

## **Uncovering patterns in political search with survey and tracking data**

*Keywords: search engines, politics, news, web tracking, survey*

**Research Question/Motivation:** Search engines represent a vital but understudied point of access for political information. Voters trust search engines to find up-to-date information on political parties and candidates, as well as to supply appropriate news items on issues relevant to them, from the COVID-19 pandemic to climate change and the war in Ukraine. While individual parts of the search-result-reception process have been studied, the connection between the characteristics of users, search behavior and search results is poorly understood (Slechten et al., 2021). Analyses have sought to delineate the effects of algorithmic personalization on results (Unkel & Haim, 2021; Urman et al., 2022) and examined the (non)representation of issues in response to politically salient queries (Courtois et al., 2018; Kravets & Toepfl, 2021), but have often done so relying on automated querying by scripted agents, rather than authentic human behavior (Ribeiro et al., 2023). The role of search engines has also come into focus in research that incorporate web tracking data in order to study news consumption (Jürgens & Stark, 2022; Scharkow et al., 2020; Wojcieszak et al., 2022).

**Data:** We present preliminary results of a study that tracked the mobile and desktop-based search behavior of 3,257 German internet users from March-August 2022, encompassing over 1.1 million organic search queries. Study participants were recruited from a commercial market research panel that included voluntary ongoing collection of desktop-based and smartphone-based browser use. Initially, we explore individual-level factors that predict political searches, differentiated into political *actors* and political *issues*. With that, we investigate a classic social science question: which individual-level factors predict an issue-orientation (“hard news”), vs. an interest in political actors with a high news value that are more prominently featured in “soft news” coverage (Baum, 2002). Relevant queries were determined according to predefined dictionaries of terms relating to German political actors (politicians and parties) and current political issues (Ukraine, inflation, and climate change). These yielded 549 and 3,832 search queries (from 203 and 747 users) respectively. We first examine characteristics of search users and then proceed with an analysis with the types of websites they visit after searching. News sites in the tracking data were categorised according to their type, e.g., from legacy press or hyperpartisan news (Stier et al., 2020).

We formulate two research questions:

*RQ1: What individual-level differences exist between users searching for politically salient issues vs. those who search for political actors?*

*RQ2: What differences exist between websites viewed following searches for politically salient issues vs. results for searches for political actors?*

**Preliminary results:** Approximately 5% of all domains visited after a search query were news, 8% were social media sites, and just under 5% further search pages. When querying for political actors or politically relevant issues, participants accessed news sources twice as often than the baseline proportion amongst all searches in the sample. The proportion of searches leading to social media sites was 36% greater following actor-based searches compared to the baseline. By contrast, for issue-based queries, the opposite was true, with the proportion of social media sites one third lower than the baseline.

**RQ1:** We also find intriguing differences between groups of users (**Figure 1**): Political actor searchers and issue searchers and are slightly older than searchers in general (46/45 vs. 44). All three groups have a larger share of male than female participants, with a slightly greater male proportion for issue searchers. Both issue searchers and political actor searchers have a greater share of high earners than the baseline (19% and 17% compared to 12% for all searchers). A considerably higher share of issue searchers has a university qualification exam

(German “Abitur”). The tendency also exists with political actor searchers, but is less pronounced. The same is not true of respondents with an undergraduate degree (38% and 31% compared to 26%). The share of overall news consumption online is higher for both groups (4% and 3%) than for the baseline (2%). Finally, political actor searchers have a higher average number of page views and spend more time online than searchers in general, while issue searchers spend less time than the baseline and are located substantially lower in the activity ranking.

