

A Manual on Artificial Intelligence for Students at Emanuel (AMAISE)

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Introduction

This manual is for the pupils of Emanuel school. In writing and sharing it with you, we aim to help you use Artificial Intelligence (AI) to its maximum potential – as a powerful tool to assist you in your learning and achieve better results – whilst avoiding some of the risks of this emerging technology. We recognise that many of our pupils already use AI, and we want to help you do so in an ethical, safe, and academically honest way, where your own thinking and learning is prioritised. Furthermore, as you prepare for a future world where AI will play an increasingly important role, it is crucial you develop the skills to engage with it effectively. Please read this guide with care and let us know if you have any questions.

This guide focuses on the academic uses of AI. For further guidance, please consult the school's AI policy.

Dos and don'ts

Navigating AI ethically and effectively can feel like a maze at times – here are some simple dos and don'ts you must follow when working with AI:

Do:

<u>Check in with your teacher:</u>

Before using AI, discuss with your teacher whether AI use is allowed for this piece of work, how you plan to use it and to get their advice on whether what you intend to do will effectively assist your learning. They can also guide you on how to reference your use of AI properly.

<u>Reference Al in your work:</u>

If you are using an AI tool in any of your work then reference it clearly – name the AI tool used, the date you generated the content, an explanation of how you used it and save/attach a screenshot of the prompt and output. E.g. "To help me write this essay I engaged with ChatGPT using this prompt "..." on this date x/x/xx. This helped me because...".

Use AI as a supporter:

Al can play many roles for you to assist you in your learning and study. It can be a tutor, research assistant, study buddy etc.... (see the positive examples below). Use it to assist you in your learning process.

• Ask for help in using AI effectively

If you are using AI, discuss how with your teacher and let them know what is or isn't working for you. They will be able to guide you on how to use these tools more effectively. Share any concerns you may have with your form tutor.

Check for bias

Als take their information from whatever they are "trained on" including knowledge available from the internet. Because human beings can express bias and stereotypes in their opinions, so too can Al. You should be conscious of this and monitor outputs for any signs of bias, perpetuation of stereotypes or discriminatory views.

Read the "how to write good prompts" guide below

This will help to ensure you are entering the most effective prompts into the AI system and therefore maximising the potential benefits.

• Expect to explain your work

Your teachers will want to check that you have not used AI to replace hard work or the learning process. Be ready to answer some questions explaining your thought processes and ideas when handing work in.

Don't:

Allow the AI to replace your hard work or perseverance

You cannot learn without engaging with the content and tasks that your teacher works through with you. Engaging actively with these tasks, and persevering independently when they are challenging, is crucial for you to learn the skills and content necessary to grow as a learner and achieve success in your exams. Therefore, you should never use AI to simply do the work set for you or to skip steps in the learning process. (e.g. never get it to answer the questions, summarise the reading, complete the writing, copy and paste what is says etc...) We expect you to maintain the highest standards of effort and academic integrity in your work. Using AI to "do it for you" will result in academic sanctions as well as undermining your learning.

Use AI for an assessed piece of work, test or examination

This is academic misconduct and will result in serious sanctions. As outlined in the school's academic honesty policy, these can range from a head of year detention to a headmaster's detention and potentially disqualification from exam courses. All assessed work must be your own. In some rare cases, Al may form part of assessed work if it is properly referenced, but this should only be done with your teacher's approval.

Ever claim that work generated by Al is your own work

This is simply cheating. You will face severe consequences for doing this. If you are unsure, please speak to your teacher and/or refer to the school's academic honesty policy.

Share anyone's personal information including your own

Personal data and information are immensely valuable. If you enter anyone's personal information into an AI system, you have lost your control of this data. Never share personal information with an AI. You should always phrase your prompts for a generic student of your age.

Assume everything the AI says is true

Sometimes a Large Language Model (LLM) like ChatGPT may incorrectly interpret your prompt, draw on information which is not up to date, or even hallucinate (make up an incorrect answer) in its response. It is crucial that you view AI outputs with a critical eye, and thoroughly check all information for factual correctness, proper referencing and for relevance to your subject/exam board. It will never be appropriate to blindly copy and paste the output of an AI.

Use AI for Pastoral Advice

Al cannot provide you with qualified support when you are going through a hard time. Please speak with your form tutor, Head of Year, the School Counsellor or any trusted member of staff if you need advice.

