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Google AI Overviews Are Here to Stay

A Call to Teach AI Literacy

When I last wrote about Google's "Search Generative Experience" in November 2023,[1] not everyone was seeing AI-generated Overviews in their search results. I'm here to answer the question I posed about the future of Google's AI experimentation—yes, this is just the way we search now. It depends on the search query, but chances are if you've searched for something in Google lately, you've read an AI-generated Overview, whether you realized it or not. The fine print says it's still experimental, but Google is unlikely to roll these features back. In a support article, Google promises you can now find information in "faster and easier ways."[2] And that's true. If I'm trying to find the best way to get the stain out of a shirt, Google will "do the work for me" and cut to the chase so I don't have to watch a ten-minute YouTube video or scroll through lengthy ad-filled blog posts (Figure 1). Although there have been some humorous to alarming examples of false information in these overviews (like spouting misinformation that Barack Obama is Muslim),[3] they have improved; however, in my experience, the highest quality of evidence (i.e., peer-reviewed studies) is rarely cited. Google rolled out AI Overviews to the United States in May 2024 and will be available in more countries and languages if they aren't already. Google is encouraging its users to ask more complex questions and assuring advertisers that their links will still get clicks.[4]

Google's AI Overviews are powered by the Gemini large language model. As a "claim extractor," this technology mines for information across multiple sources to provide an answer to a question. It's generative in the sense that it's using natural language processing to produce human-like text, but the strength here lies in AI's ability to make new sentences stating key points of a source, "just like humans do."[5] It's interesting to consider how searching in Google has evolved from a vertical list of links with little context and lots of scrolling to a more horizontal way of searching that presents information first and links second. However, it's still up to the searcher to determine if the information is "good enough" to meet their immediate information need, a term referred to in the literature as "satisficing."[6] There's also the principle of least effort at play here as users rely on convenience, or in other words, they only look at the first thing in front of them. Research shows that students can be quick to make that determination.[7] With tools like AI summarizers, the expectation of productivity in both school and work is certainly a factor in this behavior as well. In the age of AI, the pressures of scholarly publishing[8] and workplace productivity[9] mean we're expected to do more with AI and do it quickly.

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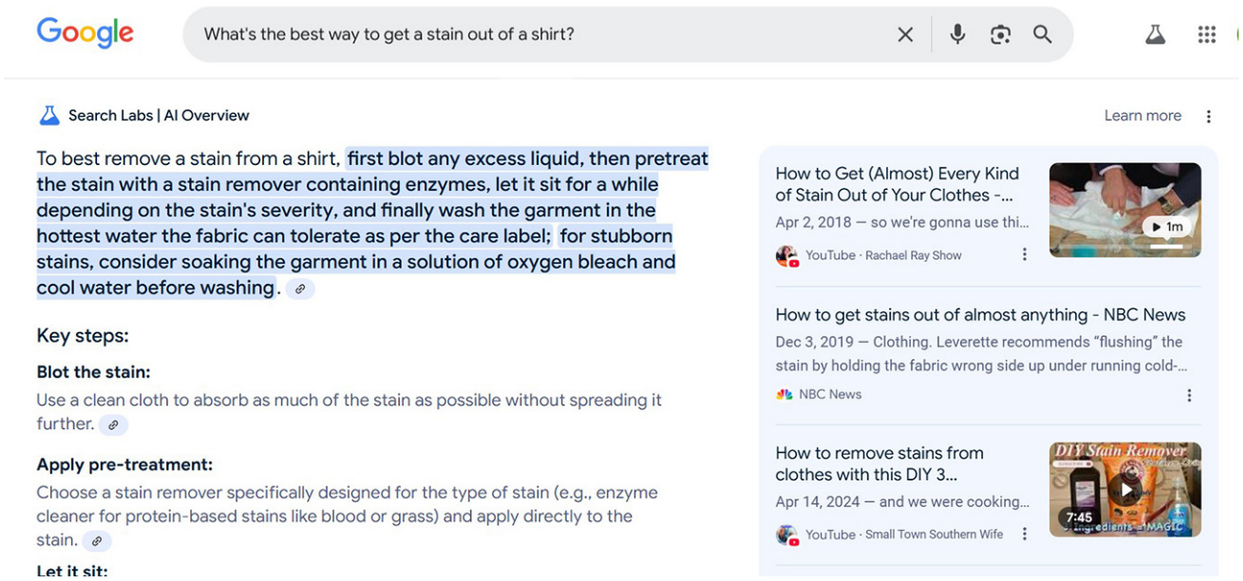

Figure 1. A Google search for "What's the best way to get a stain out of a shirt?" conducted on February 13, 2025.

