

Usability Testing & Heuristic Evaluation

CSCI 3002 - Section 103 - Group 5

Tanner O'Rourke
taor0213@colorado.edu
Primary Liaison

Peter Lindee
petli1701@colorado.edu

Chris Thompson
chth2116@colorado.edu

Figma Prototype Links

Prototype A

<https://www.figma.com/file/YZzAPkvPM5CnHwVX2u1SPkbs/Profile-Page-1?node-id=0%3A1>

Profile Page B (can click each option on home page to move through sequence)

<https://www.figma.com/proto/MVsAhxaYVtSyjHqDS2AVvcP8/Untitled?node-id=19%3A2&scaling=min-zoom>

Part 1: Usability Testing

Study Report #1 (Peter Lindee):

Date/Location

December 1st, 11am, Norlin Library

Participant info

For this usability test, Peter tested the Figma prototypes one-on-one with participant, Robert. Robert is an economics major and an avid Colorado skier. Peter conducted this interview in Norlin library on December 1st.

Observations - Prototype A

When testing prototype A, Robert first played around with the features of each button and page. I was surprised at how easily was able to navigate through our Home and Explore pages and find the relevant content. I did notice Robert became confused about where he was in the app. We could have added more buttons to give the user the option to understand visually where exactly there were. Although we give the option to quickly navigate back to one of the main screens, through my observation Robert seemed confused about where someone was when

first using the application. I was also surprised at Robert's ability to understand our app without much explanation. He noted that it seemed like an Instagram variant, which is close to what we were going for.

Observations - Prototype B

What happened when testing prototype B?

Robert seemed a little confused when beginning prototype B. It seemed the home page was not clear to him and he was less able to jump into the features of the app like in prototype A.

However, after some time going back and forth between the main pages, he seemed to make sense of our layout.

Did you notice anything surprising?

I was surprised at how much longer it took for Robert to grasp the design and layout prototype B compared to his run through of A. It would be interesting to know whether that was a result of his experiences in prototype A, or whether B is just overall more confusing.

Any confusion or mistakes?

Robert was confused with the layout of the explore page and what exactly the video feed was supposed to represent. He did not make any mistakes but it took significantly longer for him to get comfortable with this Figma prototype.

Participant feedback:

In prototype A, Robert liked the ability to navigate through our app. He enjoyed that this prototype wasn't just a couple large screens, but a collection of independent pages which made Robert more drawn to the customization. He also specifically liked our Home page. Robert understood that we were designing a mobile application, and the simple home screen navigation would be helpful when using our app on a smaller mobile device.

Robert disliked how confusing some of the navigation was. He found himself getting lost with all the links in the Explore tab, in particular, and noted that it would be greatly beneficial if we added more visualizations to help the user understand the subset of pages they have been exploring.

In prototype B, Robert liked how there were less buttons, and this design was more centered around the visual aspects of seeing videos and pictures. He noted that, while more difficult to get started on, was more streamlined for an experienced user.

Robert found new-user experience difficult. He was a little frustrated at trying to see the features of the app when compared to prototype A.

For prototype A, Robert was confused about some of the navigation in the explore page. He kept clicking buttons and eventually became lost on the Figma navigation. It wasn't the usability features of our app that confused Robert, but the lack of visualizations to inform Robert of where he is. For prototype B, Robert was only confused with first trying to understand the Figma links of our design as a whole.

For prototype A, it was clear that we should improve the visual feedback to the user who is accessing our app. Robert became confused of where he was in the spider web of buttons. We could improve our design by adding more visual features to help the user understand exactly where they were.

For prototype B, some kind of new user orientation or tip feature would be smart to implement. This was a result of Robert becoming confused at first. However, we may need to understand this further and decide whether this was a result of a confusing design, or his spoiled experience from reviewing prototype A first.

