AI, understand its capabilities and limitations, and make informed decisions about its use.

By enabling students to expand their technical and creative boundaries through the considered use of AI, we foster their ability to question, analyse, and evaluate, without compromising their integrity or authenticity as creators. This approach aims to equip students to leverage AI responsibly in their future work, remaining mindful of its implications and emphasising critical reflection as a core component of AI literacy.

*With thanks to Margaret Grene and Elaine Walsh for feedback on the text.*

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**By enabling students to expand their technical and creative boundaries through the considered use of AI, we foster their ability to question, analyse, and evaluate, without compromising their integrity or authenticity as creators.**

## Case study 14

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# **Introducing GSC, a Fair and Ethical Artificial Intelligence Coursework Aid to Students**

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Edge Hill University

## Abstract

In Autumn 2023, a simple Artificial Intelligence powered tool was developed for Master's students to ensure that their writing was clear, well-structured and appropriate for their programme, without undermining the academic integrity of the essay. The tool was designed so that all students, no matter their nationality, English proficiency or educational background, could use it to improve their essays and coursework and ascertain that their arguments were put forward in a clear and cogent manner, without the risk of falling foul of the University's academic malpractice regulations.

Following the release of ChatGPT-3.5 in November 2020 (Marr, 2023), and its popularity and ease of use, concern was raised amongst the higher education community (Douglas Heaven, 2023). A new form of contract cheating, where a student seeks the help of others to complete their assignment, was enabled by AI as students could now simply ask the AI tool to complete their essays for them. Furthermore, these AI tools were either free of charge, or very low cost, and were very simple to use.

Discussions with colleagues in various third level institutes revealed strategies such as limiting assessments which could be completed by AI to recent events,<sup>1</sup> or to change the focus of written assessments to reflection pieces.<sup>2</sup> However, as the AI models have evolved and become more robust, such strategies are no longer effective. Alternative assessment strategies, such as shifting to in-person exams or conducting viva voce examinations, have been discussed in faculty meetings across many universities.

However, these alternative assessment strategies raise concerns regarding access and inclusion, as they may disadvantage students who have varying levels of comfort and ability with oral examinations. They may also not be the appropriate way in which to assess students on certain learning outcomes. This highlights the need for inclusive assessment approaches that accommodate diverse needs and ensure equitable opportunities for all students to demonstrate their knowledge.

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1 The earlier models had 'cut-off' times, which meant that the model was unaware of events which had taken place after this cut-off date.

2 There was a belief that the models were not able to produce convincing reflection pieces.



## What did you do?

I am the programme lead for the LLM Artificial Intelligence, Digital and Cyber Law, a postgraduate degree taught by the School of Law and Criminal Justice, with support from colleagues in the Computer Science Department. This is not a technical degree; students are not required to have any prior knowledge in computer coding, although each year the programme normally attracts a number of students from technical backgrounds. As such, the student cohort normally comprises a good mix of technical and non-technical students, some with professional experience and others who have joined the programme straight from their undergraduate degree.

I teach two modules on the degree programme; a data protection and privacy module, and an introduction to AI regulation and policy module. Students on the AI module are required to write a report on the compliance of a hypothetical AI chatbot with AI regulations, under the scenario where the AI tool replaces all human operators handling medical emergency service calls. As part of the exercise students are given access to a prototype of this chatbot, so their knowledge and experience of AI tools goes beyond the average.

As part of their teaching and learning activities, discussions with students about their understanding and use of AI took place on an informal basis during seminars, and was spread over multiple classes. From these discussions, it became clear that:

- Not all students were confident in their ability to use AI tools such as ChatGPT
- Students were worried that use of any AI tool may constitute academic malpractice
- Students believed that employers would expect them to be able to use AI in the workplace

This feedback contrasted with conversations which I held with academic colleagues (both within Edge Hill and in other institutions) where there was an implicit assumption frequently made that students are both confident and highly proficient in the use of AI tools. Following the informal conversations with my students, these beliefs may be overstatement of the facts.

Use of most AI services require that the user creates a ‘prompt’, which is the instruction to the AI model. This prompt must be sufficiently robust so as to carry out the instruction and generate both the desired and expected result.

When using AI tools to generate academic writing, the quality of the output largely depends on the specificity and guidance provided in the prompt. A generic and simple prompt may lead to broad or inaccurate responses, while a well-constructed prompt can produce more relevant, academically rigorous content. The table below illustrates how varying levels of detail in requests can significantly impact the relevance and quality of an AI-generated essay on “Privacy and the Law.”



**Table 1**

*Prompts and expected outcomes in AI-generated essays.*

Prompt	Prompt	Expected Outcome
<b>Basic</b>	<i>Ask the AI tool to create a 3,000-word essay entitled “Privacy and the Law.”</i>	The output may lack specific references, focus on incorrect jurisdictions, and include irrelevant legal principles due to the general nature of the prompt.
<b>Refined</b>	Basic prompt, plus <i>Specify “UK law” and “OSCOLA referencing”.</i>	The output should now focus on UK-specific legal principles and use proper OSCOLA referencing, but it may still miss alignment with the course content or specific assessment objectives.
<b>Enhanced</b>	Refined prompt, plus <i>Add the reading list and formative assessment questions from the module as guiding resources.</i>	The AI output will be more relevant, covering the topics emphasised in the reading list and addressing assessment-related areas, thus better aligning with course requirements.
<b>Advanced</b>	Enhanced prompt, plus <i>Include samples of the student’s previous writing to guide the AI model in mimicking their unique writing style.</i>	The output is now tailored to reflect the student’s writing style and integrates relevant content aligned with UK law and OSCOLA referencing, providing a personalised and course-aligned essay that is both stylistically and substantively relevant.

It takes both practice and at least a rudimentary understanding of how AI models work in order to create a very good prompt, and to get the most out of the response. Not all students will have this skill, and prompt writing is not a skill that is found in most University modules. Furthermore, it is important to note that most students, in my experience, do not wish to cheat.

Consequently, I wanted to make sure that any student who wasn't confident of their own writing ability had access to a tool which, if used, would ensure that their submissions would meet the writing expectations of their degree and assessment of their work would be based on their legal content and analysis, and not be hindered by poor writing.

However, I did not want students to have their work redrafted automatically. Instead, the tool would carry out an assessment of the grammar, syntax and clarity used in their work and give them appropriate feedback.

Incorporating UDL Consideration 7.4 (Address biases, threats, and distractions), GSC (Grammar, Syntax and Clarity) was developed so students did not need to develop enhanced or advanced prompts in order to get the benefit of AI (CAST, 2024). Furthermore, my own students were concerned that any use of an AI tool could be deemed to be contract cheating, and so were nervous about using such tools. The fixed prompt ensures that use of GSC will not be seen as academic malpractice.



## Why did you do it?

I developed the GSC tool according to two primary design objectives. The first was that the tool must never provide commentary on, or improve the academic subject matter of the students' submissions. The tool must uphold the academic integrity of the student's submission by limiting its assistance to refining the student's original content. GSC must never introduce additional material beyond what the student has provided. The second was that it must provide feedback and recommendations on the student's grammar, syntax and the clarity of their writing in a way which is both educational and informative to the student.

GSC was provided to students as a simple web service. Students could access the GSC tool by accessing a website. GSC is an open service, and no login or authentication is required for its use. Furthermore, in order to encourage use, no records of GSC's usage were stored and the website was not hosted on the university's infrastructure. Students were informed that their text would be processed by OpenAI, and they were required to accept the OpenAI terms and conditions and privacy policy before they could use GSC.

GSC utilises OpenAI's GPT-4 and the tool can process inputs of up to 1,600 words per use, and will carry out an analysis of the grammar, syntax and clarity of their work. The prompt was written so the analysis was carried out from the perspective of a Master's level student. A short report is produced, and recommendations for improvement (if needed) are provided to the student.

A decision was then made to enhance the functionality of GSC so that the student's essay is then redrafted by the application of these recommendations. This decision was made so that students would get the full benefit of the AI tool, and see the application of the feedback to their work.

## Figure 1

*Sample analysis provided by GSC.*

### Analysis Result:

#### Overall Assessment

The document is coherent and uses scholarly language. However, there is room for improvement in following areas:

#### Grammar

- The grammar is generally correct with only occasional minor errors like comma placement, missing articles etc. For example, in the sentence "These tools, however, have proved controversial, and many universities, including Edge Hill, do not permit their use when assessing student submissions", the use of comma after "Edge Hill" is not necessary.
- Some sentences could be restructured to improve clarity and readability. For instance, in the sentence "A new form of contract cheating, where a student seeks the help of others to complete their assignment, was enabled by AI as students could now simply ask the AI tool to complete their essays for them," the construction is somewhat complex and could be simplified to improve clarity.

#### Syntax

- Sentence structure and syntax are generally fine, though several long sentences might benefit from being broken down into shorter ones for clarity.
- Some sections contain repetitive information or ideas, for instance, the paragraph starting with "Use of an AI service requires..." The repetition affects the syntax and could be revised to improve readability.

#### Clarity

- Referencing information accurately can help in improving the clarity of the text. Some sections are very densely packed with information which seems to be relevant but slows down the reader. These should be simplified for clarity.
- While the descriptions of various AI technologies are effective, they could be clearer and more concise. For instance, the paragraph describing how to use AI effectively is quite long and complicated. "

#### Other

- Subheadings could be utilised to break up the text and make it easier to skim and read. This can significantly improve the overall clarity.
- Where data or statistics are mentioned, it would benefit the document to actually visualize those data by using tables or figures.

However, in order to prevent the student from carrying out a simple “copy” and “paste” of the redraft, GSC strips out footnotes and formatting. This choice was made in order to ensure that students would be required to review the changes made by the tool, and would have to engage with the changes recommended.

