# @toread and Cool: Subjective, Affective and Associative Factors in Tagging

Margaret E. I. Kipp
Palmer School of Library and Information Science
College of Information and Computer Science
Long Island University
margaret.kipp@gmail.com

CAIS/ACSI 2008

Tagging as Collaborative Classification

- Tagging is increasingly examined as a form of collaborative classification

- Multiple studies have examined the consensus shown by frequency graphs

Tag Frequency Graph for http://shirky.com/writings/ontology_overrated.htm
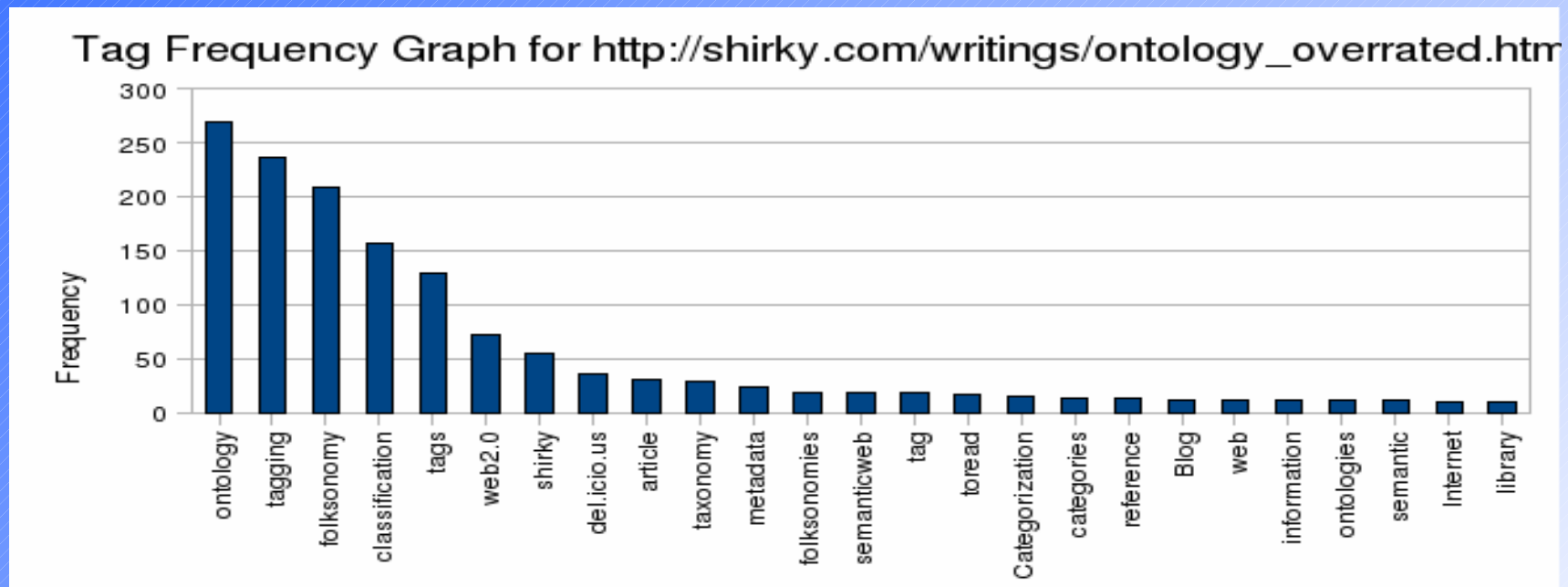
Tagging as User Classification

- Suggested that users of tagging systems are creating a folksonomy or user based taxonomy (Shirky 2005; Hammond et al. 2005)

- Examination of consensus in tagging (Golder and Huberman 2006; Kipp and Campbell ASIST2006, etc.)

- Comparisons of tags and subject headings (Kipp CAIS2006, CAIS2007; Smith SIGCR2007)

Tagging as Personal Information Management

- Frequent comparison (see Shirky 2005, Kipp and Campbell CAIS2006; Kipp IASummit2007, etc.)

- PIM: paper based and electronic studies

- Examine how users organise or arrange their personal/work documents for use

- Also examines differences between current and archival document organisation

Personal Information Management

- Paper based:
  - Malone 1983 - how users organise their desk
  - Kwasnik 1991 - taxonomy of user categories, mainly activities and tasks and projects
    - also see Bewley et al. 1987; Sellen and Harper 2002, Bowker and Star 1999
- Electronic:
  - Jones et al. 2005 - Keeping Found Things Found - KO helps in breaking a topic down into tasks
  - Mas and Hudon CAIS2007 - user classification schemes

Tagging Characteristics

- majority of tags used are subject related or form related -- exactly like traditional classification (also geographic and date/time)

- In all studies, a minority of tags are not subject related:

    - e.g. toread, cool, fun, cais2007

- What is the apparent purpose of these tags?

- Are they only individual or is there any collective useful information here?

Research Questions

- What patterns of user tagging activity emerge on examination of affective or time and task related tags?

- How do users use time and task related tags or affective tags to indicate the value they see in a document?

- What implications do the use of affective or time and task related tags have for the organisation of information?

