Maynooth University Staff Guidelines for GenAI	
Description	The purpose of the 'Maynooth University Staff Guidelines for GenAI' is to clarify how Generative AI (GenAI) can be used in Teaching, Learning, and Assessment at Maynooth University. The guidelines take a high-level, principles-based approach to support responsible and ethical use in a way that aligns with Maynooth University's policies and procedures. The primary audience for these guidelines is Maynooth University teaching staff and all those who support teaching and learning.
Version	1.4
Last Updated	02 April, 2025.
How the Guidelines were developed	The GenAI guidelines for staff were co-authored by the Centre for Teaching and Learning in collaboration with Student Skills and Success and Critical Skills colleagues and guided with valuable insights from the Maynooth University AI Advisory Group at initial design, Draft 1, and Draft 2 stages. Feedback from Teaching and Learning Committees, Faculties, and Academic Council informed the current draft. The Guidelines will be reviewed in advance of the next academic year, 2025-2026.

Contents

1. Maynooth University's approach to using GenAI

Maynooth University's approach to using GenAI is underpinned by our values and aligned with our existing teaching, learning, and assessment practices, and the University's Strategic Plan 2023-2028.

The guidelines draw on national and international guidance and good practice, including the National Academic Integrity Network (NAIN), Quality and Qualifications Ireland (QQI), UNESCO, and research-informed practice such as that provided by the Centre for Research in Assessment and Digital Learning (CRADLE, Deakin University, Australia). Maynooth University's approach is student-centred and recognises that student understanding of GenAI is an essential part of digital literacy. Our approach reinforces the ethical, responsible, critical, and transparent use of GenAI. Student guidelines have also been developed, informed by the staff guidelines, to ensure a closely aligned institutional approach.

MU's response to the growth in GenAI has focused on two key areas, policy and practice. The approach has been considered by students, academic, and professional services staff, University Executive, and in a range of fora including Maynooth Students' Union, Academic Council, University Teaching and Learning Committee, Faculty Teaching and Learning Committees as well as at department, centre and unit level.

The Maynooth University response has been articulated in the updated September 2023 Maynooth University Policy on Academic Misconduct and Academic Integrity and in the March 2024 'Generative Artificial Intelligence and Assessment. A guidance note for staff'. The University has also established an Expert GenAI Advisory Group to guide University policy and practice going forward.

From a practice perspective, the University has created space for conversations about GenAI; provided professional learning opportunities; supported research into GenAI and Teaching, Learning and Assessment through the Teaching and Learning (T&L) Fellowship initiative; and worked with staff and students, on-campus and beyond to clarify how GenAI can be optimised to support meaningful, responsible, and ethical learning. The University has been cautious in its approach and keen to protect good practice while remaining open to these new technological opportunities.

2. What is Generative AI (GenAI)?

Generative Artificial Intelligence (GenAI) is a form of Artificial Intelligence (AI) which produces original output in response to prompts from users.

In contrast to traditional AI which uses algorithms to serve specific functions (for example, suggesting which movie to watch on a streaming service), GenAI foundational models are much more versatile. There are many GenAI models producing a range of outputs, including images (for example, Midjourney) and music (for example, Suno). Increasingly, GenAI are becoming multimodal (for example, GPT-4o) allowing for multimodal prompts and outputs (OpenAI, n.d.). However, it is those producing text (for example, ChatGPT) that are of most interest to the majority of educators.

The majority of GenAI tools are based on an architecture called Large Language Models (LLMs), which are 'trained' on a vast corpus of human writing. While this includes sources such as digitised books and Wikipedia, the bulk of the material is 'scraped' from the internet. 'Scraping' means automated extraction of large amounts of data from websites and online platforms. In some instances, this includes re-using copyrighted data, personal data, and anything publicly available on the internet. Some GenAI tools will also use data which is input by users to update their training data. During this process, a 'neural network' is produced that is a statistical model of the language contained in the training data. Following this training, the model's output is fine-tuned by humans.

A more recent innovation in some GenAI tools is the use of Retrieval-Augmented Generation (RAG). RAG is a search function which gathers information and uses this to augment the LLM's output. This information can be from the internet or from a curated/bespoke database. This information along with the user's prompt is utilised by the LLM to provide a structured answer. This additional stage in the process seeks to overcome some potential issues with LLM output including false and outdated responses (OpenAI, n.d. (c); Wu, Wu, Zou, 2024). Despite advances this strategy needs further refinement (Cuconasu, 2024).

