



Social Bookmarks and Tagging in Social Networks

Do all tag clouds have a silver lining?



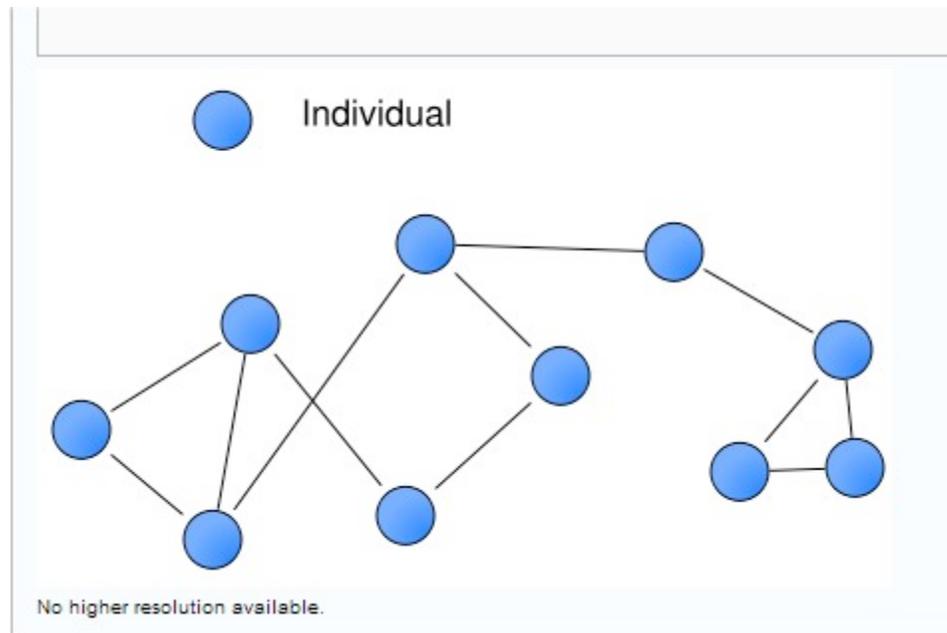
Definition of social network site:

- A “social network site” is a category of websites with profiles, semi-persistent public commentary on the profile, and a traversable publicly articulated social network displayed in relation to the profile*

* according to dana boyd [1]



Social Networks emphasize connections between people



- Nodes 
- Ties 



My LinkedIn Profile...

Hope Niblick

Web Applications Lead at Sandia National Labs
San Francisco Bay Area

[Profile](#) [Connections](#)

Current

- Team Lead at Sandia National Labs

Past

- Application Designer at City & County of San Francisco
- Application Designer at American Building Maintenance

Education

- Columbia University in the City of New York
- Drexel University
- Penn State - College of Agriculture

Connections 2 connections

Industry Research

Public Profile <http://www.linkedin.com/pub/2/795/148>

Summary

My primary area of interest is collaborative technologies, and keeping on the cutting edge. I've done groupware, forums, team workspace, im, and so on. Now getting into social networking and trust issues.

Specialties:

Nanotech
Agilent Inst
Bio & Cher
www.agilen

Silicon Ph
Kotura is a
photonics t
www.kotura

Joe Lewis
Lead Web I
Laboratorie

Shina Sebr
SQL Server

Current
view yr



There are other reasons to have a social network....

- **Sharing photos with your friends (and strangers) a la Flickr**
- **Learning about new music (last.FM)**
- **Seeing strange movie clips (you tube)**
- **Sharing & rating interesting web pages (Digg)**
- **Sharing your bookmarks with your friends & the world (del.icio.us)**



Last.FM



The screenshot shows the Last.fm website interface. At the top is a red navigation bar with the Last.fm logo and the tagline "the social music revolution". To the right of the logo are icons for Users, Music, Listen, Charts, Tools, and Help. Further right are links for "Have an account?" and "Sign in".

Below the navigation bar is a section titled "Start Listening with Last.fm" with the text "Listen to something new. Last.fm radio learns what you like and gets better." Below this is a text input field with the placeholder "To start, type your favourite artist" and a "Play" button. To the right of this section is a music player interface with a large "AS" logo, a search bar, and playback controls (play, stop, next, previous, volume, and repeat).

