

A Guide to the use of Artificial Intelligence in your studies

Artificial Intelligence (AI) refers to computer systems that can perform tasks that usually require human intelligence, such as writing text, generating images, producing music, recognising speech, translating language, and making informed decisions. AI is based on the idea of creating machines that can "think" and "learn" like humans do, using algorithms to process and make sense of large amounts of data and then try and draw some possible conclusions from it. AI is an area of active research and development, and has the potential to revolutionise the way we teach, learn, assess and access in education.

With the availability of free Generative AI tools, such as ChatGPT and Copilot, the potential of Artificial Intelligence (AI) technologies has become more understandable for many of us. The ever-expanding number of user-friendly apps under development have made AI more accessible and usable in every-day life, and in the higher education context.

Artificial Intelligence at Global College Malta

It is our role as educators to explore and investigate the opportunities AI tools can provide to our students' educational experience, as well as to consider any potential negative impacts.

How generative AI tools work

Artificial Intelligence tools have been around for a long time, with predictive AI and machine learning models used to power a wide variety of everyday applications: voice assistants such as Siri or Alexa, recommendation engines on Netflix or Amazon, customer service chatbots, image recognition photo apps, and even Google's search algorithm. By analysing large amounts of current and historical data, these tools seek to provide insights and make future predictions. Generative AI, however, is concerned with the creation of new, imaginative and unique material such as written text, pictures, video or audio. There has been a lot of media coverage of these tools lately (in particular ChatGPT) with concerns raised about the risk they present to academic integrity.

AI text generation tools

AI text generation tools such as [ChatGPT](#), [Google Gemini](#), [Claude](#) and [Llama](#) work by building vast datasets of reference text, sourced from online books, articles, social media posts, and Wikipedia pages. When responding to a user's request, they simply select the statistical "next best word" based on the words and sentences that have gone before – influenced by information supplied in an initial prompt. In many ways, they work in a similar way to a mobile 'phone's predictive text features.

Even though text may appear well presented and convincing, generative AI tools can - and often do - get things wrong (see *Limitations of text generation tools* below). And since many third-party AI-powered websites and tools are built upon these technologies, they too will inherit similar weaknesses.

AI image generation tools

AI image generation tools such as [DALL.E](#), [Midjourney](#) and [Stable Diffusion](#) are trained on large datasets of digital imagery, including photographs and artwork (along with their text

descriptions). The AI interprets and learns underlying patterns and features present in the data, and over time and with manual training and fine-tuning, can use that data to produce new images based on natural language text prompts. The better the dataset and training, the more realistic and original the output.

Video and audio generation

With AI generated "deep fake" videos in the news and AI generated songs climbing the music charts, AI video and audio will increasingly impact the way we produce and consume media. Both forms of AI operate in much the same way as other generative tools, in that a simple text prompt will generate an output. Videos are not always smooth or professional yet, but the technology is improving. AI generated music and synthesised voices, however, are already quite advanced.

Limitations of text generation tools

Understanding how AI text generation tools such as ChatGPT and Google Gemini work also highlights their limitations. When viewing the output of such tools, it is easy to think they have a level of understanding of the subject being written about, but that isn't the case. They are relatively poor at synthesising information in a critical way, reflecting on real-world experiences, or summarising content from multiple sources to build an argument. Due to the way text generation AI works, facts may also be out of date or entirely fabricated, with any referenced text potentially incorrect or misleading (even if apparently obtained via an internet search).

Therefore, you **must** always question the reliability of text generation tools, apply your judgment, and fact-check the information provided.

Limitations and constraints of using AI

If you ask ChatGPT the following: *"Please provide a bullet-point critique on the functionality of AI text generation technologies and their limitations"*, this is the kind of response you receive:

- **Potential for Untruths.** AI text generation technologies like ChatGPT, Claude and Google Gemini can produce false or misleading information. They rely on patterns in training data, which might contain inaccuracies, leading to the propagation of misinformation and reinforcing of untruths.
- **Dataset Bias.** The data used to train AI models may be biased, leading to biased outputs that reflect and potentially amplify societal prejudices or stereotypes.
- **No External Source Referencing.** Although this area of AI text generation has improved massively, AI tools can still lack the ability to reference external sources of information correctly. This limitation prevents them from fact-checking or verifying the information included within their generated text.
- **Limited Contextual Understanding.** While AI models have made significant progress in understanding context, they can still struggle with complex nuances, resulting in inappropriate or inaccurate responses in certain situations.

