HW 6 Research - Evaluation Plan

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ABSTRACT

The RateMyProfessors website is one of the most well-known websites to students. Yet over the years, we've encountered many problems regardings the site's usability and how it could be improved. There's extraneous features, clunky navigation, unresponsive web design, and sloppy ad placement. In this abstract, we take the step to improve the website's design and usability. Our target demographic is college students. In particular, we are targeting college students who are interested in sharing their experiences taking classes with professors at their college.

KEYWORDS

ratemyprofessors; education; students; ux design; usability; prototyping; concept; sketch; cognitive walkthrough; empirical evaluation;

1. INTRODUCTION

This document will document our evaluation plan for two distinct evaluation sessions:

- one analytical (GOMS/KLM, heuristic analysis or cognitive walkthrough), and
- an empirical evaluation with at least 1 user.

2. EVALUATION PLANS

For our two evaluation plans, we intend to use a cognitive walkthrough and an empirical evaluation.

We are going to perform these two plans in this sequence, Cognitive Walkthrough then Empirical Evaluation, because we would like to first get our results from the Cognitive Walkthrough first, use those results to modify or update our prototypes and provide us an idea of questions and concerns from a user's perspective. Then we'd be able to keep those results in mind in preparing and completing our Empirical Evaluation. It will also include the added benefit of checking our prototypes' learnability for new and infrequent visitors. Some of additional advantages include:[1]

- May be done without first hand access to users.
- Unlike some usability inspection methods, takes explicit account of the user's task.
- Provides suggestions on how to improves learnability of the system
- Can be applied during any phase of development.
- Is quick and inexpensive to apply if done in a streamlined form.

Given the asynchronous nature of our class, group, and course, selecting a cognitive walkthrough allows our team to focus on efficient and effective progress.

2.1 Analytical - Cognitive Walkthrough

[1] Usability Body of Knowledge. *Cognitive Walkthrough*. https://www.usabilitybok.org/cognitive-walkthrough

From the cognitive walkthrough, we want to find out our prototypes' learnability and to get an idea of a new user(s) perspective of our prototype.

The materials we require for this evaluation will include: a prototype of the user interface, a user persona, a list of tasks we will use for our walkthrough, a sequence of actions that will represent a user flow, and a form or list that will be used to note problems, new ideas, or revisions that need to be made.

The tasks or process that we will use for this evaluation are as follows. They consist of a task and its corresponding importance / why it is useful.

1. Design a user persona(s). Useful because this will allow the evaluator(s) to understand the perspective and empathize with what this user would feel and think when proceeding to the next steps.
2. Define the tasks / user flow that would be appropriate for this user persona. Useful because we want to follow the tasks that this particular user would do.
3. Stepping into the shoes of the above user persona, conduct the walkthrough of the action sequence. Useful because it's an integration part of the evaluation.
4. During this process, record success and failures, suggestions, and problems. Take notes on the comments and thoughts in addition to any assumptions made. Useful because this is where we'll get greater feedback and insight into our prototypes, storyboard, and the learnability of the two.

2.1.1 User Persona

For our cognitive walkthrough, the particular user we are evaluating / user person is one of a current student who does not use RateMyProfessors often or is new to RateMyProfessors. This is a suitable user because the concept behind cognitive walkthroughs is to walkthrough the evaluation from the perspective of new and infrequent visitors to assess the prototypes' learnability.

Note: There will be no users involved for our cognitive walkthrough because by definition, they do not involve users.

2.2 Empirical

From the empirical evaluation, we want to find out how a user responds to our prototypes and storyboard for the RateMyProfessor redesign.

Since our target demographic is students and former students, for this evaluation we will reach out to students and/or former students.

The particular user we are evaluating is a current student. This is because this fits our target demographic and likely has a recent or refreshed memory of RateMyProfessors, how the current design works, and will be able to provide suggestions, comments, notes, and improvements on our redesign.

