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# Hermes

*News on the Go*

## Problem and Solution Overview

The overwhelming volume and speed with which news can be reported online has made it difficult to find useful information without reading through multiple, technically-worded articles. As such, it is becoming unreasonable for the average person to remain informed on current events and find sources that offer unbiased, accurate information. Young adults, however, still tend to want to be relatively well-informed--even if it is just to appear knowledgeable to their friends. The current problem is that it takes more effort than young adults are often willing to give to stay informed. Our solution, Hermes, allows users to passively consume information while on the go or while doing other activities such as driving or walking. Hermes allows the user to choose a topic for a podcast, and allows them to switch podcasts, switch topics, and ask clarifying questions: extending upon the functionality of popular voice assistants like Siri and Alexa.

## Design Research Goals, Stakeholders, and Participants

Our interviews were conducted in-person around UW campus in an attempt to get a better picture about how informed the average student is about current events. We used a script of questions that we had considered beforehand in order to more easily find common themes between students.

For our first participant, we interviewed Steven, a third-year business major in the commons at the Foster School of Business on UW campus. Steven found himself more frequently staying up-to-date on major current events after starting to focus on news surrounding the industries and companies he frequently trades stock in. Steven has distilled the sources that he gets his news from to a few that he deems "reputable and reliable" by a few qualifying factors such as "fact-checked by a large team", "government-sourced", and "endorsed by my professors." He specifically mentions the Wall Street Journal, NPR's Up First podcast, and the New York Times daily podcast. Steven considers himself to be conscientious of 'fake news' and bias when considering new sources, and has chosen his sources carefully so he doesn't need to consider their credibility with each article. Steven mentioned that although he would feel comfortable describing major events to friends and colleagues, the majority of his friends "don't care or have no idea because it's not directly relevant to their lives. What they study in class and their activities at home--what's going on in Washington D.C. or Brittain doesn't matter to them." Steven wants to continue to stay informed, but "there's more than enough news outlets. It's a matter of if I have enough time or interest. There's an overabundance of news now."

Our next two participants we interviewed were Roro who is a Political Science major, and Xander who is a construction management major. Roro, similarly to Steven, seemed to be pretty well versed with current events. However, this makes sense as his major is centralized around policy which is impacted by current events both on the national and international scale. As a strong conservative, Roro gets a majority of his news from Fox news, but also gets his news from his classes where professors are more left-leaning. Since Roro is quite conservative, he tends to believe most of Fox News' stories without a second glance. However, he also gets some of his news from Wall Street journal as it is generally unbiased. Roro said he is willing to give more centrist and conservative news outlets a chance, but will avoid liberal news outlets at all costs. Xander on the other hand doesn't put an effort keep up to date with the news and gets most of his information from article headlines that pop up on his phone, through friends and colleagues, and from videos and posts he sees on social media. While he does know about major news events, he isn't particularly well informed about them. Another student we interviewed, Kate, is also not particularly well informed. She is a med student and a student athlete, and attributed being too busy to keep up with the news well to that. She said she gets a general idea of what is going on from Twitter, headlines, and people around her. When asked why she does care much about keeping up well, she said that she feels like she should care but she doesn't, and that along with being too busy is enough to stop her from being up to date.

## Design Research Results and Themes

From many of our initial interviews, we found mainly university-aged students who already seemed to keep up-to-date with current events. We were initially concerned with whether we had identified an actual issue, until we focused our demographic further. While many university students were up to date with the big national current events (Mueller Report) they weren't as well familiarized with some local and international news events, leading us to focus on smaller-scale events. Another reduction in scope was with our approach to international affairs; many participants expressed a disinterest in news that they didn't perceive as "immediately affecting them", like Brexit. So, we will primarily be discussing locally relevant news articles moving forwards. In later interviews, we found students who echoed similar sentiments to the ones we identified in our original project proposal about the way news is presented and consumed. Between both frequent and infrequent consumers of the news, we found that by making it easier for frequent consumers to consume news we also consequently reduce barriers for infrequent users to become frequent users. As such, our final design is more inclined to primarily target frequent consumers.