- **Lack of Explainability.** Both ChatGPT, Claude and Google Gemini lack transparency in their decision-making process, making it difficult to understand why certain responses are generated. This lack of explainability hinders accountability for any errors or biases in their outputs.
- **Limited Generalisation.** AI text generation technologies may struggle to generalise to new scenarios or handle inputs significantly different from their training data, resulting in unreliable outputs in unfamiliar situations.
- **Imaginative but Unverified.** AI text generation models can produce creative and imaginative content. However, this content is usually not fact-checked or verified (despite what the tools claim), potentially leading to the generation of inaccurate or fictional information.
- **Ethical Concerns.** AI-generated text can be used maliciously to spread misinformation, generate fake news, and propagate harmful content, raising serious ethical concerns. The sustainability of AI technology, the use of copyright-protected materials and intellectual property, and the labour used to build and refine datasets are also areas of concern.
- **Potential for Manipulation.** AI-generated text can be manipulated to suit specific agendas, as these models can be fine-tuned or biased during their development.

GCM is committed to the critical, ethical and responsible use of generative AI tools and to preparing our students and colleagues to work effectively in an increasingly AI-enabled world.

Guidance to help you responsibly engage with AI for your education by maintaining academic integrity

At Global College Malta we're committed to supporting you to develop good academic practice and your critical awareness of generative AI. You should at all times:

- think critically about how to use generative AI tools **responsibly and ethically**;
- understand when use of generative AI **is inappropriate and when it could be considered academic misconduct**;
- maintain good academic practice by appropriately acknowledging your use of AI tools in the development of your work; and,
- provide accurate references when using AI outputs as a source of information in your work.

AI and your education

As GCM students studying on higher education programmes you need to be aware of the potential uses of AI, **how it can enhance your learning, while being cautious about becoming over reliant on AI to the detriment of your own academic development**. It's important to be familiar with the limitations of the tools and the potential to slip into poor

academic practice. **Developing your Artificial Intelligence Literacy** is going to be vital to successfully engage with these tools critically.

AI Literacy

AI Literacy refers to the competencies we will all need as a foundation in a world that is enhanced with AI technologies. There is not a single framework of AI Literacy but the capabilities most relevant to your learning include the ability to:

- recognise AI and when you are interacting with it in existing and new platforms;
- develop a basic knowledge of how different types of AI work and the human role in AI;
- critically analyse what AI can do and distinguish between types of AI;
- develop an awareness of what AI might be able to do in the future;
- identify the strengths, weaknesses and limitations of AI;
- develop a critical awareness of how computers learn from data and the impact this can have;
- describe the key ethical issues surrounding AI and its use in education including for academic integrity;
- critically evaluate information generated by AI and make informed decisions about its use in your work; and,
- communicate successfully with AI including creating effective prompts.

As AI technologies continue to evolve, with potential new applications being explored all the time, being AI Literate is becoming more important. The following notes are aimed at helping you begin to develop your understanding of AI Literacy in order to approach the technologies critically and responsibly.

Using AI for your learning

At GCM we recognise the potential benefits of using AI tools for your learning. However, as with any tool **it's important not to become over reliant on AI, to ensure that you can succeed in your studies and ambitions for the future**, and demonstrate that you can achieve the intended learning outcomes of your programme. You need to be able to demonstrate through your learning and assessments that you have developed your subject knowledge, alongside key academic skills and graduate competencies such as communicating and writing, critical thinking, and evaluation skills.

Using AI tools and outputs responsibly and ethically

Good academic practice encompasses all aspects of how you go about your studies. There is potential to use many different approaches to help you succeed at GCM, including the use of

digital technologies. The tools themselves do not cause poor practice or academic misconduct, **this is determined by how you use the tool and whether that use is appropriate**. The same applies to using Generative AI. Though AI technology can be used to support your studies, there are also times when it is not an appropriate tool to use.

AI and academic integrity

GCM's *Student Charter* sets out the rights and responsibilities of all the College's students, regardless of location, level, mode or programme of study. The *Charter* describes **your responsibility to maintain high standards of academic integrity, honesty and good academic practice throughout your studies and in your work**. This includes the expectation that anything you submit for assessment will be wholly your own work, or that of your group where it is collaborative work.

What is academic integrity?

Academic integrity is an underlying principle of research and academic practice. Through your work and approach to learning you are expected to demonstrate your development as an independent learner, researcher and critical thinker, including maintaining good academic practice. This involves **completing your studies honestly and ethically, having respect for the work of others and recognising your responsibility to ensure fair assessment**.

Poor research and academic practice or misconduct such as plagiarism, collusion, fabrication, or falsification, undermine the advancement of knowledge and innovation that are at the core of the College's academic vision.

In thinking about how you will use AI tools there is an important distinction to make between learning and assessment. What may be a valuable application of AI for your own learning, knowledge or academic development may be poor academic practice or misconduct in assessment.

