

REDESIGNING THE TESLA INTERFACE

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WITH MORE TIME...

WHAT DO WE KNOW ABOUT TESLA USERS?

PERSONAS

DEMOGRAPHICS

Most Tesla owners are **60-69 years old**, have a **college degree**, and have **2 people in their household**.



PSYCHOGRAPHICS

- Positive attitude
- Part of their identity
- High trust in Tesla autopilot
 - ◆ Trust in tech
 - ◆ Tesla brand

MAIA MONTI



Owned a larger car for a while, in the market for a smaller car

ROUTINE

- A lot of spare time
- Visits her children and the beach

TRAITS

- Self-described as
- Tech savvy
 - Early adopter



- Hasslefree travel
- Show off self driving to her grandchildren

GOALS

- "The font is too small!"*
- Tesla isn't designed for the elderly

FRUSTRATIONS

WHAT ASSUMPTIONS ARE WE MAKING?

- Level 3-4 automation
- There are two screens, one behind the wheel and the center screen
- Users will be prompted to take over the car when autopilot fails to function
 - ◆ Assumed that this will happen
- There is a steering wheel

ASSUMPTIONS



USER RESEARCH



What are Tesla owners looking for?

FORUMS



Searched online forums that discuss the features of Model 3



Hundreds of people respond to the top comments



Comments and like count



Tesla owners have a lot of opinions about the display/screens on the Tesla



Large focus on the safety of the car (organization, convenience, etc)

WHAT ARE THEY SAYING?



“.. Eliminating the **side mirrors** to their cars ... I know regulations might have some say but **if the functionality is the same then why not get rid of the drag these exterior mirrors** create and eliminate another thing that gets broken, scratched, or vandalized so much?”

- Has over 2,000 likes demonstrating interest

“Many times I am **unable to read pop-up messages and drive safely**. Frankly I think the display is rather **BLAND**.”

- Hundreds of likes

“One big question I have is that Model 3 doesn’t have a drivers’ **dashboard/screen for the speedometer**, etc. Is it not a **safety hazard** if you constantly look to the right to the center screen to see the necessary information.”

- Top comment from 2017

What does the research say?

STUDIES

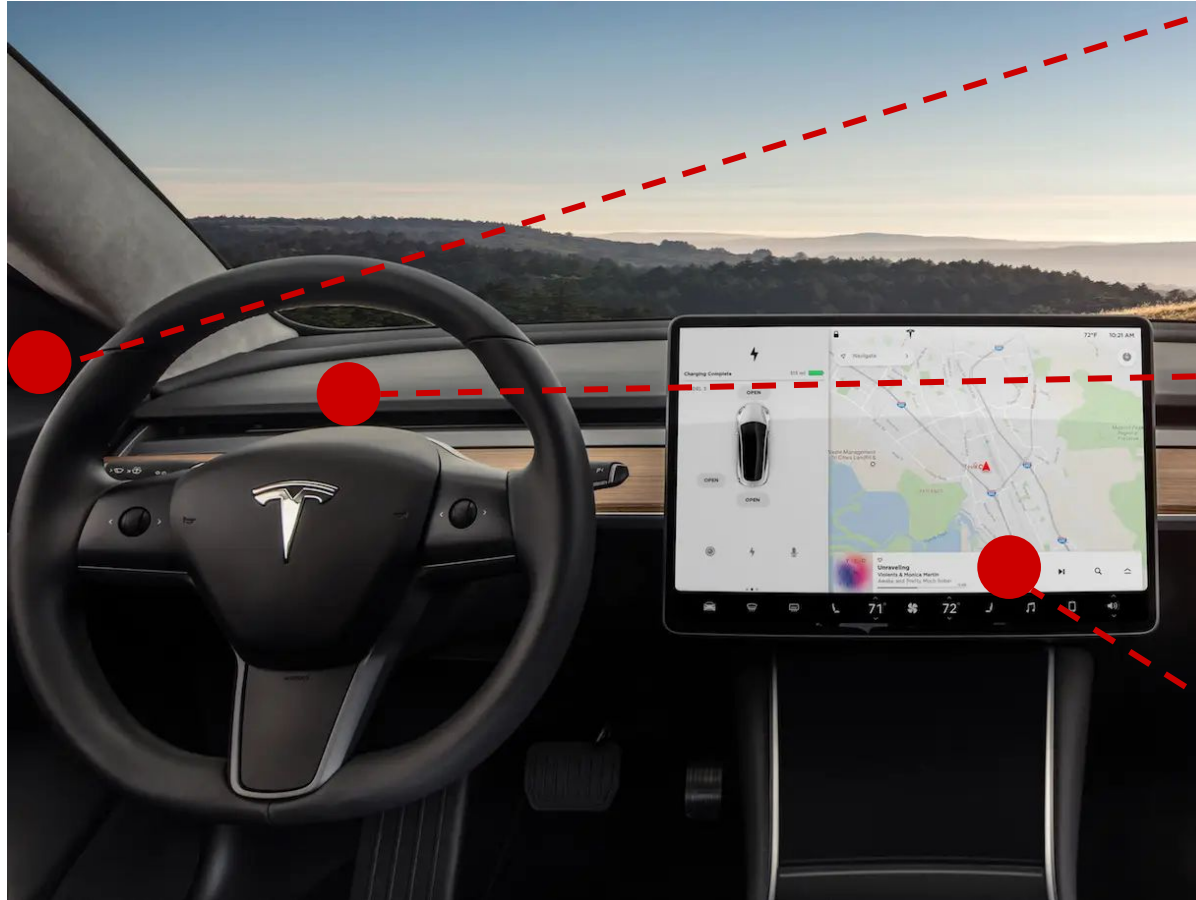
Autonomous Driving Systems: A Preliminary Naturalistic Study of the Tesla Model S

