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Fourscore: Concept of a tool for automated usability evaluations

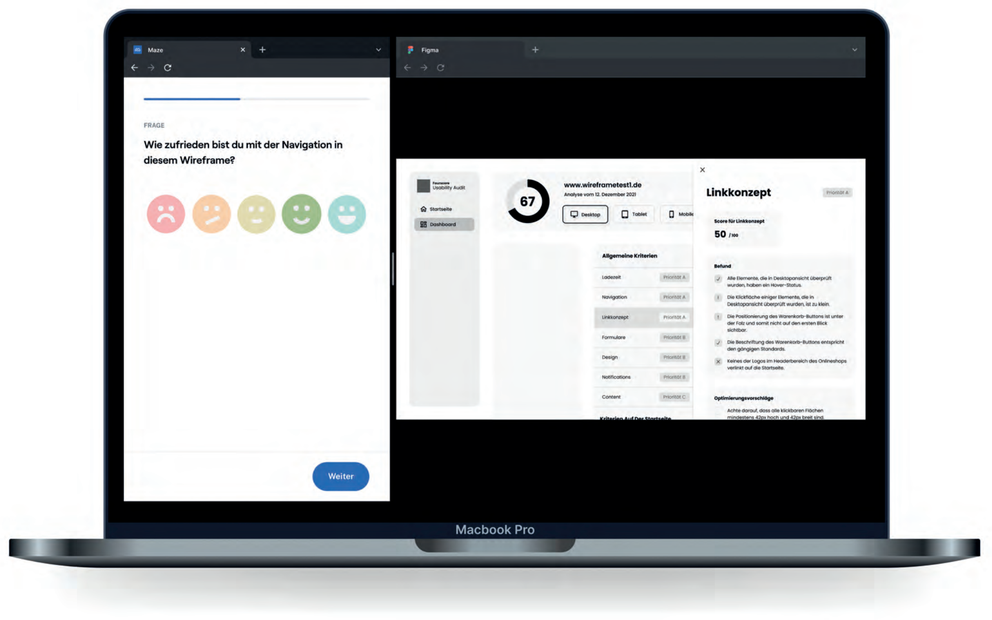
Screenshots of the start screen and dashboard

Abstract

Usability is one of the most important success factors of an online store. In order to facilitate the search for usability errors, this paper develops a concept for a tool that enables the automated usability evaluation of such stores and displays it in the form of an audit. The concept is developed based on the Lean UX approach and the user centered conception. In particular, the information architecture of the tool is explored through interviews, card sortings and wireframe preference tests. The result is the interaction concept with a final information architecture and logic as well as a prototype of the tool Fourscore. Since further questions and aspects arise during the work, the concept can be used as a basis for further development but is not suitable for final implementation in this form.

Special Focus

This study puts special emphasis on an iterative development of a tool that evaluates the usability of an online shop automatically. Three user tests are conducted according to Lean UX. Each test focuses on one specific question which is to be answered by using hypotheses and appropriate measurements. The three conducted tests focus on what the five most relevant information for an autonomous usability evaluation are (“Which five relevant pieces of information must a standardized usability assessment of an online store include in order to offer online store operators added value?”) as well as the ideal representation of this relevant information (“What is the best way to present the results of the standardized usability assessment so that online store operators can draw information from it efficiently, effectively and satisfactorily?”). The minimum viable products (MVPs) and prototypes are reduced to necessary functions only to validate the defined hypotheses and to answer the questions.



Insights into one of the user tests using maze.co and Figma

Overview of the results of the user tests

Result and Future Work

Fourscore, a tool for automated usability evaluations, is able to spark the interest of the demanding target group including UX designers, e-commerce managers and online store operators. The results of the user test encompass

1. the third proposal of the information architecture for the tool,
2. the logic behind Fourscore: a total of 114 usability criteria are defined, the evaluation matrix for nine criteria as well as the basis of calculation for the score and relevance and
3. a prototype for the current version of the tool.

However, more tests are necessary to ensure the reliability of the data and to develop further features. This results in more user research to be conducted in the future. In addition, the outcomes of this thesis are to be validated and discussed with experienced programmers.

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