

Ron Gilmour and Jennifer Strickland

# Social bookmarking for library services

## Bibliographic access through Delicious

Social bookmarking refers to Internet applications that allow users to collect and label information resources both for their own use and for sharing with other users. Social bookmarking can be seen as the next step in the evolution of link management. Link management began with the “hot links” in the Mosaic browser. These evolved into the “bookmarks” of Netscape and the “favorites” of Microsoft Internet Explorer.<sup>1</sup> In all of these cases, lists of links were stored in a hierarchical folder structure within the browser. Such bookmarks were accessible only from one computer and were difficult to share with others. Social bookmarking allows users to save their bookmarks to the Internet, thereby making them available from any machine and, if desired, also making them visible to other users.

A ubiquitous feature of social bookmarking systems is tagging. When a link is selected for bookmarking, the user can specify keywords, or “tags,” with which the link will be associated. The bookmarking application will make these tags available to other users as a list or as a “tag cloud.” This practice of informal tagging has earned the name “folksonomy,” reflecting

the fact that it is a vocabulary developed by end users as opposed to a top-down authoritative taxonomy, such as the Library of Congress subject headings.

Social bookmarking is often seen as a sort of anti-authoritarian technology that rejects the

type of information control traditionally exercised by librarians. Some librarians, in fact, seem to take offense at the idea of tagging. Critics complain that tagging lacks a controlled vocabulary and that, at its worst, it amounts to an

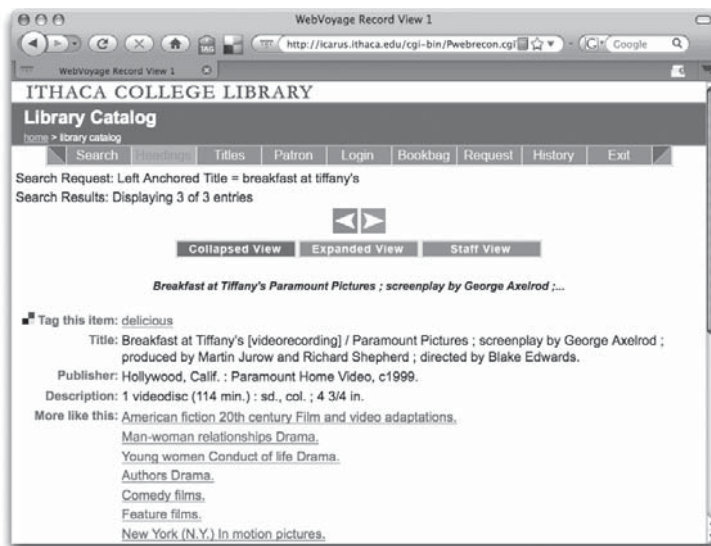


Figure 1. A catalog record with a “tag this item” link to Delicious. “idiosyncratic, indecipherable personal nomenclature.”<sup>2</sup>

“idiosyncratic, indecipherable personal nomenclature.”<sup>2</sup> Social bookmarking is also characterized by the use of RSS. This allows easy linking to blogs, another major Web 2.0 application. Users can track certain tags. One could, for instance, be alerted whenever a new posting tagged “bioinformatics” is entered into the system, or one could see any new links that are added by a particular user. This functionality can be a

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powerful tool for current awareness and offers a way to integrate tagged content into existing blogs and Web pages.

## Filmographies

At Ithaca College, our work with Delicious began with a request from a faculty member for us to add Library of Congress (LC) subject headings to indicate the presence of Asian stereotypes in Hollywood feature films, such as *Breakfast at Tiffany's*. This is not the type of information that LC subject headings were designed to describe, as it indicates a commentarial aspect of a film, not what the film is about. Consequently, the cataloging department saw this as impractical and possibly contrary to good cataloging practice. However, adding such subject access would certainly increase the usefulness of this collection.

The case of Asian stereotypes is by no means unique. We are often confronted with faculty members who make use of films in their classes in ways that are not reflected by LC subject headings. A professor of television and radio requested such DVD sets as *Seinfeld* and *Sex and the City* for their frequent restaurant scenes, with the intention of showing examples of how to light indoor spaces. A professor of religion assigned a list of feature films so that his students may analyze the treatment of the afterlife in popular culture. A third professor wanted to assemble a list of films depicting people with disabilities. All of these examples illustrate cases in which a library user requires access points not available through traditional subject headings, which are often too broad, too specific, puzzling, or apparently arbitrary. Take, for example, the recent film *Across the*

*Universe*. It has been assigned the subject heading “Stevedores England Liverpool Drama.” The term “stevedores” is antiquated, and it is unlikely that the average library user would ever think to use it. A patron may, however, want a film about the 1960s or the Vietnam War.