## Figure 2

*A sample of a redraft provided by GSC.*

Llama, and Google's Bert and Bard, soon followed. The surge in popularity of ChatGPT, along with the simplicity of its operation—a student would merely have to request the AI for a 3000-word essay on a specific topic—gave rise to worries amongst the higher education community. AI enabled a new kind of contract cheating, where students could delegate their academic assignments to the AI tool. Additionally, such AI tools were easily available—often without any charges, or at a minimal cost—and straightforward to operate. Subsequent dialogues with colleagues across various tertiary academic institutions led to proposals such as restricting AI-able assignments to recent events or shifting the focus of written assignments to reflective writing. However, such strategies proved ineffective as AI models evolved and became more advanced. Other evaluation patterns—like in-person exams or oral examination of students—became topics of deliberation during faculty meetings in numerous universities. Concurrently, AI systems intended to identify AI generated academic papers began to emerge. However, these tools sparked debates, while many universities, including as Edge Hill University does not permit their application when assessing the students' projects. 2. The inception of an AI tool for students Rooted in this context, I endeavoured to engage my students and inconspicuously gauge their perspectives on the employability of generative AI during their studies. I preside over the LLM Artificial Intelligence, Digital and Cyber Law programme, a postgraduate course delivered by the School of Law and Criminal Justice, with collaboration from the Computer Science Department. As this is a non-technical degree, the students are not mandated to possess prior knowledge in computer coding, although each annual intake commonly includes students with a technical background. Hence, the student body typically consists of a diverse blend of technical and non-technical students - a few with professional experience and others who have transitioned directly from their undergraduate studies. My curiosity about the students' opinions on this matter was not simply theoretical. I instruct two modules within the degree programme: a module on data protection and privacy, along with an introductory course on AI regulation and policy. Consequently, I was eager to discover how these students practically applied AI tools in their routine activities. Within the AI module, students have to draft a report evaluating the conformity of a hypothetical AI chatbot to AI regulations, in a context where the AI software supplants all human operators managing medical emergency service calls. For this assignment, students are granted access to a prototype of said chatbot, thus their familiarity with and understanding of AI tools are superior to average. Conversations about the implementation of AI were conducted informally during seminars and were spanned over multiple sessions. From these engagements, a few insights emerged: • Not all students felt assured about their proficiency in utilising AI tools such as ChatGPT • There were worries amongst students that employing any AI resource might amount to academic misconduct • Students held the belief that future employers would anticipate their competency with AI in the workplace. Upon reflection, I realised that whenever the topic of AI tools was broached with academic peers (both from Edge Hill and external institutions), an underlying presumption was frequently made that students are confident and proficient in using AI tools. This, however, could be



## Did it support the principles of UDL?

During the development of GSC, UDL guidelines were considered and used in the design process. At its heart, GSC incorporates UDL Consideration 7.4: address biases, threats, and distractions (CAST, 2024). GSC was built so students did not need to develop enhanced or advanced prompts in order to get the benefit of AI, and to ensure that the benefit of AI was available to all students, without compromising their focus on their coursework.

Furthermore, my own students were concerned that any use of an AI tool could be deemed to be contract cheating, and so were nervous about using such tools. The fixed prompt ensures that use of GSC will not be seen as academic malpractice.



## What was its impact?

Reaction to GSC was positive. Feedback from students suggested that they found GSC useful, although the fact that the redraft required substantial editing was not a popular feature. Students reported that they did not like having to reconstitute their work, and add back in their references. GSC was made available for the period when mid-term essays were due, and it was clear from the submissions that a large proportion of the students had used the tool.

Furthermore, some students asked if they could continue to use GSC after this period, and feedback from some students suggested that they had begun to use it regularly in non-academic settings such as for drafting emails, where the limitations on the output

format were less of a problem. I also received student queries as to its return when GSC was accidentally turned off.

Due to the fact that usage is anonymous, it is not possible to provide detailed usage figures; however, having gotten an estimate of the charges levied by OpenAI for use of GSC during its testing, it was used c. 150 times between Autumn 2023 and early Spring 2024.



## What might you do differently in future?

A revised version of GSC will be released for the 2024/25 LLM students. This revision will incorporate feedback from the 2023/24 users, and will provide a more 'user friendly' output which will be formatted correctly, but will still require the references to be added back into the text. This change should help to ensure that students find it easier to review the changes, whilst still preventing them from just using the recommended text without engaging with it.

Furthermore, the prompt will now include the relevant coursework assessment guides as found in the module handbook, which should help ensure that redraft of the text is more aligned with the style expected for the exercise. The assessment will also be expanded to identify if the student's submission lacks sufficient depth of analysis or is overly descriptive, as this was feedback which was frequently given to students on the course.

This new element, the commenting on the balance of analysis as opposed to description, will not form part of the redrafting process. This was because it was not possible to ensure that the tool did not generate analysis for the student which would compromise the academic integrity of the student's submission. The future of this

project may move away entirely from redrafting the students' work, and focusing more on increased feedback and suggestions, which would allow the tool to provide more critical feedback, but this would have the challenge of removing the ability for students to see the application of the recommended changes.

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## Case study 15

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# **AI in the Classroom: Generating Novel Hypotheticals**



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## Abstract

I teach a large module of around 300 Law students. I used AI to help me generate short hypothetical scenarios for use in in-class interactive activities. I used these in class to help students to apply their knowledge and think critically about the material we were covering. I was able to create multiple problem scenarios covering different aspects of the material being taught. AI was somewhat helpful in juggling a heavy teaching load, but it did not greatly enhance my teaching practice.



## What did you do?

I teach a large module of around 300 Law students. This is a core 5-credit undergraduate module, delivered by weekly two-hour lectures and a series of four tutorials. There is a significant amount of content and students are expected to engage in self-directed learning. The module is assessed entirely by a traditional unseen exam at the end of the trimester.


In criminal law, it is crucial that students are able to apply rules of law to hypothetical factual scenarios. Problem-based learning (PBL) has long been a standard part of legal education. PBL “provides an opportunity for students to actively manage their learning experience by drawing upon scenarios resembling the complexity and novelty of real-world situations” (Clough, 2015, p.279). As Egelanddsdal argues, “Arguably, the most important skill for a law student to acquire throughout their studies is the ability to resolve legal problems” (Egelanddsdal, 2024, p.217). Being able to apply the law is a module learning outcome and forms the basis of the module assessment, which is an exam consisting entirely of compound hypotheticals. These can stretch to a page in length and there are a number of different legal issues within each factual scenario. Students must be able to identify the relevant issues and apply the law correctly to the specific facts.

Using short hypothetical problems in lectures helps students to develop the skills they need for the exam, and it helps them to apply their knowledge and think critically about the material we were covering. This is reinforced in tutorials, when longer hypotheticals are discussed and analysed. Actively learning by working individually or in groups to problem-solve and apply knowledge during the two-hour class helps to keep students engaged and helps them to self-evaluate their progress and understanding. And as Freeman (2014) points out, active learning leads to improved student understanding and performance.

I shared the hypothetical problems with the students using a Student Response System (SRS) in the classroom. SRS are “digital tools that enable large groups of students to participate by answering multiple-choice or open-ended questions using laptops, tablets, smartphones or wireless remote controls. These systems facilitated the posing of questions, initiating peer discussions and group work, and collecting student responses during lectures” (Egeland, 2024, p.218). The SRS system I used was Slido, an interactive software that is easy to use and which I was already using to allow students to ask and answer questions anonymously in the big lecture theatre.

I used the free version of ChatGPT to generate some of the short hypothetical scenarios for use in class activities. I had to input the correct and up-to-date information to ChatGPT about the content of Irish criminal law and the criminal offences which I wanted students to understand. I did this by copying and pasting the text of the relevant legislation (as seen in Figure 1 and Figure 2), as well as details about specific cases decided by the courts.

Figure 1  
Information fed to ChatGPT.



Number 50 of 2001

**CRIMINAL JUSTICE (THEFT AND FRAUD OFFENCES) ACT, 2001**

ARRANGEMENT OF SECTIONS

PART I  
PRELIMINARY

Section

1. Short title and commencement.

2. Interpretation (general).

3. Repeals, etc.

PART 2  
THEFT AND RELATED OFFENCES

4. Theft.

5. Exceptions to theft.

6. Making gain or causing loss by deception.

7. Obtaining services by deception.

8. Making off without payment.

9. Unlawful use of computer.

10. False accounting.

11. Suppression, etc., of documents.

Figure 2  
Information fed to ChatGPT.

[No. 50.] *Criminal Justice (Theft and Fraud Offences) Act, 2001.*

PART 2

THEFT AND RELATED OFFENCES

Theft.

4.—(1) Subject to section 5, a person is guilty of theft if he or she dishonestly appropriates property without the consent of its owner and with the intention of depriving its owner of it.

(2) For the purposes of this section a person does not appropriate property without the consent of its owner if—

(a) the person believes that he or she has the owner's consent, or would have the owner's consent if the owner knew of the appropriation of the property and the circumstances in which it was appropriated, or

(b) (except where the property came to the person as trustee or personal representative) he or she appropriates the property in the belief that the owner cannot be discovered by taking reasonable steps,

but consent obtained by deception or intimidation is not consent for those purposes.

(3) (a) This subsection applies to a person who in the course of business holds property in trust for, or on behalf of, more than one owner.

(b) Where a person to whom this subsection applies appropriates some of the property so held to his or her own use or benefit, the person shall, for the purposes of subsection (1) but subject to subsection (2), be deemed to have appropriated the property or, as the case may be, a sum representing it without the consent of its owner or owners.

