Chapter 39

The Web-Scale Discovery Environment and Changing Library Services and Processes

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ABSTRACT

Discovery services, such as Serials Solutions Summon, OCLC Local WorldCat, ExLibris Primo, and EBSCO Discovery Service, are built around increasingly comprehensive indexes to books, articles, and other materials. Discovery services and the global bodies of metadata which support them make up an online discovery environment. This chapter outlines the current makeup of this metadata environment. It explores the possibilities and the challenges this environment presents for libraries. It addresses discovery services’ central role in reducing the fragmentation of library resources. The chapter looks at the areas where discovery services can provide access to expanded and more comprehensive collections of materials. It discusses discovery services’ role as central hubs, seamlessly linking library access and delivery services together. The chapter addresses opportunities for more centralized and cooperative management of library metadata, and the need for less reliance on duplication of MARC format metadata.

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INTRODUCTION

Much of the recent discussion about library discovery services has focused on major improvements to the library search experience and on integrating local library collection search with online journal article search. But discovery search is about more than just improved new interfaces for existing library catalogs and resources. Discovery services are built around large, often Internet wide, centralized indexes to material, which use powerful and standardized Solr and Lucene Web indexing technology. So the term “Web-scale discovery” has come into use to describe them.

A new Web-scale library environment has emerged, which is centered on global index repositories and shared access to pools of metadata, rather than on independent management of local library collections.

This chapter will explore the current makeup of this discovery environment, which elements are most fully developed, and the areas where it is still becoming coherent.

Discovery services provide the tools for using the new environment to bring together a wide variety of materials from diverse sources. They encourage searching of regional, or global library collections in addition to local collections. They challenge libraries to offer greatly expanded bodies of materials integrated with new and better services. Discovery services accessing the new metadata environment offer an alternative to repetitive management of MARC and other metadata in individual local library databases.

Discovery services are one element of an information environment where libraries are being transformed from being providers of limited local collections to being partners in providing comprehensive search and access to global collections through centralized management of library materials’ metadata.

This chapter will consider the potential benefits of the discovery environment. It will examine how well these benefits are being realized so far, and will consider several of the challenges to be resolved before the Web-scale discovery environment is fully developed. It will look at the important opportunity libraries now have to set the direction of this new environment as it grows and evolves.

BACKGROUND

The Current Shape of the Discovery Environment

Jason Vaughan recently provided one of the most complete summaries of the key discovery products in his Library Technology Reports issue “Web-scale Discovery Services”. Vaughan (2011) provides a valuable look at the resources currently covered by the different discovery products. It is estimated that there are half a billion individual documents indexed by both Serials Solutions and OCLC. Though Vaughan still largely focuses on implementation concerns related to the specific discovery products, he provides a good overview of the discovery environment.

The elements currently central to the discovery environment are well known. They include the following pools of metadata.

Link resolver services which offer a common pool of metadata on the e-journal holdings of online article databases. This common data pool is approaching comprehensiveness, though it is very far from authoritative.

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