

Project Cover Sheet

Project	MTagger Usability Evaluation <i>MTagger and Social Bookmarker User/Non-User Interviews</i>
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Report Info	Report Author(s): Matt Schultz and Jacob Solomon Contact Information: ul-usability@umich.edu Report Date: June 2008; Last Revised: June 2008
Objectives	Identify and enlist interview subjects across a wide spectrum – from heavy to non-user. Interviews were conducted to gather feedback about user behavior and expectations concerning such tools, in order to improve and expand upon existing features in the MTagger interface.
Methodology	Method – Interviews Interview questions designed for both heavy and casual users, as well as anti- and non- users of either MTagger or other social bookmarking tools. Gift certificate incentives were offered and subjects were identified and enlisted for their exposure to MTagger or lack thereof. Interviews were carried out over a three-week period and analyzed for key findings. Dates of study: May-June 2008
Results & Analysis	<ol style="list-style-type: none">1.) Personal motivations are stronger than social motivations2.) Preference for tag display alongside of traditional search results3.) Tagging needs a marketing campaign4.) Tagging is a "librarian's" thing.
Recommendations	Implement the ability for users to organize tagged/bookmarked material into user-defined categories, with discrete social features. Carry out a widely distributed survey to gauge whether and how users need more explicit information about tagging and social bookmarking. Test for attitudes toward traditional authority in user-driven environments.

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Introduction

MTagger is the University of Michigan University Library's online social bookmarking tool made available in the context of the Library's online presence. This bookmarking and tagging feature extends not only to many of the Library's online digital collections, but is equipped with a bookmarklet for saving and tagging web content located by users outside of the Library's resources. The Library's Usability Working Group (UWG) has chosen to evaluate MTagger in regards to its usability, functionality and aesthetics during the Summer of 2008.

To date, the UWG and its Summer Interns performed a cognitive walkthrough and a heuristic evaluation, as well as a comparative evaluation and a guerilla usability test. These investigations revealed a number of things about individual features made available through MTagger and how they can be improved to accomplish the tool's goals and meet the needs of its users. Alongside of all these evaluations the Summer Interns have been carrying out interviews with current and potential users of either MTagger or other online social bookmarking applications to garner more valuable feedback on specific user needs and expectations.



Methodology

The Summer Interns, in consultation with the UWG, determined that it would be wise to exhaust the in-house resources as they related to knowledge of current users and their experience with either MTagger and/or other online social bookmarking tools. For that reason, at least two of our interviewees were chosen from within the University Library staff. Careful attention was paid to avoid selecting a candidate who had an intimate or technical working knowledge of MTagger and its over-arching functionality. Members of the UWG contacted at least one heavy user of MTagger from within the library staff, and one other University librarian who specializes in digital resources and uses social bookmarking tools on a casual basis, both for work and pleasure.

Beyond this cohort, it was also determined that it would be efficient to reach into the University's School of Information, as there would be a higher degree of familiarity and use with Web 2.0 technologies. Affiliates of this department were contacted via an e-mail invitation to the school's open listserv and offered an incentive of a \$5 gift certificate in exchange for a 30-45 minute interview. Being a summer period, there was very little response generated, but the Interns were fortunate to procure the interest of a public librarian who classified herself as an "anti-social bookmarker" who had abandoned such tools in favor of other applications such as Google Notebooks.

Finally, it was determined that a non-user of MTagger and/or any other social bookmarking tool who was only vaguely familiar with the concept of tagging would be vital to enlist, particularly for garnering feedback concerning barriers, as well as the creation of incentives for use.

The questions were tailored specifically for getting at the unique traits, needs and expectations of our interview candidates. There was a set of questions formulated for our heavy user of MTagger, a set geared toward casual users of either MTagger or other social bookmarking applications, and a set geared toward our non-user. Some tailoring of our casual user questions was performed to more closely get at the nuances of our "anti-social bookmarker." The questions can found in Appendix A. Feedback generated from them in Appendix B. It should be noted that the questions served primarily as anchors and guides for conversation, and where necessary the Interns deviated from the script to get more commentary that seemed helpful to our goals.