(c) If in any proceedings against a person to whom this subsection applies for theft of some or all of the property so held by him or her it is proved that—

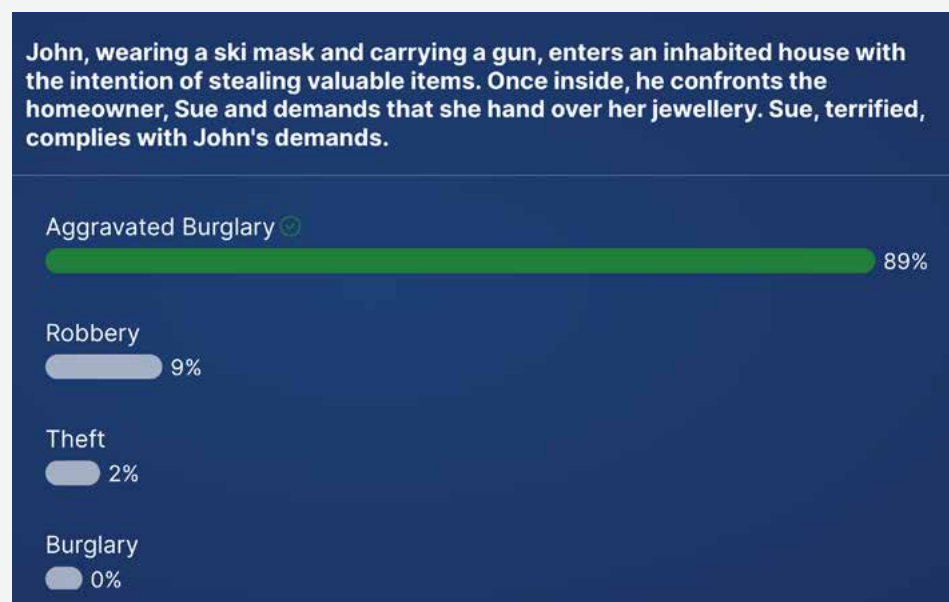
(i) there is a deficiency in the property or a sum representing it, and

(ii) the person has failed to provide a satisfactory explanation for the whole or any part of the deficiency,

I generated a mix of multiple-choice questions and open-ended questions. With the multiple-choice questions, the potential answers were quite similar and students needed to be able to differentiate between offences based on nuances in the hypothetical. An example can be seen in Figure 3, where students had to identify what offence, if any, had been committed, from the options Burglary, Robbery, Aggravated Burglary or Theft. These kinds of questions were useful when we were in the middle of discussing the differences between certain offences.

### Figure 3

*Example of AI-generated hypothetical used in class with Slido.*



Open-ended questions were also used, as seen in Figure 4. These were sometimes used in subsequent lectures to test students' recall of material already covered.

## Figure 4

*Example of AI-generated hypothetical used in class with Slido.*



## Why did you do it?

There is a strong emphasis on this module (as in many Law modules) on being able to apply the law to different factual scenarios. I specifically chose to use AI to help me with composing the hypothetical questions as I considered that this would be an efficient way to generate multiple scenarios. Composing suitable hypothetical questions can be time consuming and I wanted to be able to use several in the course of a single lecture, so that students could see various issues from different angles. I was also curious to try out AI for the first time and find out if it could benefit my teaching practice without compromising standards.



## Did it support the principles of UDL?

Universal Design for Learning is an inclusive approach to teaching, described as being supported by “an understanding of learning as a shared activity. Such an approach does not ignore individual differences between learners but encourages teachers to consider how specialised supports for individuals can be mobilised in ways that improve learning opportunities for everyone” (Galkienė & Monkevičienė, 2021, p.v).

This project helped me to support UDL principles in the following ways:

- **Multiple means of engagement** (explicitly stating the purpose of the in-class activities; the use of concrete examples and real-life scenarios; providing feedback to students).
- **Multiple means of representation** (presenting the hypothetical scenarios in different ways, e.g. open-ended questions vs multiple choice; using hypotheticals to explain concepts in different ways).
- **Multiple means of action and expression** (choosing an assessment method based on the skills and characteristics students should have at the end of the module; aligning assessment with the learning outcomes; ensuring a close connection between students’ work in the classroom, the assessment method, and the feedback provided in class).

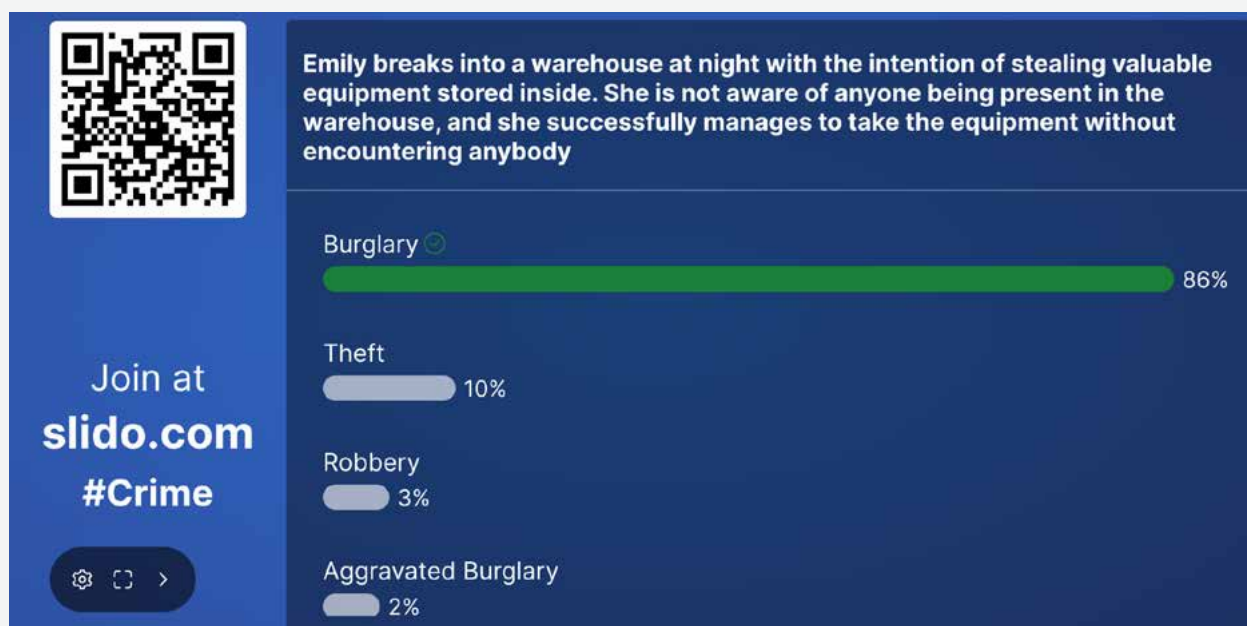


## What was its impact?

I was able to create multiple problem scenarios covering different aspects of the material being taught (Figure 5).

### Figure 5

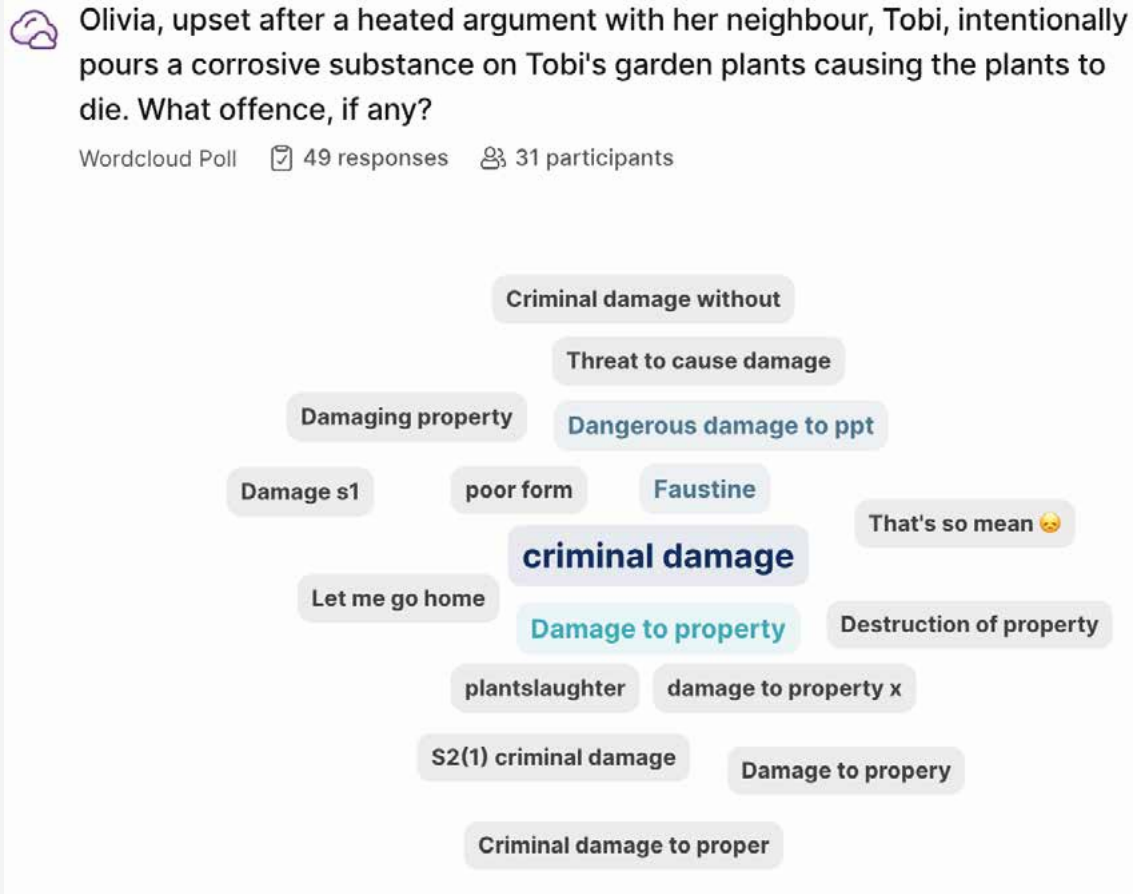
*Example of AI-generated hypothetical used in class with Slido.*



Other questions were open-ended, especially those done as revision in a later lecture. Answers were often formatted as word clouds (Figure 6).