“Mode confusion was the most frequent problem I encountered.”

Heuristic Evaluation Of A Tesla Model 3 Interface

Difficult to “exit from mistakenly chosen screens....while the vehicle is in motion.”

INSIGHTS: PAIN POINTS



Side mirrors get broken, vandalized, etc.

You have to look from front to the right to see speed

Font size too small (pop ups included)

PAIN POINTS



Hard to close out of windows

Difficult to know when Autopilot is on

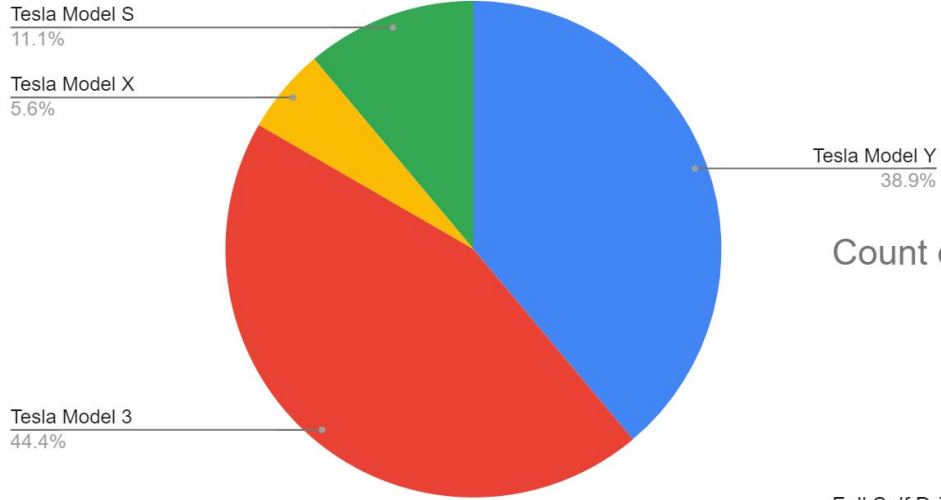


THE GOOGLE FORM

Questioning Tesla users using
Reddit to further our research

OUR DATA

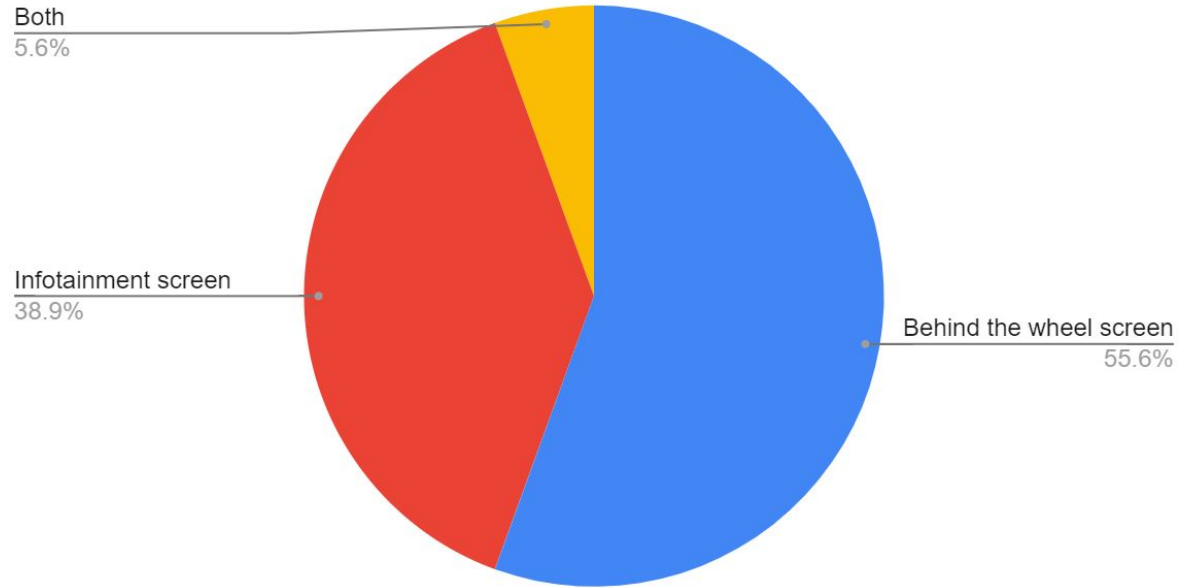
Count of What Tesla do you own?