Study Report #2 (Chris Thompson):

Date/Location

November 28th, 5pm, Study Room in the Norlin Library

Participant info

I interviewed one of my friends who skis just about every weekend and is very experienced skiing the park. He's a full time student and does not currently have an occupation. I let him run through both prototype A and prototype B and to evaluate the usability of both, the aspects he liked and disliked, etc. Out of respect of this man's identity, we will refer to him as "Paul"; Below are both his and my own ideas of how the prototype testing went.

While Paul was running through both prototype A and B on figma, I was able to observe the usability of both.

Observations - Prototype A

For Prototype A, the first thing I noticed was Paul had a bit of trouble understanding at first how the paper prototype worked, possibly because he had never used figma before and didn't understand the linking of the pages and possibly because there was no direction in our prototype of how it worked (no notes to the side telling the tester what to click). But quickly, Paul began clicking around and understood how it worked. He seemed to navigate through the prototype with ease, and seemed to understand the layout fairly well.

Observations - Prototype B

For Prototype B, Paul having first run through A had a better understanding of figma and knew that he was able to click the icons on the image to navigate through the prototype. Prototype B is fairly similar to A, same nav bar, same page types, etc. However there are some differences that seemed to trip him up. He attempted to click icons that had no functionality in our prototype which tells me that we should have maybe included some more in depth abilities to our figma design. For example, he tried to click a video icon on the explore home page and to his surprise, our prototype lead nowhere. Other than that, he seemed to understand B as well as A and took about the same amount of time moving through it.

Participant Feedback

For prototype A, Paul liked the layout and simplicity of the design. Felt it was easy to understand and comparable to other applications he has used. Paul disliked that there was not an "upload video" option in the prototype and felt other components could have been added to the prototype to demonstrate the power of the user within this application

For prototype B, again, Paul liked the layout; he found it comparable to a mixture between facebook and instagram. He also enjoyed how the explore main page shows a range of videos that the user may want to watch without having to search anything specific. Paul felt that some of the images were hard to read and that the prototype could have been a bit clearer.

Overall, Paul was confused on which things he could and could not click on in the prototypes because some buttons he would click and get lead to another page and others, nothing would happen. Paul felt that we should have had some notes on the side indicating which buttons were clickable and which were not to clarify the usability.

I think the prototype testing went very well with Paul. He had some troubles understanding the functionality of figma and the functionality of the prototype but once he got a feel for it, he seemed to enjoy the process. I asked him what he thought of the prototyping overall and he thought it was really cool how we could draw our application features on paper and then get some functionality out of a paper drawing through figma.

Study Report #3 (Tanner O'Rourke):

Date/Location

December 2nd, 2pm, Tanner O'Rourke's Marine Street house

Participant info

Tanner O'Rourke one-on-one interviewed his roommate (will be referred to as "my roommate", who is a Junior here at CU majoring in Real Estate and Entrepreneurship through the Business School. He is an extremely avid skier, with a lot of knowledge of skiing as an industry, sport, and fanatic.

Observations - Prototype A

Because of my interviewee's knowledge of skiing as a whole, it was easy for him to problem solve as he went through the app. This base level of knowledge it seemed made him feel at home using it. The first place I saw my roommate had confusion was at the 'Home page'. He spent quite a while moving his finger (i.e. mouse) around to the different buttons in likely confusion. From here however, he was able to seamlessly navigate through the pages with the

top navigation bar. With the 'Explore' and 'Profile' pages, he had great success and speed searching for videos, changing his profile picture, setting, and information.

Overall, I felt roommate was able to navigate the app easily. He actually cracked a smile when he got to the 'Explore' page. The only thing I found surprising was his inability to quickly navigate the 'Home Page'. We thought this was the best designed page, but it may need to be reduced in the future.

Observations - Prototype B

Starting on the 'Home' page, my roommate had an easy time navigating. He had trouble using the scroll bar in each section of the page (gallery, friends posts, shared pictures), although he seemed to find his way around the homepage easily. Similar to prototype A, the global navigation bar was easy to use and guided him throughout the site easily. My roommate, once on the 'Explore' page, had trouble where in the videos presented at the bottom of the screen were not clickable. This caused him some confusion, but made sense due to the over-simplification of the prototype. On the 'Profile' page, my roommate made seamlessly no errors or mistakes in navigation and usability except for one. He seemed dissatisfied with having to press the 'edit' button to edit his profile information.

