

Chapter 2

Mobile Tourist Applications: Design Criteria, Status, and Trends

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ABSTRACT

Mobile guides have been in the spotlight for the past decade or so and are becoming increasingly available in various forms to tourists visiting places. The majority of these guides are to be used via a network connection and some as proprietary standalone mobile applications installed on-device. Some are solely navigational assistants used in large cities for exploratory services and others are used indoors as museum guides. This research chapter studies three main categories of mobile applications, namely, mobile guides, web-to-mobile, and mobile phone navigational assistants, using a detailed set of evaluation criteria to extract design principles that can be used by application designers and developers.

1. INTRODUCTION

The convergence of information technology, the Internet and telecommunications industry have generated massive changes in the tourism industry field. The tourism field has witnessed those changes as a result of the evolution of technologies used to spread information amongst tourists and the industry. Amongst other activities, tourists use information technology to search for destination

information regarding prospective places to visit and the industry makes use of such technologies to offer information to tourists. In addition, due to the increase of Web 2.0 technologies such as social networks, blogs and wiki's, tourists seek out information from their tourist peers. There are numerous Websites on hand that offer this sort of personal information space to tourists such as tourist blogs, tourist diary notes, and communication technologies to connect with family and friends and with others.

DOI: 10.4018/978-1-61520-655-1.ch002

In parallel, an increase in mobile phone usages for services other than voice calls and text messaging are also observed. This is owed to the mobile phone transcending from a traditional voice communication device to an instrument facilitating an interaction of the three major sectors noted above (Mobile Phones, 2009). The mobile phone sector is showing a large increase in mobile phones with personal navigational systems and at the same time there is an increase in the usage of the mobile Web platform (Press release, 2007). However, by nature, mobile phones will always have differences in comparison to the desktop computer; let it be screen size, input methods, or just capabilities. Also, there has been some advancement in mobile Web technologies, gone are the days of WAP based Web pages which have been replaced by dynamic XHTML pages and partial scripting compliance, making the mobile phone a strong predecessor of traditional Web technologies (e.g., mobile blogs, mobile Webmail, mobile sites). However, the mobile phone is still evolving which brings about problems in the making of standards. This has brought about the need for solutions which can compensate on constraints of mobile browser capabilities and the lack of device standards compliance. Current trends are showing an increase in the need of mixed mode Web applications running both on the static Web and the mobile Web (e.g., gmail, google maps, facebook, youtube). One of the most popular solutions of using the mobile Web in conjunction to the static Web is the use of robust stand alone applications running on the mobile phone which compensates on constraints of the mobile Web browser. Yet, due to the large number of mobile devices available amongst users each having unique features brings about issues of porting these mobile applications to fragmented mobile phones types readily available. Most mobile application developers build separate applications for each of the mobile devices the developers want to target bringing about large development overheads and the use of many man hours. This in turn has brought about issues of development

platforms and different variations in porting to mobile phone devices.

The question lies in what standards will prevail to facilitate tourists mixed mode usage of the Web in an static home/ office situation and what for the dynamic mobile situation in regards to mobile navigational tourist guide applications; what standards do developers have to build tourist Web applications running on the Web and what for the mobile phone sector. This chapter focuses on the evaluation of research and commercial mobile applications which are used by tourists (and not only) to get information, navigation, guidance or just cultural information using a mobile device. In this evaluation we envisaged design guidelines of a tourist platform which can be used by tourists on and off the Web in a static or in a mobile environment. The field of mobile tourism is in the spotlight constantly and has only been around the past decade. A large number of relevant projects were investigated yet a number of different issues such as, what are the criteria of such tourist platforms in question. To do this we evaluated a vast majority of Websites, Web applications, and mobile tourism guide applications, to extract design criteria for the development of such a mixed mode platform. Focus is given to mobile tourist guides systems running on any hardware architecture using or not a network connection medium; yet the main goal of this chapter is to extract design principles which can be applied to the technology infrastructure readily available to tourist regarding services offered via Web applications or mobile applications, on or offline, investigating proposed architectural solutions to such a desired mixed mode (static or mobile) user experience.

The remainder of this chapter is organized as follows: Section 2 groups the mobile guide applications into three categories and reviews a variety of issues relating to this evaluation. Section 3 summarises the projects in respect to the issues stated in Section 2. Section 4 reports our evaluation findings and Section 5 draws our conclusions.

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