

## Human-Computer Interaction: Strategies for Ensuring the Design of User-Centered Web Interfaces for Smartphones

**Authors :** Byron Joseph A. Hallar, Annjeannette Alain D. Galang, Maria Visitacion N. Gumabay

**Abstract :** The widespread adoption and increasing proliferation of smartphones that started during the first decade of the twenty-first century have enabled their users to communicate and access information in ways that were merely thought of as possibilities in the few years before the smartphone revolution. A product of the convergence of the cellular phone and portable computer, the smartphone provides an additional important function that used to be the exclusive domain of desktop-bound computers and portable computers: Web Browsing. For increasing numbers of users, the smartphone and allied devices such as tablet computers have become their first and often their only means of accessing the World Wide Web. This has led to the development of websites that cater to the needs of the new breed of smartphone-carrying web users. The smaller size of smartphones as compared with conventional computers has provided unique challenges to web interface designers. The smaller screen size and touchscreen interface have made it much more difficult to read and navigate through web pages that were in most part designed for traditional desktop and portable computers. Although increasing numbers of websites now provide an alternate website formatted for smartphones, problems with ease of use, reliability and usability still remain. This study focuses on the identification of the problems associated with smartphone web interfaces, the compliance with accepted standards of user-oriented web interface design, the strategies that could be utilized to ensure the design of user-centric web interfaces for smartphones, and the identification of the current trends and developments related to user-centric web interface design intended for the consumption of smartphone users.

**Keywords :** human-computer interaction, user-centered design, web interface, mobile, smartphone

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