Participant feedback:

As an avid skier and long time freestyle skier, my roommate has been looking for a platform like ours to use on the slopes. Throughout the interview, my roommate was very pleased with the concept and design of both prototypes in terms of his needs. The biggest takeaway I got from his feedback was that both prototypes were well organized at the top level and were somewhat visually appealing, but some of the specific desired functions were too vague.

He thought that prototype A had well sectioned pages, was simple to use, and had quick functionality. His main critique of prototype A was that while many tasks/functions were extremely simple to complete, but others made those desirables misleading. He found that some buttons were ambiguous or unneeded and should be given more thought. He also suggested that the 'Home' page could be simplified and the 'Profile' page's buttons could be visually organized better.

In comparison to prototype A, my roommate thought prototype B had a better overall visual design because of its distinct section of information (i.e. prototype B homepage). But what prototype B had in organization, my roommate thought it lacked in functionality. My roommate noted he had more trouble knowing what was clickable and what wasn't, such as the "vid" buttons in the 'Explore' page. One major advantage (albeit still a flaw) he saw in prototype B was the easier ability to upload your own content. Before the question line even started, he harped (and we agreed) that in both prototypes, it is confusing and arduous to try and upload your own content. We agreed the 'Home' page should be implicitly forcing you to upload personal content (i.e. the circular tweet button on Twitter), as this is the main desired function of the app.

Part 2: Heuristic Evaluation

Prototype	Heuristic	Group Member
A	Visibility of System Status	Tanner
A	Match between System & Real World	Tanner
A	User control and freedom	Tanner
A	Consistency and standards	Tanner
A	Error prevention	Tanner
A	Recognition rather than recall	Tanner
A	Flexibility & Efficiency of Use	Tanner
A	Aesthetic and minimalist design	Peter
A	Help users recognize, diagnose, and recover errors	Peter
A	Help and Documentation	Peter
B	Visibility of System Status	Peter
B	Match between System & Real World	Peter
B	User control and freedom	Peter
B	Consistency and standards	Peter
B	Error prevention	Chris
B	Recognition rather than recall	Chris
B	Flexibility & Efficiency of Use	Chris
B	Aesthetic and minimalist design	Chris
B	Help users recognize, diagnose, and recover errors	Chris
B	Help and Documentation	Chris

Usability Aspect Reports - Prototype A

UAR # 1

Name: Prototype A - simplicity of navigation

Problem: No way to navigate quickly between adjacent pages

Rated By: Tanner O'Rourke

Relevant Heuristic: User Control and Freedom

Steps to reproduce: Navigate to any subpage

Detailed Explanation: When on *any* subpage, there is no way to quickly and dynamically navigate between adjacent pages, only the 3 global pages. This makes it difficult to move between adjacent pages and forces users to remember where they are.

Possible Solution: Add back buttons in the upper-left-hand corner of each subpage next to the page title (see UAR #3), possibly with information showing where the back button will navigate you to.

Severity (low, medium, high, critical): critical

See also: UAR #3

UAR # 2

Name: Prototype A - Profile page confusion

Problem: Profile page is poorly organized in terms of visual design

Rated By: Tanner O'Rourke

Relevant Heuristic: Match between system and real world

Steps to reproduce: Navigate to the Profile page

Detailed Explanation: The 'Customize Bio' and 'Ski Level' pages show relatively the same information, which will lead to confusion. As well, the 'Continue' button is misleading because it never states where you are continuing to.

Possible Solution: Combine the 'Customize Bio' and 'Ski level' pages into one, then replace the 'Continue' button with a 'Save' button to be more correct. Also delete the arrows next to each button for simplicity.

