

# Social Bookmarking: Web2.0 Tool for Content Sharing and Learning

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*Social bookmarking is one of the many phenomena in the Web2.0 environment. They are largely experimental, but some of them are very popular and very useful. Delicious is one of the most popular social bookmarking tools. The general internet users as well as the teachers and learners have been well adapting to the emerging technologies to integrate the learning process. The paper defines Social bookmarking and discusses its various aspects with specific reference to learning.*

**Keywords:** Web2.0, Social Bookmarking, Tagging, Folksonomy, Content Sharing

## 1. Introduction

Evolution of social bookmarking and tagging is one of the major achievements in Web2.0 environment. After the emergence of electronic media, the rate of generation of information has been increased to such an extent, it is too difficult and time consuming to retrieve the useful information sources using the traditional search engines, having the chances of confusing navigation. However, user tagging and folksonomies created in a distributed fashion through social bookmarking sites have been suggested as a potential solution to these problems, since user tagging stumble upon new and interesting sources and users on particular areas of interest. Hence, it is highly helpful for the learners as it provides the readily organized sources of information on similar areas of interest with additional access points to them at less effort. Again as the information organization is a core area of library and information science dealing directly with the ability to increase the relevance of information retrieval, this social bookmarking tool is useful for librarians to increase the efficiency in getting the relevant sources and distinguish the material on the web.

## 2. Concept and Definition

Bookmarking enables web users to store interesting web pages, offline, on their computer, so they can easily retrieve these pages at a later stage. Browsers offer simple tools to manage bookmarks, like storing descriptions and sorting bookmarks in folders. But social bookmarking is the practice of saving bookmarks to a public web site and tagging them with keywords, thereby making them accessible from anywhere, to anyone. These tags are freely chosen keywords that are assigned to a piece of information (a bookmark in the case of social bookmarking). With these tags, the bookmarks can be organized and displayed with meaningful labels by the choice of end users instead of experts only and the assigned tags are immediately available publicly on the web. As these bookmarks are publicly available, any one

can select a tag such as 'Digital Library' and can see what other bookmarks are available using the same tag in which the users and others are interested.

A simple definition to define the concept of social bookmarking can be "Social bookmarking is an activity performed over a computer network that allows users to save and categorize a personal collection of bookmarks and share them with others. Users may also take bookmarks saved by others and add them to their own collection, as well as to subscribe to the lists of others. - a personal knowledge management tool" ([http://en.wikipedia.org/wiki/Social\\_bookmarking](http://en.wikipedia.org/wiki/Social_bookmarking))

This free tagging of websites in case of social bookmarking by the end user leads to folksonomy. The term folksonomy have been coined by Thomas Vander Wal, and he states that the value of a folksonomy is derived from three key data element: the person tagging, the object being tagged (as an entity), and the tag being attached to that object . If we know the objects URL (i.e a web page) and having a tag for that webpage ,we can find other individuals that use the same tag on that particular object (sometimes known as 'pivot browsing'). This can then potentially lead to finding another person who has similar interest or shares a similar vocabulary and this is one of Vander Wal's key points concerning what he consider to be the value of folksonomy over taxonomy: that groups of people with a similar vocabulary can function as a kind of 'human filter' for each other. Hence, folksonomy means user-generated taxonomy where the keywords are not according to the controlled vocabulary.

The above concept of folksonomy have been clearly defined by Vander Wal as "Folksonomy is the result of personal free tagging of information and objects (anything with a URL) for one's own retrieval .The tagging is done in a social environment(shared and open to others). The act of tagging is done by the person consuming the information".

### 3. Social Bookmaking : Key Functionality and Features

Social bookmarking is having the most advanced practice in which people store their bookmarks online, thereby making them accessible from anywhere, to anyone. In order to retrieve the previously bookmarked web pages by anyone, tagging play an significant role in facilitating retrieval via personally meaningful vocabulary. Again tagging can be used in multiple ways, for instance, to identify what or whom a piece of information is about, to identify what it is (an article or a book), to identify who owns it, to refine categories, to identify qualities or characteristics (for instance, excellent or bad), as self reference or to organize tasks (for instance, to read) (Golder and Huberman, 2006)

The key features of Social bookmarking system can be summarized are as follows :

- Users can create personal collections of bookmarks and they can share these bookmarks publicly, or with members of a particular group.