Many people placed an importance on getting unbiased, factual news, but varied on how much effort they were willing to curate such sources for their daily consumption. On the far ends of the spectrums there were participants who were content with just hearing news from friends and colleagues, and there were participants who continually and actively evaluated whether or not their sources met their standards. It seems like there are three distinct groups of students: those who have little to no interest, some interest, and a heavy interest. Each of these groups have different requirements for what they desire from a news outlet, so this is something we will have to take into consideration. When asked how they evaluated their sources, people tended to prefer content that either had a reputation for being a 'good' source or was curated by a team of fact-checkers, such as NPR; others relied on platforms like Twitter and Reddit--content aggregation platform where the most popular articles are prominently displayed for all users--for news, placing faith in other users to only bring attention to truthful and   One prevailing theme was that people tended to minimize the amount of friction and time spent in order to get their news. Audio podcasts that could be listened to during commutes or exercise tended to be more

prominent amongst those who reported to frequently consume news. Amongst all users, many shared a similar sentiment of there "not being enough time"to consume news as frequently as they would have liked. From this, our final design should let the users interact while on-the-go, and we should focus on formats that our users currently consume.

# Answers to Task Analysis Questions

1. **Who is going to use the design?**

   Primarily university-aged students who are looking for an easier way to get easily digestible and accurate news. Young adults who, in particular, want to appear informed to their friends and to be able to listen to news they understand with minimal effort.

2. **What tasks do they now perform?**

   These individuals obtain their news from friends (word of mouth), the radio (while driving), podcasts (sometimes while walking or exercising), online news articles (CNN, FOX, WSJ), Social Media (Facebook, Snapchat, Twitter). They also perform quick Google searches when they want to have a basic understanding of a topic their friends or peers are discussing.

3. **What tasks are desired?**

   Being able to consume reliable and easy-to-understand news with minimal effort, particularly being able to listen to news while on the go. Users should also be able to quickly find definitions and related articles easily.

4. **How are the tasks learned?**

   People commonly begin to keep up with the news when they want to appear knowledgeable to peers. Many tacitly come into contact with news articles when listening along to the radio in the car or when browsing for articles online.

5. **Where are the tasks performed?**

   Some students listen to the news on their car, some listen to podcasts as they walk or exercise, some read headlines when they wake up, some talk to friends and read articles throughout the day.

6. **What is the relationship between the person and data?**

   Busier students tended to have some interest, but not enough motivation to keep up with current events. Students who had personal stake (ex:stocks)were more likely to keep up with need relevant to them. Students who have friends that actively keep up with news also felt higher pressure to stay informed, or at least appear informed, themselves.

7. **What other tools does the person have?**

   People currently consume the news through a variety of mediums that we can consider as vectors for our approaches. The most common of which is through their smartphones, where users either use their internet browser to read news from several sources, dedicated apps to browse a specific source, or podcast players to listen to news from specific sources. Radios and

televisions provide "bite-sized" news pieces in order to accommodate users tuning in at any time. More active news consumers can also seek out print sources like newspapers to get news. Internet sources generally have hyperlinked citations that can be used to read the source material, while the other mediums make it more difficult to find primary sources.

8. **How do people communicate with each other?**

The dialogue between the content producers and the consumers is largely one-sided, with producers compiling different sources into a piece of content to be posted. Comment sections on online mediums (like Twitter and Reddit) allow consumers to discuss the content of the article and provide their own opinions and insights. Spoken dialogue between friends and colleagues also facilitates the transfer of news stories.

9. **How often are the tasks performed?**

The frequency with which tasks are performed varies wildly from person to person. Some users may open news apps and listen to podcasts multiple times each day, and others may not actively engage with any news sources at all. Active users will frequently search out news stories to listen to, while less active users may incidentally hear of news stories online while performing their regular habits. Commuters who listen to the radio while driving typically hear their news in two large chunks everyday (on their way to school/work and back).