Social bookmarking offers a means of adding access points to materials in the library catalog without the more time-consuming alteration of the catalog record. This assumes, of course, that the library’s catalog offers stable URLs. Tagging materials is a very simple procedure and can be performed by library staff that may not be familiar with HTML.<sup>3</sup>

At Ithaca College, we have even added “tag this item” links to our catalog records

to facilitate the tagging process (see fig. 1). Editing the results is much easier than manipulating a static Web page, and multiple authors sharing a common account can work on a tagging project simultaneously. A page based on Delicious data is a live feed, and users

will see new bookmarks as they are added. In addition, short annotations may be added to the links (e.g., “note Andy Rooney’s portrayal of Mr. Yunioshi”). Lists can be combined with a Boolean “and” by using a plus sign in the URL (e.g., [delicious.com/iclibref/environmental\\_studies+biology](http://delicious.com/iclibref/environmental_studies+biology)). Since the end product is a publicly accessible Web page, it is easy to share the results with others.

## Your Delicious

Delicious makes its data available via JavaScript Object Notation (JSON). This allows Web designers to easily incorporate Delicious content into Web pages using JavaScript ([delicious.com](http://delicious.com)).

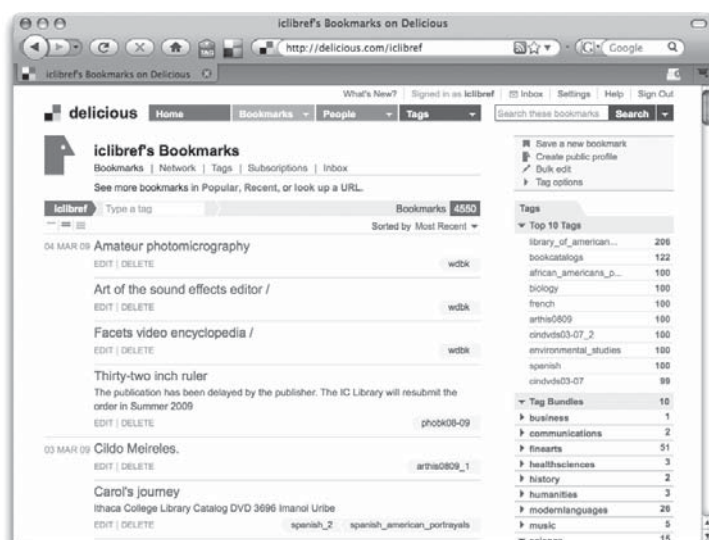


Figure 2. Screen capture of a Delicious page in its native form. Visit this article online for detailed images.

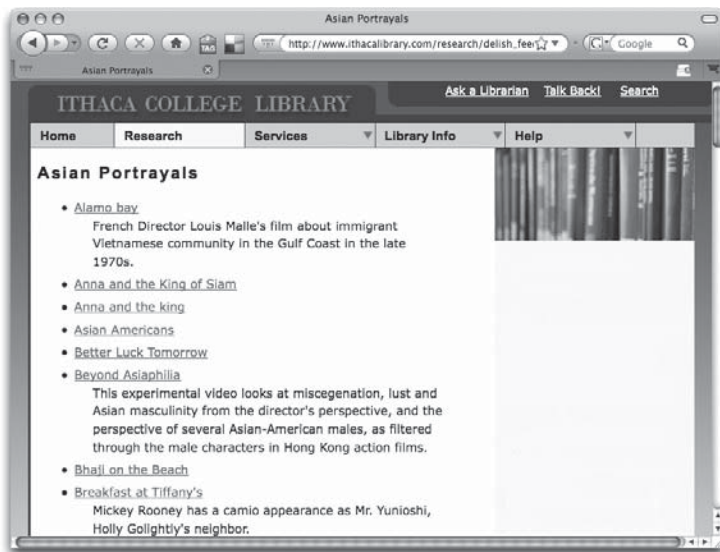


Figure 3. Screen capture of an Ithaca Library Web page that displays data from Delicious.

com/help/json/). On the Delicious Web site, our environmental studies bookmarks appear as in fig. 2. We feel that linking directly to the Delicious site may be confusing to users and prefer to put our own brand on the content. Consequently, we use JSON objects to allow us to display Delicious content inside our normal Web template (see fig. 3).

