Searching for the Unspeakable? Preliminary Insights from Sexual Health-Related Search Results Across Search Engines in Germany and the United States

Aylin Imeri[a], Sebastian Sünkler[b]

[a] *Ruhr University Bochum, Institute of General Practice and Family Medicine, Universitätsstr. 150, 44801 Bochum, Germany*
[b] *Hamburg University of Applied Sciences, Finkenau 35, 22081 Hamburg, Germany*

1. Introduction

Search engines serve as the primary gateway for users seeking health information (Spink et al., 2004; Wang et al., 2012). This role is particularly critical for sensitive and often stigmatized topics such as sexual health, where users may prioritize the privacy and anonymity of online searching over face-to-face consultations. Despite their gatekeeping function, the "black-box" nature of search algorithms determines how information is prioritized and whether users are directed to authoritative medical advice, commercial content, or community-driven discourse. This study explores the role of search engines in mediating access to online sexual health information. Using search results from Germany and the United States, this study provides preliminary insights into the visibility of different types of information providers across search engines.

2. Methodology

To better understand how search engines shape access to online sexual health information, we conducted a large-scale data collection using the open-source Result Assessment Tool (RAT). The study employs a comparative, multi-platform, and multi-regional design:

- Data Collection & Criteria:
    - Search Engines: Data (organic search results) was collected from Google, Bing, and DuckDuckGo.
    - Geographic Context: To account for differing healthcare systems and cultural norms, the data collection spans two distinct regions: Germany and the United States.
    - Query Design: We used a diverse range of queries related to Sexually Transmitted Infections (STIs), including HPV, syphilis, chlamydia, and gonorrhea. In total, we used 40,845 keywords from Germany and 71,393 keywords from the USA. To generate the queries for the study, we utilized the Query Sampler (Schultheiß et al., 2023) from RAT.
    - Data Cleaning: After data cleaning to remove erroneous entries, 118,247 search results remained in the current dataset for analysis.

The current phase of the project involves a descriptive and exploratory analysis of the retrieved SERPs (Search Engine Result Pages) to investigate the visibility of different types of information providers and how their representation varies across search engines and countries.

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3. Preliminary Results

Preliminary findings will be available by the time of the conference and are expected to shed light on source diversity and algorithmic differences across search engines.

4. Conclusion and Outlook

This poster presents the current state of a large-scale, ongoing research project. By showcasing these first descriptive insights, we aim to demonstrate the utility of tool-based search auditing for public health research. The goal of this presentation at SEASON 2026 is to discuss these preliminary patterns with the interdisciplinary research community to further refine our research questions and hypotheses. Ultimately, this work contributes to understanding how search engines mediate access to online sexual health information and how country-specific differences in information visibility may affect the digital health information environment. Furthermore, the findings illustrate the heterogeneous nature of search engine results, where information from different provider types may differ in their presentation and communication approaches, potentially influencing how users access and interpret online health information.

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