Finding Again
A Survey of Web Rediscovery Behavior

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Digital Library Program

Digital Library Brownbag Series
April 8, 2009
Outline

• Motivation
• Method
• Results
• Implications
Motivation

Learn about campus refinding and personalization behavior so that our website can better support user needs.

E.g.,
Motivation

Bookmark & Share

Select a Service:

Ask, Backflip, BallHype, Bebo, Blinklist, Blogmarks, Delicious, Digg, Diigo, Facebook, Fark, Faves, Favorites, FeedMeLinks

FriendFeed, Furl, Google Bookmarks, Kaboodle, Link-a-Gogo, LinkedIn, Live, Mister Wong, Multiply, myAOL, MySpace, Netvouz, Newsvine

Propeller, Reddit, Segnalo, Simpy, Slashdot, Spurl, StumbleUpon, Tailrank, Technorati, Twitter, Yahoo Bookmarks, Yahoo Buzz, Yardbarker

Get your own AddThis button!
Motivation

To what extent do faculty or students
• use social bookmarking sites?
• use multiple computers (impacting utility of browser-based bookmarking?)
• customize or personalize portals, sites, or devices? use subscription services?

What do people use the library website for?
Method

Developed short web survey

• Linked from library home page
• Sent out link via UITS newsletter
• Collected name & contact info for respondents willing to be interviewed later
174 Respondents: What is your primary role at IU?

Other: postdoc (2), retiree(2), alumni (2), 3 others
In a typical week, how many different computers do you use?
In a typical week, how many different computers do you use?

- Only 12% report using just 1 computer
- Students report using more computers
- Has implications for browser-based bookmarking, browser plugins, and other computer-tethered functionality

*unless* users segment computer use...
How Refinding Happens

- When you find something of personal or recreational interest on the web, and you might want to look at it again, how often do you do each of the following?

  - Bookmark or Favorite it in my browser
  - Bookmark with Delicious, Digg, StumbleUpon, Facebook, or other web-based social bookmarking tool
  - Bookmark with Google Bookmarks, Yahoo Bookmarks, or other web-based private bookmarking tool
  - Save it as a document
  - Print it out
  - Email the URL to myself
  - Copy the URL into a document of some kind (such as MS-Word)
  - Write down the URL by hand
  - Nothing. Assume I can easily find it again.
  - Other

A lot | Sometimes | Rarely | Never
Refinding: Personal/Recreational

- Bookmark in browser (A Lot - 49%)
- Email link to self (Sometimes - 39%)
- Save as document (Sometimes - 39%)
- Nothing (Sometimes - 38%)

Rarely or Never:
- Social bookmarking
- Private web-based bookmarking
- Print
- Copy/Paste URL to a document
- Write down URL by hand

No big differences between students and others.
How Refinding Happens

• When you find something **of academic (or work-related) interest** on the web, and you might want to look at it again, how often do you do each of the following?

  • Bookmark or Favorite it in my **browser**
  • Bookmark with Delicious, Digg, StumbleUpon, Facebook, or other web-based **social bookmarking** tool
  • Bookmark with Google Bookmarks, Yahoo Bookmarks, or other web-based **private bookmarking** tool
  • **Save** it as a document
  • Print it out
  • Email the URL to myself
  • **Copy the URL** into a document of some kind (such as MS-Word)
  • Write down the URL by hand
  • Nothing. Assume I can easily find it again.
  • Other

A lot | Sometimes | Rarely | Never
Refinding: Academic/Work-Related

• **Bookmark in browser** (A Lot - 58%)
• **Print out** (Sometimes - 42%)
• **Save as document** (Sometimes - 39%)
• **Email link to self** (Sometimes - 38%)

Rarely or Never:
• Social bookmarking
• Private web-based bookmarking
• Copy/Paste URL to a document
• Write down URL by hand
• **Nothing**

