The Impact of Context on the Usability of Wireless Devices

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Abstract

Wireless devices are becoming increasingly popular, having already reached over 1 billion mobile subscribers. As consumers' technology fears and adoption costs are reduced, wireless devices are approaching "mainstream" status around the developed world. Wireless devices propose increasing value to consumers found in "anytime / anywhere" connectivity, communication, and data services. Although progress has been made in terms of technological innovations, many mobile applications remain difficult to use, lack flexibility and robustness. Some key usability challenges facing m-Commerce applications include limited screen size and quality, limited input methods and navigation difficulties. Additionally, the mobile user has to share his or her attention between the application and the surrounding environment. These considerations are represented by the *"context of use"*, which is made up by the interface, task, environment, and user characteristics. The main objective of the proposed research is the evaluation of the impact of context on the usability of wireless devices. During this study the following three research questions will be investigated: how does usability affect a consumer's intention to use a wireless device, how does context of use impact the usability of wireless devices, and what are the implications of context on the design of wireless devices. The experiment will involve a 2x2 design, where the independent variables are the environment (i.e. lighting) and the user (i.e. mobility), while the dependent variables are the antecedents of usability, namely the efficiency and effectiveness of, as well as the user satisfaction with, the wireless device.

Constantinos holds an M.B.A. in e-Business from McMaster University and a B.Eng. in Aerospace from Carleton University. Constantinos was a speaker at the World Congress on the Management of e-Business. His work has been published in the Quarterly Journal of Electronic Commerce, the Canadian Journal of Administrative Sciences, and the book "Wireless Networks and Telecommunications".

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