The data we will be collecting will primarily be notes about the evaluation, our observations, and responses to any questions that may be asked. This is in part to keeping close records on evaluation that our team can easily share with the professor, the class, and other potential evaluators of the project. We may also collect video and audio recordings, so that this interview can be shared with the rest of the team.

Notes from the evaluation, our observations of the evaluation, and the user's responses to the questions asked will

serve as our primary source of data from this evaluation. It will help us discover how the user reacts to our prototypes and storyboard and if this is aligned or misaligned with our assumptions on the user experience. For video and audio recordings, these forms of data will serve as a documentation of what occurred during the evaluation, document the user's facial expressions and/or vocal responses to the prototypes in front of them.

The materials we require will include: a prototype of the user interface, a storyboard or workflow, a user, a list of tasks we will ask the user to perform or attempt to perform, and a form or list that will be used to note problems, new ideas, or revisions that the user brings up.

The tasks or process that we will use for this evaluation are as follows. They consist of a task and its corresponding importance / why it is useful.

1. Find a user that fits are target demographic. Useful because this is who we will be reaching out to and working with for our evaluation.
2. Define the tasks for this user to attempt. Useful because we want to see how the user attempts to accomplish the tasks that we set for them.
3. During this process, record success and failures, suggestions, and problems. Take notes on the comments and thoughts in addition to any assumptions made. Useful because this is where we'll get greater feedback and insight into our prototypes, storyboard, and the learnability of the two.
4. After the process is complete, debrief and gather feedback from the user about the exercise. Useful because the user may have commentary on the prototypes and application that lies outside the realm of the prior step / attempting certain tasks.

2.1 User Persona

For our empirical evaluation, our target person is a current student who has just finished a term of classes and wants to rate their professors. They're also looking forward to new term's classes and want to read reviews. They are likely in their 20s and relatively web-savvy as well as familiar with RateMyProfessors.

3. MATERIALS

Cognitive Walkthrough: The materials we require for this evaluation will include: a prototype of the user interface, a user persona, a list of tasks we will use for our walkthrough, a sequence of actions that will represent a user flow, and a form or list that will be used to note problems, new ideas, or revisions that need to be made.

Empirical Evaluation: The materials we require will include: a prototype of the user interface, a storyboard or workflow, a user, a list of tasks we will ask the user to perform or attempt to perform, and a form or list that will be used to note problems, new ideas, or revisions that the user brings up.

We have picked three specific tasks for both evaluations as we think these tasks are integrate to the usage of the website. Students typically go to RateMyProfessor to search for particular professors they might want to study with for an upcoming class. They then read the professor's page for helpful information that will help them determine whether the professor suits their needs. Some proactive students will rate professors from previous terms in order to help other students decide whether or not to take a certain class. With these user goals

in mind, here is a list of tasks we will ask the user to go through:

1) Search for Professor
    a) Type name
    b) Use filter and sorting mechanisms
    c) Click on appropriate professor

2) Read Professor Reviews
    a) Read comments, tags, etc. written by other users
    b) Comment or rate rating as appropriate

3) Add New Professor Review
    a) Click on link to review
    b) Fill out forms
    c) Click submit

Here are follow-up questions for the user to contemplate on their experience in going through their evaluation. These questions should help us learn whether our prototype has high learnability and memorability:

- Did you think it was simple to use this system? Why or why not?
- Were there any particular points were you were confused?
- Are there any functions you wished the website would have?
- Do you think a beginner could understand how to use this application?
- Was there anything surprising to you about the website?
- Did you feel comfortable navigating the website? Do you think you would feel more comfortable doing it a second or a third time?

Form for Evaluation - Cognitive Walkthrough

Questions for each step:

- What is the user feeling at each step? Confidence or confusion?
- How long does it take for the user to get to the next step?
- Do they understand how to complete this step?
- If not, do they get feedback about how to complete this step?