3. How Does GenAI Work?

Interacting with GenAI tools involves using 'prompts', that is, creating a text input to generate a specific output. These prompts often require iterations to fine-tune the output to the user's needs. The prompt in essence instructs the LLM to complete a task. For example, if we enter the incomplete sentence 'AI can help you …', and ask it to add one word, ChatGPT will produce the following:

> AI can help you *immensely*. (OpenAI, 2023)

While this seems similar to traditional text prediction software, it is much more sophisticated. GenAI can facilitate substantial conversations based on prompts and the associated outputs. As the LLM is a model of human writing it can produce plausible sounding text in reply to prompts. Importantly, it does not use the statistically most likely word but instead selects from a pool of the most likely options. In addition, unlike text prediction, it does not just predict the next word but works with sequences of words. This produces more human-like writing and different text outputs in reply to the same prompt.

Taking the earlier example, 'AI can help you … ', ChatGPT produced these responses when prompted multiple times to add one word to the sentence:

> AI can help you *achieve your goals*.
>
> AI can help you *tremendously*.
>
> AI can help you *immensely*. (OpenAI, 2023)

GenAI output text can differ each time it is prompted and from its training data. As a result, this output is not detected by traditional plagiarism detection software which uses text similarity checking (for example Turnitin Feedback Studio).

4. GenAI – What Everyone Needs to Know

- GenAI produces text output that mimics human writing, based on pattern recognition and predictive text generation.
- GenAI has the potential to be used for a range of purposes, including:
    - Generating and revising documents in a range of ways across a variety of genres
    - Analysing text
    - Translating
    - Computer coding
    - Generating images
- GenAI allows for iterative conversations. Users can inspect output and re-prompt the GenAI, thereby facilitating refinement of the generated output based on more specific prompts.
- GenAI has the potential to support learning activities through conversation and Socratic questioning. This is sometimes referred to as a 'personal tutor' approach, or a 'Socratic chatbot'. While there are possible benefits to this use, research on this approach is in its infancy (Bastani et al., 2024; Hartley, Hayak, Hyeok Ko, 2024).
- GenAI technology is becoming ubiquitous and is embedded within major software suites (such as Microsoft Office, Google Workspace), web browsers, and a range of other technologies.
- GenAI is a model of language based on its training data. Therefore:
    - GenAI is limited by the information in its training data and will replicate biases contained therein (Bender et al., 2021).
    - GenAI is limited by the cut-off date for data used in its training (for instance, GPT-3 Turbo's training data ends in September 2021).
    - Even though it may appear so, GenAI tools cannot reason, nor interpret or understand the real world. UNESCO clarifies that, '[w]hile GenAI can produce new content, it cannot generate new ideas or solutions to real-world challenges, as it does not understand real-world objects or social relations that underpin language' (UNESCO, 2023 (b), p.11; see also Leaver and Srdarov, 2023)).
- Retrieval-Augmented Generation (RAG) is used by some GenAI to augment its output.
- GenAI companies have published limited technical papers detailing their proprietary models. As such, GenAI tools represent a 'black box' which undermines efforts to assess their potential utility for different purposes.
- While often factually accurate, GenAI may produce plausible sounding output that can be misleading, factually incorrect, and/or made up. Therefore, it is important to ensure there is a 'human in the loop' to evaluate the outputs for veracity and appropriateness, and to rework if necessary.

- GenAI foundational models were not intended for education. Thus, in education settings, their pedagogical value needs to be critically evaluated.
- The impact of GenAI on the information ecosystem needs to be considered. The potential for mis- and dis-information is high. Consequently, information literacy and critical thinking skills are becoming even more important.
- The impact of GenAI on the environment and resources is also a live issue. Related technologies depend extensively on data centres that require large amounts of electricity and water (see Section 7.4 below).
- Concerns around intellectual property and copyright are prevalent. Copyrighted and/or user-generated material may be used for GenAI training.

5. Considerations for the use of GenAI in Teaching

Professional Learning for Staff

GenAI's capabilities have advanced rapidly. One of the challenges for educators is to keeping up to date regarding these tools from a teaching, learning, and assessment perspective. Professional learning may involve building one's knowledge about GenAI functionality and experimenting with different GenAI tools. Learning from colleagues and students through events and conversations can help in the sharing and building of expertise and institutional knowledge. Monitoring GenAI developments more broadly can be achieved by consulting online resources. Colleagues may also take an enquiry driven approach to their professional learning by researching GenAI technical evolution and practice in their discipline.

As part of professional learning, staff may discover ways in which GenAI can reduce their workload, for example by assisting with lesson plans, structuring talks and presentations, helping with idea generation, designing quizzes based on material covered in class, or developing new questions on a topic as part of creating, adapting, revising and updating material in a relatively short space of time. The opportunities for offering a diverse range of materials to students are also increased. Such activities should be balanced with the need to be critical of GenAI generated outputs.

