

voices of the searchers



Librarians as Prompt Engineers

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THE WALL STREET JOURNAL, in its Dec. 29, 2023, issue, predicted that by the end of 2024 we will see laptops with neural-processing chips, enabling “on-device AI” without the need to connect to the cloud. As a result, the expansion of generative AI (GenAI) into all aspects of the information workflow will drive the need for greater AI literacy.

To get a sense for what my clients may be seeing when they use Google Bard (now Google Gemini) or ChatGPT for their information need, I have been conducting some informal tests on how search chatbots handle research questions. (I know—<shudder>—but it’s important to see what the competition is doing and to understand where there is a need for some additional AI literacy.) One of the issues I have seen consistently is how effective GenAI is in turbocharging any unspoken bias in search queries.

A client recently asked me for some best practices for cost-effective marketing strategies for a small business. Out of curiosity, I tried putting that specific query into three GenAI tools—Google Gemini, Claude, and Perplexity. They all generated bulleted lists of standard approaches, such as blogging, social media, and referral networks. However, as any good reference librarian would have told you, my client’s question included some hidden assumptions that an effective reference interview would have sussed out. Framing the question around budget constraints can lead to results focused on cutting corners or short-term gains. When I asked the chatbots, “What are the best marketing strategies for small businesses?” the recommendations—while often low-cost—focused on more strategic perspectives, such as identifying your ideal customer, focusing on your value proposition, and using a mix of online and offline marketing channels.

I had a similar experience with another client, who asked me to research how to measure the success of diversity and inclusion (D&I) initiatives. That question sounded neutral on its face until I threw it in a few GenAI tools and realized that the word “measure” was weighting the answer toward quantifiable metrics. The results focused on superficial datapoints or compliance rather than assessing the genuine impact of these initiatives on fostering inclusive workplaces and promoting equitable opportunities. When I reworded the question, “How to *evaluate* the success of diversity and inclusion initiatives?” the response was much more useful and included suggestions to first align the D&I goals with your organization’s broader goals and focus on metrics that reflect those goals and to consider intersectionality

and the need to analyze data across various dimensions such as race, gender, ability, and sexual orientation.

A good librarian knows how to listen to the unspoken assumptions, unconscious biases, or unknown unknowns embedded in a research request and to probe for the “question behind the question.” As I saw with my two recent client projects, the framing of the question inherently limits what the answer will look like. Unfortunately, our users or clients are likely to be taking their research question—often expressed in a way that presupposes a certain kind of answer—directly to a search engine chatbot. And they will then get an answer that is *plausible* and that falls within the parameters implied in the question.

This presents an opportunity for librarians and information professionals to help build AI literacy among their users. Enter the new buzz phrase for effective search queries: “prompt engineering.” In the context of GenAI, prompt engineers are information scientists who understand how a particular large-language model works, what kinds of queries generate useful insights, how to look for unexpected results, and so on. Yes ... just like how a reference librarian takes a user’s information need and translates it into an effective search query in whatever online (and print!) resources offer the most relevant and authoritative information.

Years ago, when I was in library school, professional online services such as DIALOG and LexisNexis offered weeklong training sessions to acquaint new users with the structure of online databases and effective advanced search queries. Thankfully, we have moved away from the days when online searching was an arcane skill that required extensive preparation and training. However, we are at a point similar to those early online days—everyone has access to new information resources that offer previously unknown levels of search power, but operate as apparent black boxes. Just as we used to explain inverted indexes and controlled vocabulary to our users when introducing them to a bibliographic database, now we need to explain the importance of developing chatbot prompts that do more than confirm our unconscious biases. As GenAI becomes ubiquitous, it is crucial that librarians and search professionals are seen as AI whisperers as well as research superheroes.

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