Count of Do you have Tesla Autopilot/ Full Self Driving?

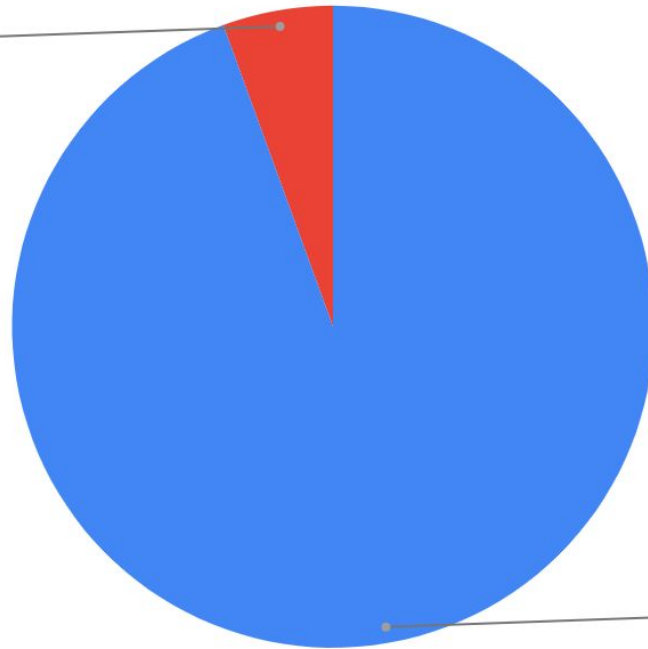


Count of What information would you like to see on each screen? [Speedometer]



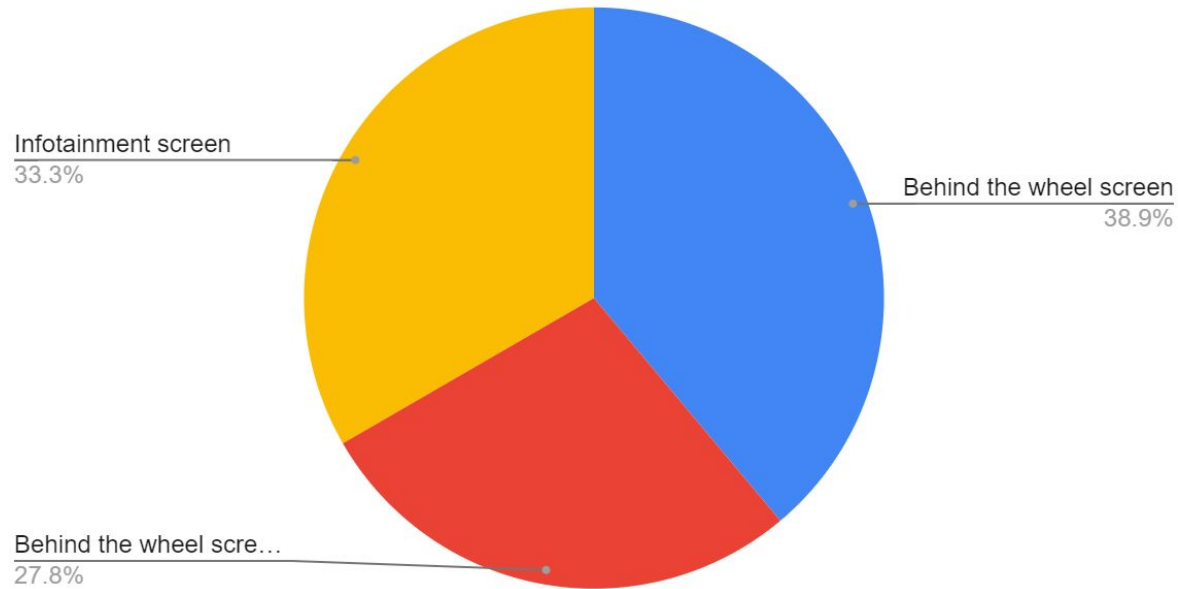
Count of What information would you like to see on each screen? [Weather]