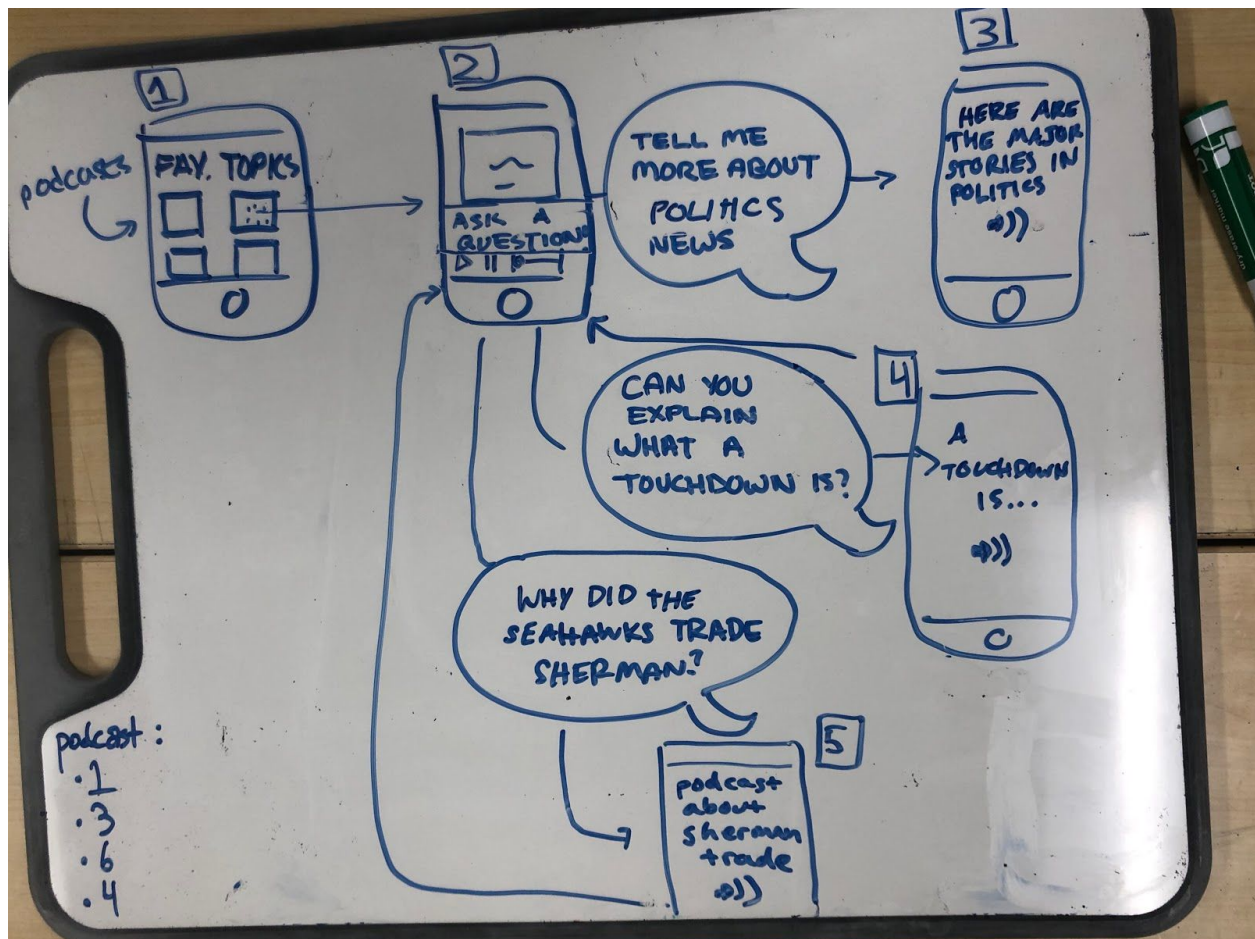10. **What are the time constraints on the tasks?**

Many users expressed that there is "not enough time" to keep up with the news, suggesting that we should be aiming at letting users complete tasks (most prominently, consuming the actual news) as quickly as possible. This also motivates us to find a way to let users perform tasks while doing other activities they would do anyway (like how people listen to the radio while driving). Users who were willing to consume long-form content tended to already keep up with the news, and as such, were on the fringe of our target demographic.

