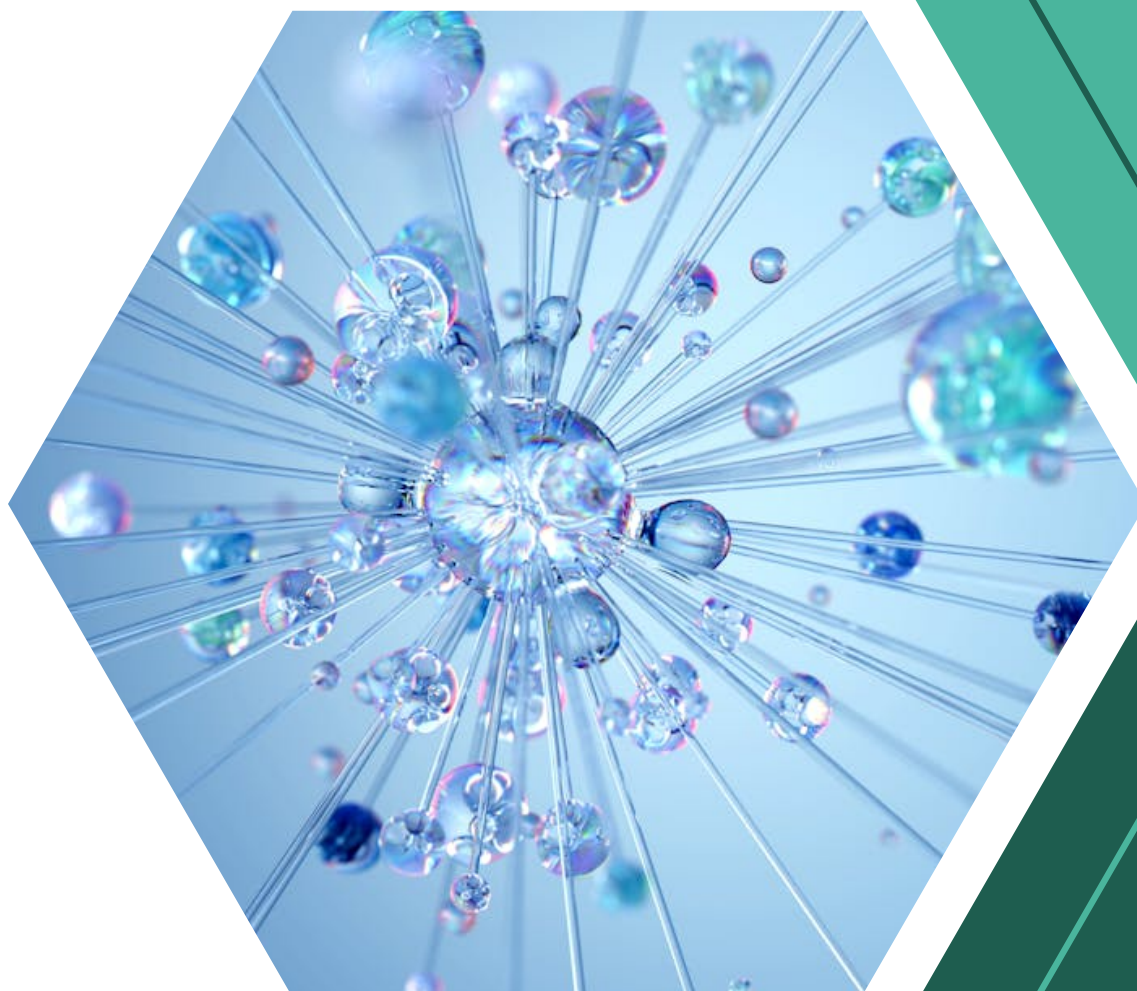


AI Prompting Guide

For UK Higher Education Teaching



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01 Introduction

Artificial Intelligence (AI) language models are increasingly becoming part of the academic landscape. As educators in UK universities, it's important to understand how to effectively use these tools to enhance teaching and learning while maintaining academic integrity.

Key to effective use is a basic understanding of how to prompt (query) an AI system. This guide aims to provide practical tips on crafting effective AI prompts.

