

7th World Conference on Educational Sciences, (WCES-2015), 05-07 February 2015, Novotel
Athens Convention Center, Athens, Greece

Development of Mobile Web for the Library

Wei-Hsiang Hung^{a*}, Lih-Juan ChanLin^a

^a Department of Library & Information Science, Fu Jen Catholic University, Xinzhuang Dist., NewTaipei City 24205, Taiwan (R.O.C.)

Abstract

The university library provides information services aimed at fulfilling learning and academic research for students and faculty members. In the age of rapidly growing Internet technology, library websites have become a gateway to knowledge and the entrance for readers to access valuable resources and services. With the advancement of mobile technology in recent years, an increasing number of library readers have started to access library resources and services through their mobile devices. The information provided through a traditional website is too complex to be browsed with a mobile device, and users may also encounter some technical limits. Websites developed for mobile devices might overcome users' difficulties when reading heavily from traditional web pages. Mobile web helps overcome difficulties in searching for needed information and makes information more accessible. For any library, especially university libraries, developing mobile websites is becoming a necessary trend to satisfy users' mobile needs of exploring the world of knowledge. This study provides experiences of developing a mobile web for the academic library. Users' applications and reactions to the system are analyzed and summarized. Technological and implementation issues related to the construction of a library mobile web are discussed. Implications of the study results might provide valuable information for promoting a ubiquitous library service and information access.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of Academic World Education and Research Center.

Keywords: mobile web, mobile service, ubiquitous library, user services, user-centered design

1. Introduction

With the advancement of modern technology, the devices used for communication are becoming smaller and smarter. In recent years, the popularity of mobile devices such as smartphones and tablet PCs have changed the way of using the Internet and computers. Mobile services have become one of the important trends in academic libraries.

* Wei-Hsiang Hung. Tel.: +886-910-969-859; fax: +886-2-2901-7405.

E-mail address: loghung@gmail.com

Among library users, college students are the main group of users of technology products, and the emergence of mobile technology is also changing the way students retrieve and obtain information. According to a survey of ACRL (the Association of College & Research Libraries, 2012), about 55% of college students own a mobile device. Among these students, more than 66% use their mobile devices for academic purposes, 59% of them search for information online, and 24% use mobile devices to obtain library resources.

In order to cope with the needs of users in the ever-growing development of the mobile technological world, higher education begins to mobilize their teaching and learning services. Academic libraries are also joining the trend to provide mobile services to fulfill users' mobile needs. In the era of the Internet, library websites are an entrance to library resources and services. However, a website design for PCs is too complicated for users to read through and access the information they need via their phones. Therefore, a growing number of libraries are starting to offer a mobile web to simplify the operation of using their library website.

A mobile web is a mobile-friendly portal which offers a convenient interface for users when browsing a website with smaller screen size mobile devices (Kroski, 2008). When using a traditional PC website, a user might encounter obstacles and challenges, such as adaptation of screen size, computation capability, and bandwidth of Internet transmission. Providing a friendly mobile interface by restructuring the necessary library services and rearranging the content layout may free users from heavily reading and working with a limited screen size, and thus increase the efficiency of accessing information.

2. Relevant research on library websites design

In recent years, mobile technologies have become pervasive. Mobile devices are making rapid gains over notebook and desktop computers (Breeding, 2012). Most service websites now have a specially designed mobile version in order to fulfill the needs of users. The trend for implementing mobile webs by libraries is worth noting. A review of services provided by the mobile websites of several university libraries in Taiwan showed that various common services are provided, including: library introduction, news update, online search, personal circulation status, database link, selective resources, book recommendations, library space reservations, user instructions, and contact information. Woodbury (2010) suggests that libraries should consider feasibility and applicability before mobilizing library services. Several issues should be considered before implementation, including: services currently available, services applicable on a mobile device, the ability to translate services well into the mobile environment, and easy creation of tools.

To examine the design of library websites, research has employed various approaches related to user applications in the implementation of web services. For example, Battleson, Booth and Weintrop (2001) used the think aloud process to study the efficiency and usability of website design. Hsieh and Liu (2009) triangulated various user data for assessing the design of website usability, including usability tests, think aloud, in-depth interviews, and questionnaire survey methods. Iskam and Tsuji (2011), Joo, Lin and Lu (2011), and Iqbal and Warraich (2012) used the questionnaire survey method to assess users' responses to the interface design of library websites. For the use of mobile devices, both Pendell and Bowman (2012) and Yeh and Fontenelle (2012) conducted an experimental study to test the website usability for use with mobile devices (Table 1). From these assessments, the use of usability tests invites users to use the website to accomplish a list of structured tasks, so that researchers may evaluate the usability of the designed interface. In addition to testing usability, the use of survey questionnaires and interviews also invites users to provide both overall and in-depth reactions to the system. Diverse approaches to evaluating the interface designs of mobile devices are needed to obtain guidance for improving the usability and applicability of the design approach.

Table 1. Methods of implementing usability tests

Scholars	Year	Purpose	Methods
Battleson, Booth & Weintrop	2001	Website efficiency and usability	Usability test
			Think aloud
Hsieh & Liu	2009	Website usability	Usability test

Download English Version:

<https://daneshyari.com/en/article/1109010>

Download Persian Version:

<https://daneshyari.com/article/1109010>

[Daneshyari.com](https://daneshyari.com)