



Usability Study Report

Green Monkeys

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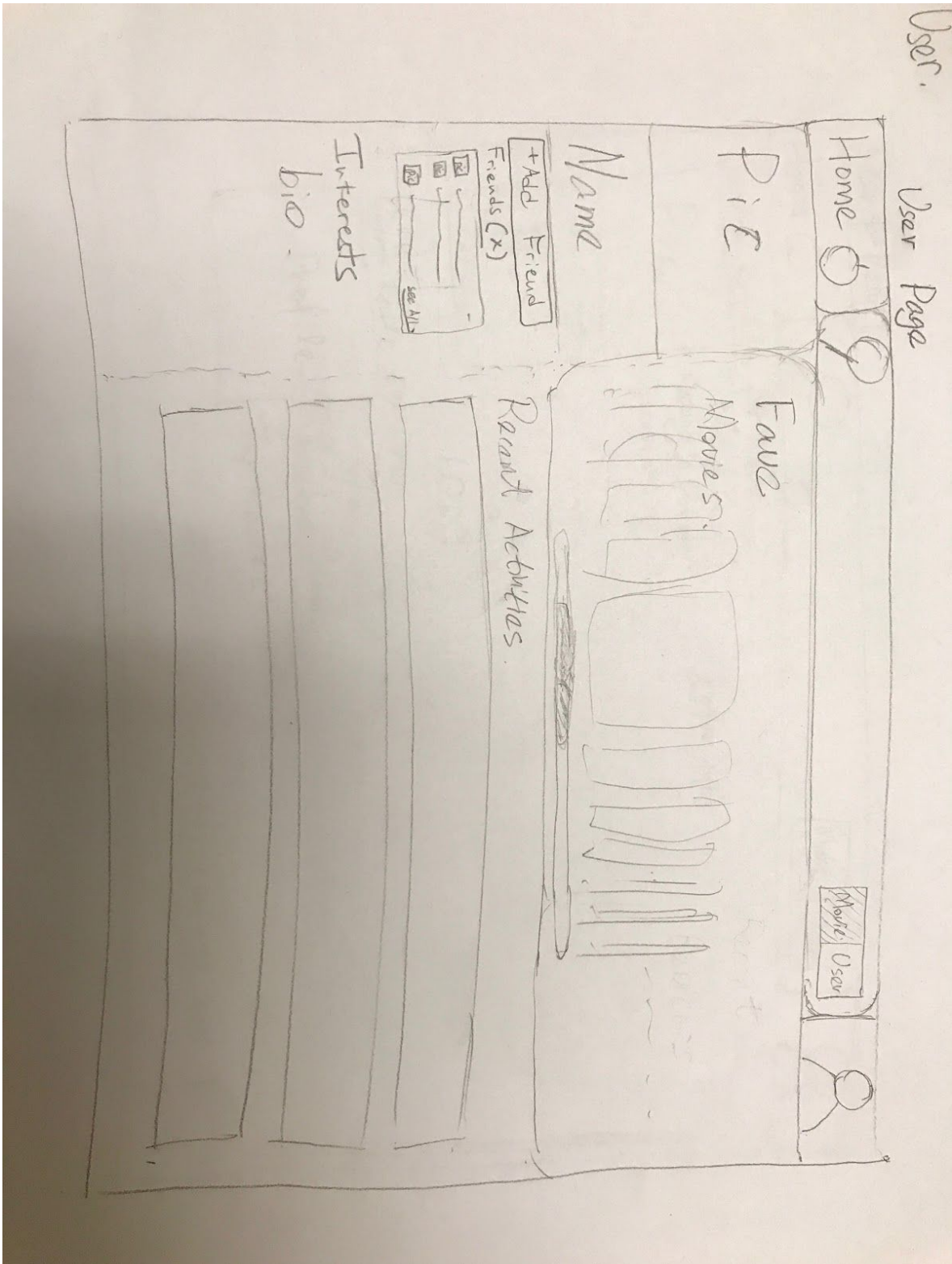
Study methodology

The goal of this research effort was to test the overall usability of the web application “Spoiled Tomatillos” which is still in the process of development. Our team was interested in learning whether users could understand the prototype interface design and easily perform common tasks on “Spoiled Tomatillos” from two user perspectives. Four users were invited to participate in the usability study of the new product. During the study, three participants were assigned as end users and were required to perform three tasks on the end user part of the platform, and one participant was assigned as an admin user and was required to perform three tasks for the admin user part of the platform.