## Figure 6

*Example of AI-generated hypothetical used in class with Slido.*



Overall, student performance on this module has improved since the performance on a linked, foundational module by the same cohort. The average grade increased from D+ to a C on this module. While the improvement cannot solely be attributed to the use of AI-generated hypotheticals, in my opinion it was one of the contributory factors. Practising these questions and gaining experience in applying their knowledge strengthened students' core skills. It also demystified the end-of-trimester exam and ensured that there was strong alignment between teaching and assessment. And increased in-class engagement and interaction may have had an impact on attendance rates, though this is not monitored.



Given time constraints, workload and the ever-increasing expectations on module coordinators, it would not have been possible to generate as many hypotheticals without the assistance of AI. Student feedback about the interactive nature of the classes has been positive:

I liked the slido quizzes for recaps at the beginning of the lectures.

The slido surveys really helped me review the content and helped me review the content and help me figure out what I needed to go back over.

I found the use of slido in lectures was very fun, and made learning easier.

As well as potentially helping student performance in the terminal exam, the AI-generated hypotheticals seemed to improve in-class engagement and energy levels, especially when dealing with quite heavy or dense material. Several students cited the interactive nature of the classes as a positive aspect of the module, describing the activities as “creative” and “engaging”. One student asked for the problem scenarios to be shared as a revision aid:

“ I am writing to you because I have found your slido questions useful to revise some of the module material. Therefore, I was wondering if there was any way I could have those questions to help me during revisions.”

A list of the AI-generated problem scenarios was then shared with the whole class as a revision aid.



## What might you do differently in future?

I would use AI again to generate short in-class hypotheticals, and I would consider using it to generate longer problem scenarios for use in tutorials or as revision aids for students. Second time around, I would have more realistic expectations of what ChatGPT can actually do:

- I had to input the relevant information to ChatGPT because it didn't seem to have reliable information about the law in Ireland. So I fed it things like the text of relevant legislation, and case summaries and asked it to base the hypotheticals on this material.
- There was quite a bit of refinement involved; it wasn't a case of simply pressing a button and walking away with a perfectly usable set of questions:
  - Sometimes the questions it gave me were too lengthy; I needed something short and snappy that would fit on a Slido screen and take only a few minutes of class time.
  - Several times I thought the material generated seemed vague or off-point.
  - I had to specifically ask for some diversity in the names of people in the scenarios, e.g. in terms of gender.

As Ajevski (2023, p.354) points out, "The phrasing of the instructions can improve the quality of the responses produced by ChatGPT. As it is a conversational platform, responses can be interrogated further through follow-up questions. It is capable of combining multiple responses to produce a better response".

Delivering a module to a large, diverse group of undergraduate students involves increasing demands on academic time. Designing informative yet accessible slides, posting materials in advance of classes, organising Brightspace, recording lectures, dealing with student emails, trying to align with UDL principles, coordinating a team of tutors, helping students to engage and interact in class are all becoming increasingly necessary, alongside mastering and communicating difficult material and drafting relevant assessment tasks. Some of these activities carry a greater cognitive load than others. Organising materials and learning activities on Brightspace, recording lectures and posting the recordings are things which do not require significant subject expertise and could be done by a Teaching Assistant, but which nevertheless eat up academic time. In the absence of this kind of TA (or Ed Tech) support, our model requires the academic to administer all elements of their module. Careful use of AI is potentially one way to manage these increasingly complex workloads. AI didn't do anything that I couldn't have done myself, the old-fashioned way, but it certainly helped with juggling a heavy teaching load. I now have greater awareness of some of the benefits and drawbacks of using AI to generate in-class activities.

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# Utilising AI to Enhance Meaningful Management Education in Creative and Cultural Industries

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## Abstract

This case study examines the use of generative AI, specifically ChatGPT, to enhance management education for the creative and cultural industries. It addresses the challenge of adapting traditional management theories to sectors such as theatre, music, and literature, where unique dynamics often render conventional frameworks unsuitable. By employing GenAI to develop bespoke, experiential learning materials, the study demonstrates how educators can bridge the gap between theoretical concepts and practical application. Feedback from undergraduate students highlights improved engagement and a deeper understanding of management principles. The case study also explores ethical considerations, the educator's role in refining GenAI outputs, and potential future applications for personalised learning.



## What did you do?

I teach management to 38 first- and 45 second-year students enrolled in a new undergraduate degree in Creative and Cultural Industries at University College Dublin (UCD). These students have diverse interests across various sectors, including music, theatre, literature, festivals, social media, film, and animation. Each of these fields presents unique management challenges that differ significantly from those encountered in traditional industries. Managers in the arts and cultural sectors must take on various roles, including managing teams, acting as creative producers, mediating between stakeholders, and safeguarding artistic and aesthetic integrity. Consequently, traditional management theories often do not resonate with students aiming for careers in these creative domains. As an educator I face the challenge of making management education both relevant and meaningful to students in these fields.

One strategy to overcome this challenge is to utilise generative AI to create tailored experiential exercises. AI tools, such as ChatGPT (OpenAI, 2023), can aid in developing case studies, role-playing exercises, and other experiential learning activities specifically designed to engage students. This case study examines the integration of AI-generated learning materials into a management module, evaluating its impact on student learning and engagement.





## Why did you do it?

Traditional management education often centres on concepts and frameworks more suited to corporate environments than to the creative and cultural sectors (Bilton, 2010; Lampel et al., 2000). Students in creative fields may find it difficult to relate management principles to their interests or career aspirations, leading to disengagement and a lack of motivation to master key management skills.

In my teaching experience, I have observed that creating bespoke case study material relevant to students' interests is both time-consuming and challenging. Case material must be carefully crafted to reflect the specific dynamics of the industry in question, whether it be a music studio, a theatre festival, or a theatre marketing team. This level of customisation is essential for making management concepts meaningful, but it also places a considerable burden on educators.

AI offers one approach to this issue. By employing tools such as ChatGPT, educators can quickly generate a diverse range of experiential exercises tailored to different creative and cultural industries. In my management modules this year I experimented with ChatGPT (OpenAI, 2023) to develop a series of small group exercises, each based on ten key management concepts (such as; motivation theories [Levinson, 2003] and psychological safety [Edmondson, 1999]) and tailored to various art forms or cultural sectors. The prompts provided to ChatGPT were designed to produce experiential exercises that would engage students by connecting management principles to real-world scenarios in their chosen fields.

An example prompt was:

**Act as a professor of creative and cultural industries teaching a class of first-year undergraduate students in management. Create a 40-minute experiential exercise including a case study and role descriptions for six students to explore Susan Cain's (2013) concept of 'introverts.' Set the case study in a theatre company.**

I repeated this process using different cultural sectors, such as poetry organisations, music festivals, and dance organisations. In each instance, ChatGPT generated examples that allowed students to explore the concept of 'introverts' through the lens of their specific interests.

In the above instance, ChatGPT generated a comprehensive class exercise that included the background of the organisation, role profiles for each company member (with a mix of introverts and extroverts), a scenario setting, a list of challenges the company members faced, a set of tasks for the class group to complete, and clearly defined learning objectives. An example of one of the class exercises is attached in appendix 1. I modified the example generated to make it more specific to the students in my class and I also excluded some aspects and added others. In total I worked with approximately six different art form contexts in each class.

Prior to distributing the revised class exercises I introduced the concept of introverts and extroverts positioning both within the current literature. The dominant orientation of research positions "extroverts" as preferred organisational citizens who act confidently and for whom "socializing...is an extreme sport" (Cain, 2013, p.50). This view was contrasted with the role of the introvert whose 'quiet' skills are frequently overlooked and underrated.

Students were then asked to break into small groups and given an exercise. They were tasked with exploring the dynamics of a company and artistic team, applying their understanding of Cain's (2013) work throughout the process. After 40 minutes each group presented an overview of their case along with their analysis of the issues involved.



## Did it support the principles of UDL?

Another benefit of using AI was the ability to incorporate Universal Design for Learning (UDL) principles (CAST, 2020). UDL promotes the importance of offering multiple means of expression and engagement in educational activities. Leveraging my knowledge of UDL and access to AI, I was able to create a broad range of roles within the case studies to cater to different learning styles. AI significantly simplified this process.

Some students preferred to be more involved, while others found value in more observational roles. As one student noted,

“There were roles for people who wanted to be active and also roles for those of us who didn't like ‘acting’. I enjoyed being an observer; I learned more from that role than I expected”.



## What was its impact?

The response from students to these AI-generated materials was overwhelmingly positive. They valued the variety of examples, which allowed them to explore management concepts in different creative contexts each week. This diversity kept them engaged and made the learning experience more dynamic and interesting:

“The variety of places and organisations was great... one week we role-played a theatre festival and the next a music studio... it kept me interested throughout”.

“I really loved the case studies... they helped bring the theoretical concepts to life”.

## Challenges and Considerations

Although AI proved to be a valuable tool for enhancing management education in my module, it is not without its challenges. There is considerable debate regarding the ethical implications of using generative AI in education (Chan and Colloton, 2024; Gupta et al., 2024) such as concerns around academic honesty (Chan, 2024); overreliance on AI impacting on critical thinking (Chan, 2024) bias – socioeconomic or political (Rozado, 2023). Additionally, policy-level discussions continue to grapple with the best approach to incorporating this new technology (UCD College of Arts and Humanities, 2024). While I include the exercise I used here in an appendix, I am in a quandary as to whom/what to acknowledge as its author even in this paper.

At the classroom level, one significant consideration is that AI-generated content often requires substantial editing and refinement to meet the specific needs of students. While AI output can serve as a useful starting point, I spent considerable time shaping

the material to ensure it aligned with my teaching objectives. The process of working with AI involves trial and error, and it may take several iterations to produce content that effectively conveys desired concepts and meets pedagogical goals.

To streamline the process in future, it would be essential to develop and refine effective prompts that align closely with the course objectives. For example, establishing a bank of well-tested prompts would reduce the need for extensive revisions, as these prompts could be reused or slightly adjusted for similar tasks. However, I'm not sure that I would want the process to be over-engineered.



