Information Searching in the Age of Artificial Intelligence (AI)[i]

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"Artificial intelligence would be the ultimate version of Google—the ultimate search engine that would understand everything on the web." — *Larry Page*

Introduction

Generative AI (GenAI) became a major talking point in late 2022 with the launch of ChatGPT. GenAI is a branch of artificial intelligence that creates new content—text, images, video, audio, and even code—in response to user prompts. These systems, known as Large Language Models (LLMs), are trained on massive amounts of publicly available online data. They are now embedded in academia, professional settings, and increasingly in healthcare.

Despite concerns about transparency and the "black box" nature of AI, these tools are here to stay. As they become mainstream, it is essential to understand how to use them effectively, safely, and responsibly.

In 2025, the College GPIT group released guidance for GPs on AI. Although they acknowledge there is no universal definition of AI, they highlight a common theme: AI systems "receive information and process it based on previous learning and experience, resulting in outputs such as predictions, content, recommendations, and decisions." (1)

For most users, the appeal of AI tools is efficiency—they save time and enhance productivity. AI is now used for study support, clinical simulation, diagnostic training, workflow optimisation, research, and literature searching. This article focuses specifically on AI in information searching, outlining useful tools, introducing prompt engineering, and reinforcing the importance of critical evaluation.

AI Search Tools

Many people are already familiar with AI search platforms, whether built into Google, ChatGPT, Microsoft Copilot, or Google Gemini. According to recent usability research from the Nielsen Norman Group, GenAI is "reshaping" how users search for information online. (2)

Monash Health Library evaluated 22 AI search tools and presented their findings in a decision matrix. Their highest-rated tools—each scoring 9/10—were Consensus.app, Evidence Hunt, Lens.org, and Semantic Scholar. (3)(4) These platforms use machine learning, natural language processing, and data-mining technologies to deliver more efficient and relevant search results.

Another widely used tool in the medical community is Open Evidence (OE). The *2025 Physicians AI Report* found that 44.9% of American physicians use OE—more than all other AI tools combined, including ChatGPT. (5) A 2025 study assessing OE's ability to generate evidence-based recommendations for five common chronic conditions found that its outputs were consistently clear, relevant, and well-supported, helping reinforce clinical decisions. (6)

Mastering Prompts

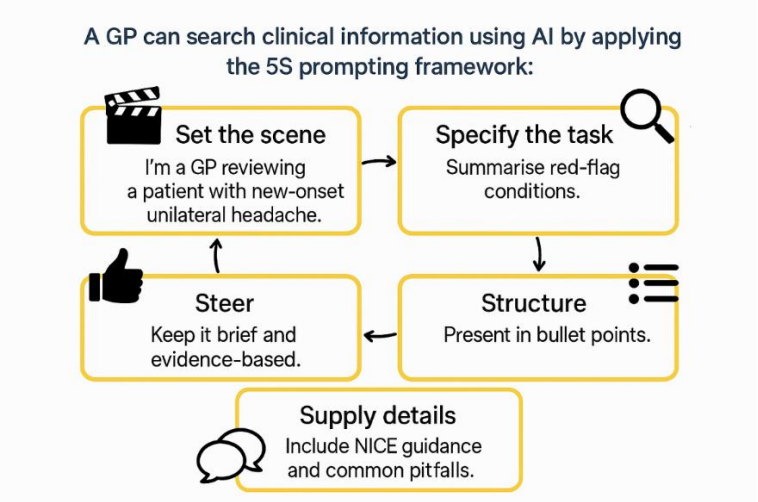
Unlike traditional keyword-based search engines, AI search tools interpret queries conversationally. They can follow context, adapt to follow-up questions, and understand more complex tasks. (7)

Prompt engineering refers to crafting structured, effective instructions that help generative AI produce accurate and high-quality outputs. Prompting is a skill that improves with practice. The more complete and specific the prompt, the stronger the result. (1) Most users will find prompting an iterative process—testing, adjusting, and refining until the desired output is achieved.

Key Components of Effective Prompts

- **Persona** – Define the AI's role (e.g., "You are a GP").
- **Context** – Provide background or relevant details.
- **Task** – State the exact action needed.
- **Constraints** – Specify word limits, tone, format, or exclusions.

Several frameworks can support prompt creation. A useful option is the **Five-S Prompting Framework**, developed by AI for Educators. (8)



Critical Evaluation of AI

As GenAI becomes more integrated into education and healthcare, AI literacy is increasingly important. Users must be able to evaluate AI outputs, recognise limitations, and understand how to use these tools ethically and responsibly. Long and Magherko define AI literacy as the competencies required to "critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace." (9)

Evaluating AI outputs is essential because LLMs can produce inaccurate or biased information. Gen AI are prone to hallucinations which occur when the model produces information that is factually incorrect, nonsensical, or fabricated, while confidently presenting it as accurate. AI hallucinations can take many forms: confidently citing research that doesn't exist, inventing sources or statistics, or offering a "best guess" framed as a factual statement. Critical appraisal is the systematic process of carefully examining the research evidence to judge its trustworthiness, value, and relevance in a particular context.

EVERY Framework (10)

While there are a number of tools and frameworks available, the EVERY Framework provides a concise, practical and relevant outline for GPs and healthcare professionals to think critically and use AI responsibly:

- **EVALUATE** to see whether the initial output meets your needs and intended purpose. Ask: Are the sources credible?
- **VERIFY** all facts, figures, quotes, and data using trusted sources to avoid errors or bias. Ask: Is the guidance current and correct?
- **ENGAGE** actively with the AI by asking follow-up questions and giving feedback. Ask: Does it reflect clinical standards?
- **REVISE** the AI-generated content to reflect your own tone, needs, and expertise. AI outputs should not be accepted as final. Ask: Is the logic sound?
- **YOU** are responsible for everything you produce with AI. Be transparent about AI assistance where appropriate. Ask: Does it fit your patient's context?

Conclusion

In an era of rapidly advancing generative AI, locating trustworthy information can be increasingly challenging. Librarians and information professionals play a vital role in guiding users toward high-quality, evidence-based resources.

Key takeaways:

- Use AI tools with caution, always applying human judgment and verification.
- Explore and experiment with AI but use it alongside trusted scholarly databases and clinical decision-support tools.
- Remember it is not advised to enter any personal and/or confidential information into AI search tools.
- Build your AI literacy. Recommended online courses include:

- **SETU Library** – https://library.setu.ie/introducing-generative-ai-and-prompt-literacy-a-comprehensive-guide-for-students/
- **AI for Education** – https://www.aiforeducation.io/ai-course

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[i] Note: I used Microsoft CoPilot to help with editing the article and create the examples and associated images.