Classifying user experience of Web applications in real time using client logs

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Abstract. *With the increasing use of the Internet, the Web has become the pre-dominant means by which people obtain information. However, due to the rapid growth of the amount of resources available on the Web, users want to find information quickly and efficiently. Currently, web personalization has been explored to allow this, in order to encourage user feedback, improve usability and provide interesting content. In the literature, the most common approach is to analyze server logs. However, server logs do not provide information prior to the decision of a user when accessing a specific page. Already client logs collected in the user's browser allow detailed analysis of user interaction. The amount of data of the client logs is significantly greater than the amount of server logs, and this is one factor that discourages analysis of client logs. In this paper, an approach is presented to classify the level of user experience in real time, using indices of efficiency and effectiveness and notifying the Web application about the results for a decision to be taken. The proposed approach, named RUX (Real-time User eXperience), contains an efficient algorithm for analyzing the behavior of users of web applications in real time using client logs. RUX focuses on the paths that a user goes through during the interaction, comparing them to previously defined tasks. Experimental results show that the approach is efficient for aspects of data collection, latency and scalability.*

Keywords: Usability, Task analysis, Real time, User experience

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