## What might you do differently in future?

My experience using AI to create management education materials has highlighted several potential avenues for future development. One idea I am considering is the creation of workbooks to complement the existing case materials. These workbooks could include additional exercises, reflection prompts, and assessment tools to further enrich the learning experience. AI would play a central role in developing these tools, building on the resources already in place.

For example, in a case study focused on conflict resolution within a cultural organisation, an AI-generated workbook might include role-specific reflection prompts. For instance, a gallery manager might reflect on mediating disagreements between curatorial and marketing teams, considering approaches to ensure all perspectives are valued. Additional exercises could involve AI-generated scenarios where students develop action plans using techniques like active listening and compromise. A self-assessment quiz created by AI could then gauge their understanding of conflict resolution strategies, providing instant feedback. This workbook approach might

enhance students' engagement with the case by encouraging practical application and reflection on diverse viewpoints.

I also see value in collaborating with other educators to create a shared repository of AI-generated case studies and experiential exercises that could be adapted for various modules. This would be especially beneficial for those of us working in an interdisciplinary way or in collaborative settings where existing teaching resources are limited (as noted in this case study).

## Conclusion

AI has emerged as a powerful tool for making management education more meaningful. By generating customised experiential exercises, AI has helped bridge the gap between traditional management concepts and the unique challenges of the arts and cultural industries. The positive feedback from students underscores the effectiveness of this approach in enhancing engagement and learning outcomes.

However, the use of AI in education requires careful consideration and ongoing refinement. Educators must be prepared to edit and adapt AI-generated content to meet their specific pedagogical needs and to experiment with different approaches to determine what works best.

In the long term, AI is likely to play a significant role in personalising education (Zhang and Zhang, 2024) across all fields, not just within the creative and cultural industries. By generating teaching tools closely aligned with students' interests and career goals, AI has the potential to make management education—and education in general—more engaging, relevant, and meaningful. However, it is important to continue to examine the ethical implications of its use in the classroom.

# Appendix

The following class exercise was generated by ChatGPT (OpenAI, 2023) by inputting the following prompt:

**Act as a professor of creative and cultural industries teaching a class of first-year undergraduate students in management. Create a 40-minute experiential exercise including a case study and role descriptions for six students to explore Susan Cain's (2013) concept of 'introverts.' Set the case study in a theatre company**

Experiential Exercise for First-Year Undergraduate Management Class: Exploring Introversion in a Theatre Company

**Duration:** 40 minutes

**Concept:** Susan Cain's (2013) concept of introversion from "Quiet: The Power of Introverts in a World That Can't Stop Talking"

**Context:** Theatre Company Management

## Learning Objectives

- Understand the value and challenges of introverts within team dynamics.
- Explore the role of introverts in creative and collaborative environments, particularly in the theatre industry.
- Practise decision-making and management strategies to balance diverse personality types.

## Setup (5 minutes)

- **Brief Overview:** Introduce Susan Cain's concept of introverts, highlighting their strengths, such as deep thinking, listening skills, and the ability to work

independently. Discuss common challenges introverts face in environments that value extroverted behaviours, such as constant collaboration or fast-paced decision-making.

- **Theatre Company Case Study Introduction:** The students will explore a fictional theatre company, Innovative Stages, where a new production is being developed. The company has recently hired a mix of introverts and extroverts for their creative team. The team faces challenges in balancing the different working styles, and they must decide on the best management strategy to ensure that the strengths of all team members are utilised effectively.

## Case Study: Innovative Stages (10 minutes)

### Scenario:

Innovative Stages is preparing to debut its next production, “The Quiet Rebellion,” an experimental play that mixes multimedia, live performance, and audience participation. The creative team consists of directors, actors, and designers, each with different personalities. The director is concerned that the team’s introverted members are not contributing equally during group meetings, but there is also a growing recognition that these members bring unique ideas when given the right space to work independently.

The task is for the management team to figure out how to best utilise both introverts and extroverts, ensuring that introverts’ contributions are valued and the project is not delayed by miscommunication or imbalance.

### Student Roles (5 minutes)

Assign six students to the following roles, each representing a key figure in Innovative Stages. The remaining students will act as observers and provide feedback at the end.



- **Emily (Artistic Director - Extrovert)**

Emily is energetic, outspoken, and loves brainstorming sessions. She believes that the more voices in the room, the better the creative process. However, she's frustrated with the lack of engagement from some team members in group discussions. She wants the introverts to speak up more but is unsure how to make them feel comfortable.

- **Max (Set Designer - Introvert)**

Max is thoughtful and detail-oriented but tends to withdraw during group discussions. He's most productive when he works alone and needs time to reflect before offering creative ideas. Max has great concepts for the set design but feels overwhelmed by the fast pace of group meetings.

- **Olivia (Actor - Extrovert)**

Olivia thrives on interaction and spontaneity. She often dominates discussions, sometimes without realising it, and can overlook quieter voices in the room. She's frustrated by Max's silence and believes that everyone should contribute equally during group work.

- **James (Production Manager - Introvert)**

James prefers structured, well-planned meetings and struggles when conversations spiral out of control. He has been observing tensions between the introverts and extroverts and is concerned that the group's dynamic could derail the production timeline.

- **Lily (Lighting Designer - Ambivert)**

Lily sits in the middle of the spectrum. She enjoys brainstorming in groups but also values her alone time to work on technical details. She can see both sides of the extrovert-introvert divide and feels caught in the middle of trying to support everyone's needs.

- **Henry (Director - Neutral Observer)**

Henry is responsible for overseeing the overall creative direction of the project. He has noticed that the creative energy in the room fluctuates, depending on who is dominating the conversation. He must decide how to create an environment where both introverts and extroverts can thrive.

## **Task Instructions (15 minutes)**

- **Discussion Setup:**

The six assigned students will participate in a management meeting to discuss the team's challenges. Observers will listen and take notes.

- **Guiding Questions for Discussion:**

- How can the team ensure that Max's and James's introverted strengths are utilised without overwhelming them?
- What adjustments can be made to meeting formats to support introverts like Max, while maintaining the extroverts' enthusiasm?
- What specific strategies could Emily, as an extroverted Artistic Director, use to draw out contributions from introverted members?
- How can the group balance creative collaboration with the need for individual thinking time?

- **Key Objectives:**

- Create a strategy for managing the diverse personalities on the team.
- Ensure the production timeline stays on track by addressing any interpersonal or communication issues.

## Debrief and Observer Feedback (10 minutes)

- **Student Reflection:** Ask the six participants to reflect on their roles and how they felt their character's personality influenced the group's dynamics. Did they face challenges in managing their own tendencies?
- **Observer Feedback:** Invite observers to share their insights. Were the introverts' perspectives adequately considered? Did the extroverts dominate the conversation? How did Lily and Henry manage their middle-ground roles?
- **Key Takeaways:** Summarise the exercise by discussing how introverts and extroverts can both bring valuable contributions to creative industries. Highlight that effective management often requires creating spaces for different working styles, whether through structured meetings, one-to-one check-ins, or varied brainstorming formats.

## Closing (5 minutes)

- Recap Susan Cain's concepts of introversion and extroversion.
- Connect the theatre company case study back to real-world creative industries, emphasising how thoughtful management can enhance productivity and creativity in diverse teams.

## Materials

- Whiteboard or flipchart to jot down key insights from the discussion
- Printed role descriptions for participants

This exercise emphasises experiential learning, allowing students to engage in a practical scenario that reflects common challenges in managing diverse personalities within creative industries.

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# **Interactive Orals as AI-Resilient Approach to Authentic Assessment: Reflections on a Pilot**

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## **Abstract**

The use of AI-resilient assessment has become an increasingly significant concern in higher education. In this case study we present our experience with piloting interactive orals (IOs) as an AI-resilient assessment approach in Philosophy. We developed IOs as group assessments with a detailed rubric for two Philosophy undergraduate modules. Students were given carefully designed stimuli to which they needed to apply their theoretical knowledge in dialogue within their assessment group. They were assessed for philosophical knowledge, critical reflection and effective communication. Despite initial anxiety, staff experience and student feedback showed IOs as engaging, meaningful and effective assessment format.



# What did you do?

Since the use of generative AI has entered the mainstream, the use of AI-resilient assessment has become an increasingly significant concern for Higher Education. In this case study we present our experience with piloting a specific approach to interactive orals (IOs) that we developed collaboratively as an AI-resilient assessment approach for second-year undergraduate philosophy students in a combined arts programme.

IOs are oral examinations which “are genuine and unscripted interactions between a student and a marker, or a student and other students” (Ward et al. 2023, p.2). Students receive an open task, often within an imagined real world scenario, that requires their independent engagement with relevant subject matter content and skills. The two modules in our pilot had around fifty students each. They were Information Ethics, an introduction to ethical issues relating to online phenomena, and an introduction to Philosophy of Art. These optional modules share a focus on the application of philosophy to present-day phenomena in the learning outcomes, making them an appropriate context for IOs. These assessments accounted for 40% of the students’ final grade in each module. This is the first time our department used IOs to assess undergraduates.

To give students sufficient preparation time and limit the content they would be required to master, the IOs focused on content taught in the first part of the semester. Students received individual grades for their performance but completed the assessment in dialogical groups of four or five students. For each examination, we created the hypothetical scenario of a podcast in which the students took the role of subject matter ‘experts’ to present their expertise to a general audience. The instructor would be acting in the role of ‘presenter’ in the exam’s fictional context.



We collaborated in articulating the skills the assessment would capture and created a rubric for the students that identified four key areas. The rubric for each module was populated with module-specific examples. These were shared with the students in week six of the semester, and the class prior to the exam was spent on answering questions in relation to the exam and practising communication. We provided a scripted 'opening' to the exam and indicative questions that would be asked by their instructor, as well as sample follow-up or probing questions.

