User Tagging Behaviors in an OPAC:

A Quantitative Analysis of 7 Years of I-Share User Tags

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Introduction

Cultural heritage institutions have been trying to find ways to use user added tags to enhance discovery service, support subject access, and improve metadata quality. However, those works have been mainly focused on the digital library environment not the traditional library’s online public access catalog (OPAC) environment that uses MAchine Readable Cataloging (MARC) metadata standards and uses an integrated library system as a database. There are two reasons to which this may be attributed: first, not many integrated library systems and discovery systems support the user tagging function; and second, while the tagging function is available in the system, tags are not integrated into the user service to their full potential unless they are incorporated into the MARC catalog record.

This research started with three research questions:

- how do users add tags into a traditional library environment, such as an OPAC, if the system allows such functionality?
- is there any way libraries can utilize user added tags to improve user services?
- are tag services still a valid and useful resource in the age of linked open data?

The Data

Data was drawn from the Consortium of Academic and Research Libraries in Illinois (CARLI), which manages the integrated library service called I-Share. I-share serves 86 academic libraries as well as a number of other cultural heritage institutions across the state of Illinois and consists of nearly 38 million items.[1] Since its implementation, I-Share has used VuFind as its discovery layer, a system which allows users to add tags to any item while logged into the system.[2]

Methods

Analysis was done in two ways: 1) classifying CARLI institutions 2) categorizing tags from the University of Illinois at Urbana-Champaign.

Findings

CARLI I-Share Institutions

- Doctoral Universities had the highest record, user, and tag counts (over 50% of the total data for each category)
- Across institutional classifications the relationships between records, users, and tags remained relatively consistent (see Figure 1)
- The University of Illinois at Urbana-Champaign (classified a Doctoral University) contributed approx. 23% of the overall data and followed the established trends in relationships between records, users, and tags

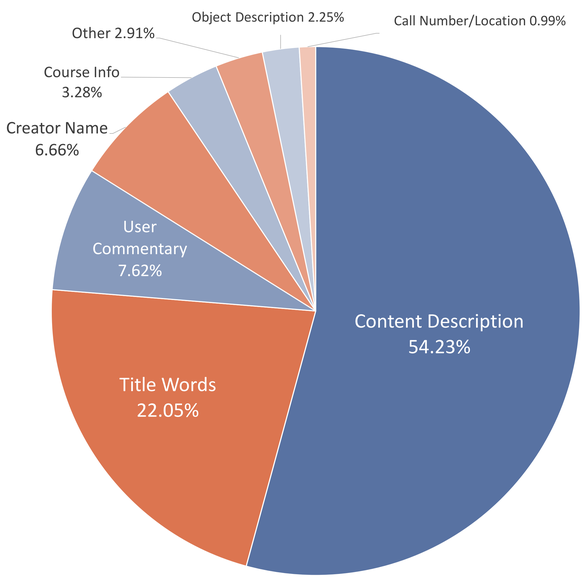

Figure 2. *Percentage of Total Tags by Category*

Institution Type	Doctoral Universities	Master’s Colleges and Universities	Baccalaureate Colleges	Associate’s Colleges	Special Focus / Other
Records	48301	18893	12742	5620	8007
Users	80715	19439	12959	5756	8282
Tags	89892	32927	17674	9663	14956
Users / Record	1.05	1.03	1.02	1.03	1.03
Tags / Record	1.86	1.74	1.39	1.72	1.87
Tags / User	1.77	1.69	1.37	1.68	1.81

Figure 1. *Comparison of User Tag Data by Institution Classification*

University of Illinois at Urbana-Champaign

- 1,207 records were identified without MARC subject headings and had 2,605 tags assigned by 1,237 users
- These showed a higher average number of tags per record than the trend found in the Institutional Classification
- Approx. 54% of these tags were categorized as “Content Description” (see Figure 2)
- The Top 10 most frequently used tags from the “Content Description” category and the full subset without MARC subject headings were the same
- All Top 10 tags were applied to materials from the graphic novel collection
- None of these Top 10 tags were represented when the Top 10 tags were identified for the full University of Illinois at Urbana-Champaign data

Figure 3. *Top 30 Tags Classified under Content Description*

Conclusions

What are users tagging?

- Graphic novels and multimedia materials
- Academic texts and other materials
- Genre literature

What is the effect of these tags?

- Added context to under-described materials
- Shared knowledge of materials
- Tracked personal interests

What is the future of tagging services?

- Complex and time-consuming to incorporate user tags into existing MARC records
- Improve user and provider education on how tagging services work to encourage use

References

1. “Overview.” Consortium of Academic and Research Libraries in Illinois (CARLI). https://www.carli.illinois.edu/products-services/i-share.
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