Departmental Approach

Students will encounter GenAI across their degree programme and indeed beyond the University. A departmental, institutionally-aligned approach to advising students about the responsible use of GenAI is preferable. There may be instances where individual colleagues will need to give specific guidance, however, consistent messaging across a department is necessary to limit confusion amongst students. A consistent departmental approach also allows for disciplinary differences to be surfaced and addressed locally where the disciplinary expertise is greatest.

It should be noted that the permission or restriction of GenAI tool use by students lies entirely within each department's discretion. Please see section 7.2 for additional information.

Student-centred Approach

A key aim for educators is to ensure that the integrity of student learning remains central. Some specific pedagogical considerations include:

- Engaging in conversations with students around the affordances, limitations, and implications of GenAI use. These conversations could address the hype surrounding these technologies versus the reality of their capabilities, acknowledge the wider ethical issues associated with GenAI, and examine the legitimacy of GenAI outputs.
- Promoting learning approaches that counteract potential over-reliance on GenAI technologies and encourage engaged learning (Bastani et al., 2024).
- Designing learning experiences that not only centre on engagement with the discipline but which are also complemented with the intentional development of data and digital literacy capabilities including those associated with GenAI.
- Protecting the teacher-student relationship, peer-to-peer interactions and student engagement by ensuring that these are not adversely affected by the use of GenAI.
- Paying attention to affective issues associated with the use of GenAI such as trust and openness. Given that AI research is a dynamic field and we cannot know its future capabilities, creating a space of trust and openness with students is essential for mutual understanding and learning opportunities.
- Recognising that responsible use of GenAI by staff can contribute to more inclusive and engaging learning environments alongside maintaining the integrity of the learning experience and the degree.
- Modelling appropriate use of GenAI with your students, by acknowledging where GenAI has assisted your own work (NAIN, 2023).
- GenAI can exacerbate existing digital divides. Teaching staff should be cognisant of the potential impact of access to more advanced subscription-based models and the human capital to operate these.

Example uses of GenAI in a teaching context are available on the Centre for Teaching and Learning (CTL) website.

6. Considerations for GenAI and Assessment

6.1 General Considerations

Good assessment practice remains imperative in higher education regardless of the integration or otherwise of GenAI. The application of **constructive alignment**, where we begin with 'the outcomes we intend students to learn, and align teaching and assessment to those outcomes' and of agreed principles of assessment should be maintained (Biggs, n.d.).

When designing and reviewing assessments, the following points should be considered:

- Review assessments to consider their susceptibility of being completed successfully by a GenAI tool without sufficient student engagement (NAIN, 2023).
- Run current assessments through a range of GenAI to gauge its ability to complete these and to become familiar with the sort of output various tools can produce.
- Redesign of assessments may be needed to ensure assessment validity and robustness (e.g. take-home essays and online MCQs).
- Review assessment criteria and rubrics to ensure they are fit for purpose.
- Clearly articulate the level of permitted GenAI use in assignment briefs and directly to students.
- Utilise assignment cover sheets to include statements of declared GenAI use.
- Review assessments at programme and departmental level to ensure consistency of approach and communication.
- Discuss and clarify at departmental level the steps which colleagues will take should they suspect unacceptable student use of GenAI, bearing in mind Maynooth University's Policy on Academic Misconduct and Academic Integrity.
- Engage in ongoing conversations and professional learning at department and institutional level to maintain and develop GenAI understanding.

6.2 Strategies to Strengthen Assessment

There are two overarching strategies that may be used to mitigate against GenAI use in assessment:

- **Focus on learning outcomes and adjust assessment strategy accordingly**. Learning outcomes such as *remember, understanding,* and *applying* are much easier to replicate with GenAI. Therefore, review of relevant assessment types may be desirable. Learning outcomes such as *analysing, evaluating,* and *creating* are more difficult for GenAI tools to replicate.

- **Focus on process rather than product [only] (NAIN, 2023).** GenAI output is a product, whereas writing is a process. A process-focused approach may be achieved in different ways including by employing multi-stage assessment strategies to assess the whole learning process (for example, brainstorming, researching, drafting and re-drafting, and reflection) as well as the final text.

There is no easy approach to mitigating against GenAI use. Assessment design may need to adapt to meet these new challenges and the requirements of Academic Integrity. Additional resources, practices, and case studies can be accessed on the CTL website.

