FEATURE / MANCHETTE

Social cataloguing: an overview for health librarians

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[Social cataloguing] allow[s] members to not only share publicly their cataloged inventories, but to post reviews and commentaries on the items posted, create and participate in discussion groups, and tag or classify the items cataloged. In other words, these sites serve as a user-designed, interactive, and shared catalog [1].

Introduction

This article is an overview of social cataloguing trends for health librarians. Although a number of articles in the literature discuss social bookmarking or folksonomic tagging [2–5], there is a paucity of information about social cataloguing and its relevance for health libraries.

Social cataloguing refers to Web-based applications that allow users to tag and track books and other items in an online inventory or personal filing system [6] (see applications in Appendix A). Social cataloguing sites (SCSs), such as LibraryThing (http://www. librarything.com/) or Shelfari (http://www.shelfari.com/), make it possible for users to catalogue and discuss books with like-minded readers from around the world. In some ways, like other popular Web 2.0 tools such as YouTube (http://www.youtube.com/), Delicious (http://delicious.com/), and SlideShare (http://www. slideshare.net), SCSs facilitate "social discovery" and community collaboration by using tags (*user-determined descriptors*) to describe books and audiovisual media [6]. Put simply, tags contain information that a user might need to describe or retrieve the item in question and are not limited in number or scope. These descriptors are sometimes displayed in weighted lists as "tag clouds" or concept maps.

With the exception of a few oblique references to the topic, the health library literature is surprisingly silent on the issue of social cataloguing [2,4,7]. A recent general paper in *Library Hi Tech*, however, looked at the possibility of augmenting the Library of Congress Subject Headings (LCSH) in library catalogues with the tags found in LibraryThing [8]. The authors found instances of concepts expressed as tags in LibraryThing that were missing from the more formal LCSH catalogue description. Their conclusion was that a hybrid system combining LCSH and folksonomic tags would result in richer metadata and, ultimately, a more multifaceted "visual" library catalogue. In terms of navigation and accessibility, this approach would give users the best of both worlds.

As the volume of born-digital articles in biomedicine increases, there is a need to find novel ways to generate metadata for knowledge objects (i.e., scientific articles, books, audiovisual materials, and social media). Do social cataloguing practices hold at least part of the solution to the information glut created by Web 2.0? Tools such as LibraryThing (and even some of the new features in WorldCat) exemplify how principles of the 2.0 era (i.e., user tagging, commenting, and rating systems) can be integrated into catalogues to supplement libraries' descriptive and organizational activities [9]. SCSs may also be critical in tagging articles in blogs and wikis — today's version of grey literature — as well as medical photos and streaming videos archived on various sites.

Attributes and features

For health librarians interested in using social cataloguing in their libraries, several attributes of SCSs are worth mentioning:

(1) Sharing and creating bibliographies — enhanced ability to share book titles, reviews, and comments (like a book club) with readers from around the world
(2) Building new digital communities — user-centred features are integrated with bibliographic records as a means of inclusive community building
(3) Enhancing findability — library catalogues can be enhanced by social cataloguing practices because they enrich bibliographic and subject metadata [10–14]

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For librarians looking to encourage collaboration, implementing social cataloguing features may be a way to perform outreach with users across a potentially worldwide digital network. There is some debate, however, about the value of adding social features to library catalogues and bibliographic records [15–17]. Some authors suggest that SCSs can revitalize the library catalogue by encouraging end-users to tag (and comment on) items while others express concerns that user-generated content, precisely because of its non-expert perspective, may result in confusion for users [18,19].

That said, user-defined content may provide benefits beyond resource discovery and seeing what others read. User tags have the potential to form a meaningful, or semantic, bridge between traditional controlled vocabularies and simple full-text searching, thereby enhancing the search skills of participants. In fact, tagging documents may help to bring about the Semantic Web and the vision of the Internet as "a massive searchable online catalogue" [20]. Health librarians should consider the notion that tagging systems can be applied to library catalogues and can enhance bibliographic searching generally [21] — say, for research-oriented databases such as PubMed and Google Scholar. More research from the perspective of health information retrieval will need to be conducted before the utility of tagging and user-generated content can be fully known.

