

# Formal Usability Test of “OneStart Bookmarks”

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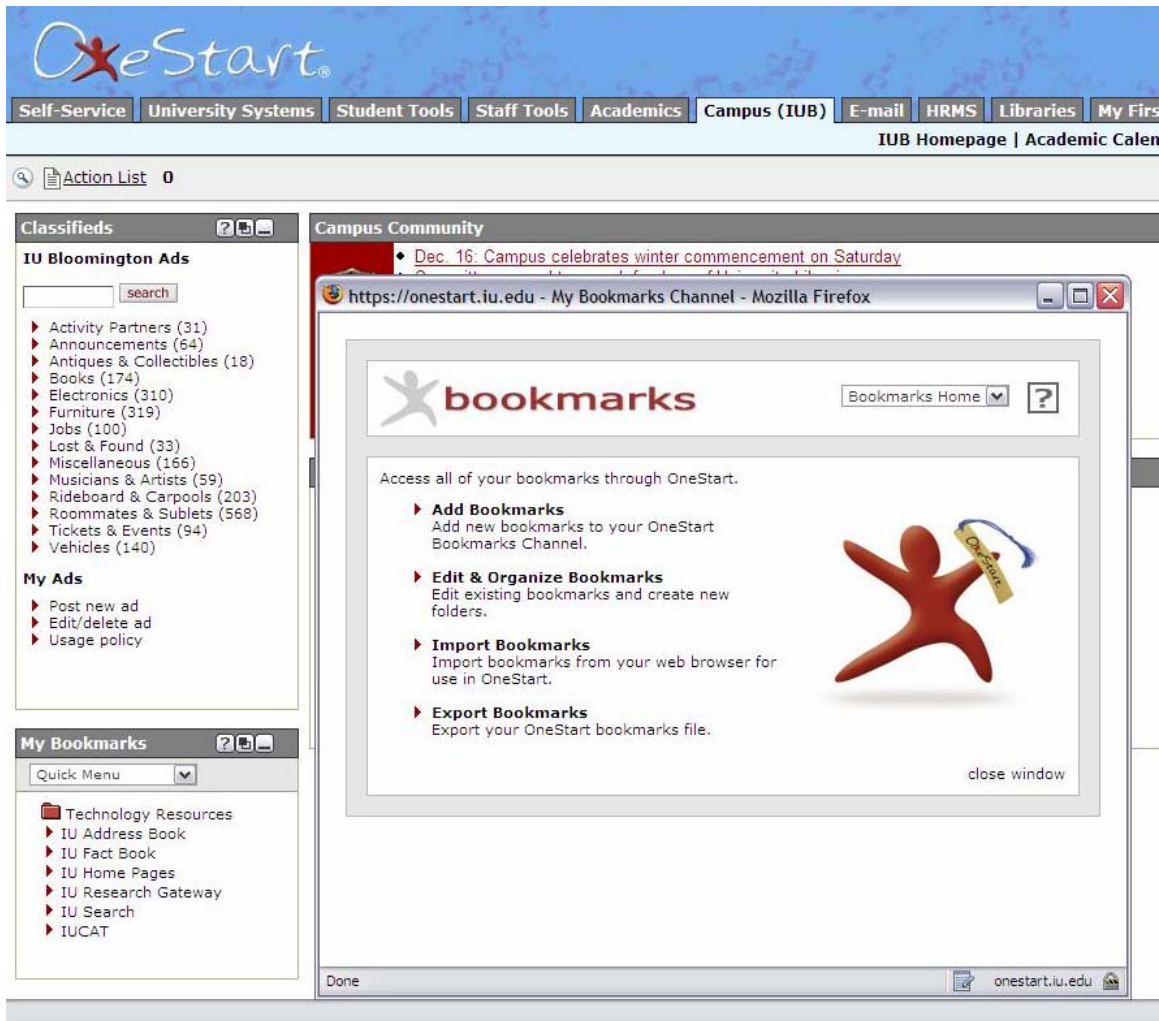
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## **INTRODUCTION**

### ***What was tested?***

For this study, we used OneStart (Fig. 1.0) that is a system in which students at Indiana University can access their personal information as well as a number of other applications that are useful to them during their course of study. An option allows students (identified as the “User” from this point on) to add and/or remove “channels” from their personal pages to promote ease of navigation. The channel in particular that we tested with our users was called “My Bookmarks” (Fig. 1.1). This channel allows the users to import bookmarks from their web browser of choice to OneStart and organize these bookmarks.



