Chapter 3
XML in Library Cataloging Workflows:
Working with Diverse Sources and Metadata Standards

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ABSTRACT

Libraries have been trying hard to produce and aggregate resources in both print and digital formats, which need to be integrated into the library system to provide access to users. This chapter summarizes the rapidly changing cataloging and metadata processing workflows in libraries and discusses the increasing need of exploiting XML technologies, including XSLT, and how this technology can improve in bibliographic metadata creation and management, and resource sharing and aggregation. The chapter narrates the changing environments of metadata management, especially diverse metadata sources and standards, which requires the use of new information technologies in traditional cataloging workflows.

INTRODUCTION

Libraries have been experiencing increasing changes since the late 1990s when Web 2.0 was introduced and when the formats of library resources started to become more diverse, from printed books to electronic books, digital collections, and databases. Libraries purchase more resources in electronic format than ever before and participate in large-scale digitization projects, such as Google Books (http://www.google.com/googlebooks/history.html) and Open Content

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Alliance/Internet Archive's book digitization efforts (http://www.archive.org/). Institutions also develop institution-based, small-scale local digitization projects, such as the University of Illinois' Unica Collection (http://illinoisharvest.grainger.uiuc.edu/fulldisplay.asp?cid=2797) and Digital Emblematica (http://emblematica.grainger.illinois.edu/). More resources are created and converted to the digital format to improve the user experience and libraries provide direct access to these resources from a local cataloging system and to make them discoverable from any portal, such as Google.

As everyone knows, the way users interact with resources changed drastically throughout the years. Instead of the library and physical books being the "go to" resource for research, it is now the Internet. Users expect not only the information about the library resource but also the resource itself to be readily available and accessible on the Internet via a Google search and the Online Public Access Catalog (OPAC) (OCLC, 2009). In addition, users want to have more diverse ways of accessing resources as well, such as accessing libraries' cataloging records using their phones and other electronic gadgets. These changes make libraries think more about servers, instead of book-shelves, to store the resources, and a community wide preservation plan for digital materials, on top of the institution based preservation plan for physical materials that will ensure the accessibility of resources in the future.

In order to work with these changes, libraries must adopt new information technologies and find new workflows to process materials and provide access to users. These changes brought more direct impact to technical services departments because it is traditionally responsible for providing access to the resources. Until recently, technical services primarily dealt with resources that were mostly limited to those physically present in the library, but it shifted greatly due to the increasing volumes of electronic and digitally available resources and the way cataloging records for these resources are created and ingested into the system. This chapter will discuss the growing needs of adapting and implementing new information technologies in library workflows, especially in technical services departments, which until recently, mainly worked with MAchine Readable Cataloging (MARC) format records. However, nowadays, technical services departments work with metadata from diverse sources, e.g., vendors, publishers, Online Computer Library Center (OCLC), and content created by users; metadata of varying standards, e.g., Dublin Core, Metadata Object Description Schema (MODS), ONline Information exchange (ONIX), etc.; and metadata created in different formats, such as Excel spreadsheets.

CHANGING ENVIRONMENT

Growing Number of Digital Resources

The two most important challenges that libraries face nowadays are the growing needs of users to have resources in electronic format that can be accessible regardless of place and time, and, consequently, the growing number of electronic resources that need to be processed. As mentioned earlier, users now expect to have instant access to resources and these resources must be available and accessible online. The current crop of college students grew up "in front of electronic screens." If they are not on their computers, then they are in front of a television screen watching shows, movies, and playing video games, or they are on their smart phones or tablets (Weiler, 2005, p. 46). Various studies have shown that when searching for information, users go to the Internet first. They expect to find all the information they need in a "single entry point," like a Google search (Weiler, 2005, p. 50).

According to the Beloit College Mindset 2015 List the "entering class of 2015 was born just as the Internet took everyone onto the information