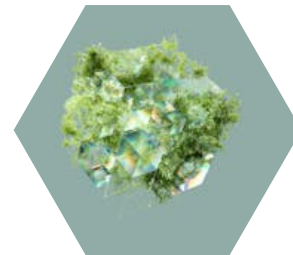
02 Understanding AI



AI language models, such as ChatGPT, Claude, or Bard, are sophisticated systems trained on large amounts of text data. They can generate human-like text based on the prompts they receive. However, they are not infallible and sometimes produce incorrect or biased information. As educators, we are responsible for using these tools judiciously and teaching our students to do the same.

It's crucial, therefore, to be aware of AI limitations. While these tools can be incredibly useful, they can sometimes produce erroneous information or misunderstand complex academic concepts.

Always review and fact-check an AI's output, especially when dealing with specialised academic topics.



Some Key AI Terms

Machine Learning

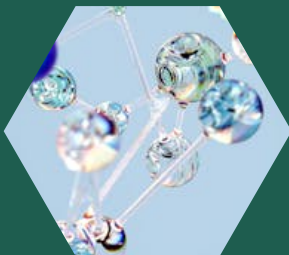
Algorithms learn from data to improve performance over time.

Deep Learning

AI models inspired by the human brain for complex tasks.

Natural Language Processing

AI's ability to understand and process human language.



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03 Crafting Prompts I

Crafting effective prompts is crucial for harnessing the power of AI. Clear and specific prompts guide the AI to generate accurate and relevant outputs.

1. Use Natural Language

AI chatbots are designed to understand and respond to natural, conversational language. Communicate with them as if they were a human colleague (while remembering they're not). This approach helps the AI grasp the context and nuances of your request, leading to more accurate and relevant responses.

2. Be Specific, Clear and Unambiguous

AI models respond best to clear, specific instructions. Avoid ambiguity or vague terms and provide context when necessary.

For example, instead of asking the AI to "summarise research on entrepreneurship", write or say:

"Provide a summary of key findings from qualitative studies on social entrepreneurship in UK small businesses published in peer-reviewed journals over the last five years."

3. Provide Context

Just as you would brief a research assistant, provide context to help the AI understand the bigger picture.

For instance:

"I'm studying AI adoption in UK small and medium enterprises (SMEs). My research objectives are [X, Y, Z], I'm using [specific theoretical framework], and my target population is [describe]. Based on this, can you help me develop a set of semi-structured interview questions?"

4. Break Down Complex Tasks

For complex academic tasks, use a step-by-step approach. **For example**, when working on a literature review, you might:

- Ask the AI to identify key themes in a specific subset of papers
- Request summaries of individual studies
- Ask for help to synthesise the findings

5. Offer Examples

When looking for a specific style, format, or type of content, provide an example.

For instance: "Here's an example of a well-written methods section from a qualitative research paper in my field: [paste example]. Using this as a guide, can you help me draft a methods section for my study on [your topic]?"

Crafting Prompts II

6. Specify Your Desired Perspective

Indicate the epistemological stance, theoretical framework, or disciplinary lens you want the AI to adopt.

For example: "Taking a social constructivist perspective, analyse the role of universities in fostering entrepreneurial ecosystems in the UK."

7. Build a Shared History

Utilise the AI's ability to remember information within a single conversation session. Refer back to previously discussed points without repeating all the details.

8. Use the TASK-FORMAT-VOICE-CONTEXT Framework

- **TASK:** What exactly do you want the AI to do?
- **FORMAT:** What is the specific output you're looking for?
- **VOICE:** What style of language is desired?
- **CONTEXT:** What further context or examples can you provide?