*Students more likely to email to self* (A Lot, 42%).
Work/Academic vs. Personal: Why Refinding Differs

**Work/academic finds**
- Are more important (16)
- Have to be refound faster (8)
- Are harder to find (7)
- Are used more often (5)
- Need to be more organized & kept track of (5)
- Have to cite (4)
- Can’t clog up email (3)
- Need to be shared (3)
- Need to be annotated (3)

**Personal finds**
- Are [by implication] less important, easily googlable, can be dealt with at leisure…
- Are more transitory, immediately useful (4)
- Are less transitory (3)
Refinding: Other Strategies

- Use other tools (Google Sites, Google Notebook, Firefox tags, Outlook tasks, OneNote, RSS, Zotero, Endnote) (8)
- Add to personal (or departmental) web-accessible start page: (4)
- Create desktop shortcut: (3)
- Browser tricks (check browser history, leave it open in tab & save session; leave open): (3)
- Email (or IM) to self or others and then use email history: (3)
- Mail document (or snippet) to self: (2)
- Remember URL
- Wrote own bookmarking tool that integrates Firefox, JavaScript/ Ajax, PHP and MySQL
Social Bookmarking

• Most don’t report using it, but students report more social bookmarking use than do faculty and staff

• Report using social bookmarking “a lot” or “sometimes”:

<table>
<thead>
<tr>
<th></th>
<th>Personal</th>
<th>Academic/Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>19%</td>
<td>11%</td>
</tr>
<tr>
<td>Faculty &amp; Staff</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Library Website AddThis Usage
(usage in libraries.iub.edu domain this year)

<table>
<thead>
<tr>
<th>Service</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Commons</td>
<td>48</td>
</tr>
<tr>
<td>Resource Discovery</td>
<td>27*</td>
</tr>
<tr>
<td>Wells Reference Department</td>
<td>25</td>
</tr>
<tr>
<td>Computer Labs at the Cook Music Library: A partner</td>
<td>20</td>
</tr>
<tr>
<td>Resource Discovery</td>
<td>14*</td>
</tr>
<tr>
<td>Online Full-text Journals</td>
<td>12</td>
</tr>
<tr>
<td>Ask a Librarian</td>
<td>10</td>
</tr>
<tr>
<td>Policies (Fine Arts Library)</td>
<td>10</td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>

*bookmarking search results page doesn’t work!
Social Bookmarking

(usage in libraries.iub.edu domain this year)

<table>
<thead>
<tr>
<th>Service</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>55</td>
</tr>
<tr>
<td>Google Bookmarks</td>
<td>49</td>
</tr>
<tr>
<td>Favorites</td>
<td>40</td>
</tr>
<tr>
<td>Delicious</td>
<td>39</td>
</tr>
<tr>
<td>Print</td>
<td>31</td>
</tr>
<tr>
<td>MSN Live</td>
<td>29</td>
</tr>
<tr>
<td>MySpace</td>
<td>24</td>
</tr>
<tr>
<td>Email</td>
<td>22</td>
</tr>
<tr>
<td>Digg</td>
<td>20</td>
</tr>
<tr>
<td>Twitter</td>
<td>20</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Total</td>
<td>384</td>
</tr>
</tbody>
</table>

Mark Notess
April 8, 2009
If you sometimes do nothing, how do you refind?

- Assume I can easily refind using Google (A Lot – 83%)
- Remember where I started and try to browse to what I’m looking for by following the same path (Sometimes – 49%)
- Start typing the URL and expect it to appear in a list as I type (Sometimes - 48%)
- Remember the URL (Sometimes – 46%)
- Look through my browser history (Sometimes – 44%)
How effective are you at refinding?