To run the exam effectively, some logistical requirements needed to be in place: we required two adjacent classrooms, one examination room and one preparation room, for two full days, which proved challenging on our busy campus. In the preparation room, students could spend fifteen minutes together to prepare their contributions. They were allowed and encouraged to discuss the task together, reflect on their approach as a group, and write a limited number of notes. They were only allowed to bring pen and paper into the preparation room and were advised about academic integrity relating to notes and devices, and the impact of group member's possible infractions on the entire group. The examiner was not present in the preparation space but was able to call in at unpredictable intervals.

The groups received relevant stimuli designed to allow them to showcase their skills. Students in the *Philosophy of Art* module were given an A3-sized, high-resolution image of a contemporary artwork which they had to discuss through the lens of different theories. In the *Information Ethics* module students were given short 1-2 page narratives, e.g. extracts from newspaper articles or case studies, outlining a relevant issue relating to ethics in information technologies. Students had to discuss these cases through the lens of identified concepts relevant for the phenomenon.

To facilitate quality control and review of the pilot, two measures were taken. First, the IOs were recorded. This is not just important to ensure fair grading, but will also be important if instructors consider more in-depth research into these assessments in the future. Second, a mandatory reflection was included as part of the assessment. This gave insights into students' perceptions of the assessment method, what methods they had used to prepare for the exam, their learning, and how they thought it compared to essays and traditional written exams.



## Why did you do it?

The decision to implement IOs was driven by three key related factors. First, we sought to create an authentic assessment that would effectively test students' skills and minimize the potential for cheating. The IO assessments were closed-book exams with limited opportunity for note-taking during preparation; students were required to explain and apply content effectively in a live context in their own words. We wanted to create an AI-resilient assessment that captured philosophical skills without resorting to written exams that disadvantage many students.

Second, we observed a post-COVID re-engagement challenge among students. Generally, in-class attendance has dropped to low levels and even when they are present students can be reluctant to engage in discussions, not just with the lecturer but also increasingly with one another. While this phenomenon predated the pandemic (as discussed by Turkle, 2015), the pandemic disruptions to in-classroom learning appear to have intensified this phenomenon. This assessment was meant to foster the development of dialogical skills and incentivise students to attend classes in which their conversational and reflective skills were practiced regularly.

Another consideration was the importance of devising an assessment format that allowed the students to showcase distinctive philosophical skills in the context of these applied modules. Studies have often highlighted the value of oral examinations for both incentivising students' deeper engagement with module content but also more comprehensive assessment of students' understanding (Hazen, 2020; Theobold, 2021). The assessment gave students the opportunity to go beyond definitions and general descriptions and show deeper understanding in a fluid, evolving dialogical context. The detailed rubric with examples provided the students with structured guidance on performance expectations relating both to content and the dialogical elements.



## Did it support the principles of UDL?

Introducing IOs supported the UDL principle of multiple means of expression by adding another way for students to express their learning. In both modules, the IOs were one of several assessment formats, allowing students to display their learning in different ways. Although we did not offer students a choice of assessment method, since we perceived the dialogical format to be of essential value for a discipline focused on engaging with arguments and different perspectives, we collaborated with students prior to the exam to identify potential concerns and barriers associated with the IO format, including worries about a novel, unfamiliar assessment format, anxiety of being assessed in front of other students, and specific worries in relation to neurodivergent students and those with social anxiety. More broadly, the introduction of IOs for undergraduate students in philosophy represented a diversification of means of expression.

We invited all students registered with Learning Support Services and their learning support officers to engage with us to identify expected challenges and decide how to mitigate them. We modified the format for neurodivergent students or students with social anxiety, offering these students “quiet orals” with only two student participants and with omission of the group interaction category in the assessment. Despite a substantial number of students registered with learning support services, only a small number opted for a quiet oral. Several students who were registered with learning support mentioned that they deliberately chose the larger group, preferring a less intense focus on themselves when part of a larger group. Overall, in their feedback students confirmed that the assessment format appeared more challenging to them initially than it turned out to be in reality. Their initial worries about the group format changed into appreciation of the supportive potential of groups. While some worries relating to dialogue management remained, the inclusion of a group preparation phase following the stimulus and task assignment was mentioned by many students as surprisingly helpful in alleviating their anxiety.

This assessment particularly served the Engagement considerations in the CAST UDL structure. The real-world context and application features of the assessment supported recruiting student interest (CAST, 2024, Guideline 7), the detail within the rubric and our presentation of it to them made the objectives salient for students and feedback was mastery-oriented in order to sustain effort (CAST, 2024, Guideline 8), focusing on their responsiveness to the exam’s conversational format and the clarity of their communication. The group setting made the assessment collaborative while the mandatory reflection fostered their self-regulation (CAST, 2024, Guideline 9).



## What was its impact?

The completion rate of the IO was higher than for written assessments; most students who did not attend them were completely disengaged with their studies. Although students took the exam in groups, they received an individual grade; within each group attainment levels were clearly differentiated and in many - but by no means all - cases corresponded to the students' level of performance in other assessments; there were some cases of both neurodivergent and presumed neurotypical students who surprised and impressed with an oral performance that was significantly higher than their written performance. Initially, we had been concerned whether assessment of attainment would be difficult despite the detailed rubric, but were reassured when it turned out to be relatively straightforward to distinguish between levels of performance in practice. There were some groups with uniformly high performance, but most showed a wider range of performance. While there are undoubtedly some group effects in this assessment format, we did not have the impression that their impact was significant. With regard to the assessment of the dialogical dimension, there was no case of students unduly dominating the conversation and not dominating the talk was part of the "responsiveness to context" element of the rubric. In contrast, many students appeared perhaps overly careful not to intrude on other students' "expert domain" and instead fell short in their dialogical engagement with others. Students were tasked with completing a mandatory reflection after the exam had taken place to inform our decision on whether and how these kinds of assessments would be used in the future.

Students were initially very nervous about the IO assessment format. However, after having completed the IO, the vast majority expressed finding the IO more meaningful than written assessments; several stated they had enjoyed the experience.

The group element proved reassuring for many students; several remarked that group preparation time prior to the assessment helped them relax, feel support and solidarity with the other group members, fill in memory gaps and increase confidence. Some even remarked that they had learned something new during the exam. Many students reported they had studied more deeply for this assessment and that having to present philosophical ideas in their own words and in application to an unknown specific case incentivised them to aim for deeper understanding during preparation. Most neurodivergent students and students with anxiety performed at a level in line with prior performance on other assessments, although a very small number (one student in each module) struggled with the format despite accommodations. Some neurodivergent students reported that the oral format suited them significantly better than the essay or exam, because of shorter periods of focus required and follow-up questions keeping them on track. Students with dyslexia especially appreciated this assessment format, and a number of them performed at a high level without needing any extra support, which they identified as empowering.

From the examiner's perspective, the preparation and realisation and grading of the orals was quite an intense experience, but both of us enjoyed witnessing the students apply their learning from the module in real time and felt energised by the contact with nearly all students in the module over the two days of IOs. The assessment of individual performance within the group context was clearer than expected, and our rubric had clarified most elements of performance in a practically meaningful manner. The format allowed some students to display a level of skills not conveyed through prior written assessments. Our experience of conducting IOs received a surprising level of interest from other colleagues, both within the discipline and school, but also more widely.

However, we also noticed that many students struggled with the dialogical elements of the assessment and lacked skills in referring to and building on each other's contributions. Several students remarked in their feedback that they found it difficult to know when to jump into the conversation and how to make sure their contributions did not "take away" from what another student might have planned to say.



## What might you do differently in future?

While our IO pilot convinced us of the general value of the IO assessment format for this student cohort and these modules, we encountered a number of logistical challenges that we would manage differently the next time. First of all, we had underestimated the difficulties of obtaining room bookings meeting our requirements during the semester. We would have liked to schedule the IOs earlier in the semester but felt suitable room bookings would be unlikely in the middle of the teaching semester. We had also underestimated the time needed to complete assessment and feedback onsite for each student. In the conversational group setting it was not possible to fill in a rubric for each student without students potentially observing this performance assessment of their own or others' performance; development of a new shorthand for noting student contributions might be necessary. Some students attended both modules and chose to take both IOs on the same day, impacting their performance. We will strongly advise students to schedule IOs on separate days in the next iteration.

In relation to student skills, our impression was that there was a strong need for more extensive skills building with regard to students' dialogical skills. In future iterations we will look at more explicit instruction and more sustained guided practice exercises to support critically reflective dialogical engagement, for example practicing conversational moves to connect, specify, contrast etc. It might also be helpful to create sample recordings with IO materials to illustrate such skills to students.

Planning and implementing this specific assessment format led us to contemplate more generally how to approach the academic skills building within our discipline and how to communicate and build these skills effectively throughout. It might be necessary to be more explicit and intentional to communicate and pursue this goal with students at all academic levels, from first to final year.

Overall, this pilot showed us a potential way forward for the development of AI-resilient assessment that captures a diversity of important graduate skills, is perceived as meaningful by students and is feasible to implement for medium-sized students groups. The level of response and questions we have received when sharing our experiences with this pilot has shown us that there is an appetite for exploring the potential of IOs as response to the challenges of generative AI in Higher Education in Ireland.

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**Students were given carefully designed stimuli to which they needed to apply their theoretical knowledge in dialogue within their assessment group. They were assessed for philosophical knowledge, critical reflection and effective communication. Despite initial anxiety, staff experience and student feedback showed IOs as engaging, meaningful and effective assessment format.**

# **Old Technology, New Security: How Descriptive Bibliography Combats Generative Artificial Intelligence Threats to Assessment**

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**Dr Justin Tonra, Centre for Excellence in Learning and Teaching,  
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## **Abstract**

This case study explores how descriptive bibliography can counteract generative artificial intelligence (GenAI) threats to assessment security. By requiring students to complete bibliographical descriptions of unique copies of printed books, the assessment evaluates their ability to analyse and interpret physical information that is inaccessible to GenAI tools. This approach supports Universal Design for Learning principles by promoting choice, autonomy, and diverse ways of knowing. The assignment's focus on unique material objects ensures strong assessment security and GenAI resilience, addressing threats like unauthorised information access and cognitive offloading.




