The Trailblazer's Guide: Surviving & Thriving in the Al Era

A guide for students: 2023/24 Edition



Where Do I Fit in Today's Evolving Landscape?

Artificial intelligence is not just a topic of academic debate or distant speculation; it's something influencing our current everyday activities. Through smart assistants managing our tasks to recommendation engines that guide our information consumption, Al's presence is increasingly felt in both our professional and personal worlds.

This prevalence underscores the importance of understanding AI not just as a topic of study, but as a transformative tool that will influence how we understand, interact with, and shape the world around us.

Whilst AI will become pervasive, its adoption will vary based on individual preferences and aspirations. We all can decide how we will embrace AI. Some may dive deep, while others might choose a more cautious approach. However, what is universal is the need to embark on this journey, be it tentatively or wholeheartedly.

Adopting Al isn't about abrupt change; it's a progressive journey. In the next section, a five-step plan offers practical advice on how you can start this journey. By following the steps, you will increase your understanding of Al and how it can be used effectively. You'll also explore how Al can help you with everyday tasks and activities, and even support your studies.

Aside: More information on the present state and future implications of Al can be found at the end of this guide (see Appendix A).

Step 1: Seek. Understand. Thrive.

Become familiar with what AI is and how it's shaping different fields.

The first step on this journey is to learn more about Al. This includes understanding Al's capabilities, its limitations, its beneficial applications, and situations where it shouldn't be used.

In terms of learning materials, <u>Queen's Al Hub</u>, offers a rich set of resources, including how we might use it to help with everyday activities.

We'd love to get your feedback on the resources on offer so they can be expanded and improved. Please send your feedback to <u>Al-Hub@qub.ac.uk</u>.

Step 2: Adopt Al: Your Time-Saving Work Partner

Use AI to streamline tasks and save time in your daily work.

We're all pressed for time – there's always something more to be done. At the same time, we want to be successful in what we do. In this regard, we are not unique. One of the major drivers for employers to use AI is its potential to boost productivity – to improve effectiveness and efficiency. Given the potential of AI in this area, we should also seek out these benefits.

A section of Queen's Al Hub offers practical examples and advice on how we might use Al to <u>improve our everyday activities</u>. As everyone is unique, it's important to experiment with Al tools and resources to decide how they can best help you.

Step 3: Adopt Al: Your Study Buddy

Utilise AI as a virtual assistant to help with learning activities.

It is worthwhile exploring how AI can help you support your learning. This can encompass using AI tools to summarise course content, explain concepts, assist in revision by quizzing you, or maybe tweaking course materials to improve their accessibility. You could also use AI tools to create study plans, timetables, and to-do lists.

If using AI to support your study activities, it is important to remember that AI outputs might not always be accurate or trustworthy. Over time, Queen's AI Hub will be updated to include examples of how AI can be appropriately used.

Step 4: Using AI within your Course

Appropriately using Al within your course.

Apart from using AI as a tool for more effective writing or information use, discipline-specific AI experience may be needed. Your course coordinators are exploring how to integrate AI in a manner that will support learning, help you develop appropriate skills, whilst protecting the integrity of assessment.

The manner in which AI is incorporated will vary for each course, depending on the learning approach and course outcomes. Because of this, make sure you understand what is permitted and what is not permitted. If you're uncertain, please talk with the course tutors. When you are certain, then do grasp the opportunity to use AI and develop further develop your skills.

Step 5: Engage and Contribute

Participate and share your thoughts.

If you want to provide feedback on any aspect of this guide, Queen's Al Hub, or if you have questions about the available Al support, please get in contact at <u>Al-Hub@qub.ac.uk</u>.

It's crucial for us to collaborate and collectively harness the potential of Al as a catalyst for positive change. We have setup several Al discovery working groups to guide our exploration. These groups bring together those who want to take on a more active role in exploring how Al can be integrated into our activities.

This includes exploring new developments, creating case studies, and influencing broader discussions. You don't have to be an 'Al expert' to contribute — we're all learning and understanding how Al can be used. If you're interested in participating, please contact get in contact at Al-Hub@qub.ac.uk.

Alternatively, you can also provide feedback through the <u>Queen's Student</u> <u>Union</u>.

Appendix A: Current Realities & Future Forecasts

The importance of artificial intelligence has been highlighted through the widespread use of the latest generation of Large Language Models (LLMs), including OpenAl's GPT models. Using massive amounts of data and complex neural networks, these LLMs can generate text that appears to be human crafted, respond to questions, and help with tasks from ideation to coding.

The ability of LLMs to understand and generate natural language makes them useful for many tasks, including human interaction, content generation, and research. However, they have drawbacks: biases in their training data can influence their output, and they consume lots of energy.

Recently, there's been a growth in AI plug-ins and "co-pilots" which connects AI to other software. This marks a significant move from standalone AI tools to a more integrated approach, where AI offers assistance within word processors, search engines and other applications – blurring the notion of authorship and pushing the boundaries of collaborative intelligence.

Al is also being adapted within different disciplines. In healthcare, Al helps diagnose illnesses by studying medical images. In finance, Al examines transactions to detect fraud in real-time. In the arts, Al can create music, art pieces, and even movies. Collectively, discipline-specific Al applications are likely to be highly transformative for their respective fields.

It is challenging to predict exactly how AI will develop in the next year due to the pace of change and the potential for surprise. We don't know if a next-gen "GPT-5" model will come out or if it will be much better than the current version. However, we do know that AI will be more closely integrated into our everyday digital tools, further encouraging human-AI collaboration.

Longer term, major change is inevitable, particularly in the job market. As Al systems become more capable, certain tasks will become partially or fully automated, reshaping the skills that those in employment need. It is also likely that some jobs, once perceived as secure, will become obsolete, while new roles, previously unimagined, will emerge.

While we can't be sure about all future details, a few things are clear: we must prepare for what lies ahead, which includes exploring Al and integrating it into our activities where appropriate.