6.3 Use of GenAI in Assessment

Teaching staff may want to integrate student use of GenAI in assessment. Open discussions with students about the acceptable use of GenAI in assessment, alongside clear written guidelines in module and assignment descriptors are encouraged to limit confusion, clarify assessment aims, and explain the impact/benefit of GenAI use.

Unless you are teaching GenAI specifically, students should have the option to complete assessments without using these tools. Where GenAI use is allowed in assessments, marking criteria should be the same whether or not students choose to use these tools.

Note: If you *require* students to use GenAI in an assessment, refer to Section 9, "GDPR and Privacy Considerations" of these guidelines.

6.4 Descriptions of GenAI Use for Assessment

The following table may be used to clarify acceptable GenAI use within assessments. Teaching staff may for pedagogical and/or disciplinary reasons want to deviate from this. Where possible a unified approach to communicating levels of acceptable use is recommended at department level to reduce the possibilities for miscommunication/confusion/academic misconduct. Staff should clearly indicate the type(s) of GenAI use allowed in individual assignments.

Types of GenAI use	**Description**
No GenAI permitted	The assessment is completed without GenAI assistance. GenAI is not used at any stage of the assessment. **Students using software with GenAI components should ensure that these are deactivated. If this is not possible, such software should not be used.**
GenAI assistance in research and structuring	GenAI can be used in the initial stages of the assessment, including brainstorming, creating structures (outlines), and as a research assistant. **No GenAI output (including paraphrased) in final submission.**
GenAI editing	GenAI can be used as an editing tool to improve the clarity or quality of assessment. It may *not* be used to create new content. **Students must provide a list of prompts.**
Full GenAI assistance	GenAI may be used throughout the assessment process, including the inclusion of GenAI output within the assessment. **All GenAI output should be referenced.** **A full list of prompts and GenAI outputs should also be included as an appendix.**

Table 1. Types and Descriptions of GenAI for Assessment (adapted from Perkins et al., 2024)

Note: If permitting a certain type of GenAI use, assessments should also be designed to mitigate against use beyond permitted levels. The suggested strategies outlined in section 6.2 and the CTL GenAI resource hub may be useful in this regard.

6.5 Student Declaration of Use

A declaration of use is one aspect of ensuring academic integrity in assessment.

In all instances, it is good practice to have students acknowledge the use (or not) of GenAI. This acknowledgement should include the following:

1. A statement indicating the level of GenAI use based on the above 'Levels and Description of GenAI for Assessment' table.
2. Indication of which GenAI tools and models were used (e.g. ChatGPT, GPT-4).
3. An explanation of how GenAI output was used (directly included or modified).
4. If appropriate, an appendix with prompts/outputs in-line with level of permitted use according to the above table.

6.6 Grading and Feedback

GenAI tools should not be used by staff to grade or provide feedback on students' assessed work. This practice falls under the high-risk category of the EU AI Act and has additional GDPR implications.

7. Promoting Good Academic Integrity Practice

7.1 GenAI Detection – Turnitin Feedback Studio

Along with the increasing use of GenAI, there has been the development of GenAI writing detection tools.

Turnitin Feedback Studio, for example, has added an AI-Writing Indicator function. However, the company acknowledges that this tool may generate false positives (particularly when the AI Writing Indicator result is below 20%), sometimes identifying work as AI-generated when it is not. Staff should exercise caution when using this feature, due to this risk (Chechitelli, 2023). The AI Writing Indicator may be used as a prompt for a discussion with students about their work.

Colleagues should not rely on the AI Writing Indicator to make decisions around potential cases of plagiarism/academic misconduct.

7.2 Academic Misconduct

According to Maynooth University's Academic Integrity policy, a breach of academic integrity relating to GenAI involves:

- Using Artificial Intelligence (AI) tools or other computer-generated material to complete all or part of an assessment *without acknowledgement and outside the terms of Departmental policies or requirements for individual assignments*.

- Using *any tools explicitly forbidden* by the Department or within the programme.

It is important that staff include clear guidelines for students in assessment briefs to clarify how students may or may not use GenAI tools and how to acknowledge their use when and if appropriate (see Section 6 for more information).

Incidents of suspected academic misconduct related to GenAI use should be treated as per the "Maynooth University Policy on Academic Misconduct and Academic Integrity". Guidelines on verification assessment in cases where academic misconduct is suspected are provided in section 1.14.

7.3 Citations and Referencing

All use of GenAI should be acknowledged in academic work.