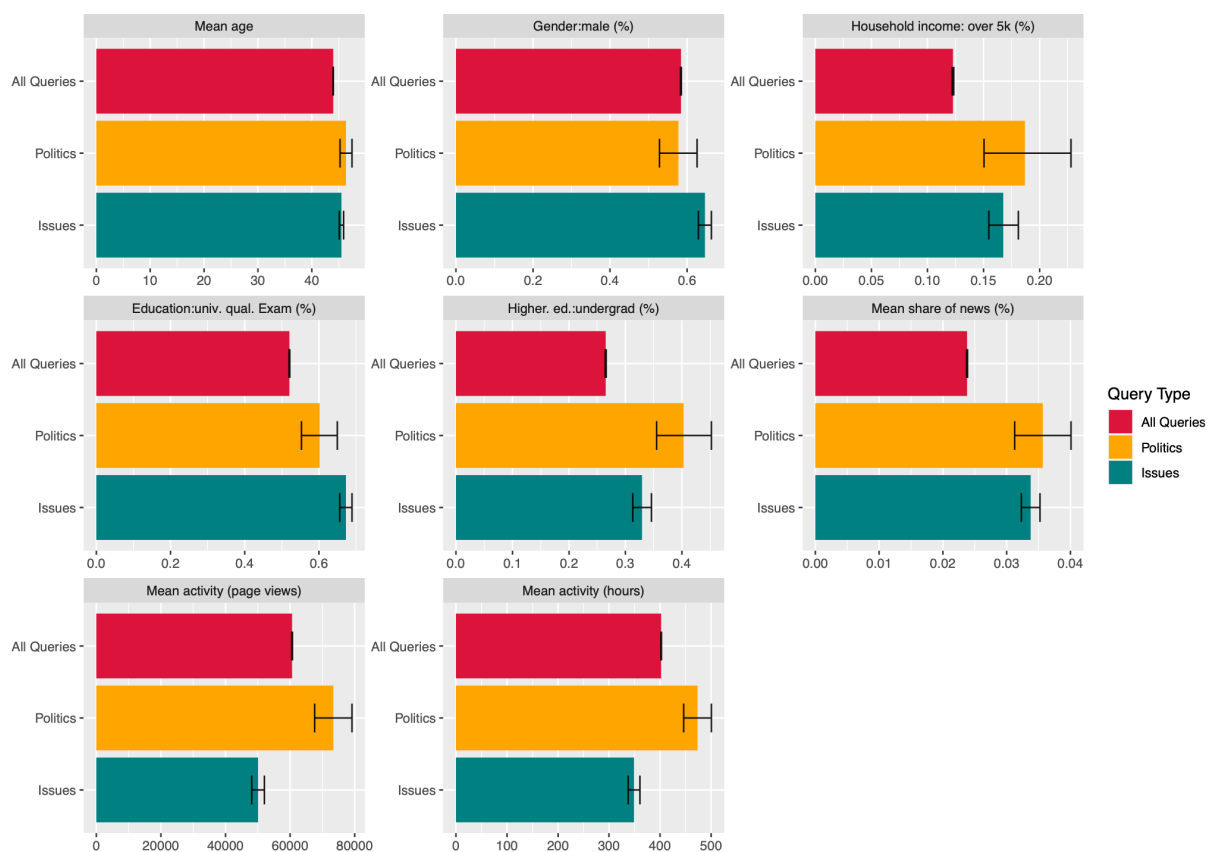
**RQ2:** Delving further into the distribution across different types of news in selected results after a query (**Figure 2**), a similar pattern of either sameness or total divergence emerges. The majority of news types including Legacy Press, Public Broadcasters, Commercial Broadcasters and Hyperpartisan news all saw relative increases of between 60-90% for both issues and political actors. Digital-born news outlets and tabloids saw more moderate increases, and then only following queries on political issues. For both these categories the proportion of domains following queries on political actors was markedly reduced, particularly tabloid sources. This may be an indication of perhaps the relative levels of trust afforded to different types of news when seeking information on hard news, or alternatively a reflection of the type of content a tabloid has to offer over a public broadcaster.

**Discussion:** Our results suggest that differentiating political information seeking strategies (here searchers for political actors on the one and political issues on the other hand) and investigating differences between those who employ them has significant potential, methodological issues notwithstanding.

## **References**

- Baum, M. A. (2002). Sex, Lies, and War: How Soft News Brings Foreign Policy to the Inattentive Public. *American Political Science Review*, 96(1), 91–109.
- Courtois, C., Slechten, L., & Coenen, L. (2018). Challenging Google Search filter bubbles in social and political information: Disconfirming evidence from a digital methods case study. *Telematics and Informatics*, 35(7), 2006–2015.
- Jürgens, P., & Stark, B. (2022). Mapping Exposure Diversity: The Divergent Effects of Algorithmic Curation on News Consumption. *Journal of Communication*, 72(3), 322–344.
- Kravets, D., & Toepfl, F. (2022). Gauging reference and source bias over time: How Russia’s partially state-controlled search engine Yandex mediated an anti-regime protest event. *Information, Communication & Society*, 25(15), 2207–2223.
- Ribeiro, M. H., Veselovsky, V., & West, R. (2023). The Amplification Paradox in Recommender Systems (arXiv:2302.11225). *arXiv*.
- Scharkow, M., Mangold, F., Stier, S., & Breuer, J. (2020). How social network sites and other online intermediaries increase exposure to news. *Proceedings of the National Academy of Sciences*, 117(6), 2761–2763.
- Slechten, L., Courtois, C., Coenen, L., & Zaman, B. (2021). Adapting the Selective Exposure Perspective to Algorithmically Governed Platforms: The Case of Google Search. *Communication Research*.
- Stier, S., Kirkizh, N., Froio, C., & Schroeder, R. (2020). Populist Attitudes and Selective Exposure to Online News: A Cross-Country Analysis Combining Web Tracking and Surveys. *The International Journal of Press/Politics*, 25(3), 426–446.
- Unkel, J., & Haim, M. (2021). Googling Politics: Parties, Sources, and Issue Ownerships on Google in the 2017 German Federal Election Campaign. *Social Science Computer Review*, 39(5), 844–861.
- Urman, A., Makhortykh, M., & Ulloa, R. (2022). The Matter of Chance: Auditing Web Search Results Related to the 2020 U.S. Presidential Primary Elections Across Six Search Engines. *Social Science Computer Review*, 40(5), 1323–1339.
- Wojcieszak, M., Menchen-Trevino, E., Goncalves, J. F. F., & Weeks, B. (2022). Avenues to News and Diverse News Exposure Online: Comparing Direct Navigation, Social Media, News Aggregators, Search Queries, and Article Hyperlinks. *The International Journal of Press/Politics*, 27(4), 860–886.

**Figure 1 - Characteristics of search users by type of query**



**Figure 2 - Distribution of news types by type of query**