The JSON interface to Delicious is easy to use for anyone with a little JavaScript experience. It simply requires an http request to Delicious:

```
<script type="text/javascript"
src="http://Delicious/feeds/json/myaccount/
sometag"></script>
```

The results are made available as the JavaScript array `Delicious.posts`. This array can then be iterated through and the results displayed as follows: `<script type="text/javascript">`

```
for (var i=0, post; post = Delicious.posts[i];
i++) {
document.writeln("<div><a href=" + post.u
+ ">" + post.d + "</a></div>");
</script>
```

In this code example, the variable `post.u` contains the URL for the bookmark and `post.d` contains its title. If desired, the annotation can be displayed using `post.n`.

JSON also allows the links to be sorted alphabetically using JavaScript and for links from multiple tags to be collected on one page. The ability to mix links from different tag sets

is especially important since it allows the display of more than 100 items (the normal limit for how many links Delicious will display). In order to circumvent this limit, we created multiple tag sets for subjects with a large number of bookmarks.

So, for instance, we split our large biology collection into "biology" and "biologyI." We use JavaScript to pull the results from these multiple tags into an array, sort the array, and display the results. Alternately, one can make use of the Delicious application programming interface (API) rather than JSON if the limit

of 100 items becomes problematic.

The Delicious API allows users with programming experience to manipulate items in their collection of bookmarks (`delicious.com/help/api/`).

The API defines ways to pass queries to Delicious using http. Many scripting languages, including Perl 4 and PHP 5, offer packages that serve as wrappers for the API, making it possible to write scripts in those languages that make use of Delicious data. In addition to these tools, we have written a PHP class called `DeliciousPosts` 6 that uses the "post/all" method to retrieve all of the bookmarks for a given tag, not just the most recent 100 that are allowed by the JSON interface. `DeliciousPosts` also caches the results of a query such that the Delicious API service is not unduly burdened.

After downloading `DeliciousPosts`, it may be invoked from a PHP script as follows:

```
<?php
require "DeliciousPosts.php";
$username = "Delicious_username";
$password = "Delicious_password";
$tag = "some_tag";
$dp = new DeliciousPosts($username,
$password);
$dp->showPosts($tag);
?>
```

## Conclusion

Social bookmarking has enabled us to solve a

problem of bibliographic access without recourse to modification of cataloging practice.

The process of tagging resources in Delicious is very simple. A variety of tools are available to allow creative and flexible use of the data, including its incorporation into existing library pages or templates.

We posted links to the filmographies to the appropriate library subject guides on the Web.

Response from faculty members to these Delicious-based filmographies has been very positive. Professors find that it is now far easier to locate appropriate films for their classes. It also offers a way for the library to promote special collections of films, such as those purchased for portrayal of Asians.

This success has encouraged us to explore other ways of using Delicious, including new book lists, resource lists for individual classes, and even lists designed to answer specific reference questions.

## Notes

1. Tony Hammond, Timo Hannay, Ben Lund, and Joanna Scott, "Social Bookmarking Tools (I)," *D-Lib Magazine*, 11 (2005), [www.dlib.org/dlib/april05/hammond/04hammond.html](http://www.dlib.org/dlib/april05/hammond/04hammond.html).

2. John Maxymuk, "Bits & Bytes: Whose Space?" *Bottom Line: Managing Library Finances*, 20 (2007):97–100.

3. Meslissa L. Rethlefsen, "Tags Help Make Libraries Delicious," *Library Journal*, 132 (2007):26–28.

4. Stephan Schmidt and Tatsuya Tsuruoka, Package Information: Services\_Delicious, see [pear.php.net/package/Services\\_Delicious](http://pear.php.net/package/Services_Delicious).

5. Aaron Straup Cope, Net::Delicious, visit [search.cpan.org/~ascope/Net-Delicious-1.13/lib/Net/Delicious.pm](http://search.cpan.org/~ascope/Net-Delicious-1.13/lib/Net/Delicious.pm).

6. Ron Gilmour, DeliciousPosts.php, see [rongilmour.info/software/deliciousposts](http://rongilmour.info/software/deliciousposts). *zz*



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