Example:

- **TASK:** Create a lesson plan
- **FORMAT:** A one-hour seminar outline with discussion questions
- **VOICE:** Use language appropriate for final-year undergraduate students
- **CONTEXT:** This is for a module on 19th-century British literature, focusing on the works of Charles Dickens"

9. Specify UK-Relevant Content

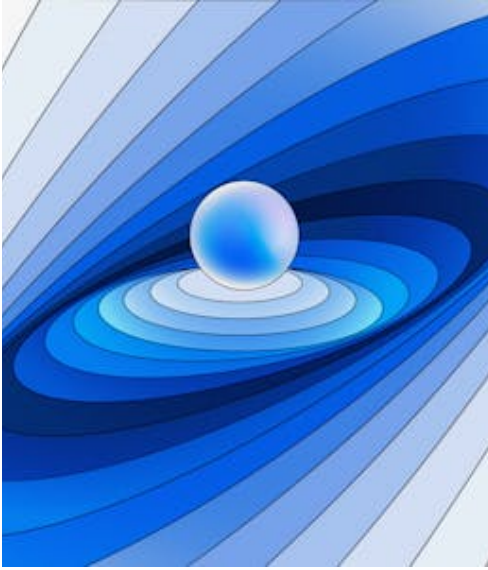
When crafting prompts, explicitly mention the UK context to ensure relevance.

Example: "Generate a list of 5 key policy changes in UK higher education over the past decade that have impacted teaching methodologies in Russell Group universities."

10. Encourage Critical Thinking

Frame prompts in a way that encourages analysis and critical thinking rather than just factual recall.

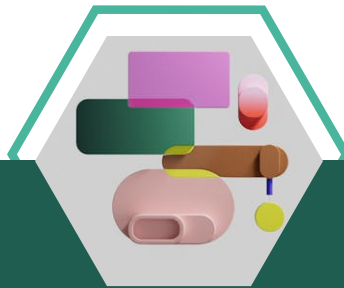
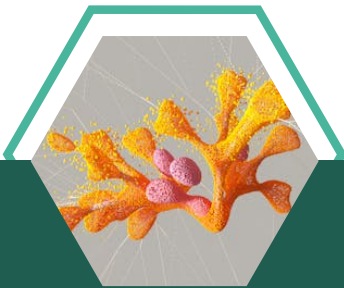
Example: "Compare and contrast the approaches to online learning adopted by UK universities during the COVID-19 pandemic with those of universities in the United States. Analyse the effectiveness of these approaches in maintaining educational quality."



04 Integrating AI into Your Teaching

AI has the potential to personalise learning, automate tasks, and enhance student engagement.

Some Broad ways to Use AI in Teaching



Research Assistant: Use AI to gather initial research on topics, but always verify information from reputable sources.

Lesson Planning: Generate ideas for lesson plans or discussion questions, then refine them based on your expertise.

Differentiated Learning: Create various explanations of complex topics to cater to different learning styles.

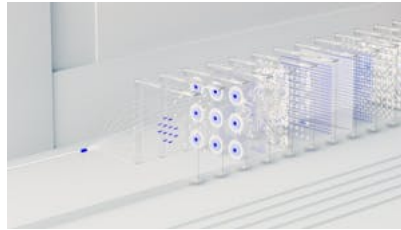
Feedback Generator: Draft initial feedback on common issues in student work, then personalise it.

Scenario Creation: Generate realistic scenarios for case studies or role-playing exercises.

05 Sample Prompts for Teaching

As written earlier, it is important to write clear prompts for the AI to process.

7 Sample Prompts for Teaching



1. "Create a rubric for assessing a 3000-word essay on the impact of Brexit on UK environmental policies, suitable for final-year Politics students in their third year at a UK university."

2. Generate a list of 10 potential dissertation topics related to sustainable finance appropriate for MSc students in a UK business school. Include brief descriptions and potential research methodologies."

3. "Design a 50-minute lecture outline on the ethical implications of AI in healthcare, tailored for second-year Bioethics students at a UK university. Include key discussion points and potential guest speaker suggestions from UK institutions."

4. "Create a set of 5 problem-based learning scenarios related to UK company law, suitable for a third-year undergraduate law module. Ensure the scenarios reflect recent changes in UK legislation."

5. "Develop a guide for UK university students on critically evaluating AI-generated content in their research process. Include specific examples relevant to UK academic practices and citation styles."

6. "I'm designing a module on entrepreneurship for final-year business students at a UK university. The module aims to develop students' critical thinking skills and practical entrepreneurial abilities. Can you suggest a series of interactive activities that blend theoretical concepts with real-world applications, suitable for a diverse student body in a UK context?"

