



RAT – RESULT ASSESSMENT TOOL

A TOOL FOR DESIGNING AND CONDUCTING STUDIES WITH SEARCH ENGINE DATA

The Result Assessment Tool (RAT) is a software toolkit for conducting large studies using results from (commercial) search engines and other information retrieval systems. The software combines modules that enable the design and management of studies, the automatic collection of search results through web scraping, and the assessment of search results by judges using scales in an assessment interface. Due to the flexibility of the RAT, it is possible to implement a variety of study types. In addition to classical retrieval tests, classification studies as well as qualitative content analyses and empirical data analyses can be implemented on the basis of the search results. Thus, the RAT can also be used across disciplines. To ensure sustainability, (1) a community of users and developers will be established and (2) the software will be developed according to the principles of user-centered design (UCD).

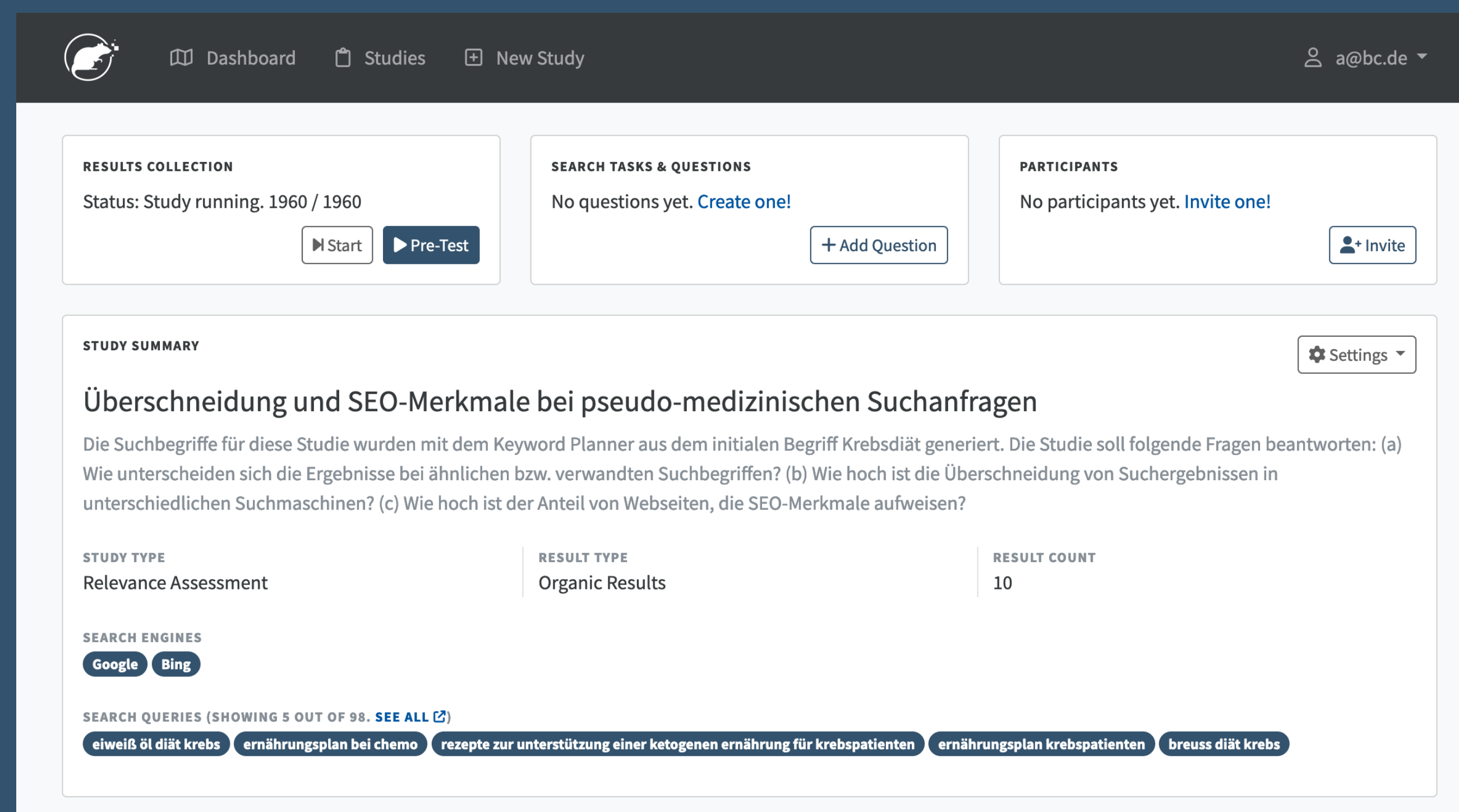


Fig. 1: Overview page of a created study

01

CREATE STUDY

- SELECT SEARCH ENGINES
- SET SEARCH QUERIES
- SET RESULT OPTIONS

02

COLLECT RESULTS

- RECEIVE UPDATES ON THE STATUS OF YOUR RESULTS COLLECTION

03

EVALUATE & ANALYZE

- CREATE QUESTIONS
- INVITE PARTICIPANTS
- VIEW STATISTICS

04

EXPORT RESULTS

- DOWNLOAD SEARCH RESULTS, USER REVIEWS AND ANALYSIS

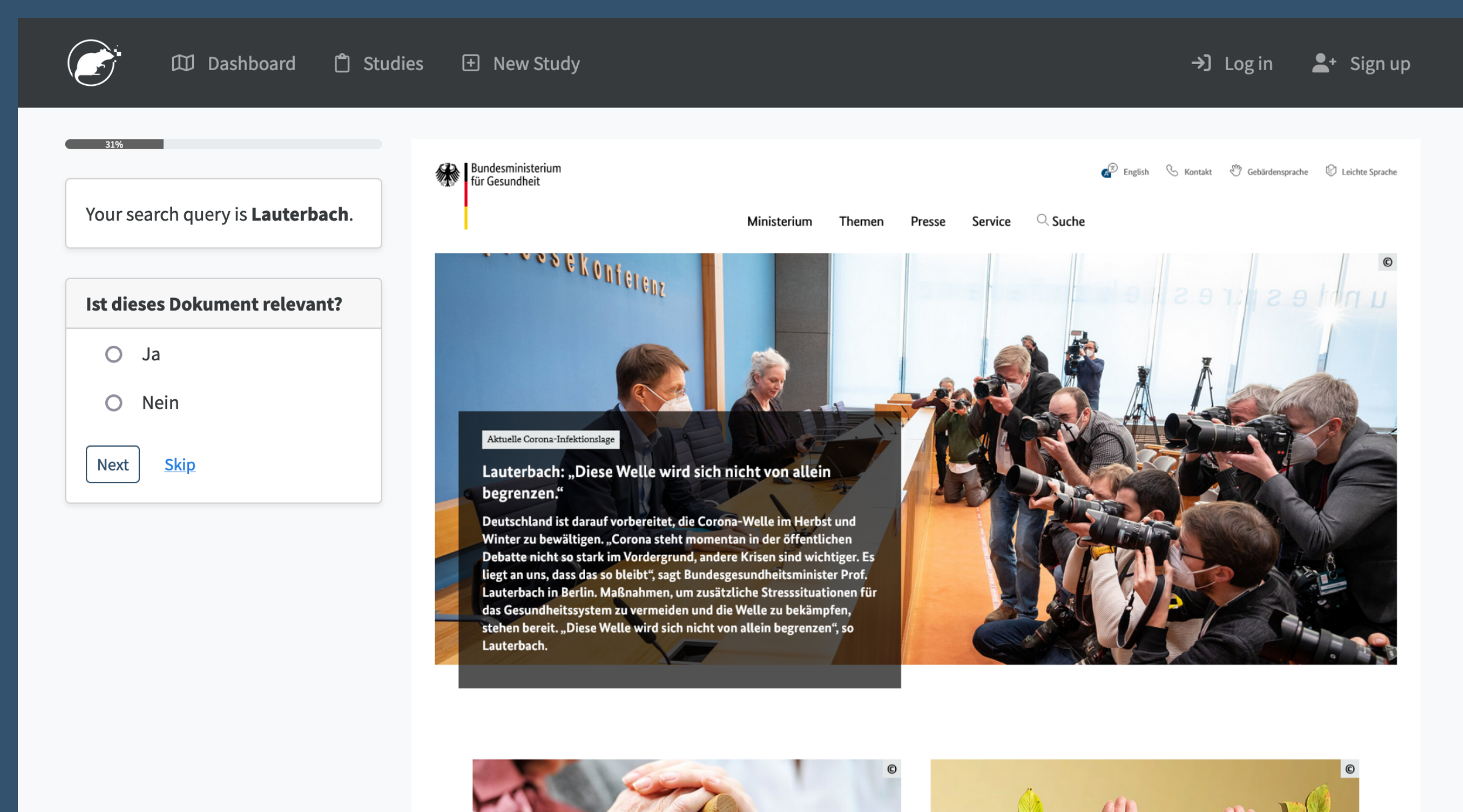
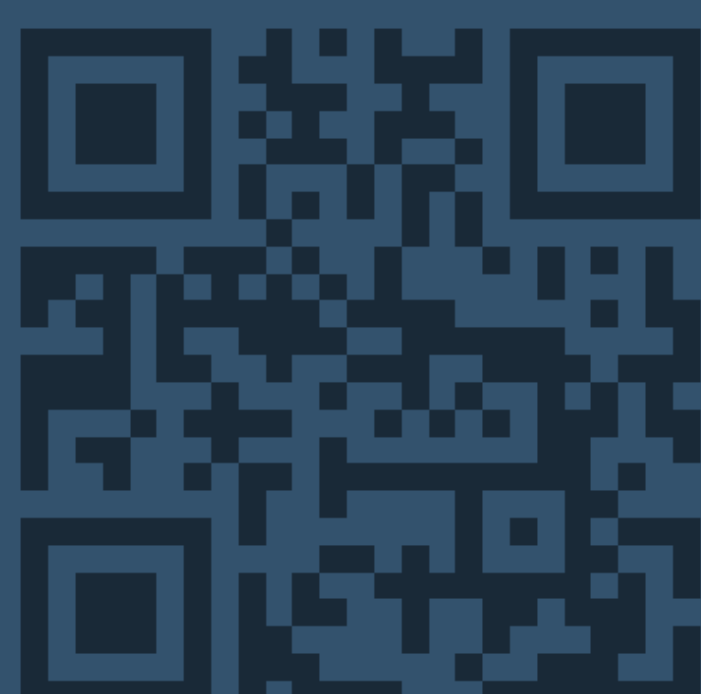


Fig. 2: Juror interface with evaluation options (left) and document to be evaluated (right)

The RAT is a flexible web-based software developed in Python with a PostgreSQL database and Selenium as the technology for web scraping. The RAT is easily accessible to researchers and study participants via a web browser. While researchers have access to an interface to design the study, participants can also use a web interface to evaluate the search results for the predefined questions. The tool is designed to be flexible enough to accommodate all studies based on search results.

POSSIBLE STUDIES WITH THE RAT

- RETRIEVAL EFFECTIVENESS STUDIES
- CLASSIFICATION STUDIES
- OVERLAPS OF SEARCH RESULTS
- QUALITATIVE CONTENT ANALYSES
- DETERMINATION OF SOURCE DISTRIBUTION WITHIN SEARCH RESULTS
- MEASUREMENT OF SEARCH ENGINE OPTIMIZATION
- ...



DEMO:
TINYURL.COM/RAT-SOFTWARE