- It allows classification/categorization/indexing of bookmarks with user-defined tags.
- The tagging also enables people to store bookmarks in more than one category, which makes it non-hierarchical and inclusive.
- Social bookmarking services allow users to browse collections of bookmarks of other users and they require a certain participation to become successful.
- It identifies other users with similar interests, identifies resources tagged similarly to one's resources .
- Tags can be subscribed by other web users using RSS
- Unlike traditional search engine it stumble upon new and interesting sources and users.

Thus having more explorative feature.

#### **4. Important Bookmarking Tools**

##### **4.1 Delicious (<http://delicious.com/>)**

Delicious was first released in September 2003, by Schachter .The concept of Social bookmarking has just recently become popular with the advent of the service del.icio.us in 2003 (Alexander, 2006; Millen et al., 2005).

Delicious is a social bookmarking service that allows users to tag, save, manage and share web pages from a centralized source. With emphasis on the power of the community, Delicious greatly improves how people discover, remember and share on the Internet .It uses a non-hierarchical classification system in which users can tag each of their bookmarks with freely chosen index terms (folksonomy). Its collective nature makes it possible to view bookmarks added by similar-minded users

##### **4.2 Citeulike (<http://www.citeulike.org>)**

Citeulike is a Web-based tool to help scientists, researchers and academics store, organise, share and discover links to academic research papers. It has been available as a free Web service since November 2004 and like many successful software tools, it was written to solve a problem the authors were experiencing themselves.It is highly helpful for academic activities due to its following features.

- Easily store references found online
- Discover new articles and resources
- Automated article recommendations

- Share references with peers
- Find out who's reading

#### 4.3 Connotea (<http://www.connotea.org/>)

Connotea is a free online reference management service for scientists, researchers, and clinicians, created in December 2004 by Nature Publishing Group. It is one of a new breed of social bookmarking tools, similar to CiteULike and Delicious, where users can save links to their favourite websites.

Unlike many of the other well-known tools, Connotea is aimed primarily at scientists, and while users may bookmark any webpage they choose, it incorporates special functionality for certain academic resources. Connotea recognises a number of scientific websites and automatically collect metadata for the article or page being bookmarked, including author and publication names. It is also possible to add non-recognised webpages, by manually entering information. An alternative method of adding an article is to retrieve the Connotea form and add the Digital Object Identifier (DOI) for the article. Information about the material should then be retrieved automatically using CrossRef, the official DOI registration point. This function means that it is possible to quickly retrieve the reference for a print article that has an electronic counterpart with a DOI. (<http://en.wikipedia.org/wiki/Connotea>)

#### 4.4 StumbleUpon (<http://www.stumbleupon.com>)

StumbleUpon was founded in December 2001 by Garrett Camp, Geoff Smith, Justin LaFrance, and Eric Boyd during Garrett's time in post-graduate school in Calgary, Canada. It is an interesting tool that takes aspects of social bookmarking and wraps them up in a neat little button that will take the searcher to a random site matching his interests. It helps you to discover and share great websites. These sites may explicitly recommended by your friends or other web surfers with interests similar to the searcher. It uses ratings to form collaborative opinions on website quality. When you stumble, you will only see pages that friends and like-minded stumblers have recommended. This helps him to discover great content which you probably wouldn't find using a search engine.