<u>Use AI like it's google</u>

You will get more out of it when you engage in conversation to clarify, improve and expand on the outputs. You won't get all the information you need first time. Be curious and ask follow-up questions.

How to write good prompts:

I) Ask the AI to take on a role

e.g. "You are an expert <subject> tutor with an in-depth knowledge of the <exam board>."

2) Explain clearly to the AI what you want it to do for you

e.g. "I want you to create a series of short questions on the topic of $\langle x \rangle$ "

3) Specify who it is for

e.g. "These questions should test the understanding of a Y<x> pupil in the UK who is studying this topic as part of the <exam board and course>."

4) Be specific about what you need in the output

e.g. "The questions need to have short answers, and assess knowledge across the whole of the topic" or "Use UK English and Grammar"

5) Provide useful context/examples

e.g. "I want to use these questions to test my understanding and whether or not I understand ideas such as <x>"

6) Set limitations and rules for outputs

e.g. "Only produce 20 short questions that are relevant to this exam board. Do not tell me the answers to the question - wait for my response"

7) Get it to ask you for more information before completing the task

E.g. "Ask me some clarification questions first and then produce the questions."

8) Rephrase and edit

Adapt the initial prompt to get a range of answers and/or chat with the AI to improve the outcome.

9) Question the output

Think critically about whether what an AI has produced is factually accurate and reliable, then complete further research to ensure it is.

Which AI to use?

There are several LLMs (Large Language Models) you may have used. For now, we mainly recommend:

ChatGPT - A current favourite and a very good option for most tasks all in one place. It returns very high-quality outputs (when prompted correctly). There are also several custom GPTs you can explore which serve more specific purposes (click Explore GPTs). There is also a voice mode, which allows you to speak with the AI aloud and have it speak back to you, which is very useful. A clear downside is the slight limit on how many searches you can do a day with a free account. Another downside is that ChatGPT doesn't return any academic references for where it got its information from. You will need to research and complete this independently.

Do note that other LLMs such as Perplexity (which explicitly cites its academic references so that you can check them) are also available. Always check with your teacher on what the best platform for your subject might be. A subject-by-subject guide to useful AI prompts is due to be published shortly.

Case Studies

Positive use – Essay Helper

Isabelle, a Y12 pupil, is revising for English during the Easter holidays. She wants to plan the following essay question: 'Explore how Oscar Wilde treats the theme of personal identity in *The Importance of Being Earnest*'.

In class, her teacher explained how AI could be used ethically to assist students in planning essays.

- She begins by reviewing the text, her notes, study guides and reputable online resources to gather her own ideas and thinks independently, creating a list of ideas about how she would answer this question as she goes.
- To expand her understanding, she then uses ChatGPT to suggest further areas she should consider in her essay, writing a detailed prompt to specify what she needs. She cross references this with her initial list to see if there are any key ideas she may have missed.
- Using her knowledge of the Assessment Objectives and the essay structures practised in class, she then turns her revised list of ideas into an essay plan.
- Next, she writes the essay independently, to time, expressing her own thoughts and ideas, using the skills she's been practising in lessons.
- She checks the final essay herself for accuracy of spelling and grammar, and against the targets she has been given by her teacher for previous essays, before submitting it to her teacher, including a handwritten footnote explaining how AI was used in the process of

writing the essay, including which AI she used, what prompts she wrote and how they helped her.

• Over time, Isabelle develops further independence in her essay writing, aiming to not need Al's support at all in the months before her A level.

Isabelle receives high marks for her insightful and well-structured essay, without compromising her own learning or the development of key skills she will need for her exam.

Positive use - Missed Lesson

Thomas, a Y10 pupil, has found the concept of moments quite challenging in his Physics lessons and has now missed a lesson's worth of content due to illness.