Upon completion of the interviews, the Summer Interns analyzed the notes and in some cases the audio recordings from the interviews, looking for insights and patterns. The findings detailed below represent that feedback which seemed common across the interviewees as well as noteworthy for their individual status of use as either heavy, casual, anti-, or non-. The Interns then proceeded to consider how these findings fit into findings from previous evaluations performed on MTagger, and read related scholarly and scientific literature.



Findings Summary

- Personal motivations are stronger than social motivations
- Preference for tag display alongside traditional search results
- Tagging needs a marketing campaign
- Tagging is a "Librarian" thing



Findings

Finding 1: Personal motivations are stronger than social motivations

One of the predominant themes that emerged from the interviews was the tendency of our interviewees to couch their individual use of tagging in very personal terms. Each of the interviewees, with the exception of our heavy user, said that their main motivation for tagging within a system such as MTagger would be to organize information for their own purposes and for their personal reference. Any social capabilities intended to encourage interaction with other users were not a high priority. Similar conclusions have been drawn from studies approaching collaborative tagging systems such as CiteULike and Connotea, based on a more quantitative measurement of 'content reuse' and 'interest sharing' (Santos-Neto, et. al., 2008). The design suggestion from that study was that the

tagging system "...caters to the personal information management needs of individual users first, while placing data gathering for social knowledge discovering transparently in the background" (pg. 6).

The interviewees did acknowledge that tagging in the context of a system like MTagger offers librarians the ability to organize online material for the benefit of patrons, and assist librarians in locating frequently requested information more readily. Interestingly, our heavy user demonstrated that indeed there could be a motivation to couple one's interest in a particular subject matter or material type and enhance it for the benefit of other users. Furthermore, this same user suggested that a little bit more information about other users in the system might help the system to become more social. The creation of profiles comes to mind, but it remains to be seen whether the majority of users would be comfortable or cooperative with such a feature. Profiles do present an opportunity to tap into aspects of social psychology that have been demonstrated to promote online social activity. Specifically, the ability to define users' contributions as unique and creating a sense of ownership of that contribution has been shown to stimulate user participation in online communities. (Beenan et al. 2004)

In order to support users' expressed preference for personal tagging, MTagger should offer users more flexibility to organize and contextualize the material that they tag and bookmark for their personal reference purposes. A comparative evaluation conducted on MTagger highlighted other systems' use of groups and projects as potential metaphors for such an option. Offering the ability to group and categorize tagged materials under user-defined categories should be a strong priority. Ying Xin Pan and David Millen's study titled "Information Sharing and Patterns of Social Interaction in an Enterprise Social Bookmarking Service" echo this finding and suggest how it might be leveraged to increase social interaction. They surmise that: "...there may be an important need for collections of bookmarks in support of specific organization or communities of practice. For example, it should be possible to create smaller collections of bookmarks that are associated with specific groups, teams or communities" (Pan, Millen, pg. 9, 2008). PennTags, which was also included in MTagger's comparative evaluation, has capitalized on a unique such combination in which students can create individual projects to which they may add other students' tagged items.

Finding 2: Preference for tag display alongside traditional search results

With the exception of MTagger's heavy user, the majority of the interviewees expressed interest in having a library catalog not only retrieve the various books or digital resources related to a Keyword, Subject, Title, or Author search, but also display a list of tags, which MTagger deems related to their search terms. In this fashion a user is free to peruse a library's actual holdings, but also hop off and discover more user-defined material related to their information search. Even those users whom we interviewed that were in some way associated with the professional side of library catalogs and their digital resources felt that it made sense to begin upgrading tags from a subsidiary status to a more legitimate and congruent mechanism for locating information in conjunction

with the traditional catalog. To make this feedback even more interesting, our anti-social bookmarker, who has abandoned services like del.icio.us and relies more upon Google Notebooks, found this prospect of elevating the role of tags highly attractive.

In terms of our heavy user, MTagger itself is rarely used to find items associated with tags, but rather this user's approach is to locate items of personal interest through a traditional search of the catalog and tag them with more descriptive terminology. This user rarely references other peoples' tags or incorporates them into a personal tagging scheme, and does not spend much time going back to build upon material that has been tagged. On the surface this appears anomalous given this user's proclivity for tagging, but studies done on social bookmarking in the context of corporate intranets have revealed that individuals who are very close to a particular subject matter often tag that material merely to "promote visibility of the resource" (Pan, Millen, pg. 6).

