

Group 12: In-Person Usability Testing Report

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Introduction

The purpose of this usability test is to explore the user flow and usability strengths and weaknesses of the e-commerce website eBay. eBay is a market platform for users to buy and sell products in an auction and market setting. While popular, it has never been the primary e-commerce site shoppers look at when buying products, despite cheaper resale prices.

Therefore, the objectives of this usability test include:

- Discovering user pain points when looking for something to buy
- Discovering what aspects of the site makes sense and if those strengths can be carried through to other aspects of the site
- To better understand the assumptions and heuristics shoppers expect when on an e-commerce site.

These objectives have led us to the following research questions:

1. Are there usability flaws on eBay, if so, what are they?
2. What assumptions and heuristics are shoppers using when navigating an e-commerce site?

In this study, we will ask participants to complete a series of tasks on eBay so that they can become familiar with the website interface. Data captured from these participants provide insight to some potential pitfalls and areas for improvement.

Methods

Target users are shoppers who shop online and care about how much they spend on products. Key participants for the usability test must fit into specific demographic criteria. An overview of our target population, as well as basic information about our participants can be found in ([Appendix 2](#)).

We conducted the tests on Friday, April 19th, each finding a participant for the study. We booked a two-hour block of time in a study room on campus to fit all participants into 30 minute slots with small intermissions.

Data Collection

For each participant brought in for the study, we rotated Usability Test roles. For each participant, the one who recruited them would be the moderator and then the rest of the roles were rotated so everyone was each role once in total ([Appendix 7](#)). We sampled

students at the University of Michigan that are technologically comfortable and have some form of experience shopping online. This sample is to target our user group of adult online-shoppers that generally care about how much they spend.

We hooked up the HDMI cord to the moderator's laptop, therefore the moderator could sit close to the participant and run through the Test Plan ([Appendix 3](#)) while the rest of the team could sit around the table while watching the participant on-screen. The moderator was also tasked with screen recording the session, while the audio role recorded the audio links attached as well. For the data loggers and observers, we had to slow up on tasks occasionally due to the checking the key of observer codes. Throughout the test, the moderator asked questions to encourage think-aloud as well as understand the reasoning behind the users behavior.

Data Analysis

Following the tests, we reviewed the data for the participants. Namely, the observer reviewed the audio and screen recordings to refine the notes when users took a different route to complete the task ([Appendix 5](#)). Additionally, the moderator for the test round would review the answers to the post-questionnaire and summarize the results, which are found in [Appendix 9](#).

Once the data was cleaned, to narrow down the findings below, patterns between behaviors and comments of the users were recorded. During the test, when a user was having difficulty, the observer ensured to mention it in the data logging forms. The times for each tasks between users acted as quantitative data in the test to assess how efficient and easy it is to accomplish the tasks and subtasks. Whereas the routes users took and the comments they made throughout the process were considered qualitative data for the analysis.

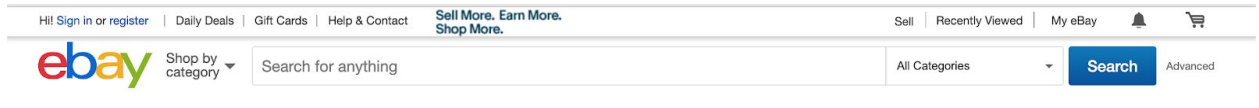
Findings and Recommendations

Summary Results

Users managed to successfully complete each task, however, not in the expected pathway described in the task description. When users could not quickly navigate to the next page, the search bar became a reliable and often used option to attempt to find what they were looking for. This however led to further confusion when following the next step in the instructions. Below we go into more detail covering the problems users faced in the usability tests and provide recommendations to limit those usability issues in the future.

Key Findings and Recommendations

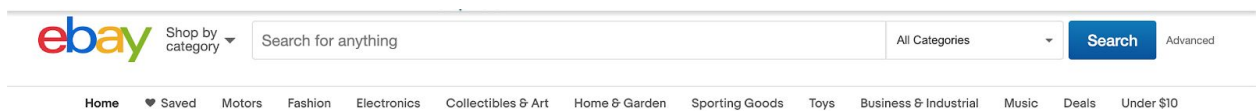
1. Three participants mentioned in the post-questionnaire that the font size on eBay was too small. This was incredibly evident when locating “Daily Deals” and “Gift Cards” in tasks 2 and 5.



On the eBay home page, “Daily Deals”, “Gift Cards”, and “Help & Contact” are in the upper left corner above the search bar.

