23086   AI Chatbots Are Coming to Search Engines. Can You Trust Them?

By Chris Stokel-Walker, Nature magazine, February 16, 2023

Months after the chatbot ChatGPT wowed the world with its uncanny ability to write essays and answer questions like a human, artificial intelligence (AI) is coming to Internet search.

Three of the world's biggest search engines — Google, Bing and Baidu — last week said they will be integrating ChatGPT or similar technology into their search products, allowing people to get direct answers or engage in a conversation, rather than merely receiving a list of links after typing in a word or question. How will this change the way people relate to search engines? Are there risks to this form of human–machine interaction?

The intensely personal nature of a conversation — compared with a classic Internet search — might help to sway perceptions of search results. People might inherently trust the answers from a chatbot that engages in conversation more than those from a detached search engine. A 2022 study by a team based at the University of Florida in Gainesville found that for participants interacting with chatbots used by companies such as Amazon and Best Buy, the more they perceived the conversation to be human-like, the more they trusted the organization.

That could be beneficial, making searching faster and smoother. But an enhanced sense of trust could be problematic given that AI chatbots make mistakes. Google's Bard flubbed a question about the James Webb Space Telescope in its own tech demo, confidently answering incorrectly. And ChatGPT has a tendency to create fictional answers to questions to which it doesn't know the answer — known by those in the field as hallucinating.

A Google spokesperson said Bard's error "highlights the importance of a rigorous testing process". But some speculate that, rather than increasing trust, such errors, assuming they are discovered, could cause users to lose confidence in chat-based search.

Compounding the problem of inaccuracy is a comparative lack of transparency. Typically, search engines present users with their sources — a list of links — and leave them to decide what they trust. By contrast, it's rarely known what data a Logic-Learning-Machine (LLM) trained on — is it Encyclopaedia Britannica or a gossip blog?

Chatbot-powered search blurs the distinction between machines and humans, says Giada Pistilli, principal ethicist at Hugging Face, a data-science platform in Paris that promotes the responsible use of AI. She worries about how quickly companies are adopting AI advances: "We always have these new technologies thrown at us without any control or an educational framework to know how to use them.".

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