Below the "Start Listening" section is a section titled "'Scrobbling,' you say?" with the text "Click to see what all the fuss is about." Below this is a grid of six artist profile cards, each with a small image and the artist's name and "listening now" status:

- Rafki (listening now)
- mandus (listening now)
- brianzor (listening now)
- RoundAboutx (listening now)
- loroana (listening now)
- eyelinerman (listening now)

To the right of the artist grid is a section titled "Discover new artists, find out when their gigs are and invite friends. We've got free tracks, too." Below this is a search input field containing "kaki king" and a "Find similar artists" button. Below the search field is the text "If you like Kaki King, you might also like:" followed by a list of recommended artists:

- Sufjan Stevens
- Iron & Wine
- Broken Social Scene
- Cat Power
- Animal Collective
- Elliott Smith

Below the list is a link "See more similar artists..."



Flickr

The screenshot shows the Flickr homepage for a user named 'Giorno Re Dag!'. At the top, there is a navigation bar with links for Home, You, Organize, Contacts, Groups, and Explore. A search bar is located on the right side of the navigation bar. Below the navigation bar, the user's profile picture and name are displayed. A prominent red banner reads 'PLEASE READ THIS IMPORTANT SECURITY NOTICE.' Below this, there are several sections: a yellow box with a tip about emailing images to Flickr; a 'Flickr News' section dated 15 Mar 07 with a link to 'read more news'; a 'Do more with your photos!' section listing various photo services like Mago, PhotoShow, Qooq, Zazzle, and Englaze; and a 'Holy smokes! That's cheap!' section. On the right side, there are sections for 'Upload Photos', 'Your Photos', 'Photos from your Contacts', and 'Everyone's Photos', each with a grid of photo thumbnails.



del.icio.us

del.icio.us

[your bookmarks](#) | [your network](#) | [subscriptions](#) | [links for you](#) | [post](#)

logg

hotlist what's hot right now on del.icio.us

tags to watch

HOT NOW

see also: [popular](#) | [recent](#)



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Scientific Bookmarking in Connotea

**Connotea** Organize. Share. Discover.

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Users who used ants:

- [agosti](#)
- [allanh](#)
- [antbase](#)
- [ants](#)
- [diriano](#)
- [groms](#)
- [haukekoch](#)
- [iandol](#)
- [imc](#)
- [ioanna](#)
- [iochenB](#)
- [kiranastro](#)
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- [MrBiology](#)
- [mwr](#)
- [Myrmecos](#)
- [oicius](#)
- [patchoumouche](#)
- [rdmpage](#)
- [sber5438](#)
- [semant](#)
- [SueRuss](#)
- [terrvc](#)
- [YUCY](#)

Bookmarks matching tag ants [EXPORT LIST](#) [RSS](#) [?](#)

Create a Connotea [Community Page](#) about this tag. [?](#)

Number of bookmarks per page: [10](#) | [25](#) | [50](#) | [100](#)

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Energetics of newly-mated queens and colony founding in the fungus-gardening ants *Cyphomyrmex rimosus* and *Trachymyrmex septentrionalis* (Hymenoptera: Formicidae)
Physiological Entomology **32** (1), 8 (2007)
[info:doi/10.1111/j.1365-3032.2006.00534.x](#)
Posted by [semant](#) to [energetics](#) [Hymenoptera](#) [Formicidae](#) [ants](#) [fungus](#) on [Fri Mar 23 2007](#) at 23:57 UTC | [info](#)

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Evaluating alternative hypotheses for the early evolution and diversification of ants
S.G. Brady
Proceedings of the National Academy of Science **103** (45), (2006)
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Formiche raccolte durante i viaggi di S.A.R. la Duchessa Elena d'Aosta nella regione dei grandi laghi dell'Africa equatoriale
C. Emery
Annuario del Museo Zoologico della R.Universita di Napoli **3** (26), 1-2 (1912)
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Toolbox

- [Add a bookmark](#)
- [Create a new group](#)
- [Create a tag note](#)
- [Rename a tag](#)
- [Import from local file](#)
- [Export my library](#)

Ads by Google

- [Tape Libraries](#)
Tape Libraries
Manufacturer Direct
Nationwide support and pricing.
[www.wdt.com](#)
- [Photo Library](#)
Find photos fast with search tools from Aperture Pro Photo Software
[www.apple.com/aperture](#)

