

Chapter VII

PHP and PostgreSQL Web Content Management Systems at Western Michigan University Libraries

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Abstract

This chapter introduces the design of a PHP and PostgreSQL content management system as a means of maintaining content within a library's online subject guide collection. It argues that the content management system, combined with distributed authorship, provides an efficient and effective way to manage a large growing body of content that changes frequently. Furthermore, the author hopes that understanding the process of building a content management system, from system and data requirements to database design and content display, will not only inform librarians and technical staff of good system design practices, but also assist in the understanding of a content-driven library Web site.

Introduction

The Web has fundamentally shaped how librarians deliver and support library services to a new breed of students and faculty expecting more and more content to be online and accessible to them, suiting their research and lifestyle needs. With the expectation of conducting research on or off campus, librarians are faced with challenging questions of how to manage extremely large, growing collections of online resources and present those resources effectively to target users. As Fountain observes (2000), “With the exponential growth of the Web, we need to change our focus from simply locating information to locating the most relevant information in an efficient and cost-effective manner” (p. 89).

The Web plays a significant role in Western Michigan University Libraries’ efforts to support the teaching and research needs of over 29,000 students. Western Michigan University offers 168 bachelor’s degrees, 70 master’s degrees, and 30 doctoral degrees. There are 903 regular teaching faculty supporting 23,309 undergraduates and 5,869 graduate students. Western Michigan University Libraries employs 27 faculty and 65 staff, and provides access to 8,549 print and electronic subscriptions, 114,101 slides, 211,958 maps, 5,235 CD-ROMs, and 1,995,762 print and non-print titles.

Librarians at Western Michigan University (WMU) use the library Web site extensively for bibliographic instruction, conducting on- and off-campus reference services, publishing how-to guides and self-paced tutorials, and marketing an array of library services, news, and events to target user groups. Much of the site’s popularity is its content, linking users to a large collection of information resources ranging from print library holdings and subscription databases to resources found on the Web.

The challenge of hosting a content-driven library Web site is keeping that content current and ensuring that all Web links remain valid and up to date (i.e., no broken links). It also involves finding a convenient, efficient, and effective way to manage and update a large body of content. In addition the overall architecture of the Web site needs to be easily understandable and maintainable by library staff, and most importantly must be intuitive for target user groups to learn and use.

All of this requires a change in the way today’s academic libraries build and maintain Web sites, where librarians must maintain hundreds, if not thousands, of Web pages. The question is, how do libraries build a content management system to effectively maintain content that changes frequently?

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