Chapter 2.2
Paralingual Web Design and Trust in E–Government

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ABSTRACT

Can Web design improve the way governments serve their constituencies through the use of information technology [i.e., e-government]? This article proposes that the use of paralingual Web design can overcome possible trust issues in e-government with bilingual populations. An experiment was conducted where active e-government Web pages were converted to paralingual format and then site visitors were surveyed regarding their trust in the content and readability. The results of the experiment show that trust was improved for the minority language speakers, while the majority language speakers remained neutral with neither group indicating significant decrease in readability. These findings have important implications for societies with large bilingual or multilingual populations, where issues of trust among minority speakers and majority speakers may exist, as they indicate that paralingual Web design can help reduce these trust issues.

INTRODUCTION

Electronic government (e-government) is the use of Information and Communication Technologies (ICT), including the Internet, by government organizations to facilitate providing information and services to their constituents. E-government Web sites provide everything from basic information about governmental bodies and issues, to online services such as registering vehicles and applying for employment and for permits. More recent e-government services include e-

consultation, which is citizen participation and response to forthcoming consultations and decisions on matters of public interest (Jadu, 2005). The impetus to implement e-government can be attributed to cost control and improved service to citizens. Another driver is government's growing awareness of the need to attain more democratic governance (Coleman and Gotze, 2001; OECD, 2001), coupled with a widespread public interest in the potential of ICT to empower citizens and to increase government accountability and transparency (Hart-Teeter, 2003). An example is the United States E-Government initiative targets use of improved Internet-based technology to make it easier for citizens and businesses to interact with the government, save taxpayer dollars, and streamline citizen-to-government communications (USOMB, 2005). These many drivers make it likely that e-government will be a lasting ICT application leading e-government system designers to look for tools and methodologies that will ensure their acceptance and use by the intended users.

This article introduces one such potential design methodology, paralingual Web design, and uses an experiment to test this design methodology to see if it has potential for improving system acceptance and success. Paralingual is a Web design methodology for presenting information in more than one language. Paralingual Web design involves placing content in the desired languages but instead of having separate pages for each language as is common in a bi or multilingual Web design, the bi or multilingual content is placed side by side on the same page. The inspiration for this article is the trend towards localization in ecommerce systems and a concern that there may be a localization issue for e-government when the target population is bi or multilingual. Localization is defined by the Localization Industry Standards Association (LISA, 2008) as the process of modifying specific products or services for specific markets. In the case of e-government this involves tailoring e-government Web sites

to fit the constituent market and in the case of a constituent market that speaks more than one language, allowing for these multiple languages. The concern driving this experiment is that there may be a trust issue affecting the success/adoption of e-government should these systems fail to take into account the bi or multi lingual aspects of their constituents.

A premise of information systems, IS, is that for an IS to be successful the intended system users must "use" the system where Rai et al. (2001) consider "use" to be the consumption of the outputs of the IS by the users as measured in terms such as frequency of use, amount of time of use, numbers of access to the IS, usage pattern, etc. General thinking is that the more an IS is used, the more successful the IS. Two of the more widely accepted IS success/acceptance models, the DeLone and McLean (1992 and 2003) IS Success Model and the Davis (1989) Technology Acceptance Model, TAM, incorporate "use" as a measure of success (DeLone and McLean) or successful adoption (TAM) through constructs such as Intent to Use, Perceived Usefulness, and Perceived Ease of Use.

Several authors (Gefen, et al., 2002; Tan, et al., 2005, Tan, et al., 2008, Warkentin, et al., 2002) suggest that use of e-government is influenced by the trust that potential users have with e-government. This article hypothesizes that this trust in e-government, and thus subsequent use, can be increased in bi and multi lingual societies by using paralingual Web design. This allows readers who are bilingual to easily see both versions and readily determine if the same information is being said in each version. It is expected that trust will be increased through this citizen validation process.

The contribution of this research is showing designers of e-government Web pages how the Web pages can be designed to improve trust in a bi-lingual constituency. While this research did not test this design approach in a multi-lingual environment it is expected this design can also

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