[Report a problem](#)

Related tags:

- [III](#)



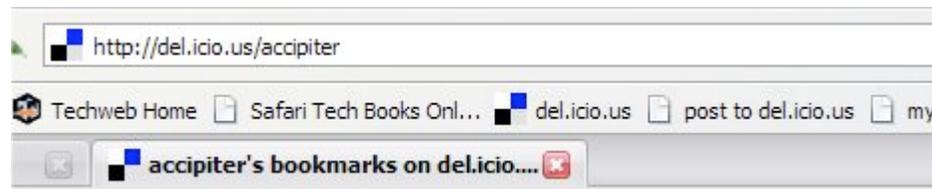
3 Common Features of Social Bookmarking Systems

- **Allow users to create and share bookmarks with others – (bookmark = pointer to a resource, primarily URLs)**
- **Users can enter ‘tags’ for each bookmark**
- **Social in use – more than just your ‘favorites’**



1. Users Create and Share Bookmarks With Others

- Generally, systems provide a 'bookmarklet' which sits in the browser's toolbar





Posting to del.icio.us

del.icio.us / accipiter /

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url

description

notes

tags space separated

recommended tags
blogs digg **green** information Photography wildlife

your tags
activist AJAX architecture beauty birding blogs bookmarking bookmarks Bronx Buddhism Buddhist conservation dogear dzogchen ecology ERD evolution exercise FireBug firefox fitness folksonomy framework **green** hacks health organics OWL personalcare Photography politics prototype prototype.js rest Rinpoche running SanFrancisco sci tagging tags vajrayana visualization web web2.0 whales wikipedia wildlife xbel

your network
for: sanbeiji

popular tags
trees **nature** photos photography images **environment** cool



2. Users Enter Tags for each Bookmark

- **Tag = a (relevant) keyword or term associated or assigned to a piece of information, thus describing the item and enabling keyword-based classification of information it is applied***
- **A bookmark is often given more than one tag, allowing for multiple 'browseable paths' to return to and administer the bookmark and tag collection**

- * wikipedia – www.wikipedia.com



Adding tags with some help from the community

save

▼ recommended tags

blogs digg **green** information Photography **wildlife**

▼ your tags

activist AJAX architecture beauty birding blogs bookmarking bookmarks Bronx dogear dzogchen ecology ERD evolution exercise FireBug firefox fitness folksc organics OWL personalcare Photography politics prototype prototype.js rest f tagging tags vajrayana visualization web web2.0 whales wikipedia **wildlife** xbel

▼ your network

for:sanbeiji

▼ popular tags

trees **nature** photos **photography** images **environment** cool



Folksonomy is a User Generated Taxonomy

- **No SME is dictating where a resource should fall in a hierarchy**
- **Social context lets users learn who created tag and what related tags are used for similar content**
- **Flat namespace – no hierarchy, no parent-child or sibling relationships**



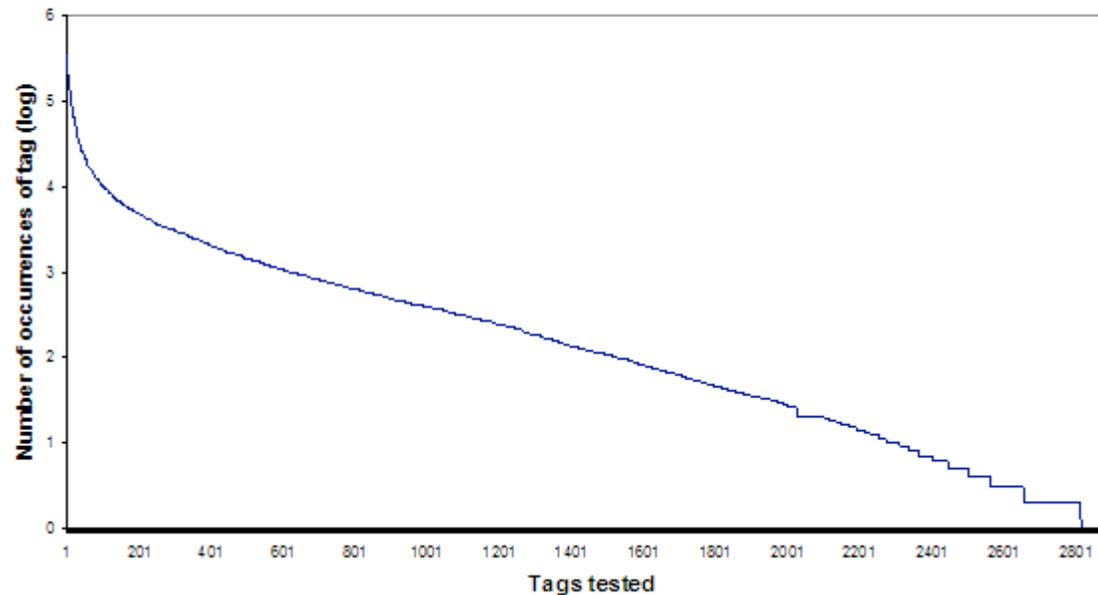
Information Scientists Have Some Criticisms of Collaborative Tagging

