

Usability Report: Software Engineering

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April 2, 2025

1 Revision History

Date	Version	Notes
10/03/2025	1.0	

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2 Preliminary Survey

As a first look into the usability of OrbitWatch, we have conducted a preliminary survey of potential users. The objective of this test is to determine areas for improvement between the Rev0 version of the website and Rev1.

2.1 Materials

The following survey was presented to five usability testers.

McMaster 4G06 OrbitWatch - Usability Survey

Please visit the OrbitWatch website found at <https://orbitwatch.xyz/> and complete the following tasks. It is recommended that a computer is used for the best experience.

- Login to the application with the credentials email:"2", password:"2" under the Labeller login
- Select the "Usability Project"
- Draw labels on the 6 photos from that project, utilizing all tools, tooltips, and help

Then fill out the following survey

* Indicates required question

Rate the readability of all the text across the site *

Unreadable 1 2 3 4 5 Very clear

☐ ☐ ☐ ☐ ☐

Rate how clear the visual feedback of buttons and interactive elements was *

No visual feedback 1 2 3 4 5 Very clear feedback when interacting with elements

☐ ☐ ☐ ☐ ☐

Rate how consistent the visual design is across the application (colours, font sizes, components) *

Very inconsistent 1 2 3 4 5 Very consistent

☐ ☐ ☐ ☐ ☐

Rate how intuitive it was to navigate through the website *

Could not find anything 1 2 3 4 5 Easily found everything

☐ ☐ ☐ ☐ ☐

Did you notice the contextual help pop ups and tool tips providing contextual help as you completed your task? *

- ☐ Yes
- ☐ No

If yes, How helpful did you find the contextual help popups?

	1	2	3	4	5	
Not helpful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very helpful

Rate how easy it was to access the platform through your web browser

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Did you utilize the help tool to get a better understanding of the labeling tool? *

☐ Yes

☐ No

If yes, rate how useful it was in helping you accomplish your task

	1	2	3	4	5	
Not useful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very useful

Rate your experience with the labeling tasks provided *

1 2 3 4 5

Complex to understand ☐ ☐ ☐ ☐ ☐ Very simple to complete

Were there any parts of the app that were unclear or confusing?

Your answer _____

What are some improvements you would suggest?

Your answer _____

Any other overall thoughts?

Your answer _____

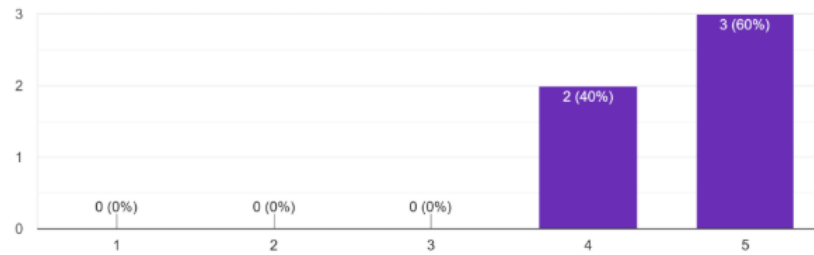
Each of the testers is aged 20-26, university educated, and familiar with technology. We understand this to be a limitation of our experiment, as ideally we would have access to testers from a wider range of ages, backgrounds, and expertise. However, we believe the result from this survey remain valuable to identify areas for improvement for our website's usability.

2.2 Results

After conducting the survey, we have received the following results.

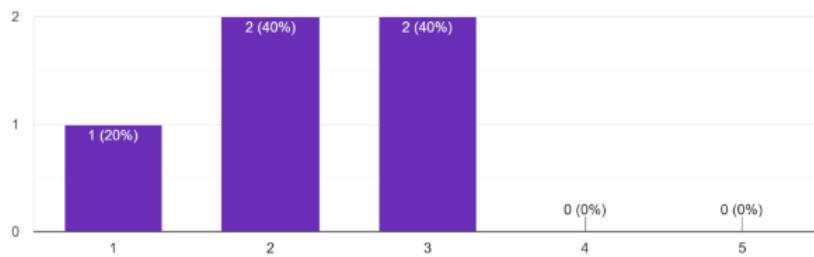
Rate the readability of all the text across the site

5 responses



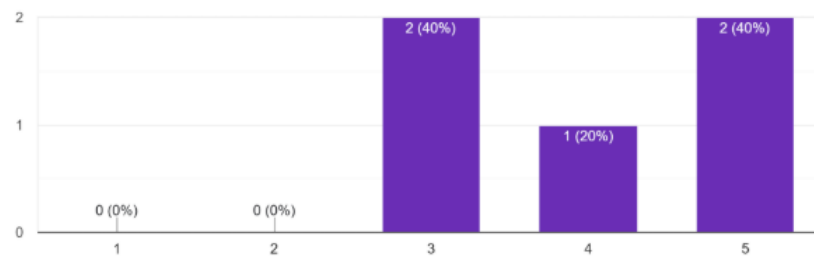
Rate how clear the visual feedback of buttons and interactive elements was

5 responses



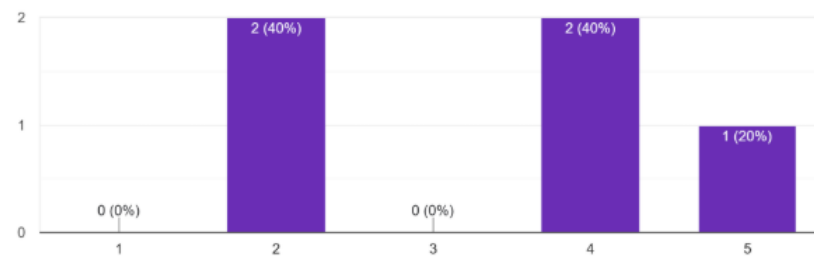
Rate how consistent the visual design is across the application (colours, font sizes, components)