Behind the wheel scre...
5.6%

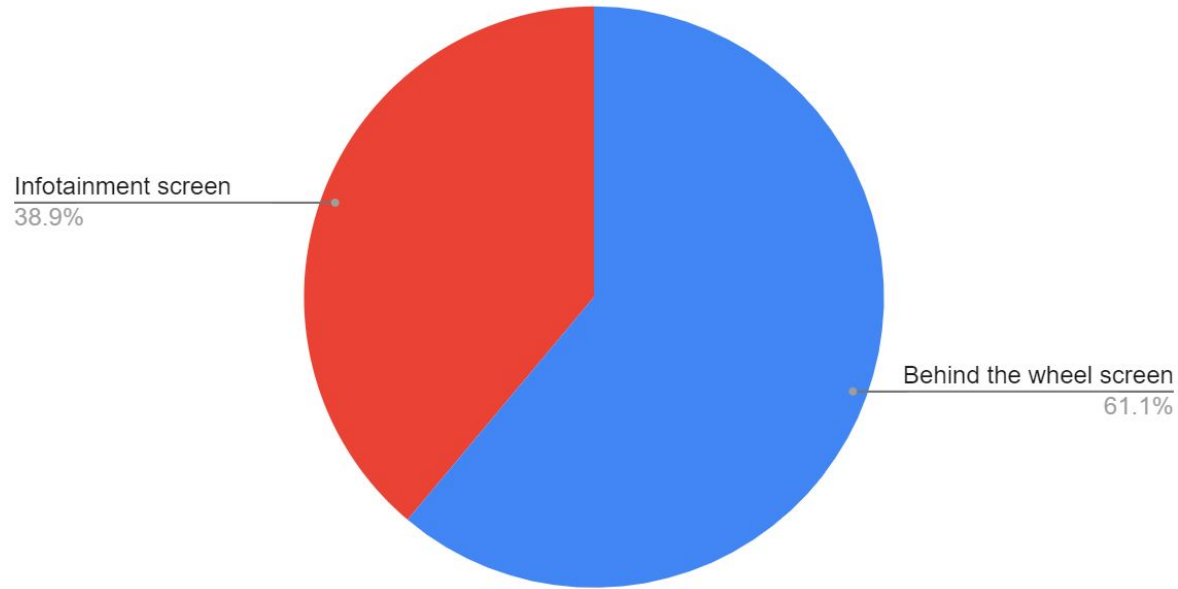


Infotainment screen
94.4%

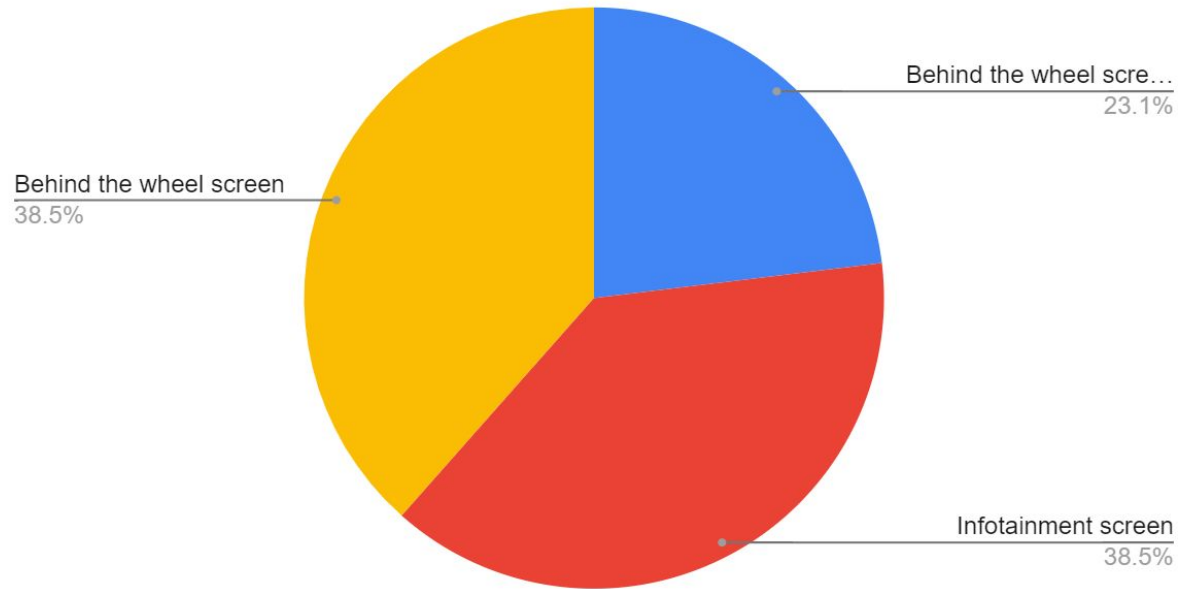
Count of What information would you like to see on each screen? [Directions]



Count of What information would you like to see on each screen? [Turning indicator]

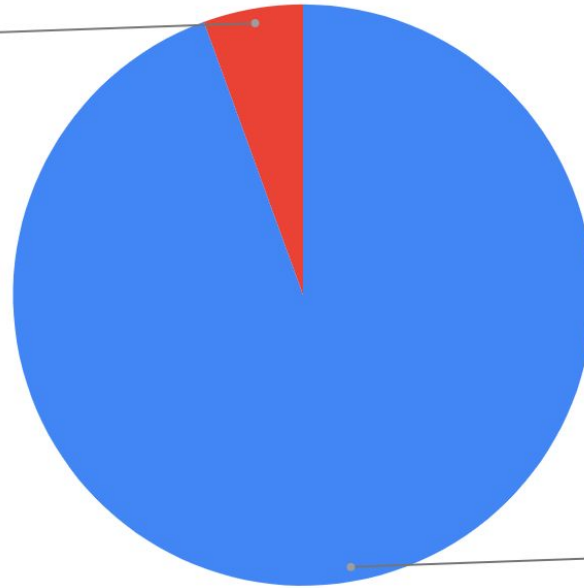


Count of What information would you like to see on each screen? [Battery Level]



