

# Chapter 6

## Web 2.0 and Social Web Approaches to Digital Libraries

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### ABSTRACT

*The Chapter begins with a definition of digital library approaches and features, examines ways in which open source and social software applications can serve to fill digital library roles. In order to incorporate Web 2.0 functionality effectively, digital libraries must fundamentally recast users not just as content consumers, but as content creators. This chapter analyzes the integration of social annotations – uncontrolled user-generated content – into digital collection items. The chapter briefly summarizes the value of annotations and finds that there is conceptual room to include user-generated content in digital libraries, that they have been imagined as forums for social interaction since their inception, and that encouraging a collaborative approach to knowledge discovery and creation might make digital libraries serve as boundary objects that increase participation and engagement. The chapter concludes with a review of positive and negative outcomes from this approach and makes recommendations for further research.*

### INTRODUCTION

Public awareness of the Net as a critical infrastructure in the 1990s has spurred a new revolution in the technologies for information retrieval in digital libraries. The chapter discusses the development and

usage of new information technology for substantial collections. (Schatz, and Chen, 1999).

What are digital libraries, how should they be designed, how will they be used, and what relationship will they bear with “libraries”? It is hard to answer all these critical questions in this short chapter, we do hope to argue, and in some small enumerate to shape, the dialog among computer

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scientists, librarians, and other interested parties out of which answers may arise. Our involvement here is to make unambiguous, and to question, certain assumptions that motivate current digital library efforts. We will squabble that current efforts are limited by a largely unexamined and unintended commitment to an idealized analysis of what libraries have been, rather than what they in reality are or could be. Since these limits come from current ways of thinking about the problem, rather than being inherent in the technology or in social practice, expanding our conception of digital libraries should serve to expand the scope and the utility of development efforts. This chapter also discusses the use of social software applications in digital library environments. It finds the use of blogging software as an interface to digital library content stored in a separate repository. (Mitchell, and Gilbertson, 2008).

A significant portion of digital library literature focuses on issues such as document/technology heterogeneity and the relationship of users and communities in digital libraries [Borgman, 1996; Lagoze, Krafft, and Payette, 2005; Renda, and Straccia, 2005].

There are a number of possible approaches to using social software in digital library environments. Downloadable applications such as MediaWiki or WordPress blogging software lend themselves to data and interface customization. Other sites, such as Flickr, support data storage and application programming interface functions that could be used to create a digital library application.

Digital libraries are complex sociotechnical artifacts that are much more than searchable electronic collections. Even initial definitions in the literature were fairly broad; Borgman, (1999) bisects the conceptions of digital libraries into those of researchers (content collected on behalf of user communities) and librarians (digital libraries as institutions or services). At that time, digital library literature was understandably concerned with mapping the boundaries of the field, and

Lesk (1999) identifies an inadequate focus on user needs in digital library research.

Social institutions today look enormously different from what they did even five years ago. An array of forces, most specifically economic changes and technological progress, have reshaped and redefined our notions of what constitutes a bank, a service station, or a bookstore.

This chapter is an attempt to facilitate library professionals to comprehend some of the changes in relation to Web 2.0 and social web approaches to digital libraries. These changes are affecting libraries in the approaching years, and prompt library professionals need to consider seriously about how to deal with these changes.

The chapter begins by outlining the far-reaching changes involving different types of institutions. It then reviews how technological trends have been affecting library services, and focuses on the implications of an increasing dependence on resources not controlled by the local library. The chapter then lays out a set of key areas that will challenge libraries in an online age, before discussing a number of the hazards that libraries will face.

This chapter highlights the idea of Web 2.0 to a sociological audience as a key example of a process of cultural digitization that is moving faster than our ability to analyse it. It offers a definition, a schematic overview and a typology of the notion as part of a commitment to a renewal of description in sociology. It provides examples of wikis, folksonomies, mashups and social networking sites and, where possible and by way of illustration, examines instances where sociology and sociologists are featured. The chapter then identifies three possible agendas for the development of a viable sociology of Web 2.0: the changing relations between the production and consumption of internet content; the mainstreaming of private information posted to the public domain; and, the emergence of a new rhetoric of 'democratisation'. The chapter concludes by discussing some of the ways in which we can engage with these new web

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