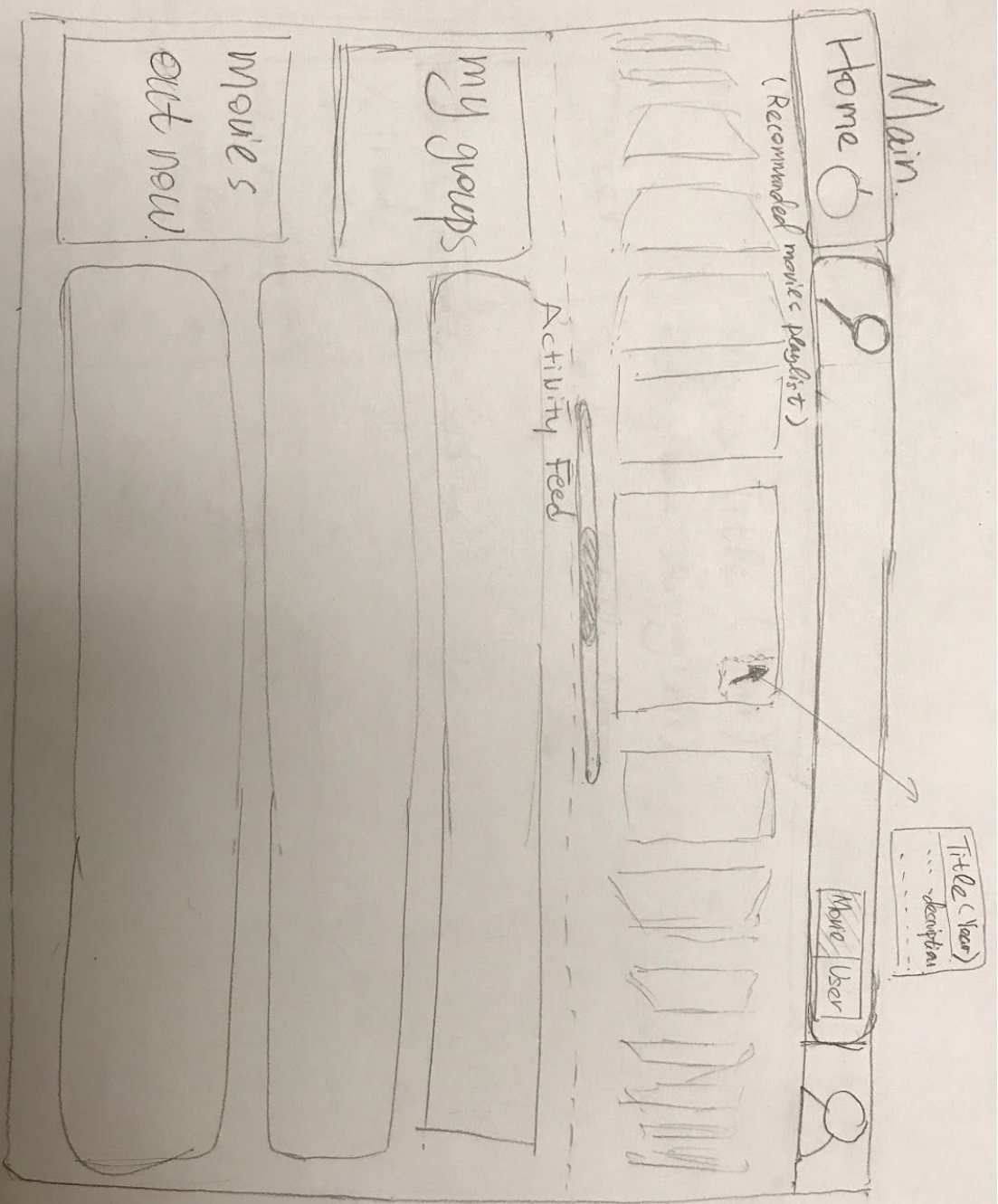
During each trial, the participants were presented with hand-drawn representations of the user interface, and were presented with a task such as searching for a movie. We asked the participants to talk through every action and their thought process. When the user performed an action such as clicking a link, they were presented with the resulting page until the task was completed.

Users errors, actions, requests for clarification/help, and completeness were observed and recorded during the study. The users were asked to talk through their actions for complete transparency. After the carrying out the tasks, users were asked for any opinions on the design of the interface and whether or not they would make any additions/modifications. Each participant was shown and asked to accept the terms of the consent document before participating in the study. Each interview lasted approximately 15 minutes and participants were not paid for this study.

Paper Prototypes



User



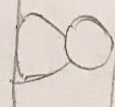
User.

Movie Info.

Home



Movie User



Poster

Movie Title (Year)

Rating (users) Rating (All)

Director - Notable Actors.

Synopsis:

Recommend it

X friends have seen this.

Reviews (your friend)

Your Review

All Reviews

Net 88

(see more)

Rating: ***
(comments optional)
Cancel CE

Admin.

Admin.

↓

User

Tickets

Name (Username).

Name :

Username :

email :

Flagged Reviews.

Reset Password.

Delete.

Suspend.

Go Back.

