

Internet searches create illusion of personal knowledge, research finds

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Searching the Internet for information may make people feel smarter than they actually are, according to new research published by the American Psychological Association.

"The Internet is such a powerful environment, where you can enter any question, and you basically have access to the world's knowledge at your fingertips," said lead researcher Matthew Fisher, a fourth-year doctoral candidate in psychology at Yale University. "It becomes easier to confuse your own knowledge with this external source. When people are truly on their own, they may be wildly inaccurate about how much they know and how dependent they are on the Internet."

In a series of experiments, participants who searched for information on the Internet believed they were more knowledgeable than a control group about topics unrelated to the online searches. In a result that surprised the researchers, participants had an inflated sense of their own knowledge after searching the Internet even when they couldn't find the information they were looking for. After conducting Internet searches, participants also believed their brains were more active than the control group did. The research was published online in the *Journal of Experimental Psychology: General*.

For nine experiments, a range of 152 to 302 participants were recruited online, with different participants taking part in each experiment. In one experiment, the Internet group used online searches to research four questions (e.g., "How does a zipper work?") and provided a website link

with the best answer. The control group was given the exact text from the most common website used by the Internet group to answer the questions. Both groups then rated their ability to answer other questions (e.g., "Why are cloudy nights warmer?") on topics unrelated to the Internet searches, although they didn't have to answer those questions. The Internet group members consistently rated themselves as more knowledgeable than the control group about those unrelated topics.

The Internet group reported an inflated sense of [personal knowledge](#) after Internet searches even when its members could not find complete answers to very difficult questions (e.g., "Why is ancient Kushite history more peaceful than Greek history?") or when they found no answers at all because of Google filters that were used. The cognitive effects of "being in search mode" on the Internet may be so powerful that people still feel smarter even when their online searches reveal nothing, said study co-author Frank Keil, PhD, a psychology professor at Yale.

In another experiment, participants who did online searches thought their brains would be more active than the control group, and they chose magnetic resonance images of a brain with more active areas highlighted as representative of their own brains. This result suggests that the participants searching the Internet believed they had more knowledge in their heads, rather than simply thinking they knew more because they had access to the Internet, Fisher said.

The use of Internet searches, not just access to the Internet, appeared to inflate [participants'](#) sense of personal knowledge. When the Internet group members were given a particular website link to answer questions, they didn't report higher levels of personal knowledge on the unrelated topics than the [control group](#).

People must be actively engaged in research when they read a book or talk to an expert rather than searching the Internet, Fisher said. "If you

don't know the answer to a question, it's very apparent to you that you don't know, and it takes time and effort to find the answer," he said. "With the Internet, the lines become blurry between what you know and what you think you know."

The growing use of smartphones may exacerbate this problem because an Internet search is always within reach, Keil said, and the effects may be more pronounced when children who are immersed in the Internet from an early age grow up to be adults.

An inflated sense of personal knowledge also could be dangerous in the political realm or other areas involving high-stakes decisions, Fisher said.

"In cases where decisions have big consequences, it could be important for people to distinguish their own knowledge and not assume they know something when they actually don't," he said. "The Internet is an enormous benefit in countless ways, but there may be some tradeoffs that aren't immediately obvious and this may be one of them. Accurate personal knowledge is difficult to achieve, and the Internet may be making that task even harder."

More information: "Searching for Explanations: How the Internet Inflates Estimates of Internal Knowledge;" Matthew Fisher, MA, Mariel K. Goddu, BA, and Frank C. Keil, PhD; Yale University; *Journal of Experimental Psychology: General*, online, Mar. 31, 2015.

Provided by American Psychological Association

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