- Polysemy
- Synonyms
- Idiosyncratic
- Single Use
- Misspelt words
- Personal



Far fewer single-use tags are found than initially expected

Tag popularity curve





Many Systems are Leaning Toward a Hybrid of Taxonomy and Folksonomy

- **Set up broad categories as would be found in taxonomy**
- **'Bundle tags' to show relations**
- **Use algorithms to relate tagged content to other content**
- **Educate users on 'good' tagging practices – tag etiquette**



Tag Clouds Provide Visualization of Tag Information

- “visual depiction of content tags used on a website”
- Generally more frequently used tags are depicted in a larger and/or bolder font

▼ tags AJAX birding bookmarking Bronx Buddhism Buddhist conservation CSS debugging documentation dogear dzogchen ecology evolution exercise FireBug firefox fitness folksonomy framework green hacks HHDL information JavaScript library LongTail Marin media meditation mySocialTalk ontology OWL Photography politics prototype prototype.js Rinpoche running SanFrancisco science semanticweb sf shoes socialbookmarking socialnetworks socialsoftware swimming tagging tags vajrayana visualization web Web2.0 whales wildlife xbel



Tags Can Be Integrated Into Other Web 2.0 Offerings

- XBEL
- rel="tag"
- APIs
- REST architecture – giving a stable link to tagged resources allows integration later



Tag (and other) feeds can be embedded in web sites

San Bei Ji
三杯雞

Class of Objects

..., 2007

ing to think of a straightforward explanation of the difference between a class and an object (in OOP terms), and came up with this:

are specific instances of classes. When you create a class, you are literally creating "a class of objects." For instance, let us create a class of double basses. All members of class "double bass" have certain properties defined: Maker, city, year, varnish, length, etc. But this particular bass was made by Carlo Testore in Milan in 1710, with a deep reddish varnish and about a 42" string length. This Testore double bass is an instance of the class "double bass."

Search

Crass Commercialism

- Double Bass Sheet Music
- Guitar Sheet Music
- Must-Read Books!
- Piano Sheet Music

Recent Bookmarks

- Microformats
- The Ethics of Software Project Management
- Office Discipline: Why You Need a Project Management Office
- PHP Optimization Tricks
- Gore testifies on global warming before House panel

Archives

By Month

Categories

All



3. Bookmarks are social in use -- more than just your 'favorites' in a browser

- **Subscribe to tags**
- **Subscribe to people**
- **References to this talk on del.icio.us at:
...accipiter/mySocialTalk and are presented as an RSS feed**



Tags can be 'sent' to your contacts

description

notes

tags

your network
[for:sanbeiji](#)



Social Networking at Sandia and National Labs

- **Adding ability to integrate internal information like SAND reports, etc.**
- **‘Expert Locator’ function**
- **Development of communities**
- **Integration with research content via semantic web techniques**



Some references and further reading...

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- Lund, Hammond, Flack, Hannay (2005) Social Bookmarking Tools(2) A Case Study – Connotea; D-Lib Magazine April 2005. www.dblib.org
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- Golder, Huberman (2005) The Structure of Collaborative Tagging Systems. arXiv.org August 2005.
- <http://del.icio.us/accipiter/mySocialTalk> -- (for an inclusive list)



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- **Delicious – ‘accipiter’**
- **Digg – ‘9iron’**