Save Changes.

Logout.

↓

User

Tickets

Name (Username).

Name :

Username :

email :

Flagged Reviews.

Reset Password.

Delete.

Suspend.

Go Back.

Save Changes.

Logout.

Participants

User	Age	Gender	Education Level	Major	Technical Skill	Prior Experience
#1	22	Female	Undergraduate	Economics	Excel	No
#2	19	Female	High School	N/A	General Web	No
#3	24	Male	Masters	Mechanical Engineer	Matlab	No
#4	22	Male	Undergraduate	Business	Excel, general	No

Tasks

There were 6 tasks included in this study. One participant was assigned as an admin user and tested three tasks in the admin control panel:

1. Lookup a ticket by its number and mark it as done
2. Look up a user and delete them
3. Change a user's displayed full name

The other three participants were assigned as end users and tested the three tasks for the core of the website:

1. Add a friend that is also on "Spoiled Tomatillos"
2. Write a review for a movie you recently saw in the cinema
3. Find the synopsis for a movie you are interested in

Measurements

For quantitative data, each user was asked to rate the difficulty of completing each task on a simple 1-5 scale described below:

- 1 - Very Easy - No hesitation performing tasks, did not require interface clarification
- 2 - Easy - Little to no hesitation performing tasks, may have asked for minor clarification
- 3 - Moderate - Notable hesitation performing tasks, asked for clarification in interface
- 4 - Hard - Needed some degree of guidance/hints to complete task
- 5 - Very Hard - Could not complete task without major guidance

For qualitative data, the behavior of the user when interacting with the interface was recorded. For example, we noted any hesitation, the relative time it took to find the correct next

step, or whether they backtracked their actions. Additionally, any opinions and comments about the interface included in the qualitative data. This was a series of notes that together gave us a better understanding of how effective and intuitive our website layout was.

Test Results

Participant #1

Type: End User

Task Difficulty Ratings:

Add a friend that is also on “Spoiled Tomatillos”: **4**

Write a review for a movie you recently saw in the cinema: **1**

Find the synopsis for a movie you are interested in: **1**

The user showed confusion about the content that will be displayed after clicking the button but she could be able to return to home page quickly and identified the appropriate function. Additionally, she indicated that the search function was important in completing this usability test.

For instance, when she tried to search for a user using search bar, she entered into search very quickly but ignored the button on the right side of search bar. She realized there might be some filters of the search function as soon as the search results were a list of movies instead of a list of users. Then she quickly changed the search filter from movie to user and type the user she wants then hit enter. The search result brought the user she wanted in search result list.

The participant expressed some extent of surprise with pop up functionality in the test. Due to her prior experience with other web application, she thought it was a great idea to bring the pop up into the web application to avoid redirecting to a new webpage.

The participant finished the first task in one minute and the other two in less than 45 seconds. The whole process went smoothly.

When asked for feedback regarding advantages and disadvantages along with any recommendation, she said that the search bar was really easy to see and it is extremely useful in this web application. But she expressed her confusion about different genre on the homepage. She said she was about to see the different genres of movies in homepage, but did not find any. In addition to search bar and movie genre, she also talked about scroll bars across the web application which make it easy for her to scroll and view more contents in one page.

Participant #2

Type: End User

Task Difficulty Ratings:

1. Add a friend that is also on “Spoiled Tomatillos”: **1**
2. Write a review for a movie you recently saw in the cinema: **1**

3. Find the synopsis for a movie you are interested in: **2**

As for observations, the participant displayed almost no hesitation with any of the tasks aside from one sign of hesitation during the third task and one question during the first task.

The confusion came from the fact that a user could either find a brief description of the movie in the “recommended movies playlist” and in the search results page, or they could find the more detailed synopsis on the dedicated movie page. The task was to find the more detailed synopsis, suggesting that a “read more” link in any place where a short description is shown may be necessary. This would redirect the user to the synopsis on the main movie page if the short description was not sufficient. The participant thought that this short description was enough, but promptly found the synopsis when asked where they could find more detailed information.

The participant additionally asked if the options on the right side of the search bar were a “switch” between a movie and person search. As this was the case, we did not see this as a hesitation or clarification due to the restrictive nature of hand-drawn prototypes, but we took note of the fact that we must pay special attention when designing this “switch” to make its functionality evident from first glance.

Aside from this one minor difficulty, the user completed every task with great ease in under one minute.

When asked for feedback, the participant noted how the visibility and size of the search bar made completing the assigned tasks. The design of the search bar made it apparent to the user that it was the core functionality of the application that led to most of the website’s content. Also, due to the relative simplicity of the assigned tasks and the limited set of requirements, the participant found the layout easy to navigate. One complaint was the proportions of content in the movie page. The participant suggested that “the review section was too crowded” for the quantity of reviews supplied. They recommended that under the main information about the movie, the reviews should take up half of the page while the miscellaneous movie information should take up the other half.