## Test Objectives

The purpose of testing was to observe the users experience using OneStart bookmarks and their resulting feelings. We were mostly interested in whether OneStart Bookmarks were easy to use and understand, and if there are any potential problems or solutions to make the system more user friendly.

## Target User Profile

For the testing, we identified our user group as incoming freshman students who are unfamiliar with OneStart as a system and may not be aware of the systems different options. We felt that by using students that were new to the campus would be ideal since they were just learning about OneStart. Once we began recruiting potential candidates, we revised our target user profile to include any student unfamiliar with OneStart Bookmarks, regardless of class standing.

# **METHODOLOGY**

## ***Setup and Location***

Our testing took place on September 16, 2006 from the hours of 3:30 to 5:30 pm. We set up our testing station in the Main Library cafeteria using a web cam, a headset with a microphone and the program Camtasia to help record our sessions with our users.

We asked the participant to sit in front of the computer, while the facilitator sat next to her. The observers sat behind the participant as did the timer.

We had a total of three participants test with us. Each session took approximately 45 minutes to finish.

## ***Usability Session Information***

We began by greeting each of our participants and introducing ourselves as well as the individual roles that each of us would be playing during the session. Following informal introductions, we modified the workstation (the computer, web cam, and headset) to the new participant and made sure that they were comfortable with the set up as well as the test in general.

We then proceeded by explaining the user consent form (Appendix I) to the user and administered the pre-test questionnaire (Appendix II). Once these initial forms were signed, we briefed the participant with the scenario, administered the task list via script that we had prepared, then ended with a debriefing questionnaire.

### **Pretest Questionnaire**

#### **Scenario**

We had the participant envision that our team was trying to improve OneStart and currently the team was focusing on Bookmarks. We asked them for their help so that we can figure out problems with the OneStart's Bookmarks and redesign it again according to their suggestions.

We explained that OneStart Bookmarks purpose is to make the users favorite website or music available to them. For instance, if users want to go to their favorite basketball team, a simple click will guide them to the link that they create in their folder within their bookmarks.

#### **Tasks**

Once the user was briefed with the scenario, we asked them to complete the a list of tasks. While they were completing each task we asked that they take their time and speak freely about their feelings and about any reasoning behind their decisions. The tasks we chose were ones that are basic to OneStart Bookmarks and therefore a novice would be able to handle them; relatively, easily.

### Tasks for the test

1. Log on to OneStart
2. Authenticate username and password.
3. Locate information that shows "My Bookmarks" channel.
4. Import Bookmarks into the channel by providing a browser with a small number of bookmarks.
5. Determine if the Bookmarks are user-friendly in respect to it's design.
6. Practice editing/updating some of the data in the Bookmarks.
7. Practice adding and deleting some of the lists in the Bookmarks.
8. Add a new folder
9. Reposition some of the Bookmarks into the folder that was just created.

### Post-test Questionnaire/Debriefing Questions

These questions were asked in order to wrap up the participants experience.

1. Are the bookmarks useful to you?
2. Do you find the interface user friendly?
3. Is the color appealing to your eyes?
4. Do you prefer to use it in the future?
5. Are the commands for Bookmarks easy to follow?
6. How long did it take you to figure out the way it works?
7. How familiar are you with the design?
8. Overall, how comfortable are you with the Bookmarks?

We felt that these post test questions would help us to gather everything together for our final analysis.

