Research Final Draft

Abstract

The objective of the interface is to actively and passively inform the user of the surrounding risk of coronavirus, whilst also letting them explore the statistics and hotspots throughout the entirety of the United States of America should they so wish. This information should inform them of the risks they will be taking when making a trip to the supermarket or going out into the community, protected or not.

The method of gathering information will be based off an assumed real-time tracking of all cellular devices within the area. Whilst it is impossible to tell whether each user has COVID-19 or not, an assessment can be made based off the density of people in the area along with the COVID-19 active cases by area as supplied by the Governing body of Massachusetts. Given, in a viral situation, real time statistics would be much more useful, however, we simply do not have this information available to us, much less by area. In terms of refinement and improvement, user testing experiences and in-class feedback will be used to hone the interface prototype.

Interface and user experience

A.

1. In the final prototype, actions are easily discoverable via feedback given by the interface. For example, when accessing a scrollable screen, it is obvious the user is able to scroll by the black scroll bar on the far right of the screen. Similarly, when a user hovers their mouse over a button the user may press to access a dropdown menu, the mouse cursor changes shape and the colour of the button moves from its standard shade to a lighter shade. As you move from screen to screen, these will change depending on what the different states of the interface offer.

![Graphical user interface, chart, application, pie chart

Description automatically generated]()![Graphical user interface, application, pie chart

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Diagram

Description automatically generatedAs you can see above, the scroll bar on the right hand side signifies scrolling. It is difficult to capture the hover state and cursor feedback with the screenshot tool but they give the feedback to the user that this is a clickable component. In the right hand image, you can at least see a transition between the states from the left hand image. In the left hand image, not only is the side menu open, but the dropdown ‘Data Size’ menu is closed. On the right, you can see the state change in both of these components, the menu has dropped down allowing more options to choose from, and the side menu has closed into the side of the screen.

Above is the initial conceptualization of the intended final prototype. Vast changes were made in complexity of the final product, but fundamentally the goals of the interface remained the same. In depth statistics and heat map were two things that seemed too large to simply leave out of the equation completely. As I moved forward an ‘overview’ screen and ‘risk information’ screen were added and can be seen on the side menu in image one. Rather than creating an interface than had branches that didn’t communicate with one another, I decided to go with a web concept where everything is accessible from each page that the user is on via the side menu. This way, the user does not have to navigate excessively to reach the information they might require. The intention here was to avoid unnecessary forced user adaption.

![Graphical user interface, application, pie chart

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Description automatically generated]()All affordances in this interface were mapped appropriately with an ease of access approach. I thought it was important to limit the number of affordances across the interface as to achieve a user goal I identified as ease of use. A COVID-19 tracking application should be generic across all age groups and easy to use for the technologically challenged. Although this isn’t aimed at a child, anyone concerned about COVID-19 should be able to easily navigate this interface. I kept the affordances to a click and scroll across the board, and applied the necessary signifiers (arrows, hover states, cursor changes) to signal to the user these were actual affordances. See below.

As you can see on the left hand side of both screens, a lighter shade arrow signifies there is a pull able tab on the side that will then reveal a menu. When this menu is opened, the direction of the arrow flips to signify how to hide the screen.

Mapping was especially important in such a small interface that could allow for multiple buttons or components to be triggered at the same time. Therefore I have, for the most part, kept the overall buttons spaced apart to stop a user from doing something they don’t intend to do. Initially, I had considered a pull down or pull up menu. However, with some user feedback I decided against it as sometimes on a scrollable screen, rather than scrolling the menu down they just scrolled down the page. Similarly, sometimes the data size dropdown menu was triggered instead of the menu because all the components were poorly mapped.

I did not complete a marvel prototype and moved straight to Adobe XD, and heavily relied on user testing outside of class to make a more profound final prototype. Below are my notes from 2 user tests I conducted and some thoughts I wrote down as I went along.

Phase 3: XD Models

It’s really difficult to keep to the ~7 screen restraint but I am doing my best. XD has allowed for a far more complex prototype build, with more features but without being completely overwhelming. Thus far the initial screen with some information have been implemented and I’m happy with the visual appeal. I am going with a tone blue colour scheme with 5 different variations. This is a little different from the wireframing provided which only has 4. I chose it because it looks nice.

I am now realizing that as I go on there will be far more than 7 screens to implement. Every main screen, Overview, Stats, Risk and Map will have another iteration for the open side menu piece. Any menu that has a option select system also needs a dropdown menu.

POST CLASS FEEDBACK THOUGHTS

Main critiques were things I expected. Alignment issues was the main one.

I fixed the alignment issues and applied all the animations so far. Every screen with the sliding menu feature, and each button in the menu is all linked on its appropriate screens. Additionally, I got the vertical scroll working nicely and I’m very happy about that.

USER TEST : NY

Nick tested my prototype and said the only thing more he wanted was the drop down menu features I mentioned earlier. Other than that, he seemed to be able to navigate the system with no real issues at all which is promising. The only problem he did have was with the drop from the top menu, this is a mapping issue I will have to fix. Several components started to trigger at once and this caused user frustration. I’ll remap and switch this to a side menu. I made sure not to give him any guidance and he understood all the signifiers and affordances projected. His other piece of feedback was that he thought there was a good balance between information and whitespace. This was pleasing to hear as I thought some of my information might be a little condensed and unappealing to the eye or overwhelming, which is something I feared when I began making my prototype more advanced in XD.

The only thing I have left to really put in are the dropdown menus and then I will be complete. I need to ask in class tomorrow what my professor thinks the best way to go about this is, whether it’s a pop – up notification or a dropdown. I think the dropdown will be the best option but does this mean I will have to make an additional screen for each dropdown option?

USER TEST: AK

Alex had a similar response to Nick, but it did highlight some issues that Nick’s experience didn’t raise. It Alex made a real point of clicking in every possible place on the screen and this unveiled some transparent buttons in random places that must’ve gone astray during some of my copy pasting and movements. I promptly fixed this after the user test. This aside, he commented on the feedback saying it was great. The scroll bar on the side made it obvious there was more information to be seen, and the side out menu made it obvious there were more options to explore. He said from a functionality standpoint he couldn’t fault it, but the information displayed was less than satisfactory. On the information front this was expected, half of it is in Latin. He also made the comment about the dropdown menus which is something to follow up on in class.