In the Classroom

This brings me back to one of my initial questions: does this change the way we teach? I think it does. As instructors, we need to help our students develop AI literacy skills to know how and when to use and trust AI-generated content. In my information literacy instruction for English composition for the spring 2025 semester, I'm facilitating an activity on search tools and strategies that incorporates Google. I'm still a little old school, and I put students into groups and give them handouts. The directions ask them to conduct a search in a particular tool using detailed instructions and answer reflective questions about how they see the tool working. I want students to see an example of a "successful" search, but I also encourage them to play around and find how it might fail too. I typically have a group for Google, Google Scholar, EBSCO, and the library's catalog. Librarians have been teaching how library databases are different from Google for forever, but now there is an opportunity to engage students in conversations around AI in a way that feels safer for students who may not want to disclose their use of AI and professors who don't want to call attention to it. Everyone Googles. There's no getting around it.

I also like this activity because it illustrates how different search strategies are effective in different tools. Library databases are stuck in keywords and Boolean operators, while Google and other emerging AI research tools like Elicit are taking a question, interpreting it, and serving up relevant results using large language models. This is an important distinction that should be clear to students. Because of this, I have started to prioritize talking about developing good research questions, which is an outcome I have glossed over in the past. I would give a word of advice though to make sure the professor knows you'll be talking about AI and how. I made the mistake of pulling up Elicit during a session without clearing it first and the instructor was concerned that all their students would be copying and pasting AI-generated literature reviews.

From what I've gathered running this activity and polling students a few times, students notice the AI Overviews, find them helpful, and are likely to follow up on the links to check the source. However, for complex research questions, it's important to guide students

through the process of identifying the authority and quality of a source. Sure, you might get a seemingly logical answer to a question, but if the only sources cited are blog posts, can you really fully trust that those authors are experts? This can be a difficult task for students who do not yet have expertise themselves on a topic and sometimes rely on superficial markers of authority, such as whether a website is a .com or a .org. This is a great time to pull out your source evaluation framework of choice (mine is lateral reading[10]) and talk about the limitations and biases of what's being summarized and presented. I usually demonstrate a quick lateral reading moment where we follow a source and then open a new tab to research the reputation of the author and publication.

This is also a good time to bring up some of the issues related to AI and sustainability. I tell students "fun facts" such as how a query in ChatGPT takes ten times more electricity than a typical Google search and how both Open AI and Google are using huge amounts of water to cool their data centers,[11] which isn't helping the climate crisis. At this point, I also like to show a trick I learned on social media, from a post I've lost and can't accurately cite, that you can add "-ai" to a search to opt out and skip the AI generation. Try it out for yourself. Talking about Google and AI has made my class discussions livelier, and I hope I meet students where they are at as they enter a confusing academic system where professors' AI policies might be wildly different, if they exist at all. These intentional classroom conversations are crucial to helping students understand the capabilities and constraints of generative AI and how to use it efficiently and ethically, especially as it relates to searching for and evaluating information.

Looking Ahead

I'm optimistic about how to approach teaching with Google AI Overviews and other AI research and productivity tools. There will always be new tools and features, but literacy skills should be transferable and timeless. However, I would be remiss if I didn't mention a few unsettling trends. The term "enshittification" has been floating around the Internet after a talk given by Cory Doctorow on the rapid decline of the Internet, and as he argues in the case of Google, there is a deliberate attempt to make products worse to profit more.[12] It makes sense because Google wants to keep you on Google longer to give more time to their advertisers, so if they're giving you a quick answer, what's making you stay? In the years to come, there will be even more AI-generated content on the Internet that will feed into Google's AI Overviews. Formerly the premiere place to search, what does the future hold for Google? More experimentation to the detriment of their products? More antitrust litigation? We must encourage students to stay skeptical of information sources and be aware of how expertise and authority are increasingly obscured.