## RESULTS

### ***Behavioral Goals expected from the user***

- To be able to import bookmarks from a browser to the OneStart Account
- To be able to edit/update the OneStart Bookmarks
- To be able to delete OneStart Bookmarks
- To be able to add a folder to bookmarks and reposition few bookmarks in new folder

### ***Usability Goals***

- We define a person to be expert with OneStart's "My Bookmarks" channels if the user is able to use it with at most three trials. We give below the goals for an expert and novice user of the system. We provide a quantitative analysis of ease of use for an expert user and ease of learning for a novice user. The following goals though quantified, arose from both qualitative observation and quantitative analysis of the data from usability testing.

### ***Ease-of-use goals***

- We have created several tasks related to using OneStart's bookmarks. We decided to break down ease-of-use for each task.

TASK#	TASK	MEASURE	GOAL
1	Logging to OneStart	Expert time	<31 seconds
		Expert Errors	0
2	Locating “My Bookmarks” Channel	Expert time	<31 seconds
		Expert Errors	0
3	Importing Bookmarks into the channel from provided browser	Expert time	<120 seconds
		Expert Errors	1
4	Editing Bookmarks	Expert time	<61 seconds
		Expert Errors	0
5	Adding/Deleting some bookmarks	Expert time	<61 seconds
		Expert Errors	0
6	Adding a new folder	Expert time	<10 seconds
		Expert Errors	0
7	Repositioning Bookmarks	Expert time	<31 seconds
		Expert Errors	0

***Ease-of-learning goals***

Novice Time	
Novice Trials	3
Novice Errors	

***Quantitative Data***

- To conduct a usability analysis based on the feedback got from the three users, we are considering/studying following quantitative measures:
- Time taken by user to complete the given task
- Number of errors made in the process of accomplishing task
- Number of times “HELP” referred
- Number of times a tester asked for assistance with her task

***Qualitative Data***

- We are studying following parameters to evaluate the usability of “My Bookmarks” channel:
- Response of debriefing questionnaires
- Audio and Video feedback of the test

**Individual User Testing Analysis**

Participant #1

- The test participant is a Male
- Rates himself average on being technically savvy (3)<sup>1</sup>
- Ranks himself (1) on knowledge of OneStart
- Has no knowledge about OneStart’s Bookmarks channels

Quantitative analysis:

TASK#	TASK	MEASURE	GOAL
1	Logging to OneStart	Time	20 seconds
		Errors	0
		Help referred	0
		Assistance required	0
2	Locating “My Bookmarks” Channel	Time	10 seconds
		Errors	0
		Help referred	0
		Assistance required	1
3	Importing Bookmarks into the channel from provided browser	Time	240 seconds
		Errors	3
		Help referred	2
		Assistance required	0
4	Editing Bookmarks	Time	75 seconds
		Errors	0
		Help referred	2
		Assistance required	0
5	Adding/Deleting bookmarks	Time	90 seconds
		Errors	0
		Help referred	1
		Assistance required	0
6	Adding a new folder	Time	40 seconds
		Errors	0
		Help referred	0
		Assistance required	0
7	Repositioning Bookmarks	Time	60 seconds
		Errors	0
		Help referred	1

<sup>1</sup> All participants used a scale of 1-5; 5 being the highest.

		Assistance required	0
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Qualitative analysis:

GOAL	MEASURE
Finds bookmarks useful	1/5, 5 is highest
Finds interface user friendly	3/5, 5 is highest
Finds color appealing	3/5, 5 is appealing
Preference of use of Bookmarks	1/5, 5 is preferred
Is help easy to use	4/5, 5 is highest
Time spent to understand usage of bookmarks	5/5, 5 is high amount of time
Prior familiarity with the design	1/5, 5 is high familiarity
Comfortable using bookmarks post test	1/5, 5 is most comfortable
Audio and Video Feedback	The test participant was from South Korea and currently majoring in Biochemistry. He was not communicative because he was not confident with his English usage. In the beginning, he had problems locating Bookmarks channel. He did not speak much during the test, but he read the help section attentively to understand the features of Bookmarks, especially when trying to 'save' the bookmarks file. He described himself as a technically average and mentioned that the interface was not user-friendly. Overall, he was not comfortable using Bookmarks and he did not prefer to use it again in the future.