11. **What happens when things go wrong?**

The most common and damaging event for existing news sources is the distribution of misleading or false content, either intentionally or unintentionally. Informed users can leverage comment sections to inform others of the article's shortcomings, but this is neither expected nor reliable. Also, any source that creates friction through poor UI/UX can actively push users away from pursuing news from any source.
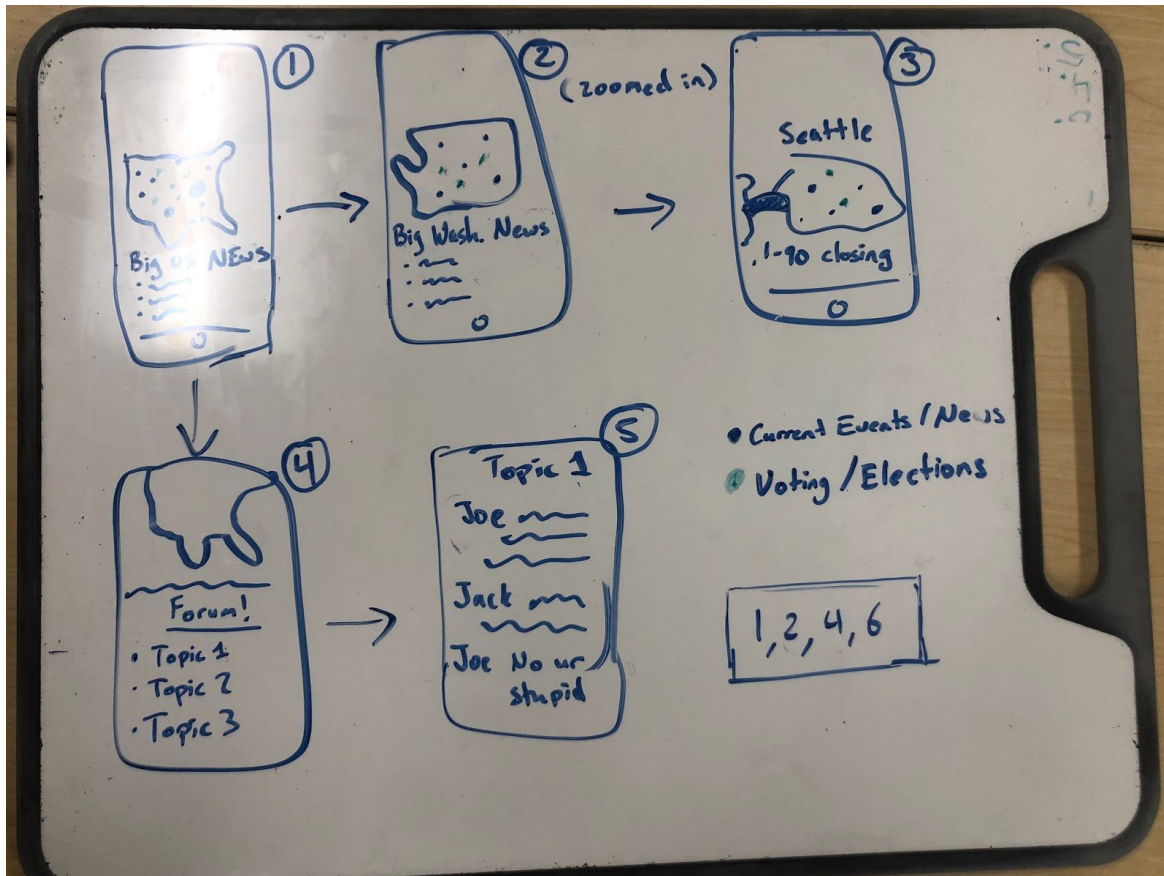
# Proposed Design Sketches - "3x4"
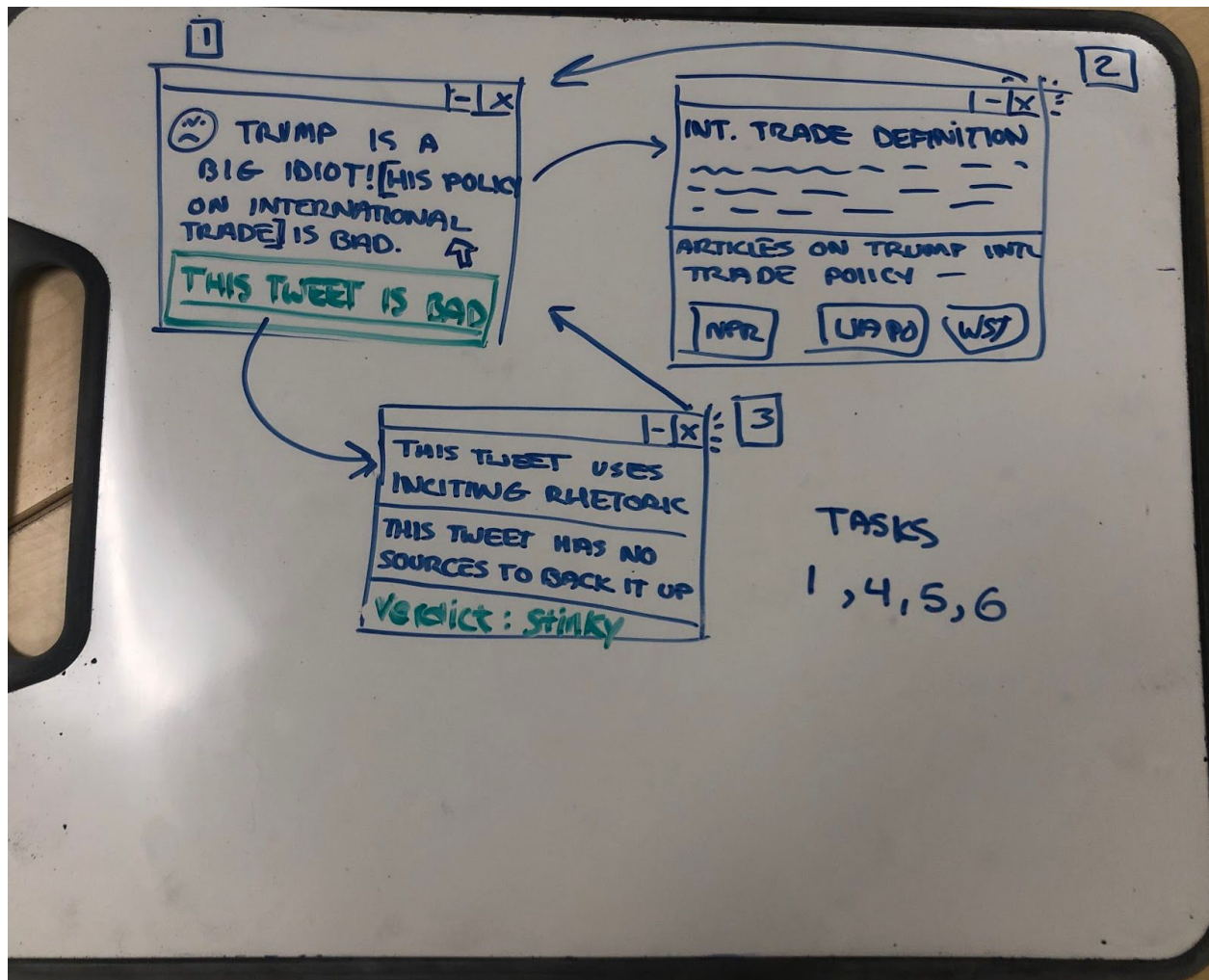
**Design 1: News on the go + Siri**



