

Usability Report for Delicious.com

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Executive Summary

We conducted a formal usability test utilizing various recording methods using a laboratory setting. All four participants each voluntarily completed a pretest questionnaire, 6 different tasks, and then a posttest questionnaire. We also asked to them to utilize the think-aloud protocol. Our test objectives were to see if new users found it friendly to use, if it was desirable, and if they were able to complete the tasks.

Top 3-5 Successes

Our results indicated the users' ability to use Delicious successfully by the ability to access bookmarks from different computers, and utilizing the "tag" function to organize and filter the bookmarks. Our users were pleased to see a social aspect by sharing information with others on the website. They also noted that it is useful to find popular sites about a specific topic.

Top 3-5 Problems

There were a few negative experiences using the site. The users noted that there was no obvious way to install Bookmark Button toolbar plug-in besides the step in creating account. They felt that at times the labels were unclear and there was no system visibility awareness. The users were not pleased with

the confusing instructions. They found that the Bookmark Button and default bookmark in browser coexist, which is confusing.

Conclusions and Recommendations

We have three recommendations on improving usability. The first recommendation is to make the "install plug-in" an obvious function or link. Second, we also concluded that labels and instructions need to be revised and made easy to be able to understand. Finally, Delicious needs to solve the conflicting and confusing factors resulting from coexistence of the Delicious Toolbar and the default bookmark in the browser on a Windows PC.

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Introduction

Test Description

We conducted a formal usability test on the website delicious.com. This website is an online bookmarking tool that allows a user to save their bookmarks to this online service and be able to view them on any computer that has an internet browser. The test was conducted in a laboratory setting to allow us to have an ideal testing setup. This formal test included the use of 4 participants who would carry out a series

of tasks ranging from finding a bookmarked website on Delicious from another user of Delicious, to bookmarking a website for personal use. The test was recorded by a video recorder, an audio recorder, a webcam, and a screen recorder. Participants in this usability test consented to be recorded. Each participant would engage first (after giving consent) in a pretest questionnaire, followed by completing 6 different tasks related to the use of Delicious, then filling out a posttest questionnaire, and asking for verbal feedback from each participant.

Test Objectives

The test is meant to test:

- The usefulness of Delicious as a bookmarking tool
- The notion of "social bookmarking" (i.e. users can see what others are bookmarking)
- How desirable Delicious is
- How long users of Delicious take to accomplish certain tasks
- How long it takes for a new user of Delicious to learn how to use it

User Profile Summary

There are many websites on the Internet and new ones uploaded everyday. People are realizing the increasing need to organize the surfing experience. It is difficult to remember what sites one visited sometimes. Delicious is a social bookmarking service aimed to provide solution to this problem. According to the Delicious website, the service lets you bookmark online, share with others, and also see what others are viewing and consider interesting. The service also

uses tags instead of folders to categorize the bookmarks.

The users that utilize this feature are young and somewhat technologically savvy between the ages of 18 and 30 years old. They are familiar with social networks and tend to surf many websites during a day and are likely to come back to some for repeat usage. They have used the bookmarking feature of a browser and understand how it works. Although there is an age range, the group is diverse in every other way.

The users that tend to use this service like social contact using the Internet as a medium. These users frequently contact each other in certain websites and also like to sometimes share with others in other sites. They may also look for more information by looking into what websites others are viewing to get a picture of interests in the mainstream regarding a particular subject.

The users may not understand how a computer works or even how the whole Internet structure is set up. They just know the basics of surfing the Internet and want to be able to come back to interesting pages that are viewed. They understand social networks such as Facebook or MySpace and the general idea of being able to share information in various ways.

Additional computer skills that are needed to complete our test are very minimal to almost none. We assume that the users will know how to click with a mouse, visit different websites, navigate through pages using links, and understand the notion of using tags as opposed to folders.

Test Preparation Summary

Testing Schedule

- 2 - 5 days: Recruit 4 people who meet our user profile
- 1 - 2 days: Practice and run through the test and get familiar with the whole procedure
- 2 - 4 days: Conduct 4 tests
- 3 - 5 days: Analyze tests, results, and create usability report

Session Length

In sum, each test will roughly last 45 minutes, with the following breakdown:

- 5 - 7 minutes: Introduction (welcoming, warm up, testing introduction, and consent form signing)
- 10 minutes: Pretest Questionnaire
- 20 minutes: Administer the tasks
- 10 minutes: Debriefing, posttest questionnaire

[Note: There is at least a 15 minute break in between each test. In addition, after the last test of the day is complete, there will be a 30 minute meeting for debriefing, discussing, summarizing and documenting session.]

