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# ORANGE TEAM: LOW-FIDELITY PROTOTYPE REPORT

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Wynston Ramsay, James McKay, Evan Snook, Darvin Zhang



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Professor Matthew Miller

# Orange Team: Low-Fidelity Prototype Report

**Wynston Ramsay**  
Group Member

Saskatoon, Canada  
wcr723@mail.usask.ca

**James McKay**  
Group Member

Saskatoon, Canada  
james.mckay@usask.ca

**Evan Snook**  
Group Member

Saskatoon, Canada  
evan.snook@usask.ca

**Darvin Zhang**  
Group Member

Saskatoon, Canada  
darwin.zhan@usask.ca

## FUNCTIONALITY

The goal of this product is to address the issues of gathering information concerned with purchasing a phone and plan. Our solution is to provide an easy-to-use interface that retrieves relevant data from the user for selecting a phone or plan; then we provide them the most relevant options, as well as show the comparisons between them. For some people, researching technology is extremely intimidating, and others just need a convenient method of comparing phones and plans. A minimalistic web application should be sufficient in addressing these issues.

## PROTOTYPE

### *Description*

Our prototype is a series of drawn images that each represent a different visual interface. These images are connected by arrows which each have an action description. To navigate our prototype, we can follow the arrow and 'perform' that arrows action which transitions the user to the next interface. We also have some context bubbles that describe a result that doesn't require a whole new interface. In a sense, it is the combination of a storyboard and a UML diagram.

### *Reflections on Process*

We spent roughly 2 hours each individually creating our interpretations of the design before meeting together. As a group we collaborated and picked the best design ideas from the individual sessions; we were then able to draft our low-fidelity prototype with these ideas in mind, this process took roughly 20 man-hours. We each had several mock-ups on the key pages such as the landing page and the results page; while the more trivial ones required less brainstorming. Our initial prototype changed a few times before coming to our final low-fidelity product.

## USABILITY INSPECTION

### *Inspection Method*

The inspection method we chose was cognitive walkthrough. The purpose of this prototype is "Evaluation without Users", thus our method of evaluation could easily contain knowledge that we reliably have and that typical users would not. Additionally, we do not have users to evaluate our prototype, so this is a good alternative to other methods of

evaluation that would require users. As such, it is a simple task for us to follow our action arrows between interfaces and understand what is going on as it is similar to that of a UML diagram. Since our application would be serving a wide audience of different skill levels and needs, we are able to "role-play" a selection of our different use cases as we walked through our prototype.

### *Task Examples*

First, we considered two types of users, a less experienced one and a more experienced one regarding their knowledge of phones and technology. Then we imagined each user going through the following tasks chosen from (Appendix A – Tasks):

- Find a phone or plan
- Compare two particular phones or plans
- Learn about a particular phone or plan

We then answered a set of five evaluation questions per use-case (see Appendix D).

### *Inspection Process*

We started by individually brainstorming user scenarios. After, the group came together and evaluated each member's ideas. From this we created a list of the best use-cases provided to cover a wide-range of issues with our design along with which users would use the application. All four group members performed a Cognitive Walkthrough on our low-fidelity prototype with each of the brainstormed scenarios (i.e. a specific user performs the set tasks and answers our set of questions in response to the scenario). In our case, two members answered the questions to the tasks in the view of a new user, while the other two did it in the perspective of the experienced user. Then we gathered and discussed the results from that perspective and examined which things were necessary or not. Lastly, as a group we analyzed any additional situations that should be addressed in our medium fidelity prototypes.

### *Results of Inspection*

Our evaluation revealed that new users would likely utilize the QA because they are not familiar with using a search and filter tool. New users occasionally got lost but were generally able to find their way. It took them an average

amount of time to find what they needed. Some new users may find that there is too much information presented to them.

For the experienced user our evaluation revealed that they may not be as interested in the QA, but they were very comfortable with using the search and filter tool. They are generally able to navigate through the system and undo any minor mistakes. Some experienced users may want a very high level of detail which our app doesn't provide.

We concluded that filtering options were too cluttered, and information was lacking in certain places. The flow and swap between plans and phones seemed off for users that aren't familiar with tabbing between interfaces. They felt separate and not "together", which is a major goal of the site (see Appendix D – Task Examples for the full inspection).

### REDESIGN BASED ON RESULTS

- When comparing and viewing the details of a phone, the information is very condensed and hard to read.
- Too much information is displayed in the initial search of the phone/plan and/or too much irrelevant information is shown. We have a "view details" button for a reason.
- The search filter information is far too condensed and not ordered for the user.
- There is no good way to show that the users filter has been applied.
- Main page lacks some needed information. We offer comparative looks too, so "helping them choose" may not be the best line when they only require information.
- Search bars give only the names of the phone/plan and lack other forms of identifying the product.
- We need more options in the filter to clear or undo selections.
- Feels like phones or plans, not phones AND plans.
- The Prototype needs more controls for the user to freely do what they require.

