
Introduction

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Conversations about catalogues indicate that the boundaries of this terrain are currently in a state of flux. This situation is hardly new. Ruth French Stout, in 1956, recounts an eerily similar conversation from the sixteenth century:

At this time, when scholarship was entering upon a period of great activity motivated by such significant world movements as the Renaissance, the Reformation, and the dawn of scientific experimentation, library catalogues were still in a primitive state, completely inadequate for what must have been the demands of the age. It is unthinkable that the kinds of catalogues which we have been examining could ever have served as useful tools for the type of scholar that the period produced, for this was, you recall, the age of Scaliger, Galileo, Grotius, Descartes, Bacon and Kepler. If we are to learn from history, a study of the sixteenth century should certainly put us on the alert. Here in the midst of an enthusiasm for scholarship and intellectual activity which has not often, if ever, been equaled, library catalogues did not at all rise to the occasion. Rather it fell upon the scholars themselves both to originate the ideas and to make the initial attempts toward providing some kind of index to the world's learning.

Few would disagree that the library catalogue, along with other traditional information retrieval tools, endures periods of frantic experimentation that sometimes result in radical change. Factors driving these forces today include changing bibliographic codes, changing institutional priorities, and changing user expectations. Beginning in 2002, many cultural-heritage institutions began to experiment with radically new approaches to the traditional library catalogue. Whether we call these instantiations third-generation catalogues, next-generation catalogues (NGCs), or next-next-generation catalogues, these are most often characterized by a single search box, advanced query tools, faceted search capabilities, enhanced

visual displays, and reliance on social technologies like tagging that encourage user interaction and participation (Breeding, 2010).

AN ESTABLISHING SHOT

A common contextual device in classic filmmaking, the *establishing shot* situates or provides the foundation for a scene by connecting important people, places, and developments. It helps the viewer appreciate the outlook of a film and may assist the viewer in the act of becoming immersed in the viewpoint and experiential stance of the filmmaker. The chief motivation for this issue is the act of creating an establishing shot. The articles and case studies highlighted herein seek to both interrogate and contribute to the ongoing conversation about the unfolding roles of the library catalogue in discovery and access to information. Any such effort must also acknowledge the limitations inherent in such an enterprise. The narrative contained in these pages is partial and imperfect, even as this issue's articles include investigations of the historical background of developments and innovations, as well as a smattering of works that articulate and describe both the theories and practices of approaches to next-generation discovery and access. The voices in these pages provide a mere sampling of a rich universe of experimentation, instantiation, and implementation. Through the creation of an establishing shot, this issue aims to provide a permanent record of the current state of "next-generation" library catalogues.

STANDING ON THE SHOULDERS OF GIANTS

One strategy deployed by authors in this issue is to provide insights into the role of heritage, or legacy, in contextualizing and thereby broadening understanding of current trends and developments in discovery and access. To get a sense of this trajectory, it can be helpful to review the names of a few of the earlier thinkers who still exert influence on developments in library catalogues today. Perhaps the most famous is Charles Ammi Cutter and his explicit statement of the "objects of the catalogue" (1876, p. 5):

1. to enable a person to find a book of which either:
the author, the title, the subject, the category is known.
2. to show what the library has:
by a given author, on a given subject, in a given kind of literature
3. to assist in the choice of a book
as to its edition (bibliographically), as to its character (literary or topical).

Cutter's objects were invoked and revised by Seymour Lubetsky (1969) in a draft of a paper read to the assembly at the International Conference on Cataloguing Principles in Paris in 1961. Lubetsky's views were substantially adopted and deeply integrated into the prevailing standards

for cataloguing at the time. Many hear echoes of Cutter's objects resonating in the standard *Functional Requirements for Bibliographic Records* (FRBR; International Federation of Library Associations [IFLA], 1998), created by a study group for the IFLA. In turn, FRBR lies at the heart of *Resource Description and Access*, a new cataloguing code that will be implemented in 2013. Others point to the influence of another founding father, Charles Coffin Jewett (1853), who wrote passionately of alphabetical and union catalogues during his time as librarian and assistant secretary at the Smithsonian Institute.