Number of Subjects

Four (4) participants were involved in the running of this usability test. These participants internet behaviors matched very close well with the target profile, and were thus chosen. Highlights of the demographic data are shown below:

- 3 out of 4 participants were 18-25 years old

- The other participant was in the 26-35 year old range, which was close to our target range
- Genders were equally represented in this test
- All (4) participants having 4+ yrs of internet use experience and most of them spending 2-3 hrs per day

Test Setup

Test Location

Room 001 Informatics West

Hardware

- Flip Video Recorder
- Sony ICD-P620 Audio Recorder
- Macbook Pro with iSight webcam, running Leopard PC
- Dell XPS M1530 with embedded webcam, running Windows

Software

- Silverback Screen & Sub Recorder
- Camtasia Screen Recorder
- Web Browser (Firefox for Vista, Safari for Macintosh)
- Delicious Plug-In
- Dell Webcam Software

Session Recording Plan

During each usability test, we will be utilizing the Flip video recorder to record the participants' body language that cannot be captured from the webcam. We will also be utilizing an audio recorder to clearly pick up the think-aloud protocol of each participant; it will also record the interaction between participants and the facilitator. While these devices are

recording, each laptop will be utilizing a screen recording program (Camtasia for Windows and Silverback for Macintosh) to record participants' interactions with the computer. We will also be utilizing the integrated webcam on each laptop to see where each participant was looking during the course of the usability test.

Testing Scenarios

Scenario 1

In your day-to-day life, you use multiple computers: one at work, one for fun, and one for your home. You utilize many of the same web sites each day from each of these computers. A friend has referred you to Delicious, and you want to check it out - it's supposed to save you time and effort across multiple computers. Utilizing Delicious, you would like to: (perform the tasks indicated in the next section)

Rationale: This is one of the main reasons why Delicious was made: helping people manage their bookmarks across many different computers. Usually this service is referred to by friends (like in the scenario above), and the user decides to check out the service. Thus, this scenario simulates an ideal environment of showing how many users get first acquainted with Delicious.

Scenario 2

You just recently bought a new camera and want to utilize your new ability to create digital images to show to friends and family. But, this was your first camera and you don't have too much experience in taking pictures, and you want to learn more about how to be a good photographer. You especially want to be able to do this from your work and at home, but the use of

different computers might get in the way. You think your new Delicious account may be able to help you do this. You then: (perform the tasks indicated in the next section)

Rationale: This scenario was created to see how a user might potentially use Delicious in a "real world" setting. This scenario simulates a potential use of Delicious (finding sites for photography), while still being able to access this information from any type of computer. We would also like to simulate the "randomness" of the sites one may get while using Delicious, which is reflected in the tasks for this scenario.

Tasks

Tasks for Scenario 1:

Task A: Go to www.delicious.com and create an account.

Rationale: This task is meant to get the user into the service for the testing session, and to also see if there are any problems in the registration process.

Task B: Install the Delicious plug-in to the browser you are using now.

Rationale: This task is meant to simulate the "main" feature of Delicious: the ability to bookmark using a plug-in into the browser. This plug-in would then allow the user to bookmark from their familiar browser.

Task C: Go to www.cnn.com and bookmark it, using Delicious.

Rationale: This task is meant to see how users would "naturally" bookmark a site using Delicious. Since there are many different ways of doing this, we wanted to see how the

user would do this, including the possibility of using the plug-in downloaded in task B.

Tasks for Scenario2:

Task A: Use Delicious to find a popular photography website.

Rationale: This task is meant to see how a user would find a website using Delicious. One of Delicious's features is that it can help a user find "good" websites by searching for tags, and this task would test to see if a user would use this method. A photography site was chosen, as it was relevant to the scenario.

Task B: Go to that website and add it to your Delicious account.

Rationale: This task is meant to see if a user can navigate to the site found in task A using Delicious. Delicious allows users to go to their bookmarked sites at any time by clicking on their name, and we wanted to see if this action was reasonable for a user.

Task C: Find one person who has bookmarked this same website.

Rationale: This task is meant to see if a person can find someone else on Delicious who has also bookmarked the same sites a user has already bookmarked. Delicious claims itself as a site for social networking (bookmarking) - we wanted to see if a user could be able to find others, which would help support the claim that this site is an example of social networking.

Evaluation Methods and Results

Usability Goals

The main usability goals we were using in evaluating Delicious were drawn from Nielsen's [1] and Krug's [3] heuristics, especially the following: easy to use, quick and easy to learn, system feedback (and perception of feedback from the user), and error prevention.