#### 4.5 Twitter (<http://twitter.com>)

Twitter is a privately funded, startup with offices in the SoMa neighborhood of San Francisco, CA. Started as a side project in March of 2006, It has grown into a real-time short messaging service that works over multiple networks and devices. In countries all around the world, people follow the sources most relevant to them and access information via Twitter as it happens—from breaking world news to updates from friends. (<http://twitter.com/>)

Twitter is ranked as one of the 50 most popular websites worldwide by Alexa's web traffic analysis. Although estimates of the number of daily users vary because the company does not release the number of active accounts, a February 2009 Compete.com blog entry ranked Twitter as the third most used social network based on their count of 6 million unique monthly visitors and 55 million monthly visits. In March 2009, a Nielsen.com blog ranked Twitter as the fastest-growing site in the Member Communities category for February

#### 4.6 Digg (<http://digg.com/about/>)

Digg started out as an experiment in November 2004 by Kevin Rose, Owen Byrne, Ron Gorodetzky, and Jay Adelson. All except Byrne currently play an active role in the management of the site. (<http://en.wikipedia.org/wiki/Digg>)

Digg is a place for people to discover and share content from anywhere on the web. From the biggest online destinations to the most obscure blog, Digg surfaces the best stuff as voted on by the users. It provides a place where people can collectively determine the value of content and supports changing the way people consume information online.

Everything on Digg from news to videos to images is submitted by the community. Once something is submitted, other people see it and Digg what they like best. If the submission rocks and receives enough Diggs, it is promoted to the front page for the millions of visitors to see it

#### 4.7 2collab (<http://www.2collab.com/>)

2collab is an Elsevier online collaborative research tool that enables researchers to share bookmarks, references or any linked materials with their peers and colleagues. Users can share, collaborate and discuss resources either in private groups or openly with the wider scientific community. Through the integration of 2collab into other scientific platforms such as Science Direct and Scopus a lot of researchers are enabled to transport not only the bookmark but also the bibliographic data of research papers into their accounts. Especially when they are the author of these bookmarked documents they can create an easy to use list and share it with others in their field of expertise and start a conversation. Thus the basic objective of any tagging tool is to evaluate the users to organize the wide breadth of information online by choosing tags that turn the vast amount of information into navigational structure that is called a folksonomy or user generated content.

### 5. Practical Application with Delicious

The concept of Social bookmarking has become popular with the advent of the service Delicious and as it is popular among the users, the simple practical application with the tool is written here. Practical applications with other social bookmarking tools is almost similar to this tool.

Delicious is a personal web site where one can store and categorise his/her bookmarks. It also supports importing bookmarks from most web browsers, so if any one already has a collection of bookmarks on his computer he doesn't have to start from scratch when he set up a delicious account. Once he have added bookmarks to his delicious account (either by posting or by importing), he can use tags and bundles to organize his bookmarks into categories. Delicious allows to save a link to anything viewed on the web. One can also use it to share what he read on the web with others.

### 5.1 Start-Up Delicious

Delicious is fairly easy to use. There are only two steps to getting started with it. First we have to simply join (link at top of the screen) with it by visiting the site <http://delicious.com/>. Here only one have to fill out his name, email address, username, and password and read the terms of service. Then Click the register button. The next step will give him the option of importing bookmarks from the web browser. Once he import everything, he is ready to use Delicious. Here in this example the username is used as 'sabitree'(fig.1)

