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GOING MOBILE: DEVELOPING APPS FOR YOUR LIBRARY USING BASIC HTML PROGRAMMING

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The progressively enhanced computer functions of smartphones and other mobile devices such as iPod Touch make mobile computing increasingly possible, portable, and perfect. As a result, this raises library users' expectation to be able to access library information and services anywhere and anytime. However, despite the widespread development and use of mobile web applications (apps) for mobile computing on smartphones and other mobile devices, the development of apps for library information and services has just embarked. This technological deficiency of current library servers significantly prevents patrons from accessing library information and services from their smart phones and other mobile devices.

This eight-chapter guidebook intends to fill this technological gap. It provides librarians the background information and step-by-step instructions on how to make library information and services available to users from their smart phones and other mobile devices. It shows how to use HTML, JavaScript programming scripts, and dedicated mobile web development tools to create mobile web applications (apps) that facilitate online library access from smart phones and other mobile devices.

The book opens with an introduction, in which the author explains the rationale of writing this practical guide (i.e., to help address the programming skills that are necessary to successfully develop mobile web apps for delivering library information and services to patrons' smartphones and other mobile devices).

Chapter 1 prepares the reader for the apps development process by providing basic background and conceptual information. First, it gives an overview of the types of mobile phones

according to the degrees at which the computer-like functions are equipped. The author informs the reader that the book focuses on the smartphones rather than feature phones because the smartphones have much more powerful computer-like features and functions (even though these more technologically advanced phones currently represent only less than 20 percent of US mobile phone markets). Then, it introduces the concepts of “mobile website” and “native app” and explains the main components of developing a mobile apps and mobile websites. Finally, it suggests surveying library users on their mobile apps use and training library staff on their potential.

Chapter 2 discusses in detail how to develop an app. It explains how to set up the mobile server, how to understand the development process and the difference of a mobile website from a standard website, and how to build mobile web functions such as navigation and interactivity. It also discusses how to include content and images in an app.

Chapter 3 elaborates the use of Cascading Style Sheets (CSS). It views the importance of this tool for mobile web development in its ability to make the entire mobile website consistent while reducing the amount of work developing and maintaining the entire website and keeping the sizes of web pages small.

Chapter 4 focuses on the use of JavaScript for implementing certain necessary web functions, such as handling forms, which can significantly enhance the web accessibility and make web browsing more user-friendly. At the same time, it warns the reader against missteps in using JavaScript, such as creating menus and including “mouseover” or “rollover” effects. In general, it suggests limiting the use of JavaScript to form handling and other basic needs because of the need for simplicity in mobile web apps due to lack of JavaScript support on many mobile phones.

Chapter 5 introduces PhoneGap, a software application that helps the mobile web developer turn a website into a mobile app. This allows the developer to take advantage of the features of various mobile phones and test a mobile website on variety of cell phones.

Chapter 6 explains how to build an app that can run on the iPhone. It first uses an app that the author of the book developed to demonstrate which components should be included and how they should look. Then, it discusses how to put the app on the iPhone and iPod Touch using development tools iPhone SDK and PhoneGap. Finally, it describes how to test the app by promoting it to a group of enthusiastic users.

The remaining two chapters discuss some of the add-on features using JavaScript or widget builders such as Twitter, WidgetBox, and Facebook, as well as more ways to provide mobile access to library information and services.

There are figures of codes and screens in various chapters. At the end of the guidebook, there is an index of used terms. The target reader groups of this book include students of library and information science and staff in library systems departments. It is easy and readable for the intended readers. However, some of the detailed information, such as that in Chapter 6, needs updating because of software upgrades. As a whole, this is a simple "how-to," and a useful guide for developing and implementing mobile web applications for library information and services.

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