Shown above, these selections do not grab attention and seem unimportant when navigating the site. Users did not notice these options until well within the task and tried other paths before failing.

As a suggestion, we recommend including these selections in the main bar of eBay’s website:



On the eBay home page below the search bar, is the main navigation bar to find common categories.

Users expect a category to be represented in the main toolbar and as such “Daily Deals” and “Gift Cards” are options that are common enough to be included in the main bar shown above.

2. During the tasks, every user used the search bar at least once and reported that tool being useful for the website. Oftentimes users have a motivated search on an e-commerce site and are not on there to browse, therefore the search bar is efficient. Therefore, a problem came up when navigating the “Daily Deals” because that is not an item that can be searched.

If eBay’s daily deals are an attention-grabber, then we recommend that they should add a visual cue directing towards this, for example in the large, shifting visual on the home page. This will grab users attention and begin browsing for items they may not have gone there initially to look for, and as a result, spend more money to purchase items.

3. When tasked to find a specific item, oftentimes the users failed to utilize the “Shop by Category” feature. Instead, as mentioned in Finding 2, users would rather utilize the search bar in order to find the specific item or just continuous scroll until they

have found the object. In other words, the “Shop by Category” feature does not add any additional value compared to the search option.

From our observations and data, the “Shop by Category” is not a primary feature people think about using when they go to search for an item. We therefore recommend that the feature should have a more specific name, such as “Shop by Brand” or “Shop by Compatibility”, or have an added feature that allows users to narrow their search down in one step.

4. As our participants got more comfortable with the user interface, some also complained about how the pages are organized. Complaints included saying the website was cluttered, saying that the layout was difficult to understand and that it could be made more visually appealing to keep up with more modern website templates. A different participant said that they believe mostly older people use eBay and newer generations use different, more modern looking websites. The look of eBay as a website may be a reason for this.

Therefore, our final recommendation is that eBay carry out preference tests and AB tests for different user groups to determine what the typical eBay user would prefer the interface look like. A good user interface can completely change public opinion about a website and a company, and the same could be the case for eBay which would ultimately increase their revenue and consumer confidence.

Conclusion

We suggest that eBay consider some of these pain points that we found to be common from this small sample size of users, and conduct a test at a larger scale to confirm which other prevalent issue there may be in different age demographics. This will help create a clearer picture regarding the user interface issues that eBay should focus attention on. All of our participants were able to complete nearly all of the tasks we gave them, but improvements to the user interface that make it more clear and usable could help boost the revenue of the platform overall.

Appendices

Appendix 1. Team Collaboration

Name	Tasks <i>What tasks did you perform as a team member or individually?</i>	Contributions <i>What parts of final deliverables did you contribute?</i>
Courtney Hunter	<ul style="list-style-type: none">- Write Introduction- Wrote a quarter of the pre-test questions and two tasks- Attend 2 hour testing session- Helped assign tasks to complete the report- Wrote two findings and recommendations	<ul style="list-style-type: none">- User 1 and User 2 Screen recordings- Tasks 1 and 2 in test protocol- User 2 observations in data logging form- User 3 data logging form- Findings & Recommendations 1 and 2
Griff Prime	<ul style="list-style-type: none">- Wrote conclusion- Wrote a finding and recommendation- Reviewed and made final changes on report to submit on time- Attend 2 hour testing session- Helped write pre and post test questions and tasks	<ul style="list-style-type: none">- User 3 audio- User 4 screen recording- User 1 observations in data logging form- User 2 data logging form- Findings + Recommendations 4
Tianny Lu	<ul style="list-style-type: none">- Wrote two findings and recommendations- Attended 2 hour testing session- Created 2 tasks for protocol	<ul style="list-style-type: none">- User 1 Audio- Tasks 3 and 5 in test protocol- User 4 data logging and User 3 observation form- Findings & Recommendations 3
Michael Kunz	<ul style="list-style-type: none">- Attended 2 hour testing session- Helped write methods section- Helped create user tasks- Created demographic information chart for Appendix 2	<ul style="list-style-type: none">- User 2 audio- User 3 screen recording- User 4 observer and user 1 data logger

Appendix 2: Recruiting criteria and participants information

Demographics	<ul style="list-style-type: none"> - 18-35 - no gender preference
Geographic	<ul style="list-style-type: none"> - United States
Psychographic	<ul style="list-style-type: none"> - Comfortable with using a desktop computer - Cares about the price of items
Behaviors	<ul style="list-style-type: none"> - Online shops (either browsing or purchasing) at least once a month