## What did you do?

For much of the last decade, I have taught classes on descriptive bibliography in undergraduate and postgraduate modules on Book History, a subject usually taught in literature departments but which has genuinely cross-disciplinary application. Descriptive bibliography, a field that engages in “the close physical description of books” (Belanger, 1977, p.100), was once a mainstay of postgraduate education in literary studies but has now found a more niche home in disciplines with a focus on physical and material aspects of the book and the printed word.

In these classes, I have used practical, hands-on instruction to teach students how to understand and complete bibliographical descriptions of books. We examine books from the handpress period of printing (roughly 1450-1800), where physical traces of the printer are more in evidence than in the machine-press books that were more commonly produced from the nineteenth century onwards. A bibliographical description combines a short formulaic description of the physical make-up of the book (the collational formula), a facsimile transcription of the book’s title page, and other observations about notable material features of the book. A crucial resource for scholars and connoisseurs of rare books, bibliographical descriptions are commonly found in dedicated bibliographies of writers’ work and in catalogues of rare book dealers.

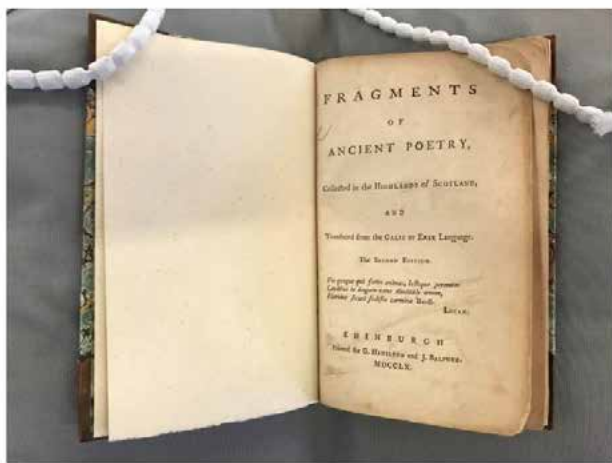
## Figure 1

A sample bibliographical description of the book pictured, including 1. a basic collational formula, 2. a more detailed collational formula, and 3. a facsimile transcription of the title page.



OLLSCOIL NA GAILLIMHE  
UNIVERSITY OF GALWAY

1. 8°: π1(=K4) A-I<sup>4</sup> K<sup>4</sup>(-K4); 40 leaves.
2. 8°: π1(=K4) A-I<sup>4</sup> K<sup>4</sup>(-K4); [\$1 (+D2, E2, F2, G2) signed; missing I1v as 'I2'], 40 leaves, pp. [5] iv-vii [1] 10-77 [1].
3. FRAGMENTS | OF | ANCIENT POETRY, | Collected in the HIGHLANDS of SCOTLAND, | AND | Translated from the GALIC or ERSE Language. | The SECOND EDITION. | *Vos quoque qui fortes anima, belloque peremptas | Laudibus in longum vates dimittitis æoum, | Plurima securi fudistis carmina* Bardi. | LUCAN. | EDINBURGH | Printed for G. HAMILTON and J. BALFOUR. | MDCCLX.



Students learn to parse the symbolic logic of the collational formula, to connect sample bibliographical descriptions to copies of the relevant book, and then to compile a bibliographical description of their own. By the end of instruction, students are versed in the aim and purpose of descriptive bibliography and the conventions and practices of the field; they have hands-on experience of how to handle and examine rare books and are provided with major reference resources and a cheat sheet on managing issues and challenges they are likely to encounter. For their take-home assignment, they are required to adopt a pre-1800 book from the university's Special Collections and to complete a bibliographical description and write a short "biography" of that copy.



## Why did you do it?

These classes formed part of modules on Book History, a field whose purpose is “to understand how ideas were transmitted through print and how exposure to the printed word affected the thought and behavior of mankind during the last five hundred years” (Darnton, 1982, p.65). The modules necessarily range widely across histories and theories of the book since the advent of print. I teach descriptive bibliography, in part, to materialise the abstract historical and theoretical models of the book that students encounter in the module. Hands-on, practical instruction is relatively rare in literary studies, and I find that students respond with surprise and enthusiasm to applied approaches to studying the books and texts on their syllabus.

### Student feedback

“The most interesting task to do was the midterm assignment; the opportunity of using a book from the 17th century is without a doubt a privilege, and the fact of discovering that thanks to classes you could analyse it is also extraordinary”

“Midterm assignment was really interesting as it gave us the opportunity to put into practice everything we had learned. It was also exciting to work with old materials”

With this type of approach, students in the module learn about the materiality of books and the mechanics and economics of book production and publication; additionally, they learn how to use Special Collections and library catalogues and acquire the skills required for rare book study, collection, and connoisseurship. While bibliographical description is no longer considered a central pillar of a postgraduate education in literary studies, it still provides valuable preparation for certain fields of academia, as well as for librarianship and commercial roles in publishing and bookselling. Moreover,

its practice cultivates in students forms of critical attention and habits of mind that are uncommon in other parts of an education in literary studies.



## Did it support the principles of UDL?

In terms of how the assignment supports the principles of UDL (CAST, 2024), allowing students virtually free rein to select a book for adoption from Special Collections optimises choice and autonomy (Consideration 7.1) and welcomes a range of interests and identities. Due to the unusual nature of the activity and assignment for literature students, I pay special attention to clarifying the meaning and purpose of their goals (Consideration 8.1) with respect to the learning outcomes of the module—connecting prior knowledge to new learning (Consideration 3.1)—and to broader academic and employment opportunities. In larger postgraduate cohorts, I have reformulated the assignment for pairs of students, thus fostering collaboration, interdependence, and collective learning (Consideration 8.3). As descriptive bibliography is focused on encoding and decoding the material evidence of books in structured and symbolic form, the activity and assignment pay close attention to design options for language and symbols, with instruction and learning materials clarifying these forms and supporting students in learning how to use and interpret them (Considerations 2.1, 2.2). By exposing students to a new method of studying and analysing books, these descriptive bibliography tasks help cultivate multiple ways of knowing and making meaning (Consideration 3.3) within students' fields of study. For the paired assignment, I have asked students to complete an oral presentation, enabling use of multiple media for communicating learning (Consideration 5.1). Students are encouraged to contact me with questions and problems, and I have provided onsite consultations with students in the Special Collections reading room. Moreover, the continuous availability of expert librarians illustrates how the assignment has anticipated and planned for

challenges (Consideration 6.2). While the assignment's focus on unique physical objects limits scope for providing accessible materials and formats, I have been conscious to apply the principles of UDL (CAST, 2024) in other aspects of the learning activities and assignment.



## What was its impact?

Although this descriptive bibliography assignment was first formulated several years before GenAI began to challenge the efficacy of many kinds of assessment, it has strong assessment security and robust GenAI resilience. Defined as “measures taken to harden assessment against attempts to cheat” (Dawson, 2020, p.19), assessment security is an unavoidable consideration for educators in an age when GenAI can facilitate student cheating with relative ease. Much of Dawson’s attention is trained on e-cheating or “cheating that uses or is enabled by digital technology” (Dawson, 2020, p.4), so many parts of his taxonomy of e-cheating approaches (2020, p.8-17) do not apply to this steadfastly analogue assignment. Still, this assignment must address the threats highlighted in Dawson’s broadly defined areas of accessing unauthorised information, outsourcing work to a person, and cognitive offloading to a tool.

Students completing the descriptive bibliography assignment are highly unlikely to be able to access unauthorised information that will facilitate cheating for a simple but crucial reason: their objects of study are unique. They are required to work on individual copies of books found in the university Special Collections, and the “biography” of the book requires the student to detail and account for features of that individual book. For example, the student must write about University of Galway’s copy of the first edition of Thomas Hobbes’s *Leviathan* (1651). Even if a student were to choose a book for which a published bibliographical description exists, this would be of limited assistance because the student would need to confirm that their adopted copy exactly matched



the published description, and variations between copies of the same edition of a book were common in the handpress period. The likelihood of this situation arising is remote, owing to the requirement that I approve students' book choices before they begin their work: this also eliminates the possibility of a student cheating by recycling the assignment of a previous student of the module. As the assignment must be completed in person in the controlled environment of the Special Collections reading room, students are unlikely to be able to outsource their work to another person.


The unique nature of the assignment's object of study is key to its GenAI resilience and to the limited opportunity for students to offload cognition to a tool. Owing to the limited information available about the unique copies that students choose, besides their library catalogue entries, large language models (LLMs) lack the detail required for an accurate bibliographical description. As a result, LLM's guesses and so-called "hallucinations" are almost certain to be incorrect. To verify this, I followed Dawson's advice on evaluating the security of an assessment by trying to break it and discover its "potential holes" (Dawson, 2020, p.36). I sought the assistance of different GenAI platforms in completing a bibliographical description of a book that I know well: a copy of the second edition (1760) of James Macpherson's *Fragments of Ancient Poetry* held at University of Galway.

I used as my prompt the assignment instructions for the bibliographical description part of the assignment: "Please complete a bibliographical description (including format, collational formula, and leaf count) of the copy of the second edition of James Macpherson's *Fragments of Ancient Poetry* (1760) held in the James Hardiman Library, University of Galway." Copilot, Microsoft's LLM that is made available to all University of Galway staff and students, responded that it could not "find specific details" about this particular copy of the book, and proceeded to provide "a general bibliographical description based on typical characteristics of such editions" (Microsoft, 2024). This output failed to follow the correct conventions of bibliographical description and provided incorrect information for details present in the online catalogue of the library, including pagination, leaf count, and size. It correctly guessed that the book is in octavo

format, but this was common for volumes of poetry in the period. To conclude its speculations, Copilot helpfully recommends that I contact the library for “more precise details” (Microsoft, 2024).

