# Chapter 8
# Designing an Evaluation Process for Resource Discovery Tools

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## ABSTRACT

*This chapter discusses a process that can be used by libraries to evaluate the current generation of resource discovery tools. The process considers a three-tiered approach to the application, considering technical, functional, and usability layers. Because the current generation of discovery tools is very flexible, the process discussed uses an initial pass of evaluation to gain insight into the abilities of the tool and how users approach it. This leads to a further evaluative iteration, mainly at the usability level, where the user observations from the first iteration are used to inform more refined use cases.*

## INTRODUCTION

In recent years, the environment in which the evaluation of library search tools takes place has undergone relentless transformation. These tools require enormous resources to license and maintain, and they occupy a central role in allowing traversal of library resources. This makes it crucial to establish evaluation processes that enable libraries to anticipate how well this evolving set of tools will serve the needs of the library and its patrons.

DOI: 10.4018/978-1-4666-1821-3.ch008

Initial generations of digital search tools hewed closely to the designs of then familiar print tools, such as the card catalog and print index. However, the latest generation of tools has diverged notably from this design paradigm, and begun to behave more like truly digital tools, allowing access to heterogeneous sets of data, and providing flexibility of content coverage and presentation. Apart from the search tools themselves, library users have changed, and now hold significantly higher expectations for search tools, influenced by the availability of quick and ubiquitous Internet search engines. Furthermore, users now have the option

to eschew library search tools in favor of commercial competitors, such as Google Scholar™[1]. Library staff must curate an increasingly diverse set of digital resources, but cannot assume the users' enthusiasm and attention for yet another tool without clear demonstrations of its value. It is certain that libraries need a means of effectively evaluating and selecting the current generation of library search tools, but it is unclear how processes must shift to best meet current demands.

This chapter details the University of Chicago Library's attempt to develop an evaluation method capable of addressing these new demands. It examines the literature related to the evaluation of current resource discovery tools and their immediate predecessors, metasearch tools, and shows how the Library's background with metasearching influenced the current evaluation. This chapter presents exposition on the circumstances of University of Chicago Library's particular evaluation project, including the software under evaluation, and the need that Library staff thought it might address. It covers the initial evaluation plan itself, and some of the assumptions and results of this plan. Finally, the chapter details the shortcomings of the initial evaluation plan, and describes what the project team needed to revise in light of both the nature of the technology under examination and the Library's organizational needs.

In the course of the evaluation, the process shifted from a relatively straightforward, linear approach to a more complex, iterative one. Two factors drove the need to shift the evaluation process. First, there was the need to address the complexity of the search tool. Many aspects of its behavior were not immediately transparent, especially regarding its handling of metadata drawn from disparate sources in irregular formats. Second, the flexibility of this generation of search tool made it difficult to establish a model use case. The Library was interested primarily in improving article search, but since it was possible to search journal databases, the online catalog, and archival and digital collections with the tool under consideration, it was not obvious what users would want to do with it, and for what use cases and user constituencies it should be optimized. Similarly, the fact that the product could be configured to include a variable set of data sources raised the challenge of conducting an effective evaluation. Since a variety of data sources could potentially be included or omitted, the evaluation team had to decide on a particular configuration to evaluate before the bulk of the testing could occur.

The authors hope that the experience of developing this process will be of some value to other libraries.

## BACKGROUND AND LITERATURE REVIEW

The University of Chicago is a research and educational institution with over 5,000 undergraduates; 10,000 graduate, professional, and other students; and 2,200 faculty and other academic personnel. The University is well-known for intensive research activity in diverse areas such as economics, law, medicine, sociology, the physical sciences, and a number of other fields. The University of Chicago Library serves the needs of University researchers and students; it is a single administrative unit with a physical presence in six buildings. In addition to a physical collection of some 8.5 million items, the Library maintains access to over 57,000 individual e-journal titles and over a million e-books.

### The Chicago Search Experience

Our approach to the evaluation of research discovery tools was a direct outgrowth of previous experience with a federated search tool. Similarly, while there is currently only scant literature on evaluating current resource discovery tools, the literature on federated search evaluation shares many of the same concerns. Federated searching arrived in libraries in the early 2000s, and many in