Tasks to evaluate:

- Search for Professor
    - Type name
    - Use filter and sorting mechanisms
    - Click on appropriate professor
- Read Professor Reviews
    - Read comments, tags, etc. written by other users
    - Comment or rate rating as appropriate
- Add New Professor Review
    - Click on link to review
    - Fill out forms
    - Click submit

Form for Evaluation - Empirical Evaluation / Usability Study

Instructions for User:

- Try to verbalize your thoughts and questions as you go through the tasks

Instructors for Researcher:

- Note the user's emotions as they go step by step. Are they comfortable? Confused?
- Ask them to explain their decisions if appropriate
- Try not to guide them, let them explore the prototype

Tasks to evaluate:

- Search for Professor

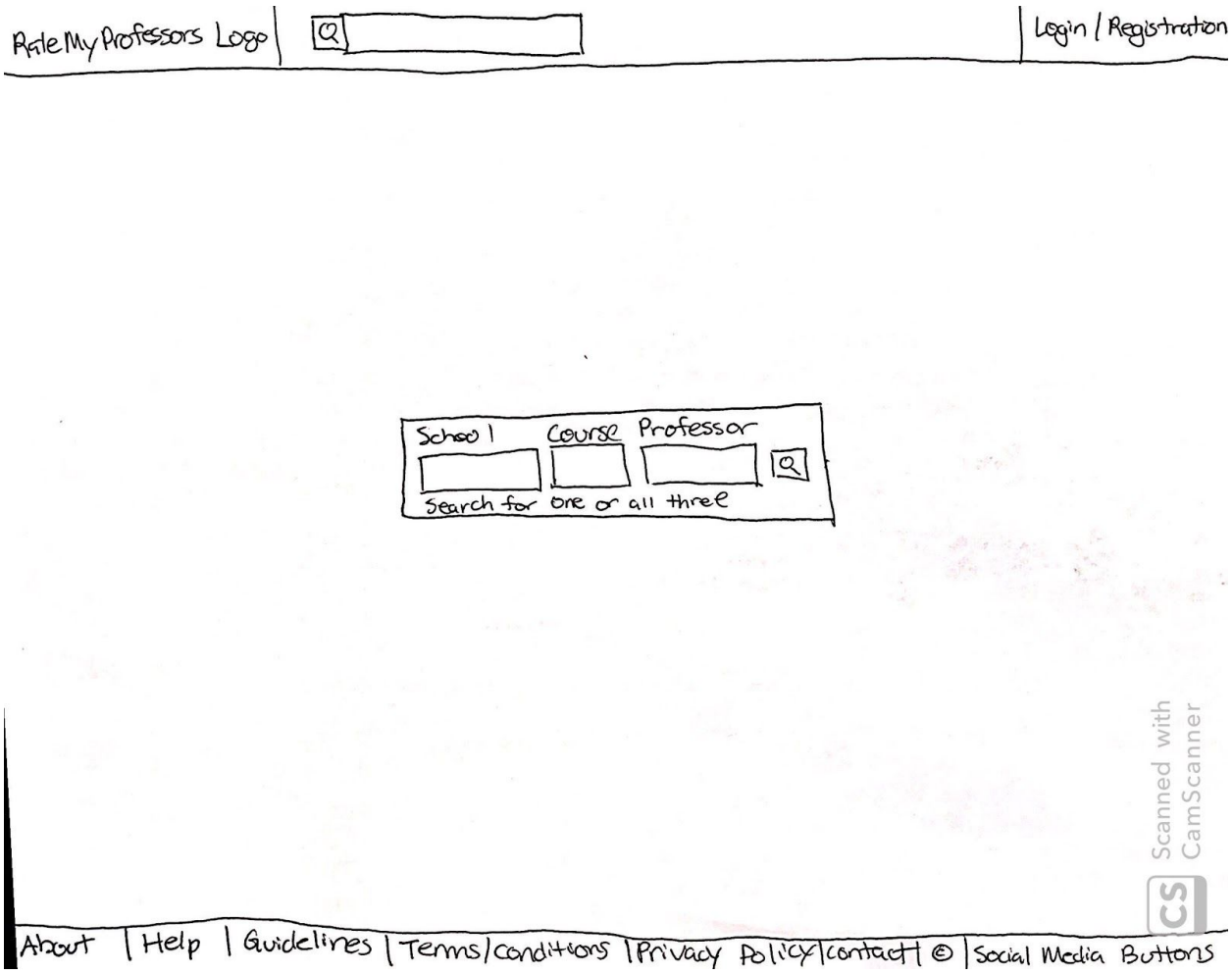
- Read Professor Reviews

- Add New Professor Review

APPENDIX

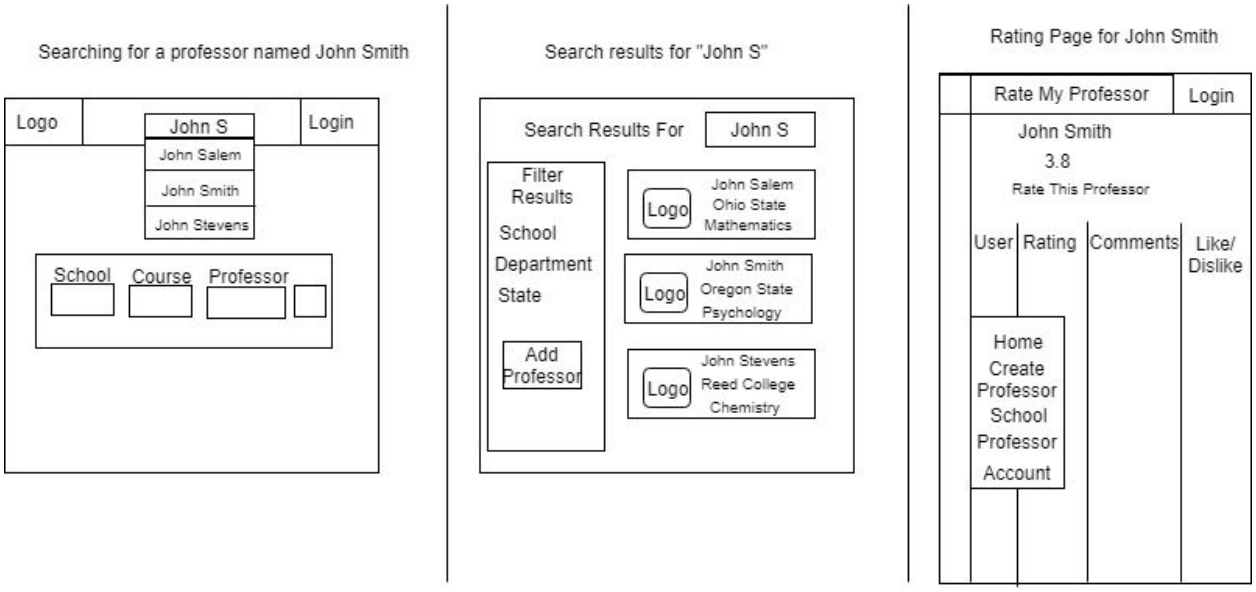
1. PROTOTYPES

1.1 Home Page



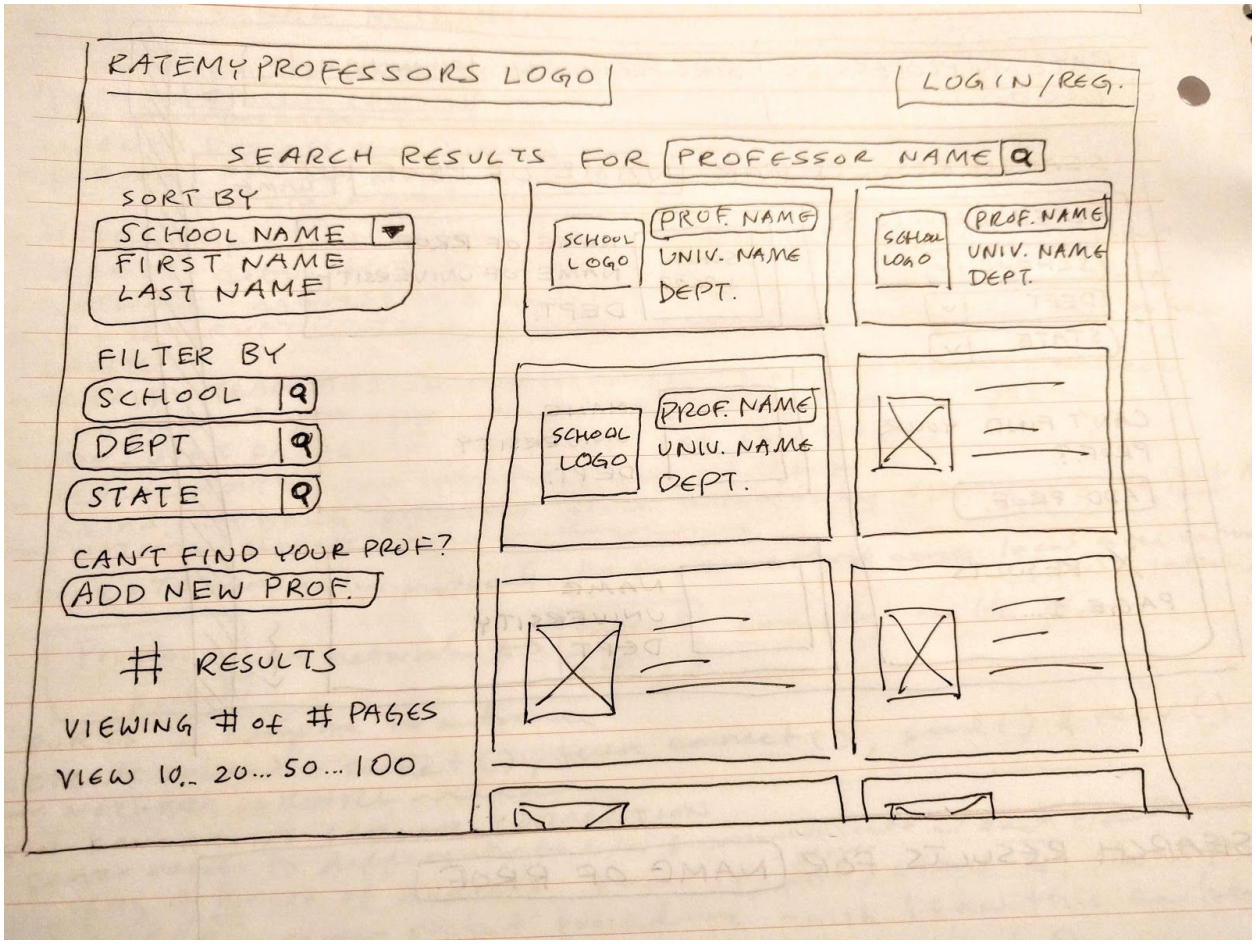
1.1.1 Home Page Prototype was selected due to the overwhelming support for this particular prototype (1A) over the second choice (1B).