Figure 2

Copilot’s output.

 Copilot

I couldn't find specific details about the copy of the second edition of James Macpherson's *Fragments of Ancient Poetry* (1760) held in the James Hardiman Library, University of Galway. However, I can provide a general bibliographical description based on typical characteristics of such editions.

### Bibliographical Description

**Title:** *Fragments of Ancient Poetry, Collected in the Highlands of Scotland, and Translated from the Gaelic or Erse Language*

**Author:** James Macpherson

**Edition:** Second Edition

**Publication Date:** 1760

**Format:** Octavo (8vo)

**Collational Formula:** The collational formula for an octavo book typically includes signatures (groups of leaves) and pagination. For example, it might look like: A<sup>4</sup> B-H<sup>8</sup> I<sup>4</sup> (where A, B, etc., represent signatures, and the numbers indicate the number of leaves in each signature).

**Leaf Count:** The leaf count for the second edition is likely similar to the first edition, which typically has around 70 leaves (140 pages).


### Additional Information

- **Binding:** The binding would likely be contemporary with the period, possibly in calf or marbled boards.
- **Size:** Approximately 21 cm in height.

For precise details, especially regarding the specific copy held at the James Hardiman Library, I recommend contacting the library directly or checking their catalog.

Would you like help with anything else?

Learn more [1](#) [gutenberg.org](#) [2](#) [archive.org](#) [3](#) [archive.org](#) [4](#) [archive.org](#) [5](#) [archive.org](#)

 1 of 30 responses AI-generated content may be incorrect

ChatGPT’s response was similar but more detailed. Instead of attempting to generate

the answer, its output mentioned “elements [that] would typically be included” (OpenAI, 2024). In addition to guessing at those elements, the output provides useful contextual information for the user: that an octavo format “suggests the book was printed on sheets folded three times, making eight leaves or sixteen pages per sheet” (OpenAI, 2024). Similar advice is provided for determining the collational formula, leaf count, pagination, but nothing more than the attentive student would have learned before beginning the assignment. On three occasions in its output, ChatGPT states the necessity of consulting the physical copy of the book for “accurate and specific bibliographical description” (OpenAI, 2024). Before we commend the technology for its integrity and sensible advice, consider my impersonation of a desperate student, requesting a convincing bibliographical description because I was unable to consult the physical copy. “Certainly!” it replied, “below is a convincing bibliographical description...” (OpenAI, 2024). Though formatted incorrectly and full of errors, the output succeeded in giving the *appearance* of an appropriate response to the assignment. But it would not fool a competent bibliographer for a moment.

## Figure 3

*The beginning of ChatGPT's initial response.*



To provide a complete bibliographical description of the copy of the second edition of *Fragments of Ancient Poetry* (1760) by James Macpherson held in the James Hardiman Library, University of Galway, the following elements would typically be included:

### 1. Title and Author:

- Title: *Fragments of Ancient Poetry, Collected in the Highlands of Scotland, and Translated from the Galic or Erse Language*
- Author: James Macpherson

### 2. Edition:

- Edition: Second Edition

### 3. Publication Details:

- Place of Publication: Edinburgh
- Publisher: G. Hamilton and J. Balfour
- Year of Publication: 1760

### 4. Format:

- Format: Octavo (8vo)
  - The format suggests the book was printed on sheets folded three times, making eight leaves or sixteen pages per sheet.

Both LLMs appeared to perform better in the book biography part of the assignment, producing lucid and often accurate prose about Macpherson's book. However, it was a mere facade, once again, as the output offered generalities about the book and its history and contexts, rather than specific analysis of the physical features and characteristics of the Galway copy, as the assignment required: its binding, marks of use, evidence of ownership, and so on.



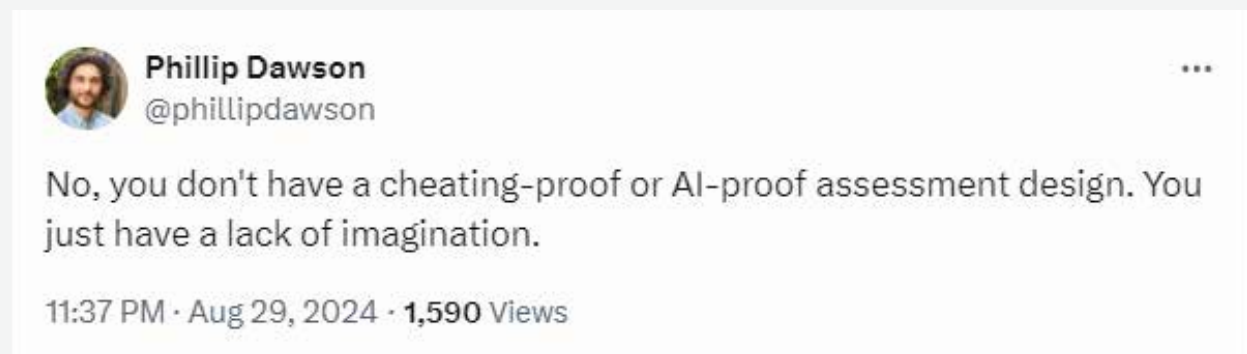
# What might you do differently in future?

In future, I plan to adapt the lessons and principles of this assessment to other assessments where security and GenAI resilience are desirable. In practice, that may involve designing assessments that incorporate unique objects and items that lack extensive documentation or analysis, and which are completed by students in controlled circumstances and settings.

While completing this chapter, I noticed a post from Phillip Dawson (Figure 4) which challenged many of the points I have made.

## Figure 4

*Post by Phillip Dawson on X/Twitter (Dawson, 2024).*



The implication of Dawson's claim is that those who are convinced they have discovered an AI-proof assignment are not thinking enough about how GenAI might be creatively deployed to cheat the assignment. Given what ChatGPT outputs about descriptive bibliography, it might plausibly succeed in generating a first-class response to the assignment if the student provided it with accurate physical evidence from their adopted copy of the book. However, if the student managed to do that, they would have demonstrated the required learning for the assignment. Owing to its focus on a

unique object and its physical analysis, there is simply no way for GenAI to generate an accurate or plausible response to the assignment without learned input from the student, nor can I imagine any developments to a disembodied technology that would enable such a response to an inherently physical task. Without embracing the hubris of rejecting Dawson's claim, I contend that assessment that focuses on unique objects and items can offer a high level of assessment security and GenAI-resilience. Certainly, it will require instructors' imagination to figure out how such methods might apply to their field, but unique objects and items of study are found across the disciplines. When those objects lack extensive documentation or analysis, and when assessment is completed in controlled environments and settings, instructors may be relatively confident that they have designed a secure assessment.

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# Afterword

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The chapters in this volume paint a nuanced snapshot of how educators and students are navigating the integration of Generative Artificial Intelligence AI (GenAI) tools into teaching and learning, revealing both the transformative potential, ethical concerns and complex questions that this technology raises. The volume's strength lies in its pragmatic grounding. Contributors share authentic experiences implementing GenAI across diverse disciplines - from English composition to philosophy, management education to international relations. These case studies collectively reveal emerging practice across disciplines with successes and challenges and offer valuable lessons for those considering integrating GenAI into similar educational contexts.

A striking theme throughout the text is the emphasis on students' perspectives and partnership. Through these chapters we see the vital importance of including learners in conversations about GenAI implementation. These accounts remind us that students are not passive recipients of technological change but active participants in shaping its educational applications. As educators we are presented with opportunities not only to involve learners in the ongoing discourse but to actively navigate the promise of GenAI in partnership by engaging students as co-creators and co-designers of learning and teaching guided by established students as partners approaches (Cook-Sather et al., 2014; Mercer-Mapstone et al., 2017).

Critical engagement emerges as another central thread. Kelly's examination of teaching critical theory and O'Brien's historical perspective through film remind us to situate current GenAI developments within broader technological and social contexts. This critical lens extends to the technology itself, with Anzola's exploration of



chatbot limitations offering crucial insights into helping students understand GenAI's capabilities and constraints. It is crucial in a continual time of extraordinary change that we remain steadfast and dedicated to comprehensive critical GenAI and data literacy practices (Atenas et al., 2025).

Yet amid these critical perspectives, the collection maintains a sense of cautious and playful optimism. Contributors like Clancy and Neachtain show how GenAI can enhance creativity and build new literacies when thoughtfully integrated into educational practice. The emphasis on reflective practice and authentic assessment throughout suggests pathways for meaningful GenAI integration that enriches rather than diminishes learning.

Looking forward, this volume prompts several key considerations for learners, educators, and institutions. First, the need for flexible, evolving approaches to academic integrity that emphasize student agency and understanding rather than surveillance and restriction. Second, the importance of discipline-specific considerations in GenAI implementation, as demonstrated by the varied approaches across fields represented here. Third, the vital role of careful assessment design that leverages GenAI's capabilities while maintaining authentic evaluation of student learning.

Perhaps most importantly, this collection highlights the need for support and guided mentoring towards responsible and ethical use. As the GenAI landscape rapidly evolves, so too must our pedagogical approaches. The experiences shared here provide valuable starting points, but they are just that - starting points in an ongoing journey of educational innovation. The future of GenAI in education will not be determined by the technology alone, but by how we choose to implement it. This volume suggests that by maintaining a balance of critical awareness and creative possibility, by putting student voices at the centre, and by grounding our approaches in well-informed pedagogical principles, we can work toward an educational future where GenAI serves as a tool for empowerment rather than displacement.

The road ahead will undoubtedly hold new pedagogical possibilities and surprises. Yet, this volume collectively demonstrates that through thoughtful integration and experimentation, collaborative dialogue, and a commitment to student learning, we can navigate this transformation in ways that humanise the educational experience. The future of GenAI in education remains unwritten, but through works like this, we begin to sketch its outlines with hope and purpose (Pechenkina, 2023.)

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