

Chapter 30

Public Information Services for People with Disabilities: An Accessible Multimedia Platform for the Diffusion of the Digital Signature

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ABSTRACT

The current chapter introduces an accessible multimedia platform applied to the diffusion of the digital signature. The project presented in this chapter is a multimedia initiative to promote the use of information technology (IT), specifically, the digital signature. Through the modeling of typical daily situations, the platform provides simple responses to any uncertainties or concerns a user may hold about the digital signature, and the advantages which its use entails. The multimedia system has been designed to support subtitling and audio description facilities, with the objective of enabling access to the diffusion of E-government to persons with an auditory or visual disability. The results of the evaluation of the platform by test users of the system are positive, and have initiated the continuation of developments which encourage E-inclusion.

INTRODUCTION

Skelcher (1992) pointed out that since the mid-1980s, the public sector has undergone a service revolution as a result of the application of IT. As

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a consequence of this new approach, since the mid-1990s, governmental agencies had high expectations about the take up and increasing usage of electronic service channels (Ebbers, Pieterse & Noordman, 2008). According to Gil-García and Pardo (2005), technology provides two main opportunities for government: increased opera-

tional efficiency by reducing costs and increasing productivity, and better quality of services provided by government agencies. In this scenario, Electronic government (E-government) refers to governments' use of technology, particularly Web-based Internet applications to enhance the access to and delivery of government information and service to citizens, business partners, employees, other agencies, and government entities (Layne & Lee, 2001). Nearly every country in the world — from the poorest to the richest — has developed some form of it, and an extensive literature on the subject continues to grow (Ruth & Doh, 2007). Diverse studies have reported the benefits of the application of E-government. These include improved citizen involvement and contribution to government-related issues (Barnes & Vidgen, 2003), more transparent relationships (González, Gasco & Llopis, 2007), improved operations (Brunschwig, 2006), better government-citizen communication (Tolbert and Mossberger, 2006), lower overall costs (Fahnbulleh, 2005) and the improvement of citizens' perception of the public sector (Tolbert & Mossberger, 2006), among numerous other advantages. On the other hand, researchers have identified many open issues which are hindering the adoption of E-government in many countries. See Sarikas and Weerakkody (2007) for a comprehensive review. Within the pending issues identified by research, one particular issue emerged which is a crucial topic for the current work. This topic concerns guaranteeing the access to E-services from the perspective of accessibility. This requirement has been pointed out in a number of distinct studies, such as Fang (2002), Jaeger and Thompson (2003), Jaeger (2004), Al-Omari and Al-Omari (2006), Shy (2007) and Jaeger (2008). The importance of accessibility to E-government services is considered one of the criteria for the quality of the services offered. In fact, accessibility has become a fundamental characteristic which is included as a criterion for evaluation of the services offered by government bodies (see Bertot & Jaeger, 2006; Esteves & Jo-

seph, 2008). Particularly, initiatives coordinated by the EU (European Union) are being carried out to guarantee E-inclusion to people with disabilities. A broad report of the EU efforts can be found in Timmers (2008), or detailed separately for each member country of the EU in Strejcek and Strejcek (2002).

Nowadays, it is a fundamental challenge for government administrations to develop a diffusion strategy such that services can be communicated and available to all citizens. Unless citizens know what is available from the E-government, they will not likely seek to use its services, defeating the purpose of the development of E-government information and services (Jaeger & Thompson, 2003). According to Roger (2002), "diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in which the messages are about a new idea". Thus, in the context of citizens with disabilities, communication channels should be equally accessible, in particular those based on innovative media such as E-services. This chapter proposes an initiative for the diffusion of E-government, using accessible media for people with disabilities.

The remainder of the article has been structured as follows. Initially, the state of the art of the technologies is outlined. The subsequent section sketches how the project fits in the picture, explaining objectives, phasing and project evaluation. Lastly, the principal conclusions of the paper are presented, and some suggestions for resolving the problems encountered are outlined, as well as proposals for future research.

STATE OF THE ART

There are numerous studies dedicated to determining the digital gap in E-government which focus on the requirements of people with disabilities (for example, Pieterse, Ebbers & van Dijk,

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