<table>
<thead>
<tr>
<th></th>
<th>ugrads</th>
<th>grads</th>
<th>fac</th>
<th>staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very effective</td>
<td>64%</td>
<td>71%</td>
<td>47.5%</td>
<td>66%</td>
</tr>
<tr>
<td>Somewhat effective</td>
<td>36%</td>
<td>26%</td>
<td>47.5%</td>
<td>32%</td>
</tr>
<tr>
<td>Somewhat ineffective</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very ineffective</td>
<td>3%</td>
<td>5%</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>
Personalization

How often do you do each of the following personalization or customization activities?

- Customize your Onestart home page or the “My Zone” tab
- Download a browser toolbar, add-on or other extension
- Rearrange your Facebook page contents
- Add applications to Facebook
- Change the look or features of my blog, MySpace page, or other online diary
- Change content or look of iGoogle, MyYahoo, or other personal web portal
- Download ringtones or wallpaper for my cell phone
- Change my desktop background, screen saver, or other computer “look and feel” features
- Change avatar characteristics in SecondLife
Personalization

• Change my desktop background, screen saver, or other computer “look and feel” features (Sometimes – 43%)
• Respondents report using but not customizing Onestart, browsers (toolbars, plugins), or cell phones (wallpaper, ring tones)
• Students report using Facebook but customizing layout or adding apps rarely; most report no blog or customization of web portal
• Majority of faculty and staff report not using Facebook, a blog, or web portal.
• 88% (84% of students) report not using SecondLife
• Most don’t personalize, but if they do, they do it once and then leave things alone for a long time
Subscriptions

How much do you do each of the following subscription activities?

• Subscribe to email distribution lists (such as listserv) related to my academic or work-related interests

• Subscribe to email distribution lists (such as listserv) related to my personal or recreational interests

• Subscribe to the RSS feed of a website, web page or blog using a feed reader tool such as Bloglines, Google Reader, or Outlook – for feeds of academic or work-related interest

• Subscribe to the RSS feed of a website, web page or blog using a feed reader tool such as Bloglines, Google Reader, or Outlook – for feeds of personal or recreational interest

• Subscribe to a podcast using iTunes
Subscriptions

How much do you do each of the following subscription activities?

• Subscribe to email distribution lists (such as listserv) related to my academic or work-related interests? (A Lot – 35%)

• Subscribe to email distribution lists (such as listserv) related to my personal or recreational interests? (Rarely – 45%)

• Most report not subscribing to RSS feeds or podcasts, or knowing how to.
Library Website: Last Use by Faculty (N=21)

- Use IUCAT, WorldCat, catalog, book search, holdings, call number, availability (7)
- Find scholarly articles (3)
- Reference/citation verification (2)
- Databases, subscription journal services (2)
- Find a journal or newspaper (2)
- Find online journal, for reading or assigning
- Request delivery
- Looking for a MARC record to use as an example
- ILL
- Never (just 1!)
Library Website: Last Use by Staff (N=65)

- Find a book, video, use IUCAT, search catalog (20)
- Never, not for many years, don't remember (14)
- Look for article(s) in databases, research (9)
- Find online journal (3)
- Look up hours (3)
- Checking library news (2)
- Find info for library marketing publication, info about ALF (2)
- Use free online books (2)
- Find contact information (2)
- Look at services offered, collection info, programming (2)
- ...
Library Website: Last Use by Graduate Students (N=42)

- Search databases, Proquest, find articles, research (17)
- Search IUCAT, find video, renew (12)
- Look up hours (3)
- ILL (3)
- Find journal, find online full-text journal (2)
- Request delivery (2)
- ...
- Never (just 1)
Library Website: Last Use by Undergraduate Students (N= 37)

- Look up articles, research, EPSCOhost (9)
- Never (7)
- Use IUCAT (3)
- Accessing ereserves
- Look up hours
- Address to have a pizza delivered
Caveats

• Convenience sample of respondents (who happen to read the UITS newsletter, visit the IU Libraries website, like to fill out surveys, care more about the library, etc.)