Certain anomalies in behavior are to be expected as tagging has yet to work its way into the online environment in a very transparent or 'nearly-invisible' manner in the way that hyperlinks have. Regardless, the willingness appears to be present to begin pushing tagging into a more mainstream role for finding information. The question then seems to be one of 'good governance' and building in structures for moderation and proper use, as well as incentives for bolstering the use of tags.

Finding 3: Tagging needs a marketing campaign

It was clear from our interviews that users are still coming to terms with the value of tagging, both for themselves and others. The non-user that we interviewed failed at first to see how bookmarking in a non-platform based environment was different than managing bookmarks in their browser. The anti-social bookmarker that was interviewed, being a librarian, explained that many of the patrons being served in that capacity have verbally, and in great numbers, expressed concerns over privacy within systems such as MTagger. Furthermore, as our casual user pointed out to us, tagging has numerous contexts and in each system it tends to be implemented differently, with different results. There does not appear to be a standard implementation for tagging.

Our non-user expressed some of the most enthusiastic feedback for solving tagging's lack of recognition. This user felt that the Library should promote MTagger heavily. In particular, catchy slogans and brief tutorials should be available at the main access points for the Library's digital resources. In addition librarians should actively tag items and describe them in very personalized terms for the sake of patrons. In a sense, even though MTagger's goal is to become a tool driven by user-defined content and associations, this user felt strongly that librarians had a responsibility for getting the ball rolling and making its features more explicitly relevant in the context of the University and its constituents.

The designers of MTagger should weigh to what degree they wish to tap the potential of tagging, and to what extent they feel capable of elevating it to a tool of distinction for the

University. They may want to consider that many users are simply waiting for the value to become more obvious to them, as well as concise and explicit in the context of their productivity with the University. Tagging and social bookmarking have clear potential for enhancing scholarship and information sharing and could become a core and driving technology for the digital resources at U-M, but at this stage it needs evangelists. One example of a system that has implemented such a role is that of the University of Michigan's Bentley Historical Library and its online Polar Bear Expedition Digital Collection wherein the entire Bentley staffs of archivists occupy the virtual title of The Archivist, acting as an "authoritative source of information" (see Reference 3). Such a collective avatar/evangelist might be better received than previously thought, as discussed below in Finding 4, even in the context of a user-defined system of content management. One Senior Analyst in Social Computing has offered up some helpful guidelines for fulfilling such a function (see Reference 4).

Finding 4: Tagging is a "Librarian" thing

The Usability Working Group and Library Web Systems know from their analysis of the current users of MTagger that its core users at this stage are Library staff themselves. For that reason the interviews that were conducted for MTagger were prejudiced in favor of getting feedback concerning their motivations and experience with not only the MTagger interface but their previous experience with other tagging applications. It was not very surprising that librarians we interviewed saw the value of tagging much more quickly than the other interviewees. Tagging is immediately obvious to them as a powerful resource for grouping together frequently accessed information in the context of their service to patrons. From the librarians' experience patrons either make little use of tagging features or occasionally miss-use them, thinking that they perform functions like requesting books.

Librarians themselves do not strictly hold this perception of a tool such as MTagger privileging itself to librarians; our non-user immediately understood it as a feature that increases in value the more a librarian participates. Our non-user expressed in very strong terms that they would expect librarians to play a moderating role in the system, as well as fleshing out tags in their individual subject areas. Under such a rubric, librarians could couple their knowledge of traditional classifications with their unique understanding of the contents of a particular collection.

Certainly, more interviewing and surveying of a broader sample of non-users would be appropriate for determining whether this is a widely held sentiment. It could be that tagging takes on a more revolutionary and subversive role in the minds of many non-traditional users of libraries. What does seem clear at this stage is that the paradigm has not yet shifted heavily in that direction, and tagging in the context of a library appears anchored to the more traditional lines of authority possessed by librarians. Users still look to their stamp for trustworthy guidance and navigation in the context of a library.