User	Year in school	Area of Study	Comfortability with websites 1-10	Importance of Cost 1-10
1	Junior	Pre-Med	10	6
2	Junior	Pre-Med	10	7
3	Freshman	Economics	9	7
4	Junior	Economics	7	5

Appendix 3: Usability Test Plan

Introduction:

Hello, <participant name>, I hope you are doing well today. Thank you for your willingness to participate in the user research usability testing today. The purpose of this test is to explore and understand how you go about completing tasks on eBay. For us to better understand your use and thoughts, we ask that you please think aloud while completing the tasks, anything that comes to mind, please share with us. We may ask you some questions throughout the test to better understand your thought process. This test will be recorded for record use. If you feel at all uncomfortable, feel free to let me know and we can take a break. All details of this test will remain confidential. Are you okay to continue?

Pre-Test Questions:

1. Can you tell me briefly about yourself?
2. How often do you shop online?

3. From a scale of 1-10, 1 being not at all important to 10 being extremely important, how comfortable do you feel with using computers and navigating various websites?
4. What are some of the apps and websites you use the most?
5. From a scale of 1-10, 1 being not at all important to 10 being extremely important, how important is the consideration of cost when shopping online?
6. Where do you typically shop online?
7. What aspects of online shopping do you like?
8. Have you ever bought or sold in an online auction before?
 - a. Why or why not?
9. What is the biggest challenge you usually face when online shopping?
10. Have you ever purchased an item on eBay?
 - a. Can you tell me about your experience?

Tasks:

1. You stepped in mud this past weekend in your favorite pair of white converse. Find the cheapest pair of Women's size 8 white Converse sneakers and see how much shipping is for those shoes.
2. Your niece's birthday is coming up and you need to buy her a gift. Locate the "Fabulous \$5 Finds" and add the "Jumbl Collapsible Gel-Freeze Cooler Drink Bottle w/Twist-Off Cap, Pull-Top Spout" to your cart.
3. While traveling, you lost your USB cable for your iPhone X and need to purchase a new one that is the cheapest option. Locate the "Cell Phones, Smart Watches & Accessories" section under "Electronics" and use the "Shop by Category" feature to find a USB charging cable for an Apple iPhone that is priced between \$1.00-3.00. Add that item to your cart.
4. One day you were listening to music using your noise-canceling Bose headphones studying for an exam in the library when one of the ears stopped making noise. Using the "Shop by Category" feature, find a new pair of noise-canceling over-the-ear Bose headphones (Bose QuietComfort 35) and navigate to the information page about the seller.
5. Your friend's graduation is coming up and she wants to travel across the United States after graduation so you decide to get her a gift card to Airbnb. Find a \$100 Airbnb gift card under the "Shop by Brand" feature in the gift card section and add it to your cart. From your cart, add the item to your "Save for later" section.
6. You are a college student and your parents just bought you a pair of new AirPods but they didn't know you already bought AirPods for yourself. Instead of telling them, you decide to sell the old AirPods on eBay. Using the selling feature, navigate to the page that allows you to sell AirPods similar to "Apple AirPods Wireless

Earbuds - White.” This task is complete when you have reached a pop-up page that says “Select Condition.”

Post-Test Questions:

1. How did you find the experience of using eBay to complete these tasks?
2. Did you find any tasks to be difficult?
3. Which features helped you the most in completing these tasks?
4. What was difficult to understand about eBay’s website?
5. Do you feel as though you can trust eBay as a website and company? Why or why not?
6. What could be done to improve your experience with eBay?

Appendix 4: Usability test recordings.

Test	Google drive links of there test recording
Usability test 1	Audio: https://drive.google.com/file/d/1cLL0mU6rC_35vHnMr5bWgEMjEL3M5-y/view?usp=sharing Screen Recording: https://drive.google.com/file/d/1Irsyz-gkRbsXTp1ec6iMoj2tdiOovrYB/view?usp=sharing
Usability test 2	Audio: https://drive.google.com/file/d/1SI1jYprtU41ZuwgAMQktszrKP3CaSLC8/view?usp=sharing Screen Recording: https://drive.google.com/file/d/1Kc7Xsz-Ln1jinxB72lT4LGqnH7AaVqRD/view?usp=sharing
Usability test 3	Audio: https://drive.google.com/file/d/1IF99faLSMiVz6oXPvqlgrD_Ty00C5NQb/view?usp=sharing Screen Recording: https://drive.google.com/file/d/1JGndQyE2IGrifjC-LU9-ropYZDhiFLpW/view?usp=sharing
Usability test 4	Audio: https://drive.google.com/file/d/12t6-vU46mC5oSW4TGDcS7vtUZzBMYUnX/view?usp=sharing

Screen Recording:

<https://drive.google.com/file/d/1V5IIIGbr1qnPMot2-2y-xYPlRzxn7BPgL/view?usp=sharing>

Appendix 5: Data Logging forms of all 4 tests.