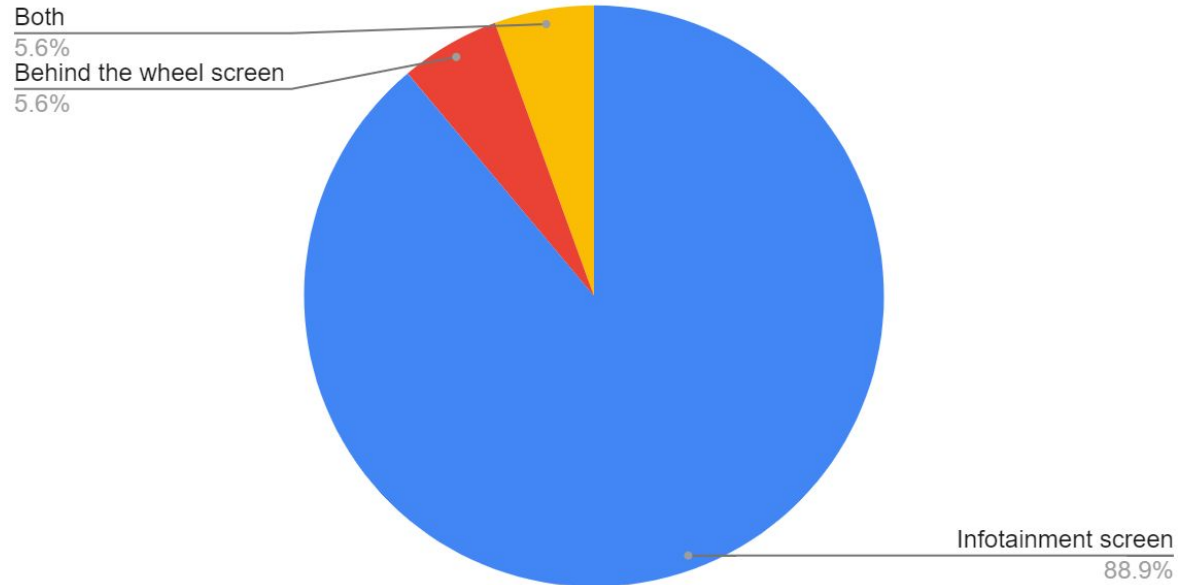
Count of What information would you like to see on each screen? [AC controls]