It's vital that when approaching any assignment you ensure that the work is your own and that you have followed any guidelines or expectations about the use of AI set by your module teacher.

AI and assessment

The purpose of assessment is to measure your progress against the intended learning outcomes for your programme and allow you to demonstrate your understanding and ability to analyse and apply the knowledge and skills gained through your learning. Assessments can take many forms, including examinations, essays, group tasks, written exercises, observation of practice, portfolios, performances and presentations.

Assessments play a key role in supporting your learning by providing opportunities to reflect on your progress in developing the required skills and knowledge for your programme. Passing off someone or something's work as your own, whether this is copying in an exam, getting someone else to write an assignment on your behalf or claiming authorship of machine generated content (including text, code and creative works) means that you are not demonstrating your own skills and learning. **As well as limiting your opportunities to develop as a learner, it is highly unethical.**

When using AI tools to support your learning and in the development of your work you must maintain good academic practice. This must include:

- abiding by any expectations set by your teachers about how AI can be used within the study of a module or specific assessment;
- **fully** acknowledging AI sources through appropriate referencing where you have used content as an information source alongside your other reading;
- ensuring the work you submit represents **your own effort and has not been extensively edited or enhanced by AI technology or another person**; and,
- demonstrating critical use of AI tools by acknowledging how, why, and when you used AI as part of your assessment.

Acknowledging the use made of AI in your work

The following notes provide advice to help you transparently acknowledge the use of Artificial Intelligence in your academic work.

What is acknowledgment?

GCM's approach to the use of AI technologies requires you to **openly and transparently acknowledge how and why you have used AI.**

Acknowledgment simply means describing how you have used Generative AI in the process of creating a work for submission. While you may not have used the content directly as a source of information in a quotation or citation, to maintain good academic practice and the fairness of assessment, **you must acknowledge this contribution.**

The emphasis is on demonstrating critical use of the tools, questioning their value, accuracy, and appropriateness for the task. Articulating how and where AI has informed or supported your work will allow you to demonstrate the development of your own learning while avoiding academic misconduct.

There are many different ways that you may have used AI tools in the preparation of an assessment. These could be tools built into existing applications or stand alone. While you may not have used content directly as a source of information in a quotation or citation, you may have used it as a digital assistant in the creation of your assessed work. **To maintain good academic practice and the fairness of assessment you must openly and clearly acknowledge this contribution.**

Be sure to refer to any guidance provided by your teachers and read your assignment briefs carefully. You may find that your teachers have specific requirements for how you are expected to engage with and acknowledge AI for any piece of assessed work.

How do you acknowledge the contribution of AI?

It is good academic practice to provide a **brief summary acknowledging how, why, and when you have used AI technologies in your submitted assessment**. Describing not only what you did but why will help you be more critical in your selection and use of these tools, consider the role of AI in the learning process, and understand its impact on your work.

Providing a detailed acknowledgment

You are required to submit a detailed acknowledgement at the end of your assessment outlining all the AI tools you may have used in completing your assessment, the prompts you received and the outputs obtained.

Please follow this guidance:

1. Name the AI technologies and summarise how you have used them

For example:

- I acknowledge the use of <insert name(s) and url> to generate information for background research and at the drafting stage of the writing process with the creation of an outline structure for this essay.
- I acknowledge the use of <insert name(s) and url> to identify improvements in the writing style.
- I acknowledge the use of <insert name(s) and url> as an information source to generate materials that were included within my final assessment in my own words.
- I acknowledge the use of <insert name(s) and url> to create the images included in this presentation.
- No content generated by AI technologies has been presented as my own work

2. Provide a description of the prompt or question you used, the output generated, and how you modified the material for inclusion in your assessment.

You should include this information as an appendix at the end of your work.

For example:

- Prompts used with <AI name>: *list your prompts*
- Output generated: *Provide a copy of the output created*
- The output was modified as follows: *briefly explain the changes you made*

3. Provide a reference

In the same way that you would reference an idea, text or quote from a scholarly source in your assignment, **if you use AI generated content as a source of information** (e.g.

as a direct quotation, summary or paraphrased section) **you must reference it** and provide in-text citations.

Using GCM guidance regarding the referencing style to be used in your assessment, provide a reference for the tool you have used including the url and date accessed. [Cite Them Right Online](#) has guidance on how to provide a reference in the Harvard format, treating generative AI chat based tools as a form of personal communication.

****** WARNING! ******

What happens if I misuse AI?

- **You could be marked as a ‘fail’ and get 0%**
- **You might be asked to resubmit a completely new piece of work with your mark then capped at 40%**
- **You may be considered to have committed academic misconduct and then be subject to the College’s disciplinary procedures**

Is the risk really worth it?

****** WARNING! ******