Participant #2

- The test participant is a Male
- Rates himself quite high on being technical aware (4)
- Ranks himself (3) on knowledge of OneStart
- Has no knowledge about OneStart's Bookmarks channels

Quantitative analysis:

TASK#	TASK	MEASURE	GOAL
1	Logging to OneStart	Time	15 seconds
		Errors	0
		Help referred	0
		Assistance required	0
2	Locating "My Bookmarks" Channel	Time	10 seconds
		Errors	0
		Help referred	0
		Assistance required	1
3	Importing Bookmarks into the channel from provided browser	Time	145 seconds
		Errors	1
		Help referred	1
		Assistance required	0
4	Editing Bookmarks	Time	60 seconds
		Errors	0
		Help referred	1
		Assistance required	0
5	Adding/Deleting bookmarks	Time	73 seconds
		Errors	1
		Help referred	0
		Assistance required	0
6	Adding a new folder	Time	11 seconds
		Errors	0
		Help referred	0
		Assistance required	0
7	Repositioning Bookmarks	Time	22 seconds
		Errors	0
		Help referred	0
		Assistance required	0

Qualitative analysis:

GOAL	MEASURE
Finds bookmarks useful	4/5, 5 is highest
Finds interface user friendly	5/5, 5 is highest
Finds color appealing	3/5, 5 is appealing
Preference of use of Bookmarks	3/5, 5 is preferred
Is help easy to use	5/5, 5 is highest
Time spent to understand usage of bookmarks	2/5, 5 is high amount of



	<i>time</i>
Prior familiarity with the design	1/5, 5 is high familiarity
Comfortable using bookmarks post test	4/5, 5 is most comfortable
Audio and Video Feedback	The test participant is new to the OneStart Bookmarks channel, he also has not used bookmarks earlier though he is aware of their usage. He is technically savvy. He chooses Firefox internet browser over traditional IE. He follows the provided “HELP” steps assiduously. He likes the fact that HELP steps have been differentiated for Firefox and IE browsers.

Individual User Testing Analysis

Participant#3

Background of the participant

- The test participant is a Female
- Rates herself as being fairly technical savvy (4/5), where 5 is the highest
- Ranks herself (3/5) on knowledge of OneStart since he is a new student at Indiana University.
- Has no knowledge about OneStart’s Bookmarks channels

Quantitative analysis:

TASK#	TASK	MEASURE	GOAL
1	Logging to OneStart	Time	21 seconds
		Errors	0
		Help referred	0
		Assistance required	0
2	Locating “My Bookmarks” Channel	Time	30 seconds
		Errors	0
		Help referred	0
		Assistance required	0
3	Importing Bookmarks into the channel from provided browser	Time	627 seconds
		Errors	6
		Help referred	8
		Assistance required	2
4	Editing Bookmarks	Time	128 seconds
		Errors	1
		Help referred	0
		Assistance required	0
5	Adding/Deleting bookmarks	Time	23 seconds
		Errors	0
		Help referred	0
		Assistance required	0
6	Adding a new folder	Time	15 seconds
		Clicks	0

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Analysis of OneStart's Bookmarks Usability Tests

		Help referred	0
		Assistance required	0
7	Repositioning Bookmarks	Time	27 seconds
		Clicks	0
		Help referred	0
		Assistance required	0

Qualitative analysis:

GOAL	MEASURE
Finds bookmarks useful	1/5, 5 is highest
Finds interface user friendly	1/5, 5 is highest
Finds color appealing	3/5, 5 is appealing
Preference of use of Bookmarks	2/5, 5 is preferred
Is help easy to use	1/5, 5 is highest
Time spent to understand usage of bookmarks	4/5, 5 is high amount of time
Prior familiarity with the design	2/5, 5 is high familiarity
Comfortable using bookmarks post test	2/5, 5 is most comfortable
Audio and Video Feedback	The test participant was an American. She said she was fairly computer saavy, but had some trouble with OneStart bookmarks. The main area of difficulty was with importing bookmarks as she found that part to be very confusing. The editing of bookmarks she was a bit slow to complete, but with each task, she got more comfortable with the interface and became faster at completing the activity. She also experienced some crashing and slowness from the test computer which contributed to some of these high testing times. After explaining to her the need for a bookmarks page, she could see the practicality of it, but she herself did not think that she would ever use it.