Behind the wheel screen
5.6%

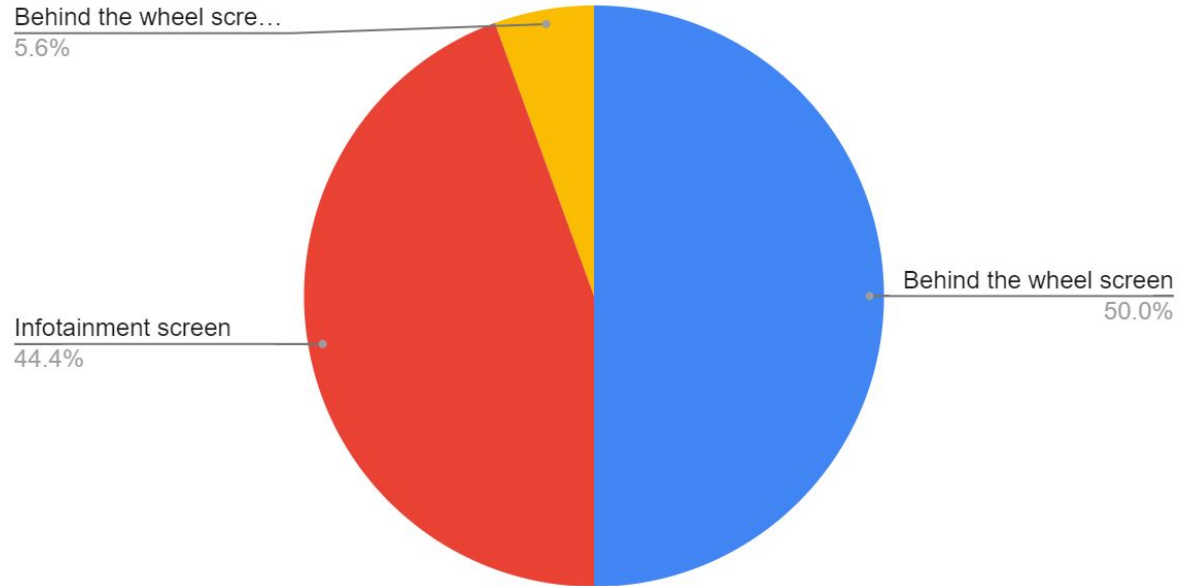


Infotainment screen
94.4%

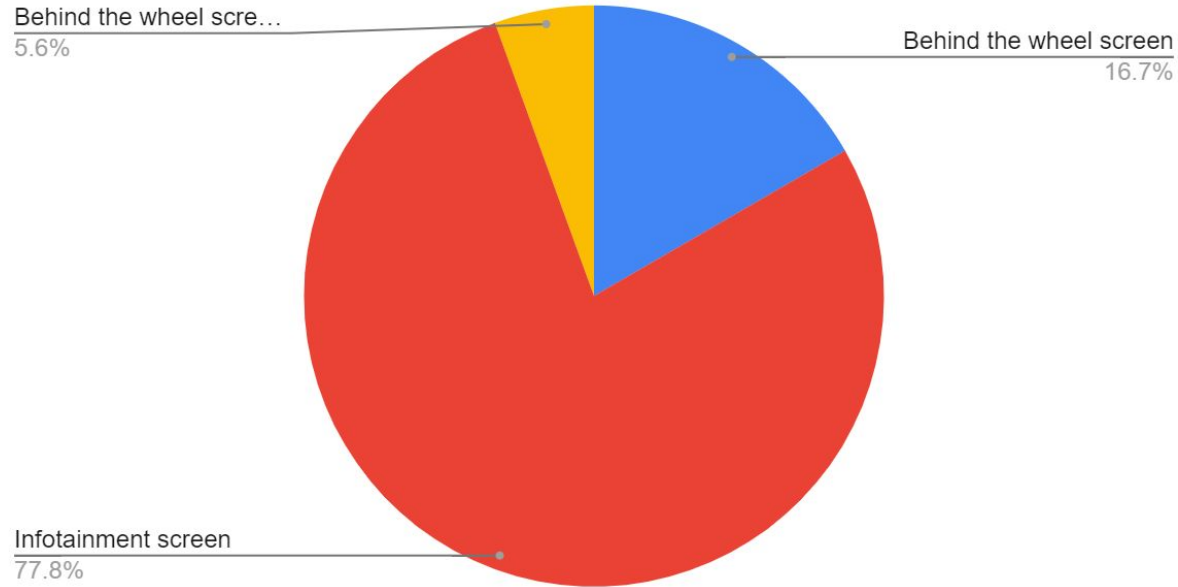
Count of What information would you like to see on each screen? [Backup camera view]



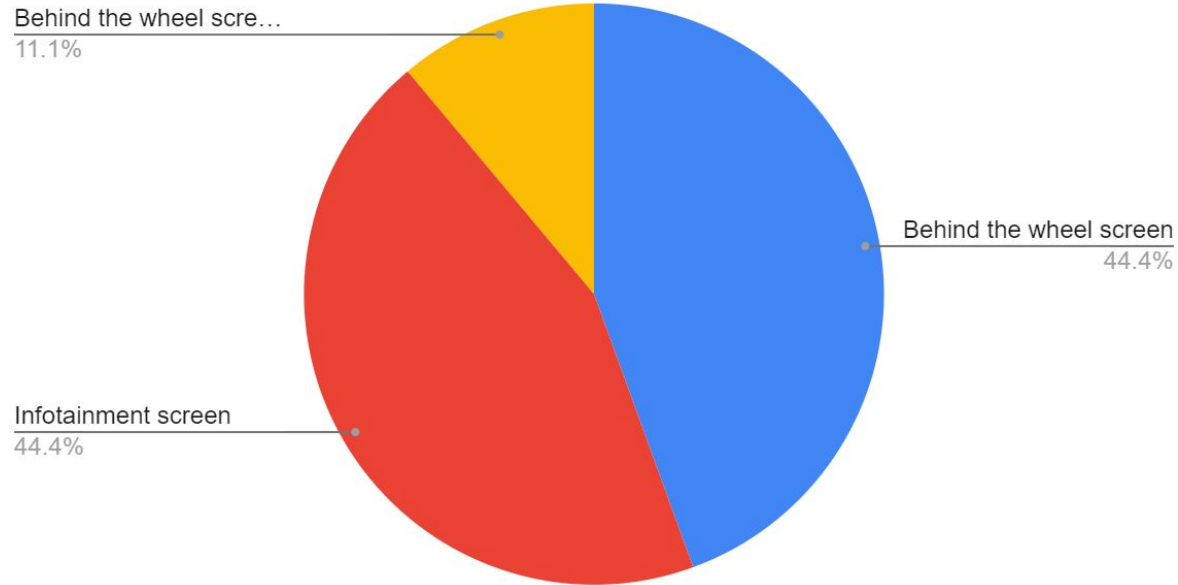
Count of What information would you like to see on each screen? [Lane change safety]