Social cataloguing Web sites

The range and number of SCSs are constantly increasing. We would like to present an alphabetical list of some of the most popular tools today for exploration:

(1) *aNobii* (http://www.anobii.com/; see review at http://www.appappeal.com/app/anobii/) — Users can share titles, recommendations, and reviews. Build a virtual bookshelf by entering an ISBN or book title, import lists from LibraryThing, Amazon, and Excel spreadsheets. It has approximately 400 000 members and is available in 16 languages with data for approximately 12 million books. It even features an iPhone application.
(2) BookArmy (http://www.bookarmy.com/ and see the BookArmy blog at http://thebookarmy.blogspot.com/) — Owned by HarperCollins, search across a database containing all English language books with ISBNs. No fees. The exact number of titles is unclear.
(3) *Elf* (http://www.libraryelf.com/) — Ideal for readers with many library cards from different libraries. Users can consolidate accounts and receive e-mail notifications as items become due or when holds are ready for pickup.
(4) *GoodReads* (http://www.goodreads.com/; see review at http://www.appappeal.com/app/goodreads/) — Established in 2006, with over 2 million users tracking their reading habits and favourite books. Database contains over 50 million items. Fully featured Facebook application and other social widgets, and no fees.
(5) *Google Books - MyLibrary* (http://books.google.com/googlebooks/mylibrary/) — Allows any Google Account user to search, save, annotate, rate, and review any text available through Google Books (http://books.google.com/). Sample collections from other users are also featured on the MyLibrary home page.
(6) *GuruLib* (http://www.gurulib.com/) — A way to track books, DVDs, games, software, and movies. It allows users to search libraries worldwide to collect information about hard to find items using the ANSI/NISO Z39.50 protocol.
(7) LibraryThing (http://www.librarything.com/; see review at http://www.appappeal.com/app/librarything/ and the LibraryThing blog at http://www.librarything.com/blog/) — A leader in social cataloguing. Users are "thingamabrarians", who post reading lists and book reviews, and chat with other users. Search Amazon, the Library of Congress, or dozens of other catalogues for access to book data. Use the Dewey Decimal Classification System or the Library of Congress classification system to list your books either publicly or privately. It has 850 000 users and approximately 44 million books catalogued.
(8) *Shelfari* (http://www.shelfari.com/; see review at http://www.appappeal.com/app/shelfari/ and the Shelfari blog at http://shelfari.typepad.com/) — Acquired by Amazon in 2008, Shelfari lets users create virtual "bookshelves" of titles. Users can rate, review, tag, and discuss their books. It offers Wordpress and other blog integration along with standard social networking features.

Criticism

A scan of the literature and discussion on the blogosphere illustrates a variety of opinions about SCSs. Concerns about their informal structure and inconsistent language usage are among the most commonly cited problems in unmoderated indexing environments. Though insight from users and the flexibility of free association are important facets of this new technology, the lack of authority control and increased possibility for bias in natural language are particularly cause for concern. The following list explains the most common issues in more depth:

(*i*) *SCSs generally lack formal hierarchical structures* — Tags are created in isolation and establish no hierarchical relationships among terms. In the MESH thesaurus for example, "Vitamins" is listed under or as a type of "Micronutrients" and has a narrower concept, "Vitamin B Complex". These terms are linked in the vocabulary and provide different levels of specificity for improved information retrieval and resource collocation. In tagging, however, the tags are not inter-related that way, meaning users must include both the broad and narrow tags to achieve meaningful levels of description.
(*ii*) *SCSs often do not discriminate between plural and singular forms of words* — Does the vocabulary use "Disease" or "Diseases"? In tagging systems, you have to search both plural and singular forms of concepts.
(*iii*) *SCSs contain all kinds of unorthodox spellings and terminologies* — Freedom of language introduces inconsistent or inappropriate usage and variant spellings that clutter description and degrade collocation of similar items.

(*iv*) *SCSs do not sufficiently distinguish between synonyms* —
Two terms that express the same concept are not stan-
dardized. Controlled vocabularies have "authority files"
that dictate a preferred way of expressing a single con-
cept, for example, using either "Swine Flu" or "H1N1".
In a tagging environment, there is no such control over
synonymous terms.