As an academic, I always feel like I'm already behind the times, but these problems are waiting for us to catch up. I hope there will be more research, be it quantitative or qualitative, on how new ways of searching for and consuming information may be impacting us, both for academics and everyday life. More than just my classroom anecdotes, future research can also show us opportunities and implications for our teaching practices. Librarians have already begun applying generative AI to the ACRL Framework for Information Literacy for Higher Education[13] and created a task force for identifying AI literacy competencies for library workers. More work is to be done, but it's time to bring Google into the classroom and teach through the lens of AI literacy.

Notes

1. Tessa Withorn, "Google SGE: A New Way to Search, Teach, and Resist," *College & Research Libraries News* 84, no. 10 (2023), https://doi.org/10.5860/crln.84.10.373.

2. Google, "Find information in faster & easier ways with AI Overviews in Google Search," *Google Search Help*, https://support.google.com/websearch/answer/14901683.

3. Matt O'Brien and Ali Swenson, "Cats on the Moon? Google's AI Tool Is Producing Misleading Responses That Have Experts Worried," *AP News*, May 24, 2024, https://apnews.com/article/google-ai-overviews-96e763ea2a6203978f581ca9c10f1b07.

4. Liz Reid, "Generative AI in Search: Let Google Do the Searching for You," *The Keyword* (blog), May 14, 2024, https://blog.google/products/search/generative-ai-google-search-may-2024/.

5. Education Ecosystem, "A Quick Introduction to Text Summarization in Machine Learning," *Medium*, September 18, 2018, https://medium.com/towards-data-science/a-quick-introduction-to-text-summarization-in-machine-learning-3d27ccf18a9f.

6. Chandra Prabha, Lynn Silipigni Connaway, Lawrence Olszewski, and Lillie R. Jenkins, ""What Is Enough? Satisficing Information Needs," *Journal of Documentation* 63, no. 1 (2007): 74–89, https://doi.org/10.1108/00220410710723894.

7. Claire Warwick, Claire, Jon Rimmer, Ann Blandford, Jeremy Gow, and George Buchanan, ""Cognitive Economy and Satisficing in Information Seeking: A Longitudinal Study of Undergraduate Information Behavior," *Journal of the American Society for Information Science and Technology* 60, no. 12 (2009): 2402–15, https://doi.org/10.1002/asi.21179.

8. Kathryn Palmer, "Researchers Investigating Generative AI and Scholarly Publishing," *Inside Higher Ed*, May 6, 2024, https://www.insidehighered.com/news/tech-innovation/digital-publishing/2024/05/06/researchers-investigating-generative-ai-and.

9. Upwork, "From Burnout to Balance: AI-Enhanced Work Models," July 23, 2024. https://www.upwork.com/research/ai-enhanced-work-models.

10. Michael A. Caulfield, "What 'Reading Laterally' Means," in *Web Literacy for Student Fact-Checkers*, Press Book, 2017, https://pressbooks.pub/webliteracy/chapter/what-reading-laterally-means/.

11. Dara Kerr, "AI Brings Soaring Emissions for Google and Microsoft, a Major Contributor to Climate Change," *NPR*, July 12, 2024, https://www.npr.org/2024/07/12/g-s1-9545/ai-brings-soaring-emissions-for-google-and-microsoft-a-major-contributor-to-climate-change.

12. Cory Doctorow, "The Specific Process by Which Google Enshittified Its Search," *Medium*, April 24, 2024, https://doctorow.medium.com/the-specific-process-by-which-google-enshittified-its-search-1ffd3b02d205.

13. Denise A. Wetzel and Justin Kani, "Enhancing Information Literacy through Generative AI in the Library Classroom," *Pennsylvania Libraries: Research & Practice* 12, no. 2 (2024). https://doi.org/10.5195/palrap.2024.302.