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The State of AI Search

By Mark Costlow

In our previous issue we looked at the history of Internet search and ways to get more out of existing search tools like Google and Bing, which we'll refer to here as "indexed search". This month we explore how AI is changing search. Is AI search just "Google without ads"? Or is there more to it?

Let's start with understanding the questions. First we must address that term, "understand". No computer has been proven to truly understand anything in the way we humans typically mean. But they are doing better and better at behaving as though they understand things and producing results in line with what a thinking person might. For now it doesn't matter if the understanding is genuine or a technical trick. It exists and we will use it.

For years Google has slowly increased the effort they put in to understanding what the searcher is really asking for, rather than simply searching the Internet for the words used in their query. That includes filtering through different meanings of words like "windows" and trying to steer the results based on context clues like the user's location.

But what makes AI chatbots appear human is they seem to understand our plain-language questions. **Natural Language Processing** (NLP) has been a holy grail of AI for at least five decades, and they have finally made **meaningful progress**.

Where AI search really shines is asking complicated compound questions. For example, consider the question, "What's a good vacation spot in Europe in May that's warm, not too expensive, and has direct flights from Albuquerque?"

The response from old-school search engines includes links to: lists of flights from Albuquerque, places that are hot in May, lists of vacation spots in Europe, and more.

The response from ChatGPT starts with a note that there aren't any direct flights from Albuquerque to Europe, followed by a list of 5 destinations in Spain, Portugal, Croatia and Malta. Each has a brief breakdown of the weather and affordability of that location, and the availability of one-stop flights. It "understood" the intent behind the question, and wasn't limited to displaying content that matched the key words in the query.

The true power of AI search shows when you start asking followup questions. Assuming those locations are of interest, you can counter with, "Of those, which have the best restaurants?" to get a run-down of the gastronomical possibilities in each city. Other followup possibilities includes, "which has the best architecture?" or "which ones have favorable USD exchange rates right now?"

This kind of back and forth just isn't possible with a standard search engine. With those, you are more apt to open tab after tab until you have a mountain of reading and research to do.

Summaries

Summaries are another powerful AI tool. It's as easy as uploading a document or giving it a URL and asking for a summary. It will extract the significant points and ignore the boilerplate fluff. But remember that AI search is not a simple black-and-white process. You can "**prompt**" the AI with your context so that the summary includes the areas you are specifically interested in.

The default summary of an economic policy paper might include a little about each industry that will be affected. But if you say you are specifically concerned with agriculture and farming, you'll get a different answer focused on those areas. If it turns out the paper is mostly concerned with effects on the auto industry, the summary will alert you and you can move on to other sources better related to your current interest.

Another useful technique is to ask for examples of other articles that agree or disagree with specific points raised. This is a good way to explore a topic.

Cost of AI Search

It is well known that **AI search costs more** than indexed search, but it is difficult to nail the exact numbers. Some estimate that indexed searches cost between $0.001 and $0.01 each, and AI searches cost between $0.01 and $0.10.

These numbers are constantly changing as new software efficiencies bring them down and new capabilities push them up.

Chinese company **Deep Seek** made headlines in January by announcing an AI model with similar capabilities to ChatGPT but produced at a **fraction of the cost**. The **claims were disputed**, but were enough to **impact the stock price of NVIDIA**, the premier maker of GPUs used by all AI companies. Likely other AI companies will adopt some of DeepSeek's techniques to lower their own compute costs.

Google has a lot to gain from AI search, but also **the most to potentially lose**. Indexed search has a very clear revenue model. Companies pay to have their products listed near, or even as part of, search results. AI chatbots, so far, do not have any

of that. If you aren't searching for current events, asking your question of a chatbot is a much "cleaner" experience.

Google has already seen a **slowdown in growth** that they attribute to AI search competition. They have indicated **plans to integrate ads with their AI search results** but are wary of creating the impression that the AI's answers are influenced by advertising concerns. It remains to be seen if their strategy of hybrid search answers (both indexed and AI) will be enough to preserve their position as the default search for most users.

AI Searching Tips

Most of the examples here were explored with ChatGPT. Here are some other AI chatbots and search engines worth considering:

- **Gemini** - most google searches include some Gemini-produced results. Currently they are separated from the rest of the search results and have a "Show More" button you can use if you want to explore them further. You can also talk to Gemini directly at **https://gemini.google.com**
- **Claude** - a competitor to OpenAI's ChatGPT, created by former OpenAI employees and funded by Amazon and Google. Claude aims to compete by supporting larger contexts for complex reasoning, and "safety" (less hallucinating). **https://claude.ai**
- **Perplexity** - an AI specifically meant to replace search engines. It offers conversational search, and real-time access to internet content. Some chatbots can only reference data from their training set, but Perplexity, newer versions of ChatGPT, and Gemini are able access new current data on demand. **https://perplexity.ai**

Here are some search strategies to consider:

- Be aware that **the AI can learn from you** while you learn from it. Information you submit may be remembered and pop up later. Privacy controls aim to temper that risk, but don't always work. Don't submit information or documents that would cause real harm if leaked. Running AI locally (a topic for another time) can mitigate this risk, but with performance trade-offs.
- **Use natural language** to describe what you want. Be specific and provide context. For tax law queries, say what year and jurisdiction. For software questions, specify the version number and what computer type.
- Embrace the two-way nature of the interface. **Ask follow-up questions** to narrow in or shift focus.
- **Ask for references**. Depending on which AI and what mood it's in, it might include links to source material. If not, ask for citations or references to get links to documents that may be useful for your research.
- **Always verify the results**. As of now, all AIs hallucinate to varying degrees. They will state an incorrect fact as though it is gospel. If you push back it will re-evaluate. That's fine if you already know about the topic, but if it's a new area you are vulnerable to misinformation. Ask for citations or ask a different AI the same question to avoid this pitfall.
- **Customize the personality**. Most AIs default to a "business casual" conversational style. It can be a bit wordy and include filler statements like "You're right to question that". **You can tell it**, "be terse, avoid meaningless filler statements" to get a different experience. You can tailor this to any personality you like with prompts such as, "You are a kindergarten teacher", "Remember I passed high school chemistry but didn't take it in college", or "I'm a CPA and understand complex accounting concepts".
- If the conversation isn't going anywhere useful, **just start over**. Unlike humans, AI can forget and start fresh without baggage. Honestly, many human conversations would improve if one person could rewind 5 minutes, forget a misstep, and start over.

Remember To Tip Your Server

Many humans apparently can't help but be polite, even to machine helpers. A **Barna Group study** revealed that about 70% of Millennials and older try to be polite when chatting with AIs, and 40% of Millennials say "thank you" after receiving answers. A **TechRadar study** indicates slightly more British than Americans are polite to their AIs.

TechRadar followed up with an exploration of **whether being polite to your AI affects the results**. AI researchers conclude that it can, although the reason says more about us than the machines. AI systems will respond with the most accurate answers they can regardless of whether your request is terse, flowery, or mean. But in the process of constructing a friendly request, we're apt to include more context and be more precise about what we want. More context leads to a better response, which we engage with more deeply, and followup guidance becomes more tailored. It's a virtuous cycle where kindness begets a more thoughtful exchange, and we benefit from the results.

A little kindness goes a long way with our fellow humans. Apparently it works with machines too.

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