Midrange views that represent the forces at work in the still-developing catalogue come from research by many, among them Pauline Cochrane, Charles Hildreth, Christine Borgman, Karen Markey, and Karen Schneider. Cochrane brought together a twenty-year retrospective on catalogues in her book *Redesign of Catalogues and Indexes for Improved Online Subject Access* (1985). This collection highlights the importance of devising a comprehensive set of design concepts for automated catalogue systems that can better save the time of library users and staff. Hildreth (1995) provided critical reviews of second-generation online public-access catalogues (OPACs) and included full discussions of search features and shortcomings of this generation of online catalogues. He also outlined alternative design models that might better support "exploratory" information seeking. Borgman's reflections on the continuing frustrations and difficulties involved with the use of library catalogues are well-known contributions to the conversation (1986, 1996). More recently, Karen Markey (2007) reflected on the reasons why the library catalogue "fell from grace" and the alternative directions that could be possible with a paradigm shift in the approach to cataloguing and the design of access and discovery systems. Karen Schneider blogged a three-part series of posts (2006a, 2006b, 2006c) detailing the severe failings of library catalogues. The work of these researchers gives context to the contributions in this issue, which are in large part responses to each of these observations about "how (and why) OPACs suck."

FROM NEXT GENERATION TO DISCOVERY

A brief overview of the terrain in which these articles are situated would be incomplete without a discussion of several recent publications that discuss the general state of next-generation access and discovery. North Carolina State University has the distinction of implementing the first NGC with an Endeca Guided Navigation System. In 2006, Eric Lease Morgan, from the University of Notre Dame, established a mailing list, NGC4LIB, and posted a set of defining features for NGCs: (1) It is not a catalogue, (2) It avoids multiple databases, (3) It is bent on providing services against search results, and (4) It is built on using things open (Morgan, 2007). Nagy (2011) discusses the fact that the NGCs that were implemented from

2006 on were attempts at creating instantiations of Morgan's principles. The principal failure of nearly all of these early NGCs is the lack of success in sharing any content—except MARC bibliographic records. Breeding (2010) extends the discussion with definitions and representative lists of features for the next-generation access and discovery interfaces now common today. His explorations of open-access integrated library systems such as Koha, Evergreen, and Aquabrowser feature these as exemplar implementations of Morgan's principles.

Breeding and Nagy point to the fact that these and other proprietary interfaces like Primo and Endeca seem to be but a brief interlude in the road to better access to a multitude of information resources through the use of a single text box. Some researchers are beginning to say that NGCs may be on the road to extinction and are quickly being replaced by Web-scale discovery services (Vaughn, 2011). This transition marks a time of changing focus from disconnected silos of library material that necessitated multiple search episodes with different tools to the joy of decoupled discovery in the NGC with a steady but sure movement toward the tight integration of search across all products provided by an institution. Vaughn describes this experience as “deep discovery within an ocean of content” (Vaughn, 2011, p. 4).

ISSUE CONTRIBUTIONS

This issue contains six full-length articles and eight case studies, which all engage deeply with a number of issues and questions:

- The role of legacy and heritage in appreciating and understanding developments in next-generation access and discovery (Miksa; Barton and Mak; Schultz-Jones, Snow, Miksa, and Hasenyager). For example, is it possible to link to the past yet create a new rationale for new catalogue development (Miksa)?
- Challenges such as reintroducing the importance of centralized access (Barton and Mak) and overcoming imperfections in catalogue record quality (Schultz-Jones, Snow, Miksa, and Hasenyager)
- Rethinking the role of fundamental principles such as the effect of order imposed by the authorship principle and the possible effect of superwork sets (Smiraglia and Lee) or the propriety of providing access to whole resources instead of component parts (Miksa) or of providing mutable access that is not a one-size-fits-all option for searchers (Miksa)
- What does it mean to think of catalogues as social tools and discovery spaces (Tarulli and Spiteri)? Given this tendency, how do users interact with these new social systems (Spiteri and Tarulli)?

The case studies illustrate more technical discussions of products and implementations including VuFind, Aquabrowser, EDS, Encore Discovery

and Synergy, Enterprise, Summon, Primo Central, WorldCat Local, and EBSCO Discovery Service. Topics addressed include

- specific rationales and considerations in implementing particular NGC products (Skinner; Han; Majors; Gallaway and Hines);
- checklists for considering best practices and good decision-making processes (Han), including the steps to consider in comparative user tests (Majors) and usability testing (Gallaway and Hines);
- best practices for potential implementation outcomes that may include visualizations of subject access (Julien, Guastavino, and Bouthillier) and providing virtual browsing to assist in the discovery of related resources (Lynema, Lown, and Woodbury);
- considerations for implementing add-on features such as LibraryThing for Libraries (Pirmann), Twitter hashtags (Chang and Iyer), and federated search (Han); and
- specific implementation considerations and issues: VuFind (Han; Skinner).

My hope is that these articles and case studies will stimulate interest and provoke engagement in ongoing discussions. The issue is also intended to provide further means to interrogate and inform the progress of discovery and access interfaces by those institutions just now beginning to consider a new system or thinking of augmenting an existing system. The battle for the hearts and minds of library users has only just begun!

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