Severity (low, medium, high, critical): high

See also: N/a

UAR # 3

Name: Prototype A - page naming

Problem: User cannot see which subpage they are currently on

Rated By: Tanner O'Rourke

Relevant Heuristic: Recognition over recall

Steps to reproduce: Navigate to *any* page

Detailed Explanation: On all pages, there is no title/explanation/identifier for which page you are currently on. Therefore user's are forced to remember which page you are in the hierarchy.

Possible Solution: On every page, adjacent to the added back button (a.k.a. top-left of a page, see UAR #1), place a title that signifies the current page you are on (Note: For some pages such as the searched video page, this may not be necessary).

Severity (low, medium, high, critical): high

See also: UAR #1

UAR # 4

Name: Prototype A - content view organization

Problem: Scroll bar for comments under a selected video is hard to use, doesn't mimic typical user behavior

Rated By: Tanner O'Rourke

Relevant Heuristic: Flexibility and Efficiency of use

Steps to reproduce: Explore -> Search -> *click on a video*

Detailed Explanation: When viewing a video/content, you should either be watching the video, or looking at the video's list of comments, instead of having to scroll to view all the comments. This is a usual practice in social-media apps such as Instagram.

Possible Solution: Instead of having a scroll bar, implement a 'Comments' or 'More Comments' button along with a shortened view of the top comments for each video. This comments button will bring you to a new page that shows the full list of comments.

Severity (low, medium, high, critical): Medium

See also: N/a

UAR # 5

Name: Prototype A - searching for friends

Problem: Organization and type of options when searching for friends are poorly organized, misleading

Rated By: Tanner O'Rourke

Relevant Heuristic: Flexibility and Efficiency of use

Steps to reproduce: Profile -> Add Friends

Detailed Explanation: Interviewees found that when doing a manual search on the 'Find Friends' page, the initial search options (username and age) were incorrect initial choices, but also wanted more choices overall.

Possible Solution: Under 'Manual Search', take out the 'age' textbox, add a tab that shows advanced options such as age, location and experience, and add a 'search' button at the bottom of 'Manual Search'.

Severity (low, medium, high, critical): Medium

See also: N/a

UAR # 6

Name: Prototype A - Clear information on homepage

Problem: Less information for specific videos on the home page

Rated By: Peter

Relevant Heuristic: Aesthetic and Minimalist Design

Steps to reproduce: View the 'Home' page

Detailed Explanation: When viewing the feed, the user is forced to see certain comments or irrelevant information they may not care about. This clutters the home page with unnecessary information.

Possible Solution: Instead of listing so much information for videos on the feed, we think it is important to replace irrelevant information with a different page they can navigate to. For example, instead of just listing the comments for a video we could add a dropdown link where if the user clicked on the video, they could then see the pertinent information.

Severity (low, medium, high, critical): Low

See also: N/a

UAR # 7

Name: Prototype A - clarity improvement

Problem: No tutorial page or usage tips

Rated By: Peter Lindee

Relevant Heuristic: Help and Documentation

Steps to reproduce: N/a

Detailed Explanation: We overlooked the need for a simple tutorial feature on both prototypes. We realized that users may not have created a social media application before and need assistance in understanding certain general features that our application provides.

Possible Solution: Add a tutorial video or help page which would highlight the important information and features on our application. Let the user know what they can do with our product, and how certain features can be performed as intended.

Severity (low, medium, high, critical): Critical

See also: N/a

UAR # 8

Name: Prototype A - No help page

Problem: The prototype does not have a help page for the user

Rated By: Chris

Relevant Heuristic: Help and Documentation

Steps to reproduce: Keep nav bar

Detailed Explanation: There is no help page. This will provide compound troubles for the user if he/she encounters a question they want answered.

Possible Solution: Include a help page and place link in the nav bar. The page should include common problems the user may encounter and possibly contact information of site/app creators to answer questions not listed.