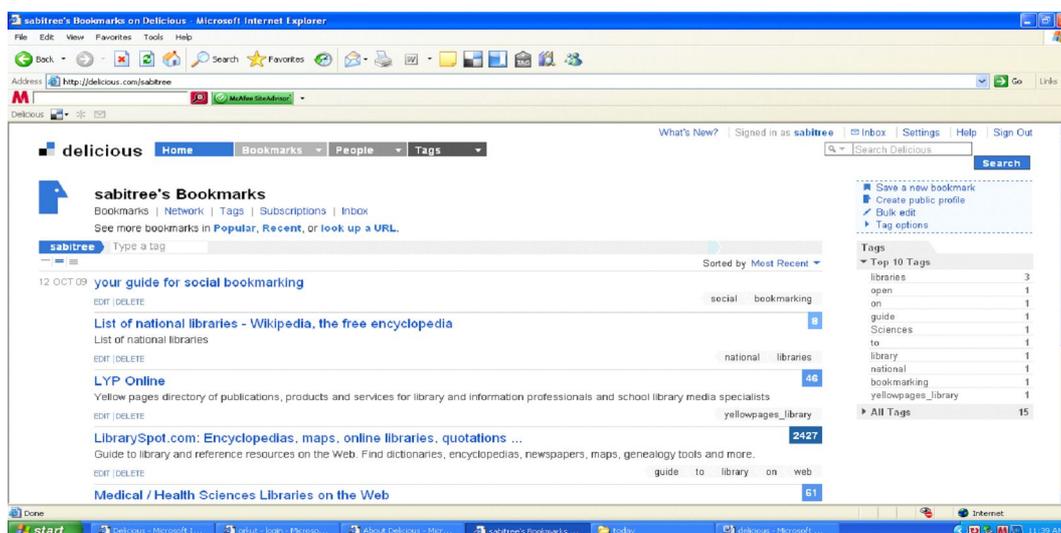


Figure1: Delicious site showing bookmarks with user name 'sabitree'

### 5.2 What can be done with Delicious?

#### 5.2.1 Saving Bookmark on Delicious

Instead of having different bookmarks on every computer, Delicious makes it easy to have a single set of bookmarks kept in central place which is available for all users. Even if you are not on your own computer, you can still get your bookmarks saved by you on the Delicious website.

To save a bookmark in Delicious, click on the Save a New Bookmark link. Enter the URL (web address) of the site you want to bookmark. Click next. You can fill out notes for the website, enter tags, or use tags that other people have used for this site. Click the save button to add it to Delicious. You can now access this link from any where in the world with internet access .

### 5.2.2 Sharing Bookmarks with Others

If some users's friends use Delicious, he can share his interesting bookmarks with them . By using the service he can also find interesting users of the site and can use their Subscriptions .

By default, everyone's bookmarks are open to the public to view (at <http://www.delicious.com/username>). To share certain bookmarks with friends, First, click on Network. Then click Add a User to Network. Type in the username and click Add. Now whenever you want to share a bookmark with this person, in your tags type for:username. This will send it right to their account.

### 5.2.3 Discovering the most Useful and Interesting Bookmarks on the Web

By checking out the popular tags in the site, one can see the popular bookmarks for a tag, hence able to discover the most interesting bookmarks on the topics on which he is most interested in.

## 6. Social Bookmarking for Learners

Personal tagging of information resources with keywords has the potential to change how we store and find information. Hence it may become less important to know and remember where information was found and more important to know how to retrieve it using a framework created by and shared with peers and colleagues. Social bookmarking simplifies the distribution of reference lists, bibliographies, papers, and other resources among peers or students. This relies on many assumptions, that user tagging provides a similar or better search context to free text searching or intermediary assigned index terms. The significance of social bookmarking is that it flattens the knowledge base and makes it freely available to all who wish to be informed. This informal platform enables learner to find one another, create new communities of users of common area of interest.

In this way social bookmarking has many more implications for teaching and learning which can be enumerated as below;

- Listing of course materials by the teachers, which they found relevant for their learners to read.
- Establish specific tag (within a group of tags) that is used to direct individual students to specific readings or resources.

- Support students to learn the use of RSS. Many of bookmarking services also have RSS feeds, so students who use a news aggregator can see new postings automatically.
- Groups of learners undertaking collaborative projects share their bookmarks with the trainer subscribed to their rss feed to see the direction of their research. (Some social bookmark tools - for example FURL permit the trainer teacher to review and comment on resources that are bookmarked)
- Rate and review bookmarks to help with students decide on usefulness of resources.
- Examine the popularity of a web site that a learner had listed and examine those who have tagged that resource in order to find new resources. (and perhaps unintended learning opportunities)
- Share one social bookmark account between a number of trainers to create and share a broad set of resources.

## 7. Conclusion

Modern approaches to organising and retrieving information online create opportunities for numerous applications beyond the traditional information retrieval system. By making the information retrieval interlink, rather than being standalone, the value can be added to the experience of internet surfers in general and learners in particular. By sharing the contents or links using any of these tools, like Delicious, CiteULike, 2-Collab, Connotea Digg etc. the possibilities are literally endless, and it is here that efforts in constructing the learning platform become important.

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