

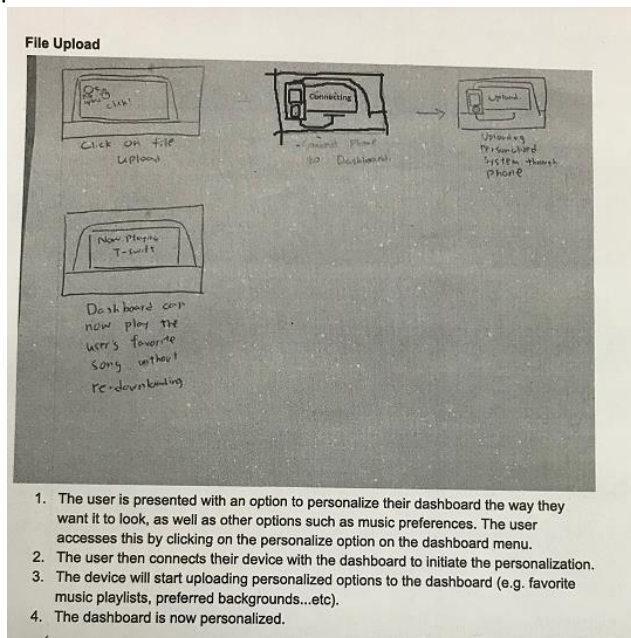
## Part 1: Cognitive Walkthrough

- Persona: Taylor McGill
- Use Case: File Upload

### **File Upload**

1. The user connects the media device to the vehicle through a wireless or wired connection.
2. The vehicle discovers the device and a notification for file management on the Central Control is given.
3. The system displays a list of contacts (if there are any), music, videos and other files.
4. The user selects the files to be transferred.
5. The user touches the confirm button to start transfer.
6. The system confirms once the files have been successfully transferred.

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- Prototype Photo:



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- In the first step of the use case Taylor wants to be able to connect her media device through a wired or wireless connection. The interface given doesn't have any visible elements to direct her how to do this. The only button visible on the interface is a single button that states file upload, followed by a notification that the phone is connecting. The single button stating file upload doesn't give clarification for connecting a phone. There is a feedback screen stating that the phone is currently connecting, but Taylor has no idea how she was able to connect in the first place.
- The next step of the use case details how the vehicle automatically discovers the device and a notification for file management is given. If Taylor's intent here is to have her device discovered then the vehicle does all the work on its own and the interface doesn't provide any visibility to allow her to do this. Although a file upload button does exist, it is the only button on the screen, however this is inadequate feedback for Taylor

to know whether or not her phone has connected. At this point all she sees in front of her is a file upload button.

- From here the interface now determines the phone to be connecting to the vehicle after the file upload button has been pushed which is a complete contradiction of the use case. The use case details the fact that the vehicle will connect to the phone and then a file management system will be displayed, whereas the prototype determines that the file upload button exists first, and then after that is pushed the media device will connect to the vehicle.
  - The use case now outlines that a list of contacts, music, video, and other files will automatically be displayed to Taylor. The prototype however doesn't offer any visible feedback that these will be displayed. There are no buttons for her to select which of her personalized options she wishes to actually be transferred. When analyzing the prototype it is assumed that the vehicle automatically uploads all of the personalization from the media device itself without the user having any control of what gets uploaded.
  - Taylor now wishes to select which files she would like to be transferred. However she has no idea how to do this since there are no visible symbols or icons for her to be able to select. There is no feedback to speak of to be offered as it is assumed that the vehicle does all of the work.
  - Taylor now wishes to push the confirm button to begin the transfer. There is no visible icon labelled confirm to allow her to do this. The interface given simply assumes that the dashboard will upload all of the personalization options automatically. There is no feedback given since she is unable to push a button in the first place.
  - The system does confirm that the files have been transferred as feedback, but Taylor has no idea what has happened at this point. All she has been able to do is connect her phone to the dashboard, pushed one file upload button, and everything happened in the background without her being able to control anything.
- Persona: Bob Lee
  - Use Case: Navigation

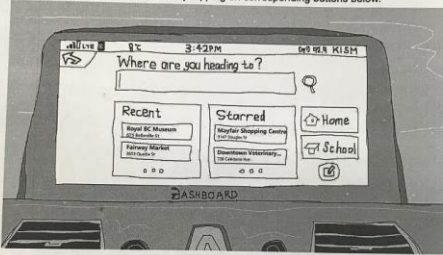
#### **Navigation**

1. From the home screen the user selects the navigation icon.
2. The system displays a navigators search bar along with starred locations and a map.
3. The user then inputs the address into the navigators search bar.
4. The user taps "get directions".
5. The system generates a route for the user to take.
6. The user presses confirm to set the route.
7. The system displays next direction onto the hud for the user to follow.

