Comparing Chat and Search for Engaging with News Topics

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1. Introduction

When searching for information online, encountering information generated by Large Language Models (LLMs) has become nearly unavoidable, and many people actively choose to use LLMs for information seeking (Chatterji et al., 2025; Yun & Bickmore, 2025). However, in the context of time-sensitive and ambiguous information, e.g., linked to recent events and developments, LLMs were found to fall short in covering the breadth of relevant concepts (Kirsten et al., 2025), , and to curate news information in different ways than search engines (Minici et al., 2025). Further, recent research has found that engaging with information through an LLM compared to a traditional search engine leads to shallower learning outcomes and has negative downstream effects on how advice written based on the information encountered is received by others (Melumad & Yun, 2025).

With this study, we want to understand how engaging with news topic via different tools affects information interaction processes and outcomes, investigating the following research questions:

- **RQ1:** How does the tool of information access affect users' **written assessment** of information related to a news topic?
- **RQ2:** How does the tool of information access affect users' **awareness of uncertainty** of the information related to a news topic?
- **RQ3:** How does the tool of information access affect users' **interactions** with information related to a news topic?

We will conduct a user study with a preregistered between-subjects design, in which participants will be randomly assigned one of three current news topics and one of three **information access tool** conditions: **Ten-Blue-Links Search.** Participants will have access to a search engine that displays search results, but no additional features (SerpApi[2], *Google Light Mode API*); **Advanced-Features Search.** Participants will have access to a search engine with advanced features, such as knowledge panels, AI overviews, and news banners (SerpApi, *Google Search API*); **AI Mode.** Participants will have access to a chat-based search tool that provides text output with links to sources (SerpApi, *Google AI mode API*). We will select three relevant news topics at the time of data collection from the *Eurotopics* [3] press roundup, aiming for topics with a comparable level of complexity.

Participants will be instructed to use the assigned information access tool to improve their understanding of the assigned news topic, so that they can write a short **assessment** for a friend, who asked them for their perspective on the topic. We will log **interactions** with the tool (e.g., clicks on links) and measure their **uncertainty awareness** with a post-task questionnaire, which we adapted from the public understanding of scientific uncertainty (PUSU) scale (Beets et al., 2025). We will

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[2] https://serpapi.com/
[3] https://www.eurotopics.net/, Project of Germany's Federal Agency for Civic Education which highlights political, economic, and social issues that are being discussed in Europe.

evaluate the written assessments in two ways: (1) the **content** (e.g., concept coverage and critical reasoning), utilizing rubric-based scoring methods, and (2) the **reception** (e.g., helpfulness, informativeness, trustworthiness), rated by a different cohort of participants in a second study.

We will complete all data collection and analysis before SEASON, where we want to present the results and discuss how they could inform the design of information access systems that support critical reflection and sensemaking in the context of news topics with the SEASON community.

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