As counter-intuitive as it seems, it may be that librarians have to give up some of that authority to push users into the realm of feeling comfortable defining material for themselves.



Summary

Interviewees see MTagger the way they do other social bookmarking tools, with value for individual users and narrow personal goals. Users would like to organize and group their tags in ways that are relevant to their personal goals and preferences. This tendency is one that might be capitalized upon to expand the system and its appeal into the social realm. There is also an expressed desire for trust and authority in regards to both the environment and the material being bookmarked and tagged. It is unclear whether this is a widespread sentiment, and given the more democratic nature of tagging and social bookmarking it requires more probing, perhaps in the form of a widely distributed survey. Non-users and those not familiar with tagging need a more intuitive and step-wise introduction to these tools, and in their minds a librarian is the obvious resource.



References

- 1.) Santos-Neto, Elizeu, Ripeanu, Matei, Iamnitchi, Adriana, "Content Reuse and Interest Sharing in Tagging Communities" [abstract] The Association for the Advancement of Artificial Intelligence, 2008, available at: <http://www.citeulike.org/user/flavio/article/2006603>.
- 2.) Xin Pan, Ying, Millen, David R., "Information Sharing and Patterns of Social Interaction in Enterprise Social Bookmarking Services" [abstract], IEEE, 2008, available at: <http://www.citeulike.org/user/ctreude/article/2905444>.
- 3.) Bentley Historical Library, "The Polar Bear Expedition Digital Collections", available at: http://polarbears.si.umich.edu/index.pl?node_id=282&lastnode_id=272.
- 4.) Owyang, Jeremiah, "Understanding the Community Evangelist/Role, and Profiles of a Few of my Favorite Folks", Web Strategy by Jeremiah [cited on 06/16/08] [posted 03/27/07] available at: <http://www.web-strategist.com/blog/2007/03/26/understanding-the-technology-evangelist-role-a-few-of-my-favorite-folks/>.
- 5.) Beenen, G., Ling, K., Wang, X., Chang, K., Frankowski, D., Resnick, P., et al. (2004). Using social psychology to motivate contributions to online communities. In Proceedings of the 2004 ACM conference on Computer supported cooperative work (pp. 212-221). Chicago, Illinois, USA: ACM. doi: 10.1145/1031607.1031642.



Appendix A

MTagger Interview: (Heavy User)

1. What is your:
 - Name
 - Age
 - Occupation
 - Years of Computer Use
 - Frequency of Computer Use
 - Time Spent on the Internet
 - Gender
2. Why do you tag?
3. Why do you use MTagger?
4. What are your general impressions of MTagger?
5. In what ways do you find yourself using MTagger? What features?
6. Can you give us an example of an item that you tagged recently?
 - a. Could you walk us through that process?
7. How do you go about finding things with MTagger?
8. Have you done a Search from within the Tag Cloud?
 - a. If yes, did it work the way you expected it to?
 - b. Do you prefer to make use of this feature or should there be a dedicated Search page?
9. What sorts of information would you like to see when you get results?
10. Do you encounter tags that you disagree with?
11. Do you have any difficulties or disappointments with MTagger?
12. Who do you believe the primary users of MTagger are or would be?
13. How do you think MTagger could be improved upon to make “tagging” a more socially interactive and individually rewarding experience? Can you give some examples of best practices from other social bookmarking sites?

MTagger Interview: (Anti-social Bookmarker)

1. What is your:
 - Name
 - Age
 - Occupation
 - Specialization
 - Years of Computer Use
 - Frequency of Computer Use
 - Time Spent on the Internet
 - Gender

