Chapter 2.1

Perceptions of Mobile Device Website Design:
Culture, Gender and Age Comparisons

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ABSTRACT

Anytime anywhere services offered through mobile commerce hold great potential to serve customers in wireless environments. However, there is limited understanding of how mobile Web site design is perceived by diverse users. This chapter explores how users who differ by culture, age, and gender perceive the design of a mobile device and their subsequent level of satisfaction with the device. Sixty subjects were tested in a controlled laboratory experiment on an Internet enabled phone. The results of a quantitative analysis were statistically inconclusive in terms of cultural and gender differences, but significant differences were found between older and younger users. However, an in-depth qualitative analysis of interview transcripts revealed some interesting differences among cultural, gender and age groups. Consistent with findings in the stationary Internet domain, design elements were found to impact satisfaction with mobile services.

INTRODUCTION

Organisations will be well served to not be complacent with their wireless site design efforts… [But] before wireless site designers can address the usability challenge, and before organisations can leverage the commercial benefits of m-commerce, a deeper understanding of what aspects of usability is important to users and how they may differ in a wireless context is required. (Venkatesh et al., 2003, p.56)

Mobile commerce[1] (or m-commerce) has huge potential to serve customers in wireless environments. The adoption of m-commerce is dependent on consumer acceptance of new and well-designed technologies (Ancker & D'Incau, 2002; Coursaris et al., 2003: Kim et al., 2002; Kumar & Zahn 2003; Nysveen et al., 2005; Perry et al., 2001; Schrott & Gluckler, 2004; Yang, 2005). It is expected design characteristics may influence user perceptions towards a mobile device. Congruent with work done by Cyr (2008), Information Design (ID), Navigation Design (ND), and Visual Design (VD) may all contribute to user adoption of a technology, as well as to satisfaction with a mobile technology.

Concerning user attitudes of handheld devices, it is also expected that diverse categories of users based on culture, gender, or age may react differently to using the device. There is growing literature on cross-cultural website design, mostly evaluated within the context of the stationary Internet (Becker, 2002; Chau et al., 2000; Cyr, 2008; Cyr et al., 2006; Cyr & Trevor-Smith, 2004; Marcus & Gould, 2000; Sun, 2001). More recently, research has examined culture and mobile data services (Choi et al., 2006). Investigations have likewise examined gender and design in the context of mobile devices, but research results are mixed (Anckar & D'Incau, 2002: Kwon & Chidambaram, 2000; Teo et al., 1999). Finally, research that examines cohorts by age (younger versus older users) is practically nonexistent when design is considered, although some studies have focused on special needs and preferences of older users (Goodman et al., 2005), or features of a mobile device perceived by user groups as adding value (Anckar & D'Incau 2002).

To explore the role of user differences concerning the perception of the design of a mobile device, users who differ on cultural, gender and age dimensions were tested on an Internet enabled cellular phone. Related to culture, Canadian and Chinese cultures were chosen due to acknowledged diversity (Hofstede, 1980). Between-group comparisons were conducted with respect to screen design (including information design, navigation design, and visual design), and satisfaction with the mobile device. In an exploration of these topics, the paper provides a review of relevant literature leading to the hypotheses for testing, the methodology used, an elaboration of results, and discussion of the findings. Given the increased diversity of mobile users, developing an expanded understanding of user perceptions and preferences not only has theoretical importance, but also serves to enhance the reengineering of devices to best meet consumer requirements.

MOBILITY AND DESIGN

In the realm of the stationary Internet, effective website design engages and attracts online consumers (Agarwal & Venkatesh, 2002; Fogg & Tzeng, 1999; Hui & Triandis, 1985; Morgan & Hunt, 1994; Schultz, 2003). According to Gommans et al. (2001), 'A website has to be designed for a targeted customer segment…' Chau et al. (2000) argue the modes of information presented on the Internet, and the quality of graphics has a significant impact on user experience. Research in design suggests various guidelines for effective Web navigation (Childers et al., 2001; Farkas &

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