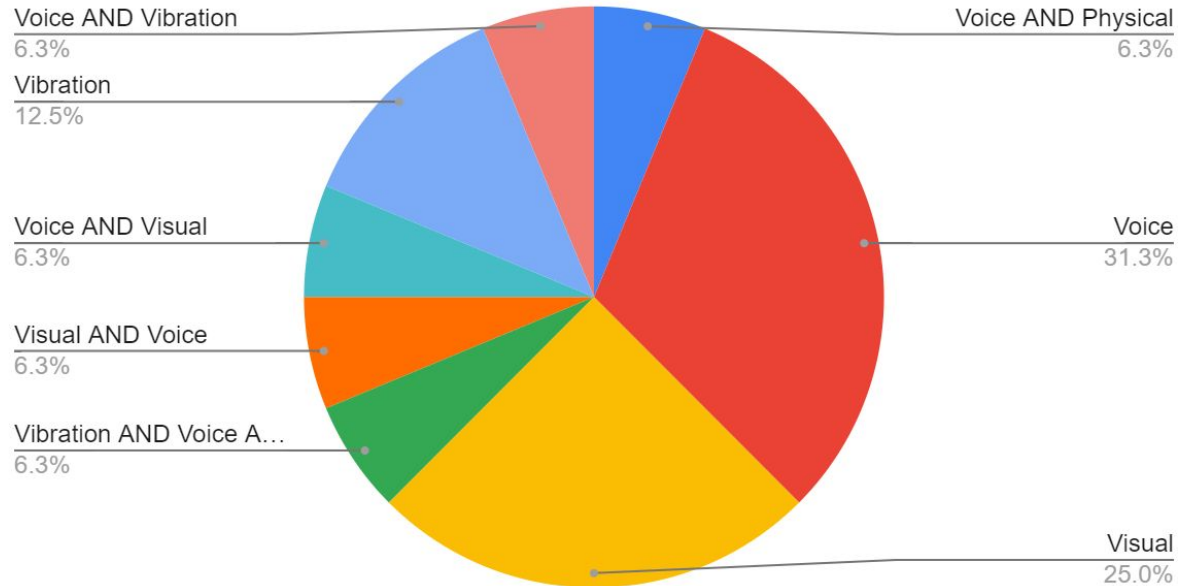
Count of What information would you like to see on each screen? [Phone notifications]



Count of What information would you like to see on each screen? [Auto Pilot information]



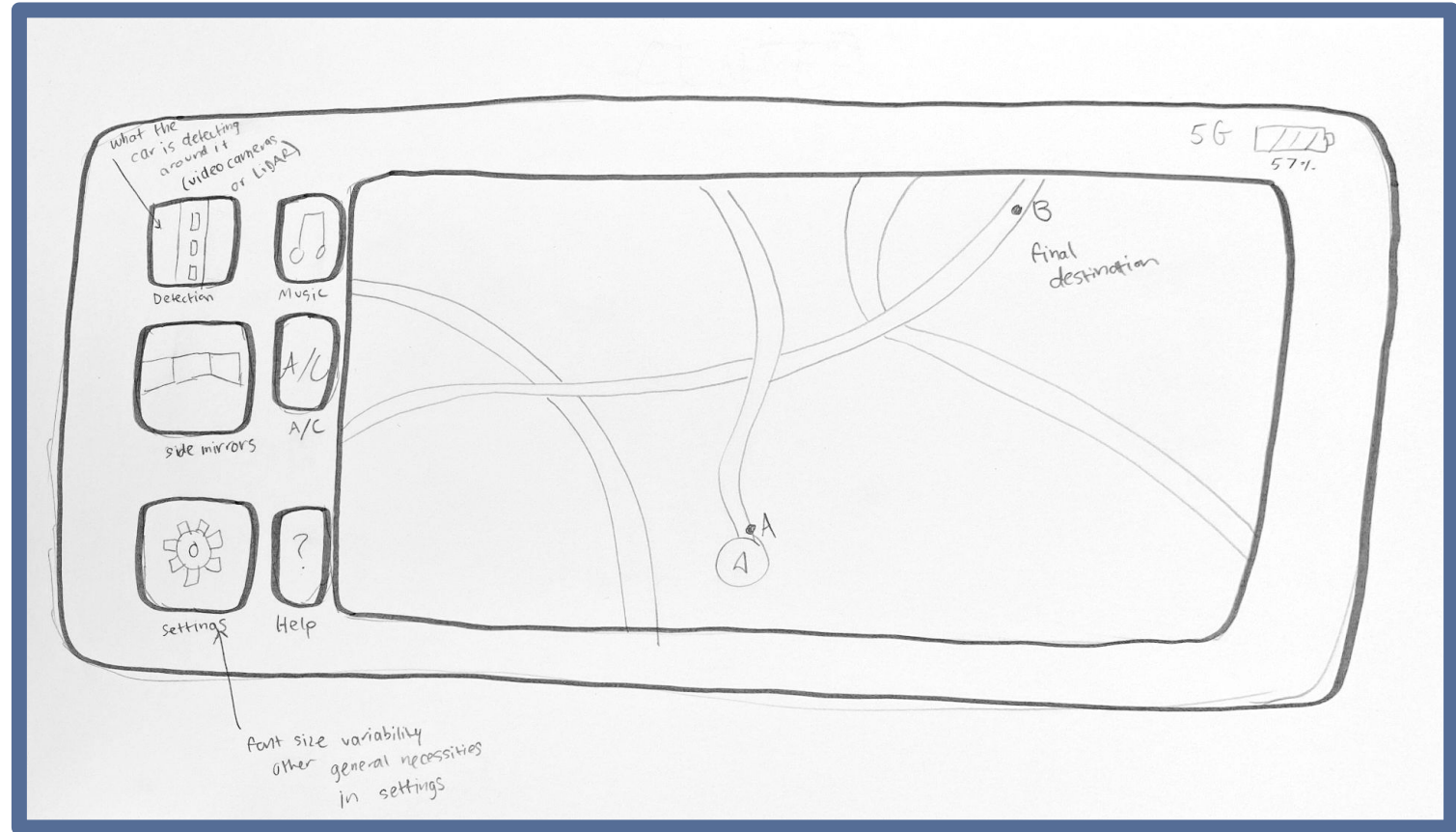
Count of If there was an urgent alert, how would you like it to be delivered? (Chair vibration, voice, text on screen, etc.)