(*v*) *Open tagging in SCSs results in conceptual ambiguity
or "polysemes"* — Conceptual ambiguity in language
can lead to low search precision when using tags. For
example, the concept of "cold" has many connotations
in medicine: the "common cold" as in a respiratory in-
fection, or "cold" as in body temperature, or "COLD"
(chronic obstructive lung disease). Without conceptual
control, ambiguous terms produce all kinds of false
drops during information retrieval.

(*vi*) *SCSs may encourage malicious intent in language usage* —
Unchecked opinion or bias may be added in tagged content,
particularly if there are strong feelings evoked by certain
subjects, HIV/AIDS or cancer being salient examples.
Tags can be moderated for particularly harmful content,
but that takes valuable time and human resources [22].

OPAC 2.0: next generation catalogue?

In 2006, during a period of fervent interest in Library 2.0,
there was debate about embedding social features in library
Web sites and online public access catalogues (OPACs) [23].
Pockets of innovation began to appear in library catalogues,
but a broader adoption of social cataloguing principles has
been slower to arrive [24]. Some studies comparing tagging
with subject indexing in OPACs raise several issues of con-
cern but do not provide sufficient direction to librarians [25].
Some librarians say that folksonomies cannot replace
well-established controlled vocabularies, while others be-
lieve that tagging may help to change user attitudes toward
library OPACs, by potentially making them "more fun"
[26,27].

In a bold move to draw on the usefulness of LibraryThing,
the Claremont University Libraries, an academic library con-
sortium in the United States, integrated several social fea-
tures into their union catalogue through participation in a
project entitled LibraryThing for Libraries (LTFL) [28]. For
health libraries considering the use of LibraryThing as a cat-
alogue overlay, as well as for libraries interested in learning
about next generation cataloguing concepts, this 2009 article
provides a good starting point. (For a list of health libraries
using LibraryThing, see Appendix B.)

The idea of a "next-generation" OPAC is catching on in
Canadian libraries. For just two examples, look at the Ed-
monton Public Library catalogue [29] and the new "Primo"
version of the University of British Columbia Library's cata-
logue (in testing Fall 2009) [30]. In the United States,
PennTags (http://tags.library.upenn.edu/) at the University of
Pennsylvania Library allows users to mark up library records
with tags and save them within a unique portal of resources.
The impulse to improve library catalogues has also led to the
development of several often open source cataloguing sys-
tems. One tool called Scriblio (http://about.scriblio.net/) op-
erates on the Wordpress.org blogging platform [31]. A
similar project that permits tagging, rating, and reviewing is

SOPAC, the social OPAC (http://thesocialopac.net/), which
has been installed in a small number of Canadian and Amer-
ican public and special libraries. VuFind is yet another cata-
logue search tool (called a "catalogue overlay") that
integrates traditional OPAC services with many of the fea-
tures found in other systems described here [32].

Another product generating interest in aggregated Web 2.0
content is LibGuides, which can be used to create custom-
ized, subject-specific resource guides. These guides integrate
information and library services for distribution outside the
library home page to "connect with patrons wherever they
are" [33]. Although not meant to disseminate catalogue con-
tent exclusively, LibGuides are unique in combining
folksonomic tags and Web sites with recommended library
content. (For a list of libraries using LibGuides, see the
SpringShare Library Web site [34].)

Conclusion

Social cataloguing holds considerable promise for the en-
hancement of health library services. Health librarians are
advised to explore the SCSs discussed in this article and
consider building user interactivity into their OPACs. While
SCSs help to build global online communities, they also en-
courage collaboration and communication between units
within a single health library (i.e., public and technical ser-
vices). For those interested in integrating social features into
online catalogues, keep in mind that this can be done simply
and incrementally.

The future of automated subject cataloguing and indexing
through data extraction in the biomedical literature should
include culling information from social cataloguing sites.
Even though SCSs have been around for some time, they are
finally beginning to gain interest and acceptance. Our goal
as health librarians should be to make the library's catalogue
as useful as possible while promoting discoverability. The
cultivation of vibrant community participation and the po-
tential for trust building between the library and its users
made through social cataloguing practices may pay divi-
dends for health libraries and our user groups well into the
future.

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Appendix A

Table A1. New and emerging social cataloguing sites.