Style guides have expanded to accommodate GenAI use in academic writing and the need to acknowledge same. Common elements of citation practice includes:

- Which GenAI tool was used, including date and version of model
- The web address, if one applies
- The prompt(s)
- The date the GenAI tool was used

For example, the following reference using the MLA style: "Describe the symbolism of the green light in the book The Great Gatsby by F. Scott Fitzgerald" prompt. ChatGPT, 13 February version, OpenAI, 8 March 2023, https://chat.openai.com/chat.

Department style guides and handbooks should be reviewed and updated if necessary.

7.4 Ethical Questions

At Maynooth University, we recognise that AI and GenAI is the subject of important ongoing research and that these technologies could benefit humanity. At the same time, there are complex ethical questions regarding the use of GenAI and these are the subject of current research and discussion.[1]

Some of the current issues to be aware of include:

- **Training data concerns.** Not all companies are transparent about the training data they have used, often using copyrighted material to train their LLMs. Some training data can also include personal data without users' consent.

- **Lack of transparency in the development of GenAI.** The understanding of a specific tools' affordances and limitations is adversely impacted by the lack of information available on the tool's training and its training data.

- **Environmental impacts.** As part of Maynooth University's commitment towards a Green Campus, we need to be aware of the impact of GenAI and related technologies on the environment, including energy and resource use, water consumption, and waste (see Bresnihan and Brodie, 2021; Brodie, 2024).

- **Privacy issues.** It is not always clear how user inputs are used by different GenAI tools. Privacy settings should be appropriate and inputting personal data should be avoided.

- **Bias.** Since training data is scraped from the internet (among other sources), it is not equally representative of all voices. The internet contains views which many consider harmful to society: sexism, racism, homophobia, transphobia, ableism, xenophobia, etc. GenAI output may replicate these biases and views. Other examples of potential bias are the use of GenAI in translation where cultural bias can migrate without oversight (Bender et al., 2021).

- **Human influences on guardrails.** Guardrails are algorithms designed to reduce the impact of biases. When these are introduced to GenAI tools, they are representative of the values of those companies and individuals who control the tools; this can create additional biases or indeed misrepresentations.

- **Human Exploitation.** As with other data intensive technologies, GenAI brings with it concerns about the exploitation of, and detrimental impact on workers. This includes those involved in the extraction of raw materials for the construction of computing hardware but also data workers.

8. GDPR and Privacy Considerations

The General Data Protection Regulation (GDPR) applies to GenAI use in Teaching, Learning and Assessment when personal data is being used or processed. If you are not inputting personal data,

[1] See UNESCO's recommendation page on the "Ethics of Artificial Intelligence" for more information: <https://www.unesco.org/en/artificial-intelligence/recommendation-ethics>.

then GDPR is not a consideration. However, you should remember that email addresses, logins, IP addresses, students' work, etc., can constitute personal data.

Under GDPR, Maynooth University is required to have an agreement in place with third parties to cover any personal data processing.

Microsoft Copilot is accessible to all MU staff and students and there is a DPA currently in place. To use Copilot, staff need to log in with their MU login and password in the Edge browser. When logged in, staff should see a small green shield icon, , which indicates that "Enterprise Data Protection" applies to your GenAI interactions. This means that your prompts and responses will have a level of protection which does not apply when you are logged out, or when other free or paid tools are used which are not supported by MU. Your inputs will also not be used to train foundation models. This protection *only* applies when you have logged in with your MU login and password.

Professional Use
If staff wish to use tools for which MU does not have the required data agreements under GDPR they must be aware of their legal obligations relating to data privacy. GDPR training is available to all staff via the Data Protection website.

Use in Assessment
If staff *require* students to use GenAI for summative assessment, we encourage staff to use MS Copilot. If requiring students to use any other GenAI tool for which they need to provide their personal data (i.e., create accounts), staff need to be aware that a signed agreement must be in place with the relevant company.

Exceptions include
- Where the use of the tool is restricted to MU's network, including the requirement that no data can 'escape' the network or be sent externally in any way.
- Where the use of a tool does not require students to input any of their personal data, including creating accounts, free or otherwise.

Please contact dataprotection@mu.ie if you have any GDPR-related questions or concerns about the use of any GenAI tools.

9. Where can I find more information?

9.1 Centre for Teaching and Learning GenAI Resource Hub

The GenAI Hub on the Centre for Teaching and Learning (CTL) website contains a range of custom and curated resources for staff. (Links to Follow)

9.2 Student Skills & Success GenAI Guidelines for Students

Student Skills and Success hosts a variety of student-facing guidelines and resources for the use of GenAI tools in learning and assessment. These are intended to supplement any guidelines provided by teachers within their modules and departments. These guidelines and resources were launched in a new GenAI and My Learning Hub in Semester 1 of 2024.

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