Critical Evaluation

Evaluating information generated by AI

This checklist is a resource to help you think critically and support you in making judgements about whether text generated by AI is appropriate for you to use in your studies as a source of information.

In order to evaluate the information generated by AI tools such as ChatGPT, Perplexity, Bard or Bing, a slightly different approach might be needed from the Six Questions you would normally use to evaluate information. AI tools can give you answers to questions and provide fairly detailed summary information on a topic, but at university you need to consider whether the information generated in response to your prompt is good enough to use as a foundation or direct source in your work.

Currency

- How up to date is the dataset used to train the AI tool you are using? Can you find out? Does this impact the reliability or relevance of the information?
- When prompted to provide references or some example source information, does the AI tool cite recent sources or is the dataset relying on older information that was freely available?
- Does currency matter for the topic you are investigating? If the information is more dated, is it current enough as a starting point for your topic?
- Is there likely to be more recent information available elsewhere that you will need to seek out?

Something to think about

The information that generative AI tools such as ChatGPT are trained on will rarely be completely up to date. The tools are not retrained on a daily basis, although as we use the tools, we are adding to their training all the time. Some AI-enabled search engines such as Bing will provide links to online information that may be more recent, but you should continue to question the currency of the response itself. The 'knowledge' the tools have will stop at a certain date, meaning they do not have information about recent events or sources.

Relevance

- Is the information generated relevant to the task you are doing?
- How well does the response relate to your prompt and the topic you are investigating? Do you need to ask another question to clarify or develop the information given?
- Is the response providing the information at a level that is appropriate for your task? Is it detailed enough for an academic audience?

- Does it help answer your question, support or refute your arguments? Or does it provide information that you didn't know about until you read it and which you will need to corroborate?
- Is it useful because it provides a good definition and background knowledge? Or is it too basic and you were looking for something more in-depth and focused?

Something to think about

Content from generative AI tools can be quite generic in nature. While this can be invaluable as a way to gain background understanding of a topic or to view the topic from a different perspective, it is unlikely that the information it provides is at a suitable academic level for university studies. The response given also depends on the prompts you create. Creating quality prompts usually requires not only an understanding of how the tool works and the content you are searching for, but also a level of critical thinking. If the information you have generated is not relevant to your topic, think about creating a new prompt or exploring the conversation further.

Authority

- Is there evidence or references to source material that can back up the generated content? Is it authoritative?
- Are you able to verify the sources? Are the sources reputable?
- Are references provided? Are you able to verify the existence of the references and are they credible?
    - Who are the authors and what impact does this have on the quality of the source information? Are the cited authors trustworthy? Do you think they are qualified to provide the information?
    - Are the sources peer-reviewed or have they been evaluated in some way prior to publication?

Something to think about

Typically, generative AI tools will not disclose their data sources or the precise data it was trained on. This means we don't know who originally created the information used. Therefore, we cannot assess their qualifications, experience, or expertise in the subject. We also don't know whether the sources are scholarly or peer-reviewed. It is unlikely that these tools have been trained on materials that are available to you through the University Library because they are not freely and openly available.

The way that the text is generated means that it does not come from one source. Unlike a quotation or paraphrase you may find in a book or research article the information will have been built from the dataset as a whole. Therefore, even when prompted to include references and citations, you will find that these are frequently inaccurate or hallucinated (made up or fabricated) by the AI, and the source of specific details in the response cannot be pinpointed.

Accuracy

- Is the information reliable? Are there any factual errors or details that appear to be unsupported by evidence?
- Are you able to follow the argument presented in the text? Do the conclusions match the data?
- Can you trace the references and sources it claims to use?
- How does the information read? Does it sound objective and unbiased? Have all sides been considered?

Something to think about

As you experiment with generative AI tools you will find that the content is frequently inaccurate or completely incorrect. When using content generated by AI you should view it as one source to use alongside other academic materials and the learning materials for your modules. You should always double check and verify any information you use from a generative AI response to ensure it is accurate.

Purpose

- Is there any obvious bias in the response? Is it balanced?
- Does the text appear to favour a particular point of view? Does the data support this? Are any alternatives considered?
- Does it read like fact or more of an opinion?

Something to think about

AI tools are only as good as the information they are trained on and the algorithms that create the responses may have inbuilt biases. The inherent bias in some of the most popular tools is a hot topic for research and has been shown to be significant.

You should also remember that in most cases, AI tools are being created for commercial reasons and therefore may be influenced by a desire for profit. It is good practice to critically evaluate the tool itself before using it.

Evaluating information is highly subjective and your answers might change as you read and learn more about your topic and as AI tools continue to become more advanced. Once you've applied these questions, you will need to decide whether feel confident using the text created by generative AI as a source of information in your work or relying on it to support your studies.