Participant #3

Type: End User

Task Difficulty Ratings:

- 1) Add a friend that is also on “Spoiled Tomatillos”: **1**
- 2) Write a review for a movie you recently saw in the cinema: **2**
- 3) Find the synopsis for a movie you are interested in: **1**

When observing the user, I saw that he seemed to have a very easy time maneuvering his way around the website. He was able to do things with so much ease that it surprised me a little. That being said, on his first run through, he took a good bit of time on the home page. Once he had gotten a sense of the layout of the home-page and how everything meshed together, he was

able to move very freely around the website. He finished the first task in about twenty seconds and the second and third tasks in roughly ten seconds.

After completing his tasks, I asked him about the time that he originally spent on the homepage, he said that at first it seemed like a lot of data to process. He mentioned how it was not cluttered, however, it was very compartmentalized. What he meant by that was that spatially there was plenty of room, however, there were many different options the user could pursue on one page. He liked this, however, mentioned that it may overwhelm some users.

He also gave input onto other aspects of the website. Overall, he liked the layout and specifically said how he liked that the home page had the option to add users as friends. He said that this gave it a very social feel and that having it so readily accessible was a nice feature. Furthermore, he mentioned how he felt that there was a very simple and nice design that did not make him feel confused. That being said, he felt like he would like some way to talk to users through a chat-box or something similar. Overall, he was pleased with the design and said that it was easy to follow.

Participant #4

Type: Admin

Task Difficulty Ratings:

- 1) Lookup a ticket by its number and mark it as done: **1**
- 2) Look up a user and delete them: **2**
- 3) Change a user's displayed full name: **2**

I carefully monitored the person using the system without coaching them. They were briefly explained the system to a basic understanding, and were informed about the roles of the admin. This description included a basic overview of the website, what people would use it for, and what his responsibilities were as an “administrator”, including the tasks he would have to perform. This instruction was done before showing him the paper cutouts, so he didn't have any bias about how to use the website layout.

For the first task, he had no trouble intuitively grasping that he could use the search bar as intended to look for a specific ticket by its number, and clicking the box that said “Done”. For the second task the “admin” was slightly confused, and asked me how to look up a user. Shortly after without coaching he noticed the “Users” tab and clicked on that. From there he was able to intuitively grasp how to look up a user, delete their account and change their name.

I asked him for feedback on the interface after the tests were completed. He said that the layout was simple and that “it wasn't hard to use at all”. Even though this tester had no previous experience administering a website, he was able to use the paper layout without much confusion.

Discussion

More specific notes about each participant's individual interaction can be found in the section above. However, we did notice a few trends in the study. The efficacy of this study was reduced due to the restricted ability of a hand-drawn prototype to communicate smaller elements in an interface design such as buttons. There were instances where a user made sure with us whether an element was a button or not. We did not see this as a shortcoming in our interface design but rather of the prototype because in the actual implementation of our web application, the framework we use will provide us with an easily distinguishable button (and other element!) design.

Some concerns that were brought up were with the proportions of elements in a few pages - mainly on the movie info page. Because the application is mostly focused on the social media aspect of the movie experience, we need to make sure to make content such as reviews on the movie info page more prominent. Since these are prototypes, the actual proportions, size, and appearance of many elements will differ drastically when actually implemented in the application.

A major point of focus from Participant #1's interview was that the "Movie" to "Person" search selector was unclear. At first use, it was completely ignored and led the participant to accidentally search for movies when intending to search for a user. This means that we have to be more thoughtful with the implementation of the selector as to make it more visible and have it communicate its purpose more clearly.

Another comment was brought up about the amount of content that was on some pages. While it may all serve a purpose, and while there may be plenty of room for each section of a page, Participant #3 mentioned that it may be too much information for some users, and they may get overwhelmed. This may hint at a future implementation of a modular system where users get to choose how much information they see, especially on the main page with elements such as "My Groups" or "Which Movies Are Out Now?".

Because of the limited amount of possible interactions with the admin tools in their current state, we found that Participant #4 did not have any major feedback for the admin part of the platform. The current functionality only supports editing a user's account details, checking their flagged reviews, deleting users, and managing basic tickets. Because the website administrators will have great familiarity with the platform, the focus here is on productivity and simplicity - an objective we believed we accomplished well.

Overall, the study provided us a wealth of information that did steer us in the right direction of which features should be more prominent and how they should be arranged. We noticed that the task of adding a friend was the most difficult task across the cases due to the selector problem mentioned above. It is interesting to observe this result as from the perspective of a designer, this was a layout we all found intuitive and easy to understand. Following the advice given above by each participant will help us in designing an implementation that will make these tasks far more intuitive than presented in the prototypes.