Severity (low, medium, high, critical): Critical

See also: N/a

UAR # 9

Name: Prototype A - Clickability

Problem: Not clear what can be clicked by user

Rated By: Chris

Relevant Heuristic: Error prevention

Steps to reproduce: Navigate to any page, click on a perceived button

Detailed Explanation: It is hard to understand which buttons are clickable and which ones aren't within the prototype. The user would often click a button and find it lead to nowhere.

Possible Solution: Evaluate each buttons use and discard/change them as we go, or put notes off to the side of the page detailing which buttons can be clicked and where they will lead.

Severity (low, medium, high, critical): Medium

See also: N/a

Usability Aspect Reports - Prototype B

UAR # 10

Name: Prototype B: Navigation design flaw

Problem: Robotic & forced navigation process.

Rated By: Peter

Relevant Heuristic: Match between system and real world

Steps to reproduce: View navigation between each page

Detailed Explanation: Navigating through the processes of this prototype made me realize how forced and robotic the navigation seems. For example, the user has to return to the home page to access certain features from their profile instead of being able to access this directly.

Possible Solution: We could add another button at each critical page to allow the user to search for relevant information on the site. This would not only help our application to become more usable, but allow the ability for the user to access any sub-page whether they are in the explore, home, or profile sections of this app.

Severity (low, medium, high, critical): Low

See also: N/a

UAR # 11

Name: Prototype B - User feedback issue

Problem: No feedback or help on home screen, user might need some info on what they're looking at when they first log in.

Rated By: Peter

Relevant Heuristic: Visibility of system status

Steps to reproduce: View first page of prototype

Detailed Explanation: When accessing the first page, the user is met with a somewhat daunting screen that expects them to understand what to do and how to use the page's features.

Possible Solution: Add a information section which details relevant information on the app and helps make a user's first time accessing their page easier and more clear.

Severity (low, medium, high, critical): High

See also: N/a

UAR # 12

Name: Prototype B: user error fixing

Problem: no "emergency exit" for profile page customization

Rated By: Peter

Relevant Heuristic: User control and freedom

Steps to reproduce: Navigate to profile editing page

Detailed Explanation: For this problem, there is no immediate option to clear what information the user has entered for their profile. If they wanted to start on a clean state, they would have manually change each tab instead of having the option to clear their information.

Possible Solution: Add button to clear their profile information, allow changes for user to easily edit their profile.

Severity (low, medium, high, critical): low

See also: N/a

UAR # 13

Name: Clickability

Problem: Not clear what can be clicked by user

Rated By: Chris

Relevant Heuristic: Error prevention

Steps to reproduce: Allow buttons to be clicked by user

Detailed Explanation: Hard to understand which buttons can be clicked and which ones cannot be within the prototype. The user would often click a button and find it lead to nowhere.

Possible Solution: Put notes off to the side of the page detailing which buttons can be clicked and where they will lead.

Severity (low, medium, high, critical): Medium

See also: N/a

UAR # 14

Name: Space usage on profile page of B

Problem: We give full use of various user content such as gallery, videos saved, friends etc.

Rated By: Chris

Relevant Heuristic: Aesthetic and minimalist design

Steps to reproduce: Maintain listing of these pages/features

Detailed Explanation: The amount of space that each piece of content consumes could take a full page on its own and may create too large of a profile page.

Possible Solution: Keep the listing of the gallery, saved content, and friends but only show some of the content contained by each category and create links to separate pages.

Severity (low, medium, high, critical): High

See also: N/a

UAR # 15

Name: No help page

Problem: The prototype does not have a help page for the user

Rated By: Chris

Relevant Heuristic: Help and Documentation

Steps to reproduce: Keep nav bar

Detailed Explanation: There is no help page. This will provide compound troubles for the user if he/she encounters a question they want answered.

Possible Solution: Include a help page and place link in the nav bar. The page should include common problems the user may encounter and possibly contact information of site/app creators to answer questions not listed.

Severity (low, medium, high, critical): Critical

See also: N/a