Backloggery	http://www.backloggery.com/
Bibliophil	http://www.bibliophil.org/
Bookjetty	http://www.bookjetty.com/
ChainReading	http://www.chainreading.com/
ConnectViaBooks	http://www.connectviabooks.com/
Discogs	http://www.discogs.com/
Douban (Chinese only)	http://www.douban.com/
Flixstter	http://www.flixster.com/
Internet Archive	http://www.archive.org/index.php
Jumper 2.0	http://www.jumpernetworks.com/
Last.fm	http://www.last.fm/
Lib.rario.us	http://lib.rario.us/
Listal	http://www.listal.com/
LivingSocial.com	http://livingsocial.com/
Lulu	http://www.lulu.com/
MediaChest	http://www.mediachest.com/
MobyGames	http://www.mobygames.com/home
MyEbook	http://www.myebook.com/
Rate Your Music	http://rateyourmusic.com/
Reader2	http://reader2.com/
Stashmatic	http://www.stashmatic.com/
Stuffopolis	http://www.stuffopolis.com/wopr/index.php
WorldCat	http://www.worldcat.org/
WeRead	http://weread.com/
ulike.net	http://www.ulike.net/

Appendix B

Table B1. Health libraries using LibraryThing for Libraries.

Blessing Health Professions Library, Blessing-Rieman College of Nursing (Quincy, Ill., USA)	http://www.librarything.com/venue/47389/Blessing-Health-Professions-Library---Blessing-Rieman-College-of-Nursing
DeArmond Consumer Health Library (Coeur d'Alene, Idaho, USA)	http://www.librarything.com/venue/47236/DeArmond-Consumer-Health-Library
Delaware Division of Substance Abuse & Mental Health (New Castle, Del., USA)	http://www.librarything.com/venue/45881/Delaware-Division-of-Substance-Abuse-%26-Mental-Health
Malmo University Health Society Library (Malmo, Sweden)	http://www.librarything.com/venue/47217/Biblioteket-Hälsa-och-samhälle-%28Health-%26-Society-Library%29---Malmö-högskola-%28Malmo-University%29
Malmo University Oral Health Library (Malmo, Sweden)	http://www.librarything.com/venue/47218/Odontologiska-biblioteket-%28Oral-Health-Library%29---Malmö-högskola-%28Malmo-University%29

Table B2. Health libraries on LibraryThing.

Cooper University Health Resource Center (Camden, N.J., USA)	http://www.librarything.com/profile/cooperhealthresource
Gunderson Lutheran Health Sciences Library (LaCrosse, Wis., USA)	http://www.librarything.com/profile/glhealthscilibrary
Leddy Library, Schulich School of Medicine & Dentistry, University of Western Ontario (London, Ont., Canada)	http://www.librarything.com/profile/leddymedical
Lister Hill Library of the Health Sciences, University of Alabama at Birmingham (Alabama, USA)	http://www.librarything.com/profile/ListerHillLibraryNew
Mental Health Rights Coalition (Hamilton, Ont., Canada)	http://www.librarything.com/profile/MHRC
Northeastern Vermont Regional Hospital Library (St. Johnsbury, Vt., USA)	http://www.librarything.com/profile/NVRHLibrary
Physician Health Program of British Columbia (Vancouver, B.C., Canada)	http://www.librarything.com/profile/BCPhysicianhealth
Samaritan Medical Center Library (Watertown, N.Y., USA)	http://www.librarything.com/profile/smclibrary
Quest Center for Integrative Health (Portland, Oreg., USA)	http://www.librarything.com/profile/QuestCenter
Tuality Health Science Library (Hillsboro, Oreg., USA)	http://www.librarything.com/profile/TualityLibrary
UBC Biomedical Branch Library, University of British Columbia (Vancouver, B.C., Canada)	http://www.librarything.com/profile/bmblib
Washington State University Animal Health Library	http://www.librarything.com/profile/WSU_Anim_Health_Lib
Windham Hospital Library (Willimantic, Conn., USA)	http://www.librarything.com/profile/wcmhlibrary
Women's Health Care Centre (Peterborough, Ont., Canada)	http://www.librarything.com/profile/WomensHealthPtbo