Methodology

- Data source
  - Del.icio.us, Citeulike (www.citeulike.org), Connotea (www.connotea.org)

- Collection method:
  - Screen scraping (python)

- Data collected
  - all items tagged with a specific list of 83 affective, project and time and task related tags

File   Edit   View   Go   Bookmarks   Tools   Help

http://www.citeulike.org/

Links

Cite

File   Edit   View   Go   Bookmarks   Tools   Help

Links

Con

Navigat
- H
- L
- R
- D

Journa
- B
  is

Groups
- V

Experi
Feature
- I
  B

Home   L

Org

your re

Connote

B

chi

da

eo

Done

inf

Done

File   Edit   View   Go   Bookmarks   Tools   Help

http://del.icio.us/

Links   Semantic   BlogSub   del.icio.us   Post to CiteULike   Local   Research   to read   fun   my del.icio.us   my CiteULike   »

del.icio.us

popular | recent

login | register | help

» **keep**
your favorite websites, music, books, and more in a place where you can always find them.

» **share**
your favorites with family, friends, and colleagues.

» **discover**
new and interesting things by browsing popular & related items.

Learn more »

discover favorites:

search

What's a tag?
A tag is just a word that describes an item saved on del.icio.us.

Learn more »

» sign up now

username
password
password again
email

register

the **del.icio.us** hotlist   also see: popular | recent | tags

hot right now

1. **Linux.com | CLI Magic: Searching with find** save this   **110** people
   first posted by plovs ... on july 10   linux find tutorial cli search tags

2. **Free Science and Video Lectures Online!: Even more physics videos and video lectures!** save this   **88** people

3. **TheTypeTrust** save this   **71** people

1 hour ago

1. **Strobist: How To: DIY $10 Macro Photo Studio** save this   **106** people
   first posted by yeltsinfina ... on july 10   photography diy lighting tutorial howto tags

2. **Run a Secure Web Proxy in 10 Steps - Pure MHz Community** save this   **89** people

3. Technophilia: Find great podcasts - Lifehacker save this   **91** people

http://del.icio.us/popular/

Examples of Non Subject Tags

- Affective Tags
  - cool
  - boring
  - exciting
  - important
  - funny
  - strange
  - favorite/favourite

- Time and Task Tags
  - @toread
  - todo, toblog, tovisit
  - @pending
  - todescribe

- Project Tags
  - cais2007, asist2006
  - 519, lis501
  - week7, lecture-7

Data Collected

- all posts tagged with one of 78 specific tags
    - 48 tags were time and task related, 30 were affective tags (project tags were not collected due to the difficulty of locating these)
    - 78 tags were in English
    - 5 tags were in French (lire, alire, @lire, acheter, amusant)
        - non English tags do not yet appear frequently in the popular tag clouds of these sites
    - 203352 posts in total (1831 from CiteULike, 2891 from Connotea and 198630 from Del.icio.us)

General Results

- some time and task or affective tags are very popular
    - cool, fun, funny, toread in main del.icio.us tag cloud

General Results 2

- ToRead and fun are popular tags on all three sites

  - Top 5
    - Citeulike: fun, ToRead, todo, interesting, cool
    - Connotea: fun, ToRead, important, unread, funny
    - Del.icio.us: fun, ToRead, funny, cool, interesting

Time and Task Tags

- many time and task related tags are variations on toread
    - @toread
    - @read
    - readlater
    - unread
- fewer variations for toread are found on citeulike and connotea
- citeulike offers a way to mark interest in reading an article

Time and Task 2

- is the toread tag useful to other users?
  - Amazon's recommendation system relies on purchase data and view data as an indicator of interest
  - Search engines use hyperlinks as indicators of interest
- could a toread tag have a similar function?
- could this function like a colleague's e-mail pointing to an article or book?

Affective Tags

- affective tags represent an emotional reaction to an item
  - cool
  - fun
  - strange
- tags such as cool or fun do not appear to add anything to the subject classification of an item
- seem to be poor candidates for search terms for information retrieval... but they indicate interest

Non Subject Tags with Subject Tags

- non subject tags were frequently used with subject related tags

- academic articles on citeulike and connotea were tagged with terms such as fun and cool

- fun was found most often with physics and math, toread with biology

- what do affective tags add to a tag list?

Examples from Citeulike Database Dump

- 320112 - ForensicsAge written in teeth by nuclear tests
  - 'carbon-dating', 'cool', 'forensics'
- 566928 - Action as language in a shared visual space
  - '519', '519-week11', 'action', 'co-location', 'cscw', 'shared-space'
- 983570 - Physics the google way
  - 'education', 'fun', 'google', 'physics', 'search', 'web'

Discussion

- non subject tags are intrinsically time-sensitive
- express response from user not subject of document
- suggest active engagement with the text
- show that user links perceived subject matter to:
  - specific task
  - specific set of interests
  - specific emotional reactions

Discussion 2

- use of time and task or affective tags shows that tagging expresses a dynamic relationship between users and documents, suggesting possible new ways of modelling information access

- research into personal information management systems show users classify by task and project as well was by subject

Final Thoughts

- What is the effect of personal and subjective terms such as cool, fun and toread in a social bookmarking system?

- What happens when these terms are aggregated?

- Amazon and Google use personal information to generate popularity or relevance indicators, do non subject tags offer any similar advantages?

Margaret E. I. Kipp
Palmer School of Library and Information Science
College of Information and Computer Science
Long Island University
margaret.kipp@gmail.com
http://myweb.liu.edu/~mkipp/

Thank you!

Questions?