• This is a snapshot. Behavior changes over time, as does the technology.
Possible Steps

- Make library website search results bookmarkable by embedding search criteria in URL
- Figure out where to insert training on best practices for refinding (and not losing)—would focus on faculty and undergraduates
- Consider expanding role of IUScholarWorks and/or Oncourse to include supporting student and faculty refinding needs, making a more integrated solution suite
  - Manage creation & sharing of citation lists, annotated bibliographies?
  - Manage personal PDF collections?
  - Final resting place or also foundry?
- Fit tools to users work needs rather than requiring them to adapt to our silos
Kudos & Opportunities

It's my understanding that IU staff can somehow access subscriptions to resources like PC World, NY Times, Newsweek, etc. I was looking for a page on the IU Libraries site that listed these sites, with directions on how to access them, but, after 30 minutes, I gave up. Where the heck is this information to be found?? (staff)

I use Document Delivery Service chiefly. I used it *alot* in my first five or so years as a graduate student and consider it an invaluable asset, especially (a) when they switched from delivering print copies to delivering .pdf files, (b) when it became free, and (c) when they unified the DDS and Interlibrary Loan service (so that I didn't have to check whether it was in the IUCAT database (which is a burden to use). Because I am so grateful for the DDS service, I am glad to have taken part in this survey. Thank you very much. :) (grad student)

Mark Notess
Kudos & Opportunities

One suggestion on this: the "print information" page for searching the catalogue takes up a lot of room (mono-spaced font!) and is arranged unintuitively. It feels very late-80s. There's no reason a page can't be generated that takes up less space and makes use of positional formatting (e.g. with css) to align things on the right and have entries as rows instead of big blocks of text that take up vertical space. This would save on printing costs, etc. (grad student)
Kudos & Opportunities

“I know absolutely nothing about Delicious, Digg, StumbleUpon, Facebook, or other web-based social bookmarking tools; nor about Google Bookmarks, Yahoo Bookmarks, or other web-based private bookmarking tool. I'd love to learn about these tools, and the advantages and disadvantages compared to standard bookmarking. But it would have to be free training or an easy to follow free training tool. Staff have to pay for I-Steps, and I know few staff who can afford to. It's unfortunate that IU does not offer free IT training to staff, since the ultimate pay-off would almost invariably benefit IU.” (staff)
Future Explorations & Questions

- Conduct interviews to understand the “why?” for the survey answers and the context of the behavior
- Explore rating, tagging, commenting, microblogging, and recommending behavior
- Mobile device usage trends
- Digital book reader usage trends
- What effect will economy have on STCs (e.g., UVA plan to scale back computer labs)? Will personal computing consolidate toward one computer or at least one data store?
Thanks to

• Jen Laherty
• Web Content Team
• Those who filled out the survey
Technology Adoption Chasm

Technology Non-Adoption

- Insufficient value proposition (benefit for the cost of adoption)
  - Too confusing
  - High cognitive load
  - Minor perceived benefit
- Kinds of perceived benefit
  - Safety
  - Efficiency
  - Status
  - Technophilia
Figure 1. Hype Cycle for Emerging Technologies, 2008

Technology Trigger
Peak of Inflated Expectations
Trough of Disillusionment
Slope of Enlightenment
Plateau of Productivity

Visibility
Green IT
Social Computing Platforms
3-D Printing
Video Telepresence
Cloud Computing
Solid-State Drives
Surface Computers
Augmented Reality
Mobile Robots
Behavioral Economics

Erasable Paper Printing Systems
Context Delivery Architecture
Service-Oriented Business Applications
Virtual Assistants
RFID (Case/Pallet)
Public Virtual Worlds
Web 2.0
SOA
Tablet PC
Location-Aware Applications
Electronic Paper
Social Network Analysis
Wiki
Idea Management
Corporate Blogging

Years to mainstream adoption:
○ less than 2 years  ○ 2 to 5 years  ○ 5 to 10 years  ▲ more than 10 years  ◊ before plateau

Source: Gartner (July 2008)