7. "Taking a postcolonial perspective, analyse the representation of British imperial history. Then, suggest how this analysis could inform a more inclusive approach to teaching British history in UK universities."

05 Ethical Considerations

In AI Development

As AI evolves, ethical considerations are paramount in its development and application.

Bias in AI algorithms can perpetuate existing societal inequalities, requiring careful mitigation. Data privacy and security are crucial to protect sensitive information from unauthorized access. Transparency and accountability are essential to ensure AI systems are used responsibly and ethically.

Ethical Considerations and Academic Integrity

Transparency: Be open with students about when and how you use AI tools in your teaching.

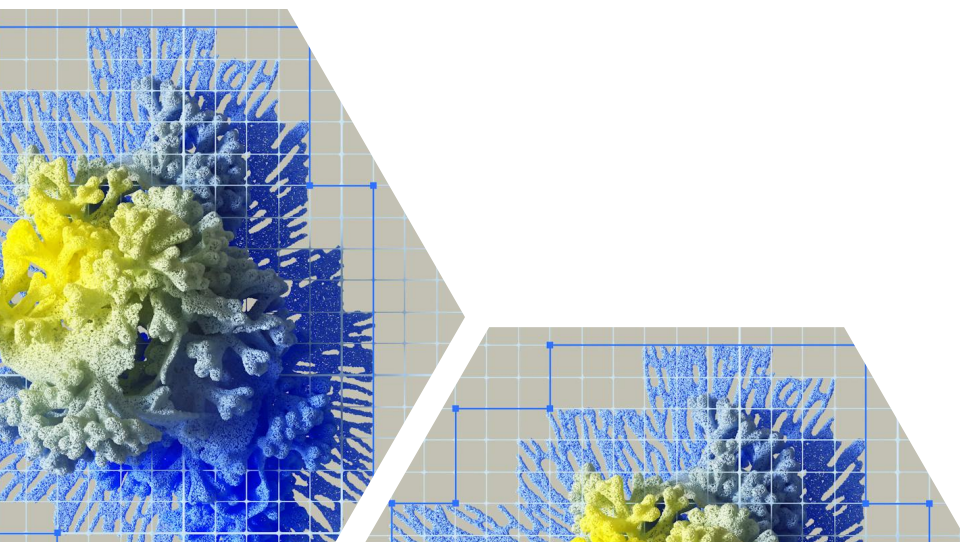
Model Responsible Use: Demonstrate how to use AI to enhance learning, not replace critical thinking.

Updating Assessments: Consider how AI might impact traditional assessments and adapt accordingly. For instance, focus more on in-class work, presentations, or project-based assessments. Consider incorporating use of AI into assessment briefs.

Plagiarism Awareness: Educate students about what constitutes AI-assisted plagiarism according to your institution's policies.

Data Protection: Be mindful of GDPR when using AI tools, especially when inputting student data.

Be extra cautious when dealing with sensitive research topics or under represented populations. Consider challenging the AI on its outputs by asking it to identify potential biases in its responses. Remember that AI models can reflect biases in their training data, so always seek diverse perspectives from human experts in your field.



06 Conclusions

AI language models are powerful tools that, when used responsibly, can enhance teaching and learning in UK universities. By crafting effective prompts and focusing on critical thinking and academic integrity, we can harness the potential of AI while upholding the high standards of UK higher education.

AI should complement, not replace your expertise as an educator. Use these tools to spark creativity, generate ideas, and streamline certain tasks, but always apply your professional judgment to the output.

As the landscape of AI in education continues to evolve, stay informed about the latest developments and guidelines from your institution and UK educational bodies. Encourage open discussions with colleagues and students about the role of AI in academia, fostering a culture of responsible innovation in your teaching practice.

Remember, while AI can be a powerful tool in academic research and teaching, it's crucial to approach it critically.

Encourage your students to question AI-generated content, identify potential biases, and always verify information from authoritative sources. By fostering this critical approach to AI use, we can help prepare our students for a future where AI is integral to academic and professional life.

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