DESIGN IDEAS

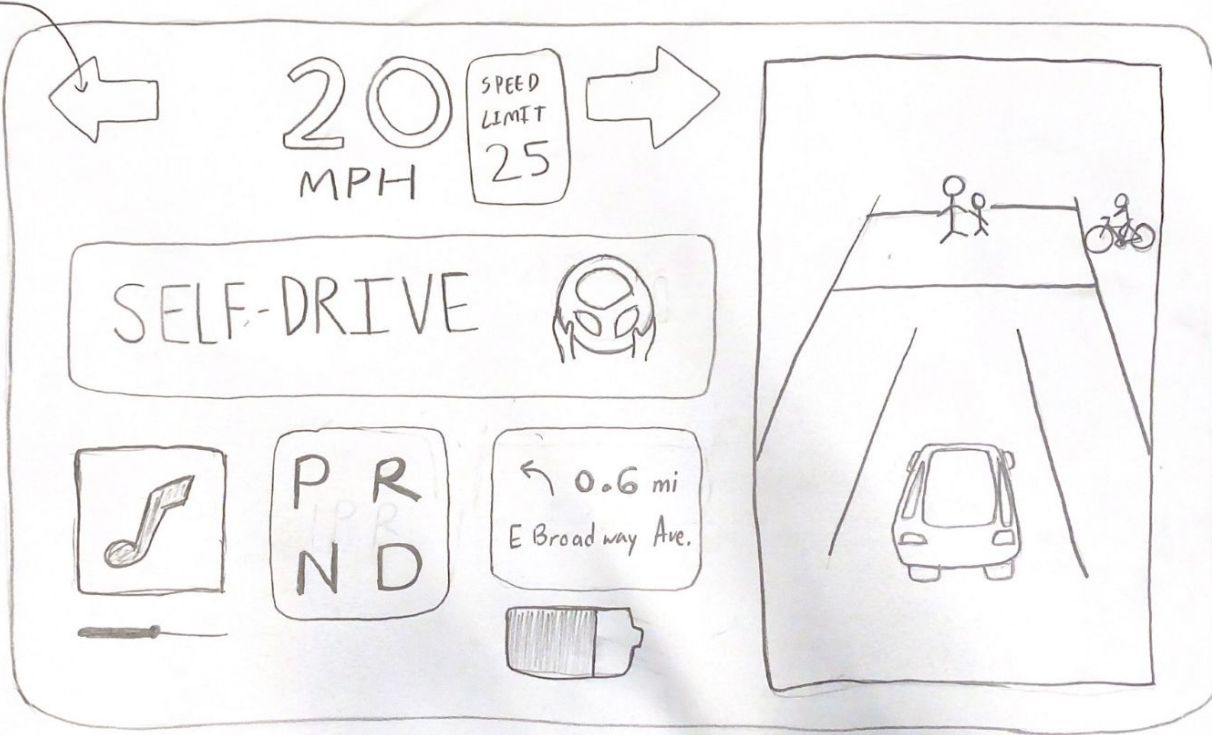
- Safety hazard of speedometer
- Having various parts to the screen
- Detection
- Settings
- Side mirrors screen
- Pop-up messages
- Urgent messages read out loud and visually displayed

LOW-FI PROTOTYPE: Main Interface



LOW-FI PROTOTYPE: Behind the Wheel

When trying to
change lanes,
flashes red if
unsafe and
green if safe



FINAL INTERFACE

WITH MORE TIME...



WITH MORE TIME...

- Release prototype back to the same Reddit Tesla community
 - Gain feedback from the same group of Tesla users who had specific problems with their current interface
- Hands on feedback from users
 - Presenting them the opportunity to use the active Figma prototype
- Conducted both unmoderated and moderated usability tests to assess the efficiency and intuitiveness of our new interface
- Expand to more Tesla models!

Sources

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