This design is intended for users who want to be able to ingest their news while driving or performing other activities. It covers tasks 1, 3, 4, and 6: finding digestible content for specific fields, listening to news while on the go, getting all information necessary to vote, and finding knowledge level-appropriate background information about certain events. Screen 1 depicts a collection of favorite topics the user can choose from with just one click. This choice, for example, "Sports," would take the user to Screen 2. From there, the design will play a relevant podcast/news article to the topic. If the user wants to hear more about a specific topic, or change topics; for example, if they want to hear about politics to get ready to vote, they can say, "Tell me more about politics." This would take the user to screen 3, where the virtual news assistant will list, out loud, a few of the most relevant/popular current stories in this area. Then the user can choose one of these using voice interaction to hear more about them. From screen 2, the user can also ask for a clarification or definition. If the user is listening to a podcast about football, they can ask "What is a touchdown?" to take them to screen 4, where the virtual news assistant will explain, then go back to screen 2 and continue with the podcast. At screen 2, the user can also ask for background information that is relevant to the story. If they ask "Why did the Seahawks trade Sherman?" they'll be taken to screen 5, to a podcast/news article explaining the necessary background information. When they got the information needed, the virtual news assistant will automatically go back to the original story on screen 2.

**Design 2: News Map**



This design is an interface for a mobile or web application. This covers task 1, 2, 4, 6. It enables users to gain access to further their knowledge on particular news stories, elections, and provides a forum for discussion on certain stories. Screen 1 is the opening page with a map of the United States with blue dots indicating important recent events, and green dots to represent any updates for upcoming elections. The user can also select different colors for different categories in the settings page of the interface. Below the map, it also has the top three news stories in the country in plain text. Users have the option to zoom in to the map for a particular state which takes us to Screen 2 which is a map of Washington with the same features for the bigger map, but the voting dots now concern state legislature and elections. We can zoom in even further to particular cities as we can see in Screen 3 which depicts Seattle. Same jazz here, except the voting dots indicate local elections and legislature. From any of the Screens 1,2,3 you can scroll down to see the discussion forum of the topics listed, and the topics that appear will be based on the scope of the map. From there, you can click on any of the topics, which takes you to screen 5 where you can discuss with peers and share your opinions. When you are done with this and go back, you will be taken back to Screen 1, 2, or 3 depending on the previous screen. There is additionally one more screen, Screen 7 which you get to once you click on a news story and displays that news story as well as related links. While this isn't included in the diagram above, this is reachable from Screen 1, 2, and 3. Additionally, from zooming out of Screen 3 you get to Screen 2, and zooming out of screen 2 we get Screen 1.

**Design 3: Twitter Extension**



From our interviews, we noticed that many people got their news from sites like Reddit or Twitter that provide content of questionable quality. This design takes the form of a browser extension, extending Twitter's functionality to accomplish tasks one, four, five, and six so that users can continue with their current habits while being more informed. Users can highlight text from any given tweet [1] and will be given a pop-up window [2] that gives context for the tweet through literal definitions of terms that may be confusing to the user, and gives related articles from verified sources. Through this interaction, users are provided with easily-accessible information for fields they may not be familiar with from the definition (task one), informative and accessible articles about specific topics (task six), and for political tweets, information that allows them to make more informed voting decisions. Clicking on the "X" button in the top right returns the user to the Tweet they were looking at. A banner is displayed underneath tweets that don't meet our standards for quality, which users can click on to open a pop-up window [3] that explains why the tweet is marked as low-quality. Hopefully, this addition allows users to quickly identify the accuracy of Tweets they find on their timelines (task four).

**Final Choice of Design and Tasks**

The first task we chose to further pursue is listening to news on the go. This is because it was one of the tasks we encountered the most often in our user research: several users preferred consume news passively, such as while driving or walking places. The second task we chose to pursue is finding knowledge level appropriate information about specific current events, including finding necessary background information. We chose this task because some individuals feel so far behind on issues that they have trouble catching up, and often don't have the background knowledge necessary to understand many news stories, particularly about ongoing large scale events. We also discovered that many people consume news just to be able to talk about it and to seem knowledgeable to their friends and peers. This makes this task important because it allows users to focus on specific information that'll allow them to seem informed in front of others.  Our final choice of design to further pursue was the Design #1: news on the go. This design focuses on the two tasks we chose the most: the main feature is that it is voice-controlled, making it perfect for listening to news on the go. It also allows users to clarify definitions and background information easily, making this design fulfill the task of finding appropriate background information.

# Written Scenarios - "1x2"

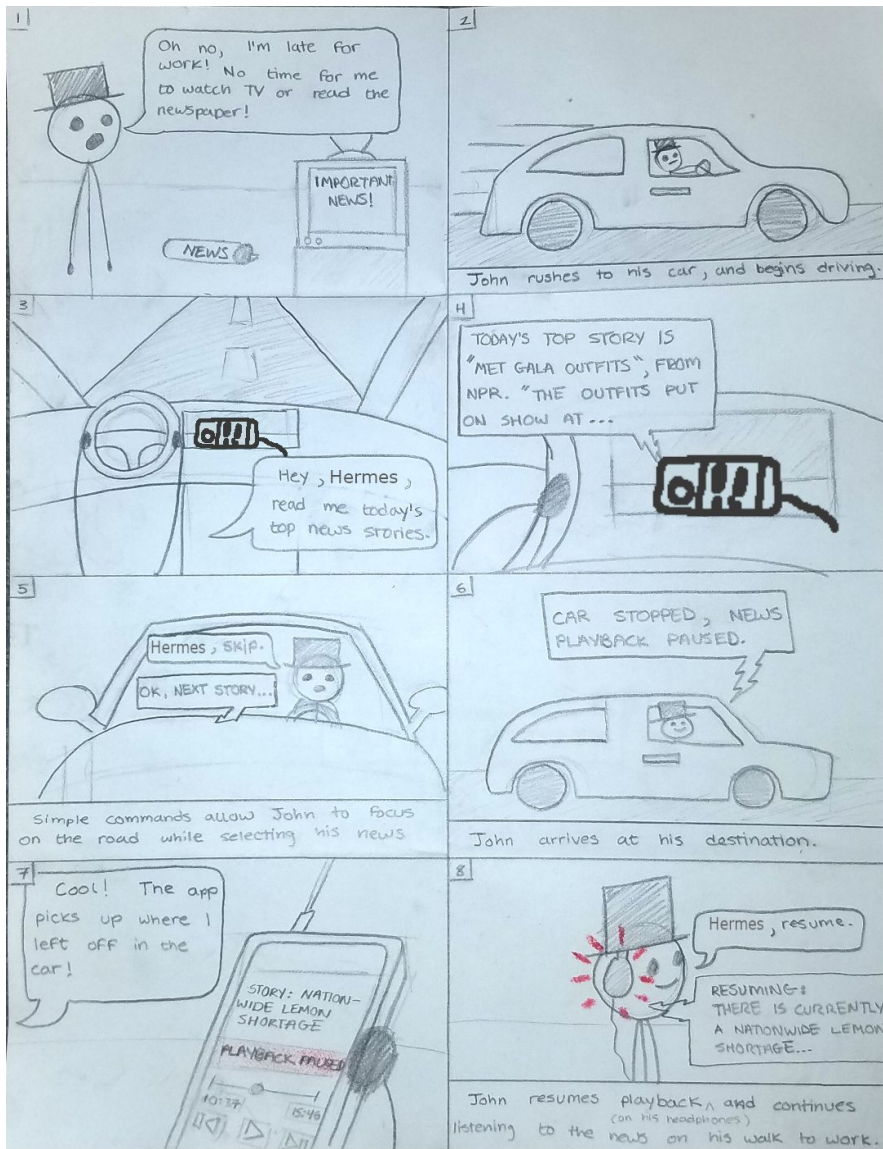**Task 1: Listening to News on the Go**

      Alexis is late for class but wants to stay updated on the news so she can talk politics with her friends after class.  So, she plugs her Hermes into her car and clicks the "Politics" category to begin listening to the top story about politics.  On her way to class, she asks questions about certain topics and asks Hermes to give her the latest news about stories she's heard rumors about from friends and on social media.  By the time she gets to class, she feels like she knows enough about current news to be able to carry a conversation about it with her friends after class.  Hermes also pauses on the article she was listening to and remembers what Alexis was listening to (as seen at the end of storyboard 1) so that she can continue listening to the same content later and even go back to previous topics or articles.

**Task 2: Finding Knowledge Level-Appropriate Information about Specific Topics**

      Brad is listening to one of his finance podcasts when he hears a reference to Donald Trump's newly enacted international trade sanctions. He asks Hermes, "Tell me more about Trump's recent international trade sanctions.  Hermes then starts playing a 40-min podcast from NPR about the recent trade sanctions and trade talks from China.  Brad thinks that this is way too much detail for him to understand, so he says, "Hey Hermes, can you play something more easy to understand?"  So Hermes starts playing a 30 minute podcast from a verified YouTube account that talks about the trade sanctions in easier to understand jargon.  Unfortunately, Brad only has 10 minutes before he has to go to work, so he says, "Hey Hermes, can you play something shorter?"  So Hermes starts playing a clip from a news broadcast giving a summary of the sanctions and what they mean.  By the time Brad gets to work, he is happy that he understands more about what he heard on his finance podcast and is up to date with the most current news.

# Storyboards of the Selected Design

Storyboard 1 - "Listening to News on the Go":

Storyboard 2 - "Jerry Does Yard Work":