

Chapter 14

How Users Approach Discovery Tools

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ABSTRACT

Researchers observed 21 participants (undergraduates, graduate students, and faculty) conduct known item and topic searches using EBSCO Discovery Service (EDS)^{TM1}, Ex Libris' Primo^{®2}, and Serials Solutions^{®3} Summon^{TM4} discovery tools to compare users' reaction to their interface design and evaluate each tool's functionality. Participants generally liked the tools' simple interfaces but had difficulty identifying material formats and faceted search features and were often confused by advanced search limiters and other features. Most demonstrated right-side blindness, failing to notice features or options on the right side of the screen. Participants expressed frustration with what they perceived as less than relevant results in many of their searches.

INTRODUCTION

Today's college students have grown up with the simple interfaces and natural language of search engines; they often turn to Google and other search engines for their academic research and

shy away from library tools that require more skill and expertise to use. Numerous national studies (Jones, 2002; OCLC, 2002; DeRosa, Cantrell, Hawk, & Wilson, 2006; Head & Eisenberg, 2009) have found that the majority of college students use search engines more than library resources for academic research. These studies point to user difficulty with navigating through library sites

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and searching library databases (OCLC, 2002). Students are often confused about which databases to use, and they are often unsuccessful at cross-searching in the databases (Stein, Bright, George, Hurlbert, Linke & St. Clair, 2006). Users expect the simplicity of a single search box to search across sources and platforms (Stein, et al, 2006). They rarely use the advanced features in either search engines or databases, expecting the tool itself to know what they need (Williams, 1999).

Most information professionals realize that students will neither learn the more complex search strategies required by many commercial article databases nor search multiple databases to find different types of sources. Therefore, libraries face the challenge of meeting users' research needs with new search tools that have more robust algorithms and search capabilities across multiple data warehouses and formats. As more products, both commercial and open source, emerge in the marketplace, libraries must identify which tool offers both the most intuitive, user-friendly interface and the most robust search capabilities to effectively meet users' needs.

The leading discovery services offer similar features and can harvest items from subscription databases, local catalogs and digital collections. Therefore, comparisons among interfaces and general functionality are important for libraries in their decision-making. Task-based usability testing is a useful method for libraries to evaluate and compare discovery tools. Unlike other research methodologies that require large numbers of participants, usability testing can reveal common user problems with a small number of participants. Jakob Nielsen (2000, Nielsen & Landauer, 1993), a leading researcher and practitioner in usability testing suggests that as few as five users can identify 85% of usability concerns through task-based testing. Libraries may choose to use this methodology to study their own users in order to make an informed choice of a discovery service.

LITERATURE REVIEW AND BACKGROUND

In the mid-2000s, developers of integrated library systems and indexing and abstracting services began to create a next-generation system that would provide an alternative to the Z39.50 federated search process. Web-scale discovery harvests metadata and often full-text content from a variety of information sources, such as library catalogs, commercial databases, and local library digital repositories. This technology offers users a simple search interface and single (and, in most cases, faceted) results lists. What sets discovery services apart from federated search is in their creation of a centralized index of content across sources and platforms, which allows for a faster retrieval process (Vaughan, 2011e). Discovery tools can offer the "Google generation" an experience similar to a Google search with a broad range of academic sources. In recent years, several products, both proprietary and open-source, have emerged, including the four studied here: EBSCO Discovery Service (EDS)TM, Innovative Interface's EncoreTM, Ex Libris' Primo[®], and Serials Solutions[®]' SummonTM.

EDSTM first appeared on the general market in early 2010 (Vaughan, 2011b). EDSTM contains content from almost 50,000 periodicals from more than 20,000 providers. It also includes metadata for almost 6 million books; 825,000 CDs and DVDs; and 20,000 conference proceedings (EBSCO Publishing, 2011). EDSTM offers a single search box with the option for additional search features as well as an advanced search, incorporating Boolean operators and select limiters. EDSTM offers faceted navigation including limiters such as source type/format, author, publication, subject (EBSCO subject headings), and publication date; these facets dynamically present themselves based on the nature of the search. EDSTM also employs a SmartText feature that interprets strings of user input into search terms that the system runs and offers a "Did you mean?" spelling suggestions

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