Evidence Based Library and Information Practice

Using Evidence in Practice

Patron Preferences for Folksonomy Tags: Research Findings When Both Hierarchical Subject Headings and Folksonomy Tags Are Used

Elaine Peterson
Information Resources Specialist, Montana State University Libraries
Bozeman, Montana, United States of America
Email: elainep@montana.edu

Setting

Montana State University is a comprehensive research university of 13,000 students, offering both masters and doctoral degree programs. The library has been the archival repository for paper copies of all theses and dissertations received from the Graduate Studies program since its inception. As the state's land-grant university, Montana State University emphasizes the sciences, engineering, and architecture. The majority of graduate students' theses and dissertations reflect this focus.

Librarians have always catalogued and assigned traditional subject headings to these dissertations and theses using Library of Congress Subject Headings (LCSH). In 2005 the library's depository paper copy of theses and dissertations was replaced with an electronic file copy, submitted by the graduate student and transmitted to the library by the Graduate Studies Office. The library created an Electronic Theses and Dissertations (ETD) database, making these full texts of graduate research freely available to anyone with Internet access. Even with the separate ETD database, the library continues to apply LC subject headings to each dissertation and thesis. The library adds MARC records to the online catalogue using those same LCSH headings.

Problem

With the emergence and popularity of folksonomy as an option for subject tagging, library staff discussed the costs and benefits of continuing to construct and apply traditional subject headings, now that patrons can generate their own tags. Could the expensive practice of selecting LCSH headings be dropped? Would folksonomy tags be sufficient for the subject indexing of the ETDs?

Evidence

One of the problems in making this decision was that there was little research to inform the discussion. A further complication was that few databases exist that allow the use of both hierarchical subject headings, such as LCSH, as well as patron-applied folksonomy tags. As a result there were no comparisons available for research and informed discussion. Traditional databases, such as online catalogues or journal databases, apply hierarchical subject headings or index terms, while newer ventures, such as Facebook or Flickr, rely on folksonomy tagging. Because of the lack of research, the library decided to move ahead and gather data to see if this was a worthwhile course of action.

Implementation

Folksonomy tags were added to the ETD database in 2006. By placing folksonomy tagging

opportunities on the ETD home page in a prominent location and making it easy to use, patrons were encouraged to add their own tags. Although the feature was added to supplement access to the ETDs and to provide a more up-to-date, collaborative atmosphere for the electronic resource, the result has provided an interesting test bed for two subject cataloguing systems residing together.

The home page for the Montana State University ETD database (Figure 1) provides a traditional search interface where the user can browse by author, title, or subject heading, as well as by programs, committee chairs, and dates. These are traditional search options, and the subject search utilizes the constructed LCSH headings. Each of these MARC records is duplicated in the online catalogue and loaded into the OCLC database. Thus, there are multiple avenues of access to an ETD based on the MARC record.

Figure 1. Montana State University Library ETD home page
<http://etd.lib.montana.edu/etd/view>

On the right side of the home page is a blue-shadowed area that focuses on the folksonomy tags. The heading, "Most Popular ETD Tags," leads users to this area. An initial click shows the tags listed alphabetically in columns, with a toggle option to view them as a cloud tag. A click on any of the tags connects the user to the ETDs tagged with that term. Users reading an individual ETD are encouraged to add tags to the record.

Upon completion of a graduate degree and acceptance of the thesis or dissertation, the student submits the final document to the library, with an abstract and list of suggested keywords. The library staff uses those keywords as an aid in subject classification with LCSH subject headings. For example, Jon Hasenbank's 2006 thesis for his Master's degree in Mathematics, "The Effects of a Framework for Procedural Understanding of College Algebra Students' Procedural Skill and Understanding," was added to the ETD and classified with these LCSH subject headings:
- Cognitive psychology
- Curriculum-based assessment
- Mathematical readiness
- Mathematics—Study and teaching (Higher)

Sometime after the creation of the ETD with its access points, a patron added the folksonomy tag: "Wachovia cards." This is a perfect example of a user-generated tag. There is nothing contained in the keywords from the author of the dissertation to create this unique heading, but one user found the subject "Wachovia cards" relevant to the content of the dissertation and added it as a folksonomy tag.

Outcome

With the steady appearance of folksonomy tags, this researcher wanted to know two things:
- *How often were they added to the ETDs?*
- *Why were they being added?*
If it were possible to understand why the tags were being applied, perhaps it would then be

possible to understand how patron needs were not being met by the LCSH headings. Or, perhaps sufficient use of folksonomy tags would warrant dropping the LCSH headings entirely.

In December of 2007, one year after the introduction of folksonomy tags, there were 572 ETD titles in the database. Each of those titles had at least one LCSH heading, although the average was four headings per title. Database users had added folksonomy tags to only 14 (2.4%) of the ETDs. One year later, in December of 2008, the ETD database had grown to 678 titles and a total of 55 tags. Patron-generated tags had been applied to only 8% of the ETDs.

Despite encouragement and ease of use, most users of the ETD database do not take advantage of the ability to tag the theses and dissertations. Although there has been an increase, there is the question as to why users have not been taking advantage of tagging the ETDs. When folksonomy tags are applied, what, if anything, does that say about the deficiencies of the database's subject access points? Tags were sorted in order to understand their types and use.

The first review of the tags in an alphabetical list revealed that most had been used only once. Of the 55 folksonomy tags in the database, only five had been used as a descriptor for more than one ETD:
- *birds*
- *Lost in Space*
- *sci-fi*
- *star wars*
- *teaching*

The folksonomy tags in the ETD database have been generally unique to the research of a particular author. It may also be true that the tags were unique to the research interests of the library patron who applied the folksonomy tag.

A second feature of the tags is that for the most part, they would have been disallowed in a traditional, hierarchical subject cataloguing

scheme such as LCSH. Examples include:

- Headings used to indicate a subject discussed in only a single, small portion of the entire dissertation. An example is the use of "moa" as a tag in one dissertation, even though it was mentioned in only one paragraph of the entire work
- Headings not recognized by LCSH, such as "dominant voices" or "Fisher"
- Inverted headings used by LCSH, such as "Bridges, Concrete"
- Broad terms that LCSH would not have permitted as descriptors, such as "Birds" or "Transportation"
- Misspelled headings such as "Foucoult" (instead of "Foucault") that can hinder an effective search

For the most part, the folksonomy tags do not duplicate what has already been added as LCSH subject headings, although there are a handful of tags that have been added that are identical to LCSH subject headings.

Reflection

After two years of gathering data, there are a few things that can be said about the patron tags in the ETD database. First, patrons are using folksonomy tags, and the usage of the tags is increasing. An increase from 2% to 8% in one year, although small, is still significant. Usage of the tags is evidence that permitting folksonomy tags in the ETD database has met patrons' needs.

Second, there is little chance at this point in time that folksonomy tags supplied by the users will take the place of structured subject headings applied to the ETDs. The numbers are not there, and there is little overlap between what users want in their tags and those applied by librarians as subject headings. The uses of the subject headings and tags are quite different. When searching for information, a structured search using traditional subject headings is the best tool for efficient retrieval of data. When having a conversation with another researcher, or when using a tag for one's own research, a user-supplied tag is appropriate.

It will be interesting to see if the usage of the LCSH headings and tags achieves more overlap over time. At present, it appears that the uses of LCSH and folksonomy are quite different, and that these parallel modes of access should continue to maximize usability and ease of access to the database.