2. You mentioned in a previous e-mail that you consider yourself an “anti-social bookmarker”—can you explain that to us?
3. How do you feel apps like Google Notebooks compete with sites like del.icio.us or MTagger? Why do you prefer Google Notebooks over these sites?
4. What features in Google Notebooks do you make use of?
5. How do you go about Search in the context of online library catalogs? How might tagging fit into that context?
6. Can you give me some examples of websites that implement tagging that you have made use of or are familiar with? What do you like or dislike about them?
7. Why do you tag/bookmark? How do you use tags?
8. Can you give an example of an item that you recently tagged or bookmarked?
 - a. Could you walk us through that process?
9. Do you have a particular style or method of tagging/bookmarking?
10. What sorts of webpages or online materials do you find yourself tagging?
11. How frequently do you reference the webpages or online materials that you have tagged or bookmarked?
12. When you have tagged a webpage and added it to your bookmarked sites, do you typically prefer to keep surfing the web or would you like to be re-directed to your bookmark/tagging account?
13. Have you ever used sites like del.icio.us, CiteULike or MTagger to do research?
 - If so, what features did you find helpful? What might have been more helpful in this process?
14. How do you go about finding things with sites like del.icio.us or MTagger?
15. What are some ways that social bookmarking tools can be improved to make them more socially interactive or individually rewarding?
16. In an academic library setting do you think it is appropriate to have information organized by individual users such as with MTagger or do you think this should be handled by librarians?

MTagger Interview: (Casual User)

1. What is your:
 - Name
 - Age
 - Occupation
 - Specialization
 - Years of Computer Use
 - Frequency of Computer Use
 - Time Spent on the Internet
 - Gender
2. Can you give me some examples of websites that implement tagging that you have made use of or are familiar with? What do you like about them?

3. Why do you tag? How do you use tags?
4. Can you give an example of an item that you recently tagged?
 - b. Could you walk us through that process?
5. Do you have a particular style or method of tagging?
6. What sorts of webpages or online materials do you find yourself tagging?
7. How frequently do you reference the webpages or online materials that you have tagged?
8. When you have tagged a webpage and added it to your bookmarked sites, do you typically prefer to keep surfing the web or would you like to be re-directed to your bookmark/tagging account?
9. Have you ever used sites like del.icio.us, CiteULike or MTagger to do research?
 - If so, what features did you find helpful? What might have been more helpful in this process?
10. How do you go about finding things with sites like del.icio.us or MTagger?
11. What are some ways that social bookmarking tools can be improved to make them more socially interactive or individually rewarding?
12. In an academic library setting do you think it is appropriate to have information organized by individual users such as with MTagger or do you think this should be handled by librarians?

Interview Questions: (Non-User)

1. What is your:
 - Name
 - Age
 - Occupation
 - Specialization
 - Years of Computer Use
 - Frequency of Computer Use
 - Time Spent on the Internet
 - Gender
2. What sorts of Web 2.0 systems have you used or are familiar with?
3. What sorts of websites do you tend to gravitate towards for information?
4. When you come across these sources how do you go about keeping track of them so that you can return to them later?
5. If you saw the words “tag” or “tag this” on a website would you know what that means?
6. What do think this set of features does? (Show a screenshot of the Tag Cloud on a Mirlyn record)
7. What do think tagging would be good for?
8. How might “tagging” be especially helpful in the context of a library catalog or website?
9. Is there anything that would encourage you to start tagging?
10. In an academic library setting do you think it is appropriate to have information

organized by individual users such as with MTagger or do you think this should be handled by librarians?



Appendix B

MTagger Interview: (Heavy User)

Key Notes and Findings:

- Does not like to tag things which other users have tagged
- Makes heavy use of the Alternative Title and Description features because he does not like the info that is brought in from the library record's fields to fill in that information
- Finds himself occasionally encountering a reference to a particular item outside of the university library environment, going into MLibrary, locating it and bookmarking it
- Often will tag using the author's name, add an alternative title, and provide a brief review for the sake of others (in the case of film records)
- Does not use MTagger very much to locate things within the online catalog
 - This is mainly because there is not much there as of yet
- Does not find himself going back to his tags very much
- When asked whether he preferred searching from a tag cloud or having a dedicated search page he said that he would prefer a dedicated search page
- He does look for other taggers (users), tries to discover their affiliation and their interests
- Is very interested in the concept of being able to organize tagged items within his account according to his own collections or groupings
- Thinks that the primary users of MTagger are students/faculty/SI Students
- Thinks that the users' identities could be made more prominent to encourage more social interactivity

MTagger Interview: (Anti-social Bookmarker)

Key Notes and Findings:

- She started to use del.icio.us as a way to access bookmarks at different locations.
- Her personal motivations were more important than her social motivations
- She likes Google notebooks because she has a Google email account, which makes for seamless use of all the Google applications.
- Google notebooks is useful because it caters to her personal motivations