## **USABILITY PROBLEMS**

With our experience through testing three users, we had mixed results with the OneStart MyBookmarks page. As a whole, users seemed to have little difficulty logging into OneStart and finding the MyBookmarks tab. However, while the tab was easy to locate, none of the users could remember seeing it before. The primary problem seemed to be with importing bookmarks. One of the users was able to successfully follow the help directions, but the other two struggled and faced lots of difficulties. Editing the MyBookmarks page provided only a little difficulty and the other tasks provided no difficulty at all.

## **RECOMMENDATIONS**

From listening to our users, the My Bookmarks feature may be one to reconsider within OneStart. Two of the three users we tested rated the My Bookmarks feature as being a 1/5 on the usefulness scale, with a 1 being not very useful at all. On the preference of bookmarks question, the three ratings we received were a 1/5, 1/5, and 3/5, very low ratings. From these ratings, it seems that users do not see a practical use for having easily accessible bookmarks within OneStart. We recommend that OneStart consider ways to make this feature more noticeable and useful to the everyday user.

It seems that one of the major problems with the My Bookmarks page is that the import feature seems to be difficult to use. While one user had little difficulty following the steps, the other two struggled to figure it out, and it is foreseeable that many other users would have similar difficulties. This feature may not be necessary, and we recommend OneStart to consider removing it.

## APPENDIX

### Usability Test Participant Questionnaire

Please complete this form and answer all of its questions. If there are any questions you feel uncomfortable answering, you may leave them blank. Your answers will help us further analyze and make improvements to the OneStart system.

1) What is your gender? \_\_\_\_\_

2) How many years have you been at Indiana University? \_\_\_\_\_

3) What is your major? \_\_\_\_\_

4) What is your hometown? \_\_\_\_\_

5) On a scale of 1-5, with 1 standing for no computer knowledge and 5 being technically savvy, how would you rate yourself?

1                      2                      3                      4                      5

6) On a scale of 1-5, with 1 standing for no knowledge of OneStart and 5 being knowledgeable about OneStart, how would you rate yourself?

1                      2                      3                      4                      5

# Usability Test Consent Form

Please sign this form after you have finished reviewing all of its details.

In this usability test:

- You will be asked general questions about your background so we can determine if you are the type of person we are looking for
- You will be asked to perform a list of specific tasks on a website
- You will be interviewed after completing the website tasks.

Participation in this usability study is completely voluntary. We will be video recording all of your actions. Upon completion of this experiment, this data will be analyzed by 4 members I543. This data will then be destroyed by September 22, 2006. All information from this experience will remain strictly confidential. The answers and findings you provide may be used to help build improvements to the OneStart website. However, at no time will your name or any other identification be used. You also reserve the right to withdraw your consent to the experiment and stop participation at any time.

If you have any questions after today, please contact Andy Trus at 301-461-6166.

I have read and understood the information on this form and had all of my questions answered

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Subject's Signature

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Date

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Tester's Signature

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Date

## Script

This script is meant for the facilitator. It is what facilitator would say to the tester. Italicized text is meant to be the actions carried out by facilitator.

"Hi! Thanks for helping us to test certain features of OneStart. Our team is from School of Informatics and we are trying to see how user friendly and intuitive OneStart is. As you are new to OneStart, you would be the best to tell if it is easy enough to use and in fact, help us to improvise it more. If, you are not able to understand what is to be done, or if you doubt that you are doing something wrong, do not get worried, it is not your fault, it is some fault with OneStart's designing.

We would be testing bookmarks in OneStart. We want to focus on how easy and natural they are to use, add etc. in OneStart.

