Personality and Information Behavior in Web Search
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1 Research Question

Recent research suggests that there is an influence of personality on different aspects of Information Behavior. However, there is a lack of research regarding actual behavior in the context of Web Search as a now dominant type of information behavior.

To operationalize the concept of personality we use the well-known Big 5 Personality Traits. It depicts human personality on 5 scales.

- Neuroticism: tense, anxious, shy, pensive
- Extraversion: sociable, talkative, domineering, clear
- Conscientiousness: dutiful, systematic
- Openness: curious, tolerant, eclectic
- Agreeableness: friendly, altruistic

2 Methods

The study was conducted as a laboratory experiment. Participants had to perform web search tasks using Google Chrome on a laptop. The sample consisted of 30 participants, mostly students.

- Tasks were recorded using screen capture software
- With the help of a click-counter plugin and analysis of the videos
- Participants had to find information for a specific subject (radio waves and brain tumours). They had to mark relevant web documents as favorites and store them in a “favorites” folder in their browser.
- Further data concerning the personal judgement of the subject’s search was collected with Post-Task-Questionnaires.

3 Results and Discussion

Neuroticism correlates:
* positively with the Number of Visited Pages
* positively with the Back Button Usage
* negatively with the Clicks per Page
* negatively with the Query Length

Participants with high Neuroticism:
- Visit many pages but interact very little with them → typical reservation of persons with high Neuroticism
- Have a relatively short query length
- The high level of back button usage hints at problems with relevance judgement, as results are clicked at first only to found irrelevant in the next step

Extraversion correlates:
* positively with Complexity Ratings for Task 2
* negatively with the judgement of their own (scientific) information literacy
* positively with the Duration for Task 2

Extraverted Participants:
- Had problems executing Task 2, which required scientific information literacy
- Took longer for the task, judge it more difficult and have a less favorable opinion of their own search capabilities

Conscientiousness correlates:
* positively with the statement to search goal-oriented
* positively with the Visited Pages per Minute
* positively with the Clicked Results per Minute
* positively with the Back Button Usage

Conscientious Participants:
- Have a high level of activity
- Use an exhausting exploitation of the search space by visiting a lot of results
- Tend to search in a rather linear way and more carefully, as they use more back button clicks and avoid multi-tab usage in the browser
- Overall strategic and directed in their search behavior
- Consistent to research, conscientious participants put more effort into their search

Openness correlates:
* positively with the Satisfaction with the Search Results
* positively with the Duration
* positively with the Median Rank of Results clicked on a SERP

Openness Participants:
- Take more time for their search
- Tend to click at results at higher rank positions, possibly on SERP two or three → may be related to the curiosity of open people
- Use a broader but also more satisfying search strategy

* Agreeableness didn't show any important results