- When searching a library catalog, she begins with keywords she does use the tagging feature of the AADL as a way to create new groups of categories, but she feels that users of that system run into a problem of what to do once they've tagged an item.
- She feels it would be useful if a keyword search included tags as part of the same results as the catalogue items.
- When she does actually tag an item, it does tend to be more for the benefit of others rather than for her own personal benefit. (This may be why she does not often tag items, but instead mostly uses Google notebooks)
- She considers material type (book, DVD, web page etc.) to be a critical piece of metadata, and it is one of the first thing she scans through when browsing search results. The fact that MTagger does not provide this data would be unappealing.

MTagger Interview: (Casual User)

Key Notes and Findings:

- She uses Flickr, Wordpress blogs, and tags items there. She tags every post of a blog she reads, but does not usually use the specific name-tagging feature in flickr.
- She tags things according to the frequency she uses and encounters items
- She doesn't tag to add to the "folksonomy," as she feels there are credibility and accuracy issues with that type of cataloguing, so she ignores it as that type of a tool.
- She has an LIS degree from SI, and she finds her training as a librarian creeping into the way she tags.
- She believes that MTagger could be potentially useful (although she has not used it more than just poking around at what others have tagged) as a way of grouping items and making groups for collaborative work.
- If she were to start using MTagger, it would be as a personal tool and not as much for the benefit of others.
- She assumes that those who do tag are "nerds" and will thus be thoughtful about the way they tag.
- She recently was looking at the MLibrary site, noticed the tag cloud, had the thought of looking at it closer but decided to do it later, which of course never happened.
- She likes the idea of using tags as a "related term" type search function.
- When viewing search results, she wants to see things sorted by frequency.

- Her idea for what MTagger could be useful for is as a tool for library staff and is unsure about how valuable it might be for the library constituency (of the business library where she works).
- She does not use del.icio.us

MTagger Interview: (Non-User)

Key Notes and Findings:

- Only sorts of Web 2.0 systems familiar with are blogs
- Gravitates towards medical, health, exercise and recipe websites; prefers professional sites or well done personal websites
- To save online content for future reference she grabs the icon in the URL and drags it to her Bookmarks, and then re-titles it according to whatever it was that she was thinking of as a topic when she was reading or searching for it
- She will take some time to organize bookmarked items into a few relevant folders like "medical" or "recipes", but there are things that just don't fit into a category
- Often runs into bookmarks whose URLs are no longer valid
- Often deletes bookmarks because she does not like the hassle of making more and more files and plugging them into place; also doesn't go back again and again to certain things
- If she saw the words "tags" or "tag this" she knows instinctively that this would require a lot more maintenance and having to create an account; not very immediately appealing; feels like she is already doing this with her bookmarks in her browser, why start something new
- When challenged with the possibility of having her laptop unavailable or destroyed she immediately saw the value in creating an online account that could always be accessible remotely
- When viewing the MTagger:All Tags page she did not like the massive tag cloud (prefers a list view or something easier to view)/did not understand the difference between "view all tags" and "view all tagged items" (would not like to view all tagged items)/liked the ability to sort tags by most recent, etc./did not understand "information for" in the header navigation
- Libraries should promote tagging right off the home page and throughout the physical library, and make a strong case for getting lots of things tagged in the system so that patrons can use them to find items because traditional search categories like "Subject", "Title", "Author", "Keyword" are never very helpful
- There should be some clever way to tag things AFTER you have read a book in a library catalog--like if you are going to renew a book or check it in; she would not tag a book WHILE she was reading it (would not be fair to the material)
- Explaining "tagging" should be very brief on the home page

- Librarians should be assigned a category of material and try to read through and tag those items at the same time that patrons are encouraged to tag things
- Librarians should really encourage patrons more to tag things
- When viewing all items tagged with a particular tag word would like to see the tags applied by a librarian separate from those tagged by a normal person/patron

Core Findings:

Personal motivations are stronger than social motivations

Preference for tag display alongside of traditional search results

Tagging needs a marketing campaign

Tagging is a "librarian's" thing.