1.2 Storyboard



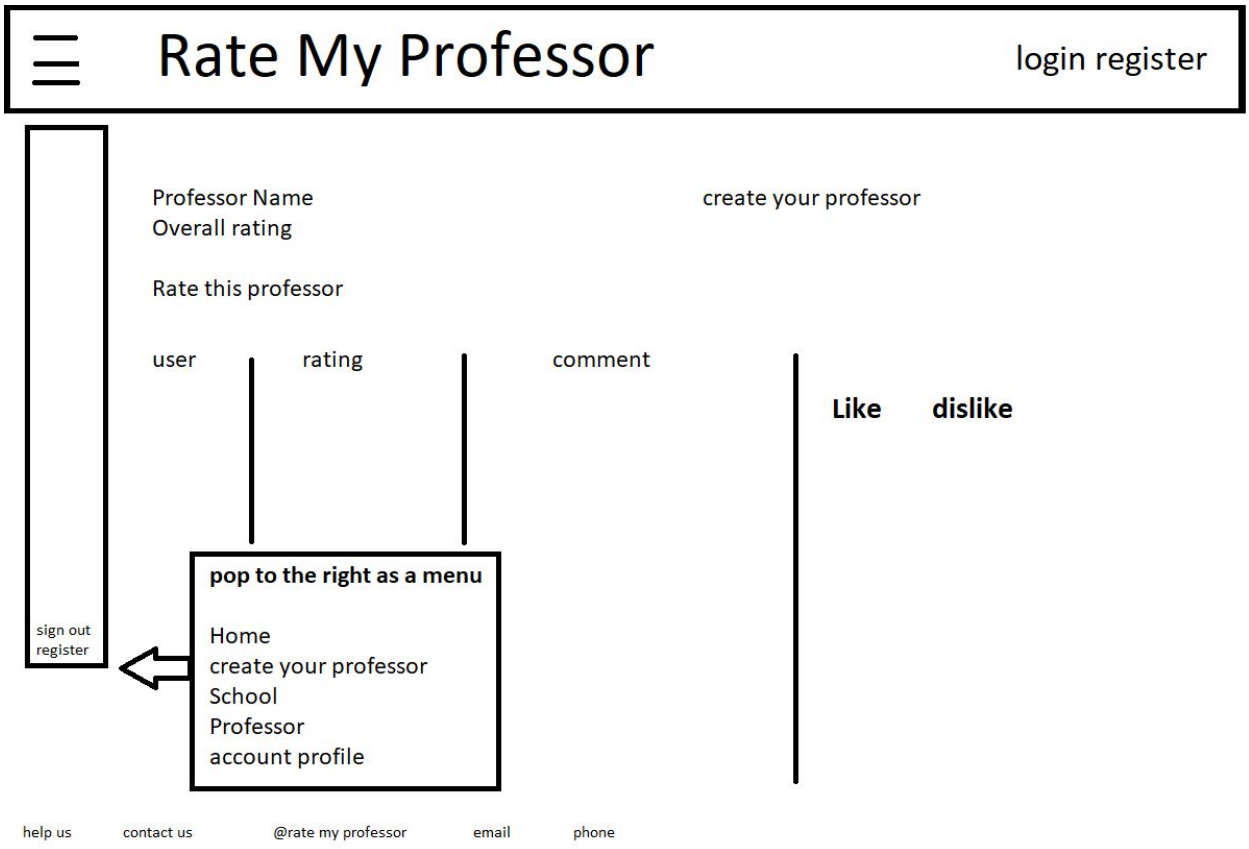
1.2.1 Storyboard Prototype shows a user searching for a professor named John Smith

1.3 Search Page



This search page was updated using classmates' suggestions. The magnifier icon helps users realize that they can use the area where the professor's name is boldly printed as a search bar, in case they need to correct the professor's name or if they'd like to search for a different professor. The original prototype didn't consider what pagination would look like for the page, an important feature considering there could be thousands of names as results. This one implements pagination and considers desktop resolutions better by including two columns of results instead of one, allowing the page to be shorter overall. It also includes more detail on the sorting and filtering functions.

1.4 Ratings Page



Participation Report

Group Member name	Role	Responsibilities and Assigned tasks	Tasks Completeness Grade*0-5
Arthur Liou	Leader	● Summary / Abstract ● Homepage concept ● 1 - Intro ● 2 - Evaluation Plans ● ACM Formatting ● Homepage prototype updated	5
Becky Chao	Writing	● Updated search page concept ● Tasks for evaluation plan ● Forms for cognitive walkthrough and empirical evaluation ● Proofreading and editing	5
Peter Nguyen	User Communication	● Storyboard Prototype	5
Zijing Huang	Visual Design	● Professor Rating Page concept	5