### Appendix

#### A – Tasks

- Find a phone
- Find a plan
- Find a phone and a plan
- Compare phones
- Compare plans
- Learn about a phone
- Learn about a plan
- Refine search results
- Send search results in an email
- Add to favourites
- Select a region

- Answer questions and view results
- Add more searches to the same page

#### B – Refined Use Cases

- Grandma trying to buy first phone
- Enthusiast trying to find most powerful phone
- Person with low-budget looking to save
- Person who stores lots of files on their phone
- Construction worker looking for most durable phone
- Teenage girl who wants the phone with best camera
- Average joe looking for a phone and/or plan
- Child doing research for school
- Traveler switching phone carriers
- Person who is trying to sell their phone and wants to estimate its value
- VICE journalist looking to make comparison video
- Person who wants iPhone X but it's not out yet
- Person who wants an unlimited data plan for \$20 mo.
- Movie watcher that wants a phone with the best screen quality
- Person that wants a blue phone

#### C – Raw Use Cases

- Grandma trying to buy first phone
- Enthusiast trying to find most powerful phone
- Person with low-budget looking to save
- Teenage girl who wants the phone with best camera
- Average joe looking for a phone and/or plan
- Child doing research for school
- Traveler switching phone carriers
- Person who is trying to sell their phone and wants to estimate its value
- VICE journalist looking to make comparison video
- Person who wants iPhone x but it's not out yet
- Person who wants a true unlimited data plan and \$20 mo.
- Movie watcher that wants a phone with the best screen quality
- Grandma trying to buy first phone
- Average joe trying to upgrade from iPhone 5s
- Apple Fanboy trying to get iPhone X
- Enthusiast trying to find most powerful phone
- Student trying to find cheap phone - not picky about it
- Picky guy trying to compare iPhone 8+ vs Galaxy S8+
- Lawyer trying to find phone for doing lawyer stuff
- Photographer who wants phone with best camera
- 14-year-old finding their first phone
- octogenarian finding their first phone
- newly independent adult finding their first phone

- experienced person browsing for phone
- Dad looking for a plan for his flip phone
- Dad looking for a phone that matches his socks and sandals
- Octogenarian trying to figure out a plan for their spouse
- I want the iPhone x but it's not out yet
- I want a plan that is true unlimited data and \$20 mo.
- Movie watcher that wants a phone with the best screen quality
- Technologically unrehearsed person trying to buy their first phone
- A teen that has had a cellphone for their whole life looking to upgrade a phone
- A 9-5 minimum wage worker looking to change to the cheapest plan available
- A phone salesman looking to check differences between certain phones and plans for selling their product
- A student looking to learn more about phones/wanting to go into the phone industry, wants to learn all about phones and what specs/special information they have
- There is nothing to undo an action

#### *D – Task Examples*

Questions to ask each user about all three tasks (5):

1. Did you need something that wasn't there?
2. Did you ever get lost?
3. Did you utilize the Q&A?
4. Did you make any mistakes, and did you know how to fix them?
5. How quickly did you find what you needed?

New user looking to find a phone or plan:

Q1: Everything I needed was there.

Q2: The icon usage is very nice for understanding what something is. Once we entered the results, the filtering was a little bit shocking, there were a lot of options. The phone and plan details had too much information on them

Q3: The Q&A was very helpful because it was simple and non-technical.

Q4: I clicked phone on the landing page when I wanted a phone and plan and couldn't undo. I answered a question wrong and didn't know how to fix it

Q5: After I was done the QA, there were only a couple of options, so it was relatively quick

New user comparing 2 phones or plans:

Q1: No, everything I needed was there

Q2: Yes, I got lost because at first, I clicked "help me find a phone"

Q3: No I did not use the QA on purpose. I clicked the "go to search page" button after getting lost. The button

could be more visible or skip doing to QA all together immediately

Q4: I made a mistake by clicking "help me find a phone" (i wanted to search for iPhone X) but I fixed it by clicking "go to search page" button. In spite of the mistake I made, it was fairly straight-forward to go to the search page to type in iPhone X, so I could compare it to Galaxy S8. Almost everything was there for the comparison, but the page comparison page seemed a bit hard to read as the comparison information was not listed in the most intuitive way. They had multiple icons on each line, rather than listing the comparisons one by one.

Q5: The information I needed was found relatively quickly, but contained more than what I needed. The icons were useful in the comparison.

New user learning about a phone or plan:

Q1: No, everything was there... maybe too much.

Q2: Yes, I got lost because at first, I clicked "help me find a phone". I got lost with the initial input of information given when I viewed the details of a phone.

Q3: No, I did not use the QA on purpose. I clicked the "go to search page" button after getting lost. The button could be more visible or skip doing to QA all together immediately

Q4: I wanted to research iPhone X, but when I clicked "help me find a phone" it started asking me questions instead of letting me type in iPhone X. But I just clicked "go to search page" where I could type it in. In spite of the mistake I made, it was fairly straight-forward to go to the search page to type in iPhone X, so I could read about it.

Q5: The information I needed was found relatively quickly, but contained more than what I needed. The icons were useful in the comparison.

Experienced user looking to find a phone or plan:

Q1: I wanted to know what processor the Galaxy S8 uses but it only said it was "8 cores". There was a lack of specific details.

Q2: I did not get lost. However, much of the options did not seem relative to me.

Q3: Yes, I was curious about what recommendations it would give me. The results were good, but I used the filters to refine to my needs.

Q4: The map selected the wrong location for me because I was using a VPN, but I could type in my proper address anyways.

Q5: Fast. The only thing that took time was me being picky.

Experienced user comparing 2 phones or plans:

Q1: I wanted to know which processor was faster between iPhone X and Galaxy S8, but it only told me which had more cores.

Q2: No, I did not get lost.

Q3: I did not need the QA.

Q4: On the comparison tool I accidentally clicked the wrong phone, but it was easy to just type in the proper phone and click that one instead.

Q5: It was fast to bring up the phone comparison tool.

Experience user learning about a phone or plan:

Q1: There were not a lot of negative review points for me to see which makes me feel like something is being missed. I couldn't easily see plans exactly like the one I wanted but from different carriers. I wanted to see phone/plan searches side by side.

Q2: The Q&A was pushed a lot and got annoying to see and i just wanted to go straight to the site.

Q3: No, I just wanted to search for my phone/plan.

Q4: No mistakes.

Q5: Other than having to go around the Q&A everything was quick and accessible.