5 responses



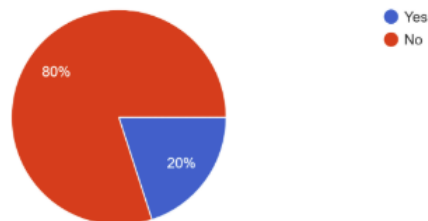
Rate how intuitive it was to navigate through the website

5 responses



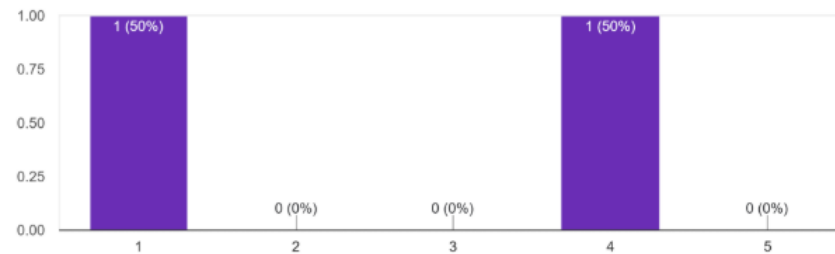
Did you notice the contextual help pop ups and tool tips providing contextual help as you completed your task?

5 responses



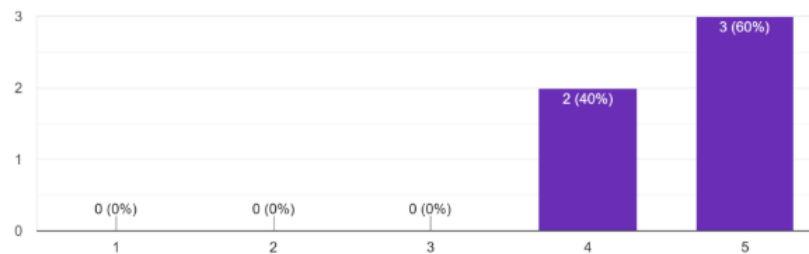
If yes, How helpful did you find the contextual help popups?

2 responses



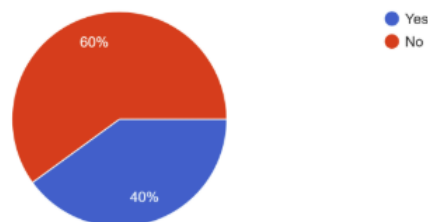
Rate how easy it was to access the platform through your web browser

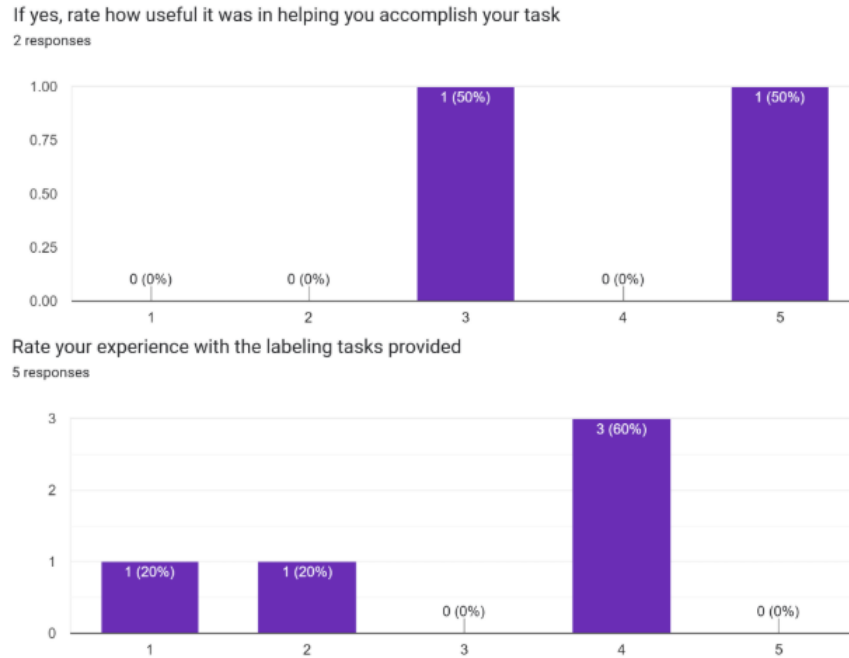
5 responses



Did you utilize the help tool to get a better understanding of the labeling tool?

5 responses





We also obtained qualitative feedback, which will be discussed in the analysis section.

2.3 Analysis

From these results, some obvious trends emerge. First, readability and design are the current strong points. Most people agree that the text is readable, and the design is consistent. This is critical for improving the discoverability of the site. Unfortunately, there are quite a few more areas for improvement. Several of the respondents reported that it was challenging to know what to do. They were unaware of the purpose of the website and of the features available to them. One user commented ‘The overall concept of the application was slightly confusing, the help button did aid in learning what to do. I thought I was only allowed to label once, before realizing I have to select the same label button multiple times.’ It is very important that we ensure new users are able to complete tasks easily. Otherwise, we may lose users to frustration. One user suggested including a ‘3-second gif’ of someone labeling a similar image before a user labels for the first time. This would likely be enough to eliminate a lot of confusion from the users. Another area for improvement is related to feedback when labelling. Several users were

unsure when a label was submitted, or what buttons like ‘skip’ or ‘next’ do. This will again lead to frustration and confusion, alienating users.

2.4 Next Steps

We will implement the feedback collected in this first survey to improve the site for Rev1. After changes have been implemented, we will redistribute the survey to the same testers. We are hoping to see an improvement in the rating collected between the first and second survey.

3 Additional Survey