- He first checks in with his teacher on what content he has missed.
- He then reviews the booklet, textbook and GCSE Physics Online resources to go over this topic and the missed lessons content.
- Next, he writes an effective prompt to instruct ChatGPT to act as a Physics tutor for the Edexcel IGCSE exam board. He asks it questions to clarify his understanding. He checks its answers for accuracy using the booklets and textbook.
- He then independently completes the missed classwork and self-marks it with OneNote.
- Realising he is still finding centre of mass problems challenging he asks his ChatGPT Physics tutor to now produce a set of five exemplar questions on this topic, but not to produce the answers. He completes the problems independently, before asking the tutor to work through each problem step by step, to see if he got the problems correct. Where he got a problem wrong, he takes a photo of his solution and asks ChatGPT to identify his errors and explain them.
- He also wants to go over a tricky worded problem to ensure he understands it fully. He
 instructs ChatGPT to take on the role of a student, and he now acts as a teacher. He
 teaches the concept to the AI (either typing or using voice mode) and when he's finished
 teaching asks for feedback. In explaining the concept to a "student" he feels he himself
 understands it better.

Thomas returns to class next lesson feeling confident on moments and ready to tackle his upcoming end of topic test.

Negative use - Replacing your hard work

Annie, a Y13 Geography student, is tasked with writing her Geography coursework on "The impact of urbanisation on the beaches of Barcelona", which will form part of her final A-Level score.

- She does not take a proactive approach to this work and feels in a rush to complete it for the deadline.
- Now stressed, she inputs the project title directly into ChatGPT and asks it to produce the project for her.
- She fails to check whether the content of the report is accurate, and it contains many factual errors and hallucinated data.
- She asks ChatGPT to include a bibliography but does not check it many of the references are incorrectly cited.
- She makes some changes to the report to try and conceal the fact it is AI generated and not her own work. She submits the work without referencing her use of AI.

Annie has certainly not learnt anything from this process and failed to develop the key skills required to complete it honestly. Furthermore, her teacher, reading her coursework, quickly realises it is not

in her usual style or way of working. They run the coursework through an AI detector, which flags it as AI generated. Having broken the school's policy on using AI for assessed work, Annie is suspended from school. The school also informs the exam board of this breach, who decide to disqualify her from the Geography A-Level.

Negative Use - Using AI for Pastoral Advice

Nick, a YII pupil, is deeply concerned about one of his friends. They are being bullied by a group of pupils and are consistently talking about how depressed they are and that they hate school.

- He opens ChatGPT and explains the situation to it, providing the names of his friend, the bullies and their school.
- ChatGPT gives him advice about how to confront the bullies, instead of telling him to tell a trusted adult. This involves sending a confrontational message to the group of bullies, which they then share on social media. This worsens the situation for his friend.
- Both he and his friend now feel even worse about what is going on.
- The messages Nick sent to the bullies are eventually shown to a teacher. The head of middle school then gets involved.

Whilst Nick's intentions were honest, his approach to this situation is unhelpful. Firstly, he has input personal data and information to an AI system, losing control of this data and breaching the school's AI acceptable use agreement. Also, by failing to seek support from teachers early, the situation worsened. AI cannot solve complex social and emotional situations like this – always seek advice and support from a trusted member of staff at the school

Other potential uses of AI - check these with your subject teachers:

- 1. Acting as a tutor to assist you in answering a question you found tricky or to explain a concept to you. Check that its outputs are factually accurate for your exam board.
- 2. Creating a short answer/multiple choice quiz to evaluate how well you understand a topic.
- 3. Gathering ideas for an essay plan.
- 4. Proofreading written work for accuracy and fluency.
- 5. Taking on the role of a university interviewer to help you prepare.
- 6. Acting as an examiner and, with the exam board mark scheme, provides you with structured feedback on a piece of work.
- 7. You teach AI a concept to clarify your own understanding.
- 8. Rephrasing text so it is easier to understand.
- 9. Correctly citing sources.
- 10. Creating a table to compare different ideas.
- 11. Generating a set of flash cards from exam board resources.
- 12. Evaluating the quality and accuracy of your writing in a foreign language.
- 13. Suggesting discursive titles or questions related to a topic that would enable you to write a literature review or argumentative discussion for an EPQ.
- 14. Writing you a revision timetable.
- 15. Create analogies to help you understand a concept (Get it to explain the strengths and weaknesses of each analogy).
- 16. Guiding you on how to develop a new skill.
- 17. Suggesting reputable books, articles or websites for researching ideas.
- 18. Identifying key ideas, authors or thinkers on a particular topic for you to read up on.
- 19. Debating an idea against you to strengthen your understanding and arguments.

<u>Summary:</u> Al can assist your learning but should never replace your hard work. Use it wisely and always act with integrity. When in doubt, seek advice from your teachers.