User	Data Logging Form Link
User 1	https://docs.google.com/document/d/1HuBxq3IIHdojyDjDQYT_nIEvfuTajiy8QR9IHRNkKfA/edit?usp=sharing
User 2	https://docs.google.com/document/d/1iZSu93MTh2duvipRxzYwwZFHgblD03zSSJj4v6tD0k8/edit?usp=sharing
User 3	https://docs.google.com/document/d/1ewigTlIDhm5-03YJ2Nc6thBA-Z6XoxvbEEhZXHqxe8k/edit?usp=sharing
User 4	https://docs.google.com/document/d/1L2Dw9LwGhe_6cJgu7-45o0mNisZLzXjAaNIZkTE016A/edit?usp=sharing

Data Coding

Code	Definition Description
X	Usability Problem (difficulty accessing available features)
Q	Duplicate Usability Problem (same problem occurred more than once)
V	Ah-ha moment (e.g. surprise or Eureka moment!)

C	General Comment or Design Suggestions by the participant
P	Positive Opinion by the participant (complimenting the system)
N	Negative Opinion by the participant
B	Bug in system
F	Facial Reactions (e.g. frown, smile, frustration)
H	Help or documentation accessed
A	Assistance from moderator
G	Give up or finished things wrong
M	Misc (General observations and comments by logger)
D	User uses different method than expected

Appendix 6: Consent forms from each of the test Participants.

User 1:

https://docs.google.com/document/d/16bfPX-1-VhG2am9EP2g8-5lo8aS1PEKxfxRZAZ_2QyQ/edit?usp=sharing

User 2:

<https://docs.google.com/document/d/1XVX-w9Vt5WeVyhfZ1mCrT4al9eBfYNyDzQiKV0xjJbc/edit?usp=sharing>

User 3:

<https://docs.google.com/document/d/1DOOUT2omZdnDJeteM-rUonJok2h0wnJ8ldbwKz4jsYXk/edit?usp=sharing>

User 4:

https://docs.google.com/document/d/1SxHBXBAwonaUb6SRy6QugnpEMDAb7p1a_iflZmLnDaY/edit?usp=sharing

Appendix 7: Table defining the team member role for each of the usability tests.

Test	Moderator	Audio/ Video Operator	Data Logger	Observer
Usability test 1	Courtney	Tianny	Michael	Griff
Usability test 2	Tianny	Michael	Griff	Courtney
Usability test 3	Michael	Griff	Courtney	Tianny
Usability test 4	Griff	Courtney	Tianny	Michael

Appendix 8: Pilot Test observation and changes you did to your test plan.

Pilot Test	
Observations	<ul style="list-style-type: none">- Deals on Fabulous \$5 Finds changes daily- The task description of task 5 was confusing and required a bit more clarification on the steps needed to be taken.
Changes	<ul style="list-style-type: none">- Making sure task aligns and is doable- Break down the steps and make the task easier to understand.

Appendix 9: Summary of the post-test questionnaire .

Test	Post-test questionnaire Summary
Usability test 1	The user found the tasks to be rather frustrating and hard to navigate. Rather than using the expected path, the user typically used the search bar to find the items. Additionally, the user felt that the site was cluttered and difficult to navigate, especially on the bottom.
Usability test 2	The user thought that completing the tasks given on eBay was “annoying” because the words that they were looking for were too small and did not stand

	<p>out. In addition, there were too many categories offered on the side menu options. However, the user did not think the content was hard to understand but rather the layout was difficult.</p>
Usability test 3	<p>The user was generally surprised with eBay's usability. They like the tabs and organization of the page, but suggested there were definitely edits to make it more visually appealing like Amazon, but couldn't pin it down. This user thinks eBay is trustworthy because it has been around for so long.</p>
Usability test 4	<p>The user thought that it was easy to complete tasks using eBay and that it was "self-explanatory." The tabs are all visible and help users find the correct links on the website. Suggested to make the font bigger for older people because "only older people use eBay."</p>