

Impact of Characteristics of Individuals on Evaluating the Quantitative Studies

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At present, usability tests and associated user studies are still in development. It is convenient and tempting to perform an experiment on a larger group of participants at the same time, especially only in a slight increase of time cost. Quantitative surveys are used for generalization of the results of the larger sample. When we consider that every user has different qualities, skills and experiences, we could expect that the results of testing will get different values. Recent usability studies in web domain are based on different metrics, but the question is how to apply metrics to evaluate a larger group.

Individuality, as a set of characteristics in a given establishment, distinguishing two people from each other, is considered as one of the important factors with great impact on the results of the studies [2]. Already in a study from 1989 were defined three variables most affecting the user experience: experience with the system, experience with computers in general and knowledge of the task domain. The user information behaviour is very individual and differs according to experiences, knowledge, goals, location and social contexts [1]. The basic characteristics: gender, age, position, experience, education level [3] also form behavioural change. One of the recent study about rethinking ICT (Information and Communication Technology) literacy [4] claims, that concept of ICT literacy has drastically changed in last twenty years from being very specific set of knowledge of these technologies, to its current definition of very general and transversal skill of this century. Such that, also previous simple measuring of computer use was replaced by integration the technology across educational areas and understanding it as a developmental progress in skills and thinking.

We assume that quantitative studies will provide more accurate results with information enriched with personality traits. In order to discover the different influences, we plan to conduct the qualitative experiment on a larger sample of participants. User testing could be simpler with additional information about user skills, e.g. for example web or computer literacy. In our work we try to reveal common relations between web

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literacy and working in web environment. Especially differences in web usage by one of the groups of participants (either with higher web literacy or lower web literacy) should point us towards better understanding of basic principles of this topic.

Basic motive for the application of the method is in comparing participants with greater literacy and participants with lower web literacy. A prerequisite is to obtain information from the user's behaviour on the Web. We believe that we can discover suitable tasks to estimate web literacy of participants. Web literacy is estimated using questionnaires. We want to find basic patterns in searching for areas on the website where we take two groups of participants as a basis - experienced and less experienced. Subsequently, we plan to compare the differences in determining the position of an element, as further described in section Evaluation. We mainly focus on the variance in the response. We search for signs of correlation also in a time it takes to perform individual tasks. The duration of the experiment is unlikely to be significant because it can be affected by several factors such as the speed of comprehension, reading speed, and many others.

We have proposed an outlines for method of estimating web literacy based on the tracking of user behaviour in a web environment. This paper is dedicated to researching web literacy of ordinary users on the internet, especially on websites. User experience is verified through the questionnaire, while questionnaire consists of three parts. The first part examines literacy by selecting the proper icon. In the second part the user was asked to identify the various areas of website on examples of real web pages without content representation, so it examined literacy linked with the observation position of the various items, such as "cart" or "search by keyword". In the third part, we examined user knowledge used in practice through a questionnaire with alternative answers. Thanks to gaze tracking and speed of response we had the opportunity to evaluate their knowledge in various fields, as well as the topics that took greater amount of time.

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