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- Prototype Photos:

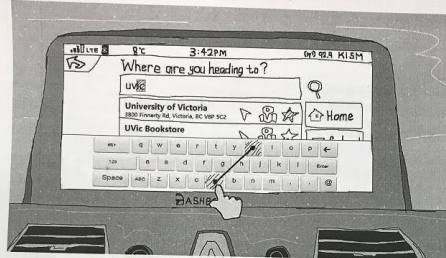
# Prototypes Navigation:

1. After entering Navigation on the home screen, the user is prompted to enter the destination in the search bar. The user can select from recent destinations, starred places, or home and other preset locations. Also, the user can view more and edit recent and starred locations, and edit preset shortcuts by tapping on corresponding buttons below.

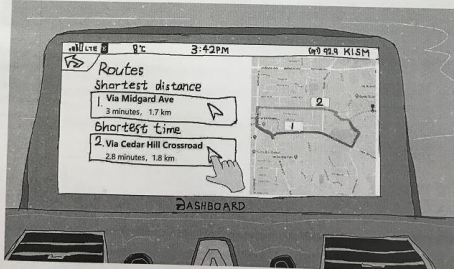


2. The user starts to input by tapping on the search bar, then a keyboard pops up. The search engine accepts both location names and addresses. Just type in few letters, the input is finished automatically, and the swipe-to-type featured keyboard shortens the input time significantly. In each of the searching results, there are three buttons: navigate, view on map, and star. If a location has already been starred, the star is shaded. Click on shaded star to

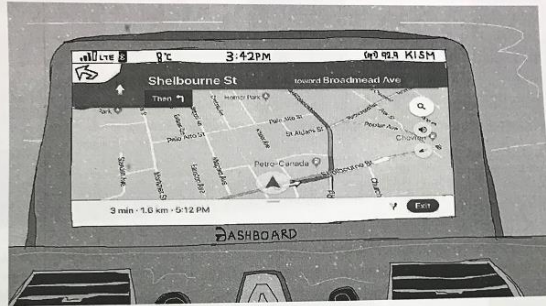
unstar the location.



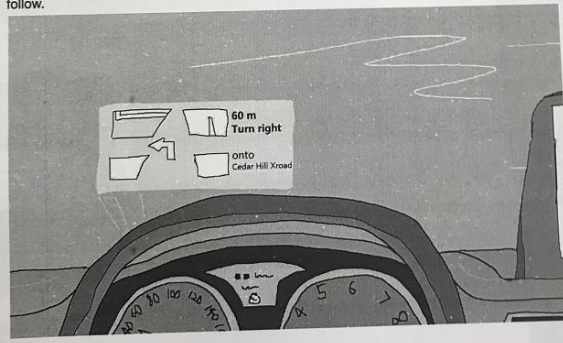
3. The user chooses to navigate, and the system tells the best route options: a route with the shortest distance, and another with the shortest travel time. A map on the right displays them visually. The user can tap on the navigate button on either option to choose and start navigating.



4. During the navigation, the map is fullscreened. The user can tap on Exit to quit to map-only mode, or Search to start with a new destination.



5. Simultaneously, the HUD on the windshield displays the next direction that the user will follow.



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- **Cognitive Walkthrough**

- When starting the use case Bob wants to input some navigation. The search tool is large and hard to miss.
- The keyboard pops up and uses a swipe to type feature that will auto complete the search for Bob. There is no real signifier for this, it is expected that bob will discover how to do this on his own.
- The map options when they pop up are clear. It's easy for Bob to see which route he wants to take, and the symbols are easy to follow in terms of starring the options.
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## **Part 2:**

- I would make significant changes as the use cases were not personalized to the personas that were offered. In both cases the use cases were simply a vague list of "the user" performing a set of instructions. It would have been much better to do these use cases as if it was from the perspective of the personas. Also the use cases did not match up with the prototypes presented.
- The file upload prototype seemed significantly incomplete. It was quite difficult to analyze as the first picture simply had a single button on it that stated file upload. The direction of the prototype did not match up with the use case, it really felt like multiple people were tasked with each section and just threw it together with zero collaboration. The prototype seemed to be

based on the design that the vehicle simply connects with your phone and does everything in the background. This doesn't seem like much of an interface as with this concept there is nothing to push or choose what to do.