Evaluation Strategies Summary

In keeping with the goals mentioned above, we wanted to utilize the different types of data to help us quantitatively and qualitatively evaluate this service. We would be drawing upon the recordings generated (from the webcams, video cameras), the think-aloud protocol, examining how participants react to the site as they complete these tasks, and examining how the participants complete the tasks set out for them. These data would be ideal in utilizing the methods mentioned below.

Data Analysis Methods and Selection Rationales

We chose to use quantitative means to examine most of our data (e.g. times to complete tasks, number of errors, times asked for help, responses to close answered questions on questionnaires) to generate an objective picture as to what is happening with the participants as they are interacting with Delicious. We also chose to use qualitative measures (e.g. behavior, responses to open-ended questions on questionnaires) to measure how the participants were thinking and how their thinking and behavior was changed during the process of completing the tasks in this test.

Summary of Data Analysis

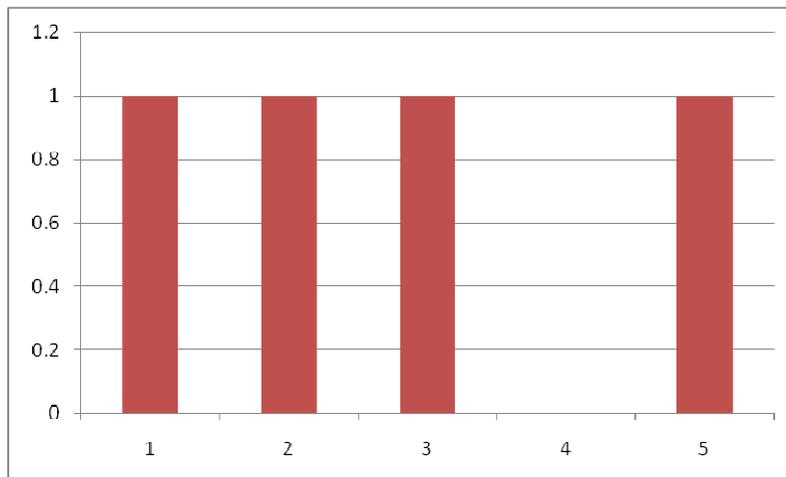
We found that our participants did not enjoy their use with Delicious and would want to use it in the future if it was improved vastly. When the participants were interacting with the site, they were first happy and engaged, but by the end of the test they were confused and irritated. Subject 1's comments about his experience were the most informative:

"I just want to create a user name, that's it."

"It's difficult."

"What's the benefit of doing this?"

Overall, the participants' reaction can be seen in the participants' response to a posttest question. This question asked if they found Delicious to be helpful and useful. In this chart, Y axis: # of people, X axis where 1 represents **Not at all** and 5 represents **Very Much**.



Also, from the think aloud protocol, participants noted that the most difficult or frustrating part about using Delicious was the lack of knowing they were successful in doing anything and could be able to see what they did. This is addressed in the next section.

Problem Severity Classification

Below are the main problems found with Delicious, including a brief description of how severe the problem is, emulating the style referenced in [2]. Each problem is numbered by P#, where # indicates a number in the next section.

P1: Unclear password constraints

This is a moderate problem, as it causes users to have to enter their registration information into Delicious multiple times, but does not prevent them from completing the registration process.

P2: The use of a user name to login

This is a moderate problem if the user doesn't frequent Delicious (the website) often. If the user relies too much on the plug-in, he/she may forget his/her user name.

P3: Requiring use of first name and last name to create account

This is a "low" problem, as it doesn't prevent the participants from completing any tasks. This was a concern raised during the testing process.

P4: The "security code" during registration needs to be made clear

This is a moderate problem, as it causes the participants to not be sure if he/she typed in the right string into Delicious. In

addition, it made the participants have to squint their eyes a little bit in order to complete this task. It sometimes hindered the participants, but it did not cause them to fail at any task.

P5: No obvious way to install Bookmark Button toolbar

This is a severe problem, as many (3) of our participants could not find a way to complete this task, and confused them too. If this “toolbar” (used synonymously with plug-in) is supposed to save a user time, then this task should be made easier.

P6: Bookmark functionality conflicts with browser bookmarking functionality.

This is a moderate to a severe problem. If a user is looking to only bookmark to their browser, Delicious overwrites this functionality on Windows and prevents him/her from engaging in this task. It could create problems in the future for users.

P7: Inconsistency in Search

This is a moderate to severe problem. Many of our participants who needed help went to the search area, but could not receive any help at all. This function works in searching for tags, but not for help on the site. This problem caused participants to not complete the “install plug-in” task.