How comfortable you are with browsing the net? DO you have a fair idea about it? \_\_ (wait for the answer) \_\_\_\_\_

Since, we would be testing bookmarks; we want to know if you know what bookmarks are and why are they useful? \_\_ (wait for the answer) \_\_\_\_\_

(In case, the tester does not know about bookmarks, explain to them bookmarks, their purpose)

I will introduce my team to you and then we can proceed towards the usability room. (Introduce the team, their roles; show tester where they are going to work)

I have few forms with me, these forms collect general information about you, and there is a consent form as well. We will keep all your information confidential. (Distribute the forms, collect the forms when the tester has filled it, and also explain the consent form to them)

We will start the test now; you can familiarize yourself with OneStart and look around it for a couple of minutes if you wish to. (give them some time) Also, just keep speaking what you are thinking, don't worry that you would go wrong. Remember this is test for OneStart and you are testing it! So, you would be grading it! We will notice a lot of things about OneStart if you keep talking about what you are thinking. Though it might seem odd to you, but it would help us gather data about the site.

We might interrupt you sometimes, to ask you what you thought, we realize that can be bit irritating but that's the best way to know what is wrong with it.

The first task of the test is to login to OneStart and locate Bookmarks Channel. The second task is to import bookmarks from your web browser to OneStart. Since you can access OneStart from anywhere in this world, it would mean that you would be able to use your bookmarks from absolutely anywhere.

After we have imported bookmarks to OneStart, we will delete 2 bookmarks, and the last task would be to move 2 bookmarks to other folder. You do not need to remember all the tasks, we will tell you the next task as soon as you are done with one.

Though, we would be here with you, but we would not try to help you with the system since we already know the system and it is best to get system tested from

someone new. However, if you are absolutely stuck and do not know what to do, then we can try and help you.

Do you have any doubts or questions? \_\_\_(wait for the answer)\_\_\_\_\_ (answers doubts if any)

Lets proceed ahead, our first task is to login to OneStart and locate Bookmarks channel. So, lets begin if you are comfortable enough and remember to talk aloud. (check if the tester is talking enough, encourage her to talk if she becomes quiet while facing some difficulty, don't walk her through the activity, help her only if she is not able to proceed ahead, after the tester has completed her task inform her of the next task) "

## Data Logging Sheets

**Study:** OneStart bookmarks usability

**Observer:**

**Date:**

T#	Task Description	Start Time	End Time	Qs	Errors	Clicks	Comments
1	Log onto OneStart						
2	Authenticate username and password						
3	Locate information that shows "My Bookmarks" channel						
4	Import bookmarks into the channel from provided browser						
5	Determine if the bookmarks are user-friendly in respect of its design						
6	Practice to edit/update some of the data in the bookmarks						
7	Practice to add/delete some of the lists in the bookmarks						
8	Add new folder						
9	Reposition some of the bookmarks into the folder						

## Post Test Questionnaire

1. Is the Bookmarks useful to you?

1                      2                      3                      4                      5

|-----|-----|-----|-----|

Not useful

Useful

2. Do you find the interface user-friendly?

1                      2                      3                      4                      5

|-----|-----|-----|-----|

Not user-friendly

User-friendly

3. Is the color appealing to your eyes?

1                      2                      3                      4                      5

|-----|-----|-----|-----|

Not appealing

Appealing

4. Do you prefer to use it in the future than any other features on OneStart?

1                      2                      3                      4                      5

|-----|-----|-----|-----|

Don't prefer

Prefer

5. Are the commands on Bookmarks easy to follow?

1                      2                      3                      4                      5

|-----|-----|-----|-----|

Not easy

Easy

6. How long does it take you to figure out the way it works?

1                      2                      3                      4                      5

|-----|-----|-----|-----|

Not long

Long

7. How familiar the users to the design?

1                      2                      3                      4                      5

|-----|-----|-----|-----|

Not familiar

Familiar

8. Overall, how comfortable is Bookmarks to you?

1                      2                      3                      4                      5

|-----|-----|-----|-----|

Not comfortable

Comfortable



# Test Setup

Building – Cyber Café of Main Library

Setup:

