Meow

Andrew J. Ko

INFO 360, Group N

This is a small example of how you might write your specification. The structure and content of this document is representative of how you should write, but it's length is not. Because you will likely be tackling more difficult problems and designing more complex solutions, your specification will likely have many more screens, many more design details, and more significant nuance in problem statement, evaluation, and limitations.

Problem

Cats are a critical part of many people's lives (Beck 1996). In fact, according to the ASPCA, there are about 100 million cats in owned as pets in the United States alone. These cats live with us, offer us companionship, and surprisingly, keep many people healthy (Suthers-McCabe 2001).

However, cats also make us laugh. On YouTube, for example, there are millions of videos of cats doing funny, strange things, and whole communities of cat lovers who create and curate about cats (Burgess & Green 2013). These activities suggest that at least for some people, cat behavior is significant source of joy in online social settings.

Unfortunately, the joy that people experience by watching and listening to cat behavior can be hard to bring into the physical world from the online world. In our research, we found that many people wanted to share cat videos with friends face-to-face, but screens were often too small to watch together in groups and it was often cumbersome to find engaging videos suitable for group sharing. This prevented people from sharing and led to several missed opportunities for shared laughter.

Solution

To address these problem, we designed **Meow**, a mobile application that brings the joy of verbal cat behavior to the physical world. Meow has one simple function, shown in Figure 1: a simple cat face button, when pressed and held, plays the audio from a top ranked cat video on YouTube that has the keyword "sound" in its title. This capability lowers the barrier to engaging social groups in humorous cat behavior by 1) automatically selecting content and 2) minimizing the time to play the audio.

The screen shown in Figure 1 has a simple layout. The image is fixed and centered vertically and horizontally. The specific cat image shown in the mockup is the image to display. The whole screen is interactive and only has one function: streaming the video. There is no text on the screen and no feedback about when the audio. This keeps the interaction simple and clean, but does impose tradeoffs on error feedback.

The algorithm for selecting content is as follows:

- After touching the screen, the app performs the search "funny cat sounds" on YouTube.
- It retrieves a list of the results ranked by views, in descending order.
- It selects the top video in the list.
- It starts streaming the audio for the video.

As soon as the user takes their finger off the touch screen, the audio ceases.

Evaluation

To evaluate how well Meow addresses the problem of engaging social groups in cat humor, we arranged to meet a group of students who were eating lunch together. One of the evaluators was socially connected to the group, creating a genuine social setting for testing the design idea. We prepared a Wizard of Oz prototype that involved the cat image in Figure 1 and a second hidden phone with a pre-loaded YouTube video from the search results matching the YouTube query "funny cat sounds". When there was a lull in the group's conversation, the evaluator pulled out his phone and said, "Hey guys, wanna hear something funny?", and unlocked his screen to show the cat. He held his finger down on the app, and the second evaluator secretly played the video; when the first evaluator lifted, the second evaluator paused the video.

The response of the group was pronged disturbed laughter, which is some sign of success, but the group also wanted to hear another sound upon a second touch. Since our prototype was unable to accommodate this, we disclosed that the prototype was not real and solicited more feedback from the group. They expressed a desire for the app to include a history of sounds that were played so they could be easily replayed later.

Limitation

The biggest and most significant limitation of our design is the lack of functionality. It lacks search functions, browsing features, sophisticated playback controls, and any history of previously played videos. It also lacks integration with the user's YouTube account, preventing them from having any access to the videos being played.

Another significant limitation is the content retrieval functionality. As we found in the evaluation, users desired more on-demand access to a diversity of content. In our redesigns, we will consider expanding the behavior of the retrieval algorithm to accommodate this.

References

Beck, A. M., & Katcher, A. H. (1996). Between pets and people: The importance of animal companionship. Purdue University Press.

Burgess, J., & Green, J. (2013). YouTube: Online video and participatory culture. John Wiley & Sons.

Suthers-McCabe, H. M. (2001). Take one pet and call me in the morning. Generations, 25(2), 93-95.

Mockups