P8: Unclear labels

This is a moderate to severe problem. If a user already knows what the labels truly mean on Delicious, then the process of looking at the labels becomes a recall-based task. If a new user is looking for certain labels for help and doesn't find an answer that matches their mental model, it causes him/her to become confused. This happened to most of our participants.

P9: Wordy Instructions

This is a moderate problem. It caused trouble for participants who wanted to read how to register and how to install the plug-in, but then decided there was too much information on the page. This may have been a factor in preventing some of our participants from completing some tasks.

Usability Problems and Recommendations

Usability Problems List

P1: Unclear password constraints

Description: when users first create account, the explicit password constraints are usually skipped or missed. Users just type in a password and then click "register", there will be an error message telling the user that he/she must include at least one letter or symbol. This results in repeatedly inputting information for creating account, which is frustrating and annoying.

The image shows a registration form with three input fields: 'User name' (containing 'nemoyue'), 'Password', and 'Retype Password'. The 'Password' field has a red error message: 'You must use at least one letter in your password: A-Z, a-z'. Below the fields, there are 'Password Requirements' listed as: 'at least 6 characters required', 'at least one letter and one symbol or number required', and 'may not contain any part of your username or full name'.

P2: The use of a user name to login

Description: user name is hard to remember if users don't login too often. Delicious has a Bookmark Button toolbar embedded in users' browser, so that users don't need to login their account to fulfill daily bookmarking job. This might lead to users forgetting their password.

P3: Requiring use of first name and last name to create account

Description: first name and last name are the first two required

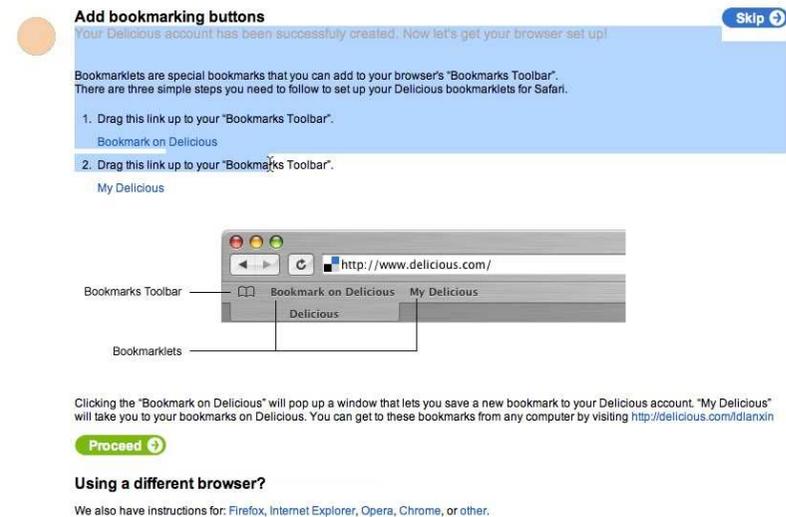
fields while creating account. Delicious never uses any user's name at all during their activity (that the user can see). If users make up a fake name here, there is no use of this fake information.

P4: The "security code" during registration needs to be made clear

Description: the "security code" is a mixed case string of letters and numbers. Participants hesitated when entering this information in because there is nothing telling them about the string being case sensitive.

P5: No obvious way to install Bookmark Button toolbar

Description: There is a step in creating account that allows you to install the plug-in (Bookmark Button toolbar), but you can also skip the step. Users tend to skip installing Bookmark Button step since "skip this step" is allowed and obvious. This plug-in is new for users who have not used it before, people tend not to install when not sure. However after creating account, it is hard to find way to install it then. There is a link about this at "add a new bookmark" page, but the font is very small. It is hard to find optional ways to install this plug-in other than the above methods.



P6: Bookmark functionality conflicts with browser bookmarking functionality.

Description: "Delicious" and "Bookmark" are next to each other on the menu bar of browser of a Windows Firefox browser. These create confusion and possibly annoyance: users don't know which one to use, easy to use a wrong one, and don't know the relation between the two.

P7: Inconsistency in Search

Description: search function is used to search for bookmarks, not for webpage content within Delicious. There is search area drop-down menu beside the search box, but it is confusing. It is hard to tell what "Search Delicious" means: do it mean "Search everyone's bookmarks"? In addition, the colors of this menu are inconsistent, changing from green to blue in different

areas of the website.



P8: Unclear labels

Description: there are a lot of confusing labels and descriptions such as "do not share", "search Delicious", "People", and the number besides bookmark item.

P9: Wordy Instructions

Description: the instructions, such as "how to get started", and other introductory text is wordy and overwhelming.

Getting Started

What is Delicious?

Delicious is a social bookmarking service that allows you to tag, save, manage and share Web pages all in one place. With emphasis on the power of the community, Delicious greatly improves how people discover, remember and share on the Internet.

Things you can do with Delicious

Bookmark any site on the Internet, and get to it from anywhere

Instead of having different bookmarks on every computer, Delicious makes it easy to have a single set of bookmarks kept in sync between all of your computers. Even if you're not on a computer you own, you can still get to your bookmarks on the Delicious website.

Share your bookmarks, and get bookmarks in return

If your friends use Delicious, you can send them interesting bookmarks that they can check out the next time they log in. Of course, they can do the same for you. As you explore the site and find interesting users, you can use our Subscriptions and Network features to keep track of the Delicious tags and users you find most interesting.

Discover the most useful and interesting bookmarks on the web

See what's hot with Delicious users by checking out our popular tags. By looking at popular bookmarks for a tag, you'll be able to discover the most interesting bookmarks on the topics you're most interested in. Browse bookmarks on just about anything from the best programming tips to the most popular travel sites, all in an easy to read format.

Saving a Bookmark

Saving a Bookmark on Delicious is likely to be a little different than what you're used to. Don't worry, we've made the process intuitive and you'll find that tags and notes will make your bookmarks much easier to manage.

Depending on which buttons you've added to your browser, you can click the "Tag" or "Bookmark this on Delicious" button to save a new bookmark. Regardless of the buttons you've chosen, you'll see the following fields.

URL: The URL field is simply the address of the page you're bookmarking. This should be filled out for you. Only change this if you know what you're doing.
Title: If you're using one of our bookmarking tools, this will be prefilled with the title of the page you're saving. Feel free to edit this in any way that makes sense to you.
Notes: Here's where you may want to write some additional info for yourself or to let others know why you bookmarked this page.
Tags: Enter one or more tags separated by spaces here. They are optional, but we suggest using them, as they make your bookmarks much easier to organize and navigate. For more on tags, read our tags section.

Redesign Suggestions

P1: Show password requirements explicitly in the first place. Give feedback of whether this password is acceptable right after user entering the password.

P2: Use email address to log in, since a lot of people have an email account for non-personal communication function such as online shopping or registration.

P3: Remove first name and last name fields in account registration.

P4: Explicitly show whether the security string is case-sensitive.

P5: Make "install plug-in" an obvious function or link. Also, make the download readily available - offer it right after registering and have "click here for Safari", "click here for IE", etc. links.

P6: Make Delicious functionality different from browser functionality. If a user wants to bookmark to their browser only, support this option (and vice versa).

P7: Keep consistency in search function, including what is being searched for and the colors of the search graphics. Also, make "Search Delicious" apparent, as currently, the search only looks for users' tags.

P8: Make labels more clear by rewording them. For example, to make it clear how many people have bookmarked a site use

the number already in use, but add a “people” string to the screen as well.

P9: Make the instructions after registering to Delicious clear and simple.

References

1. Nielsen, Jakob. Heuristic Evaluation. <http://www.useit.com/papers/heuristic/>
2. Nielsen, Jakob and Loranger, Hoa. Prioritizing Web Usability. New Riders Press, Berkeley CA.
3. Krug, Steven. Don't Make Me Think: A Common Sense Approach to Web Usability. New Riders Press, Berkeley CA.

Appendices

Appendix A: Improvements Made to Usability Preparation Documents

After creating a draft of our usability documents, we improved upon them. To improve upon our Posttest Questionnaire, we combined 2 similar questions into one question: "My overall impression of Delicious was: ". This was an open-ended question that served the same purpose as our previous two questions. In addition, we also allowed the participants to better able tell us their favorite experience of Delicious. Before, we asked them about their experience on a Mac, a PC, and using the Internet. Now the user can tell us which was their favorite and why.

We also made the tasks and scenarios more specific. We also accompanied each scenario and task with verbal instructions from the facilitator to ensure the participant was sure he/she knew what the task was. In addition, we also made a specific website to bookmark (cnn.com) and asked each participant to

create an account to be used for the testing period.

We also improved the consent forms the participants would be signing. We added a note which stated how long the test was supposed to last. In addition, we added an overview of what tasks they would be engaging in and included a specific site which they would bookmark. We also made it more explicit on the form that both audio and video recording were to take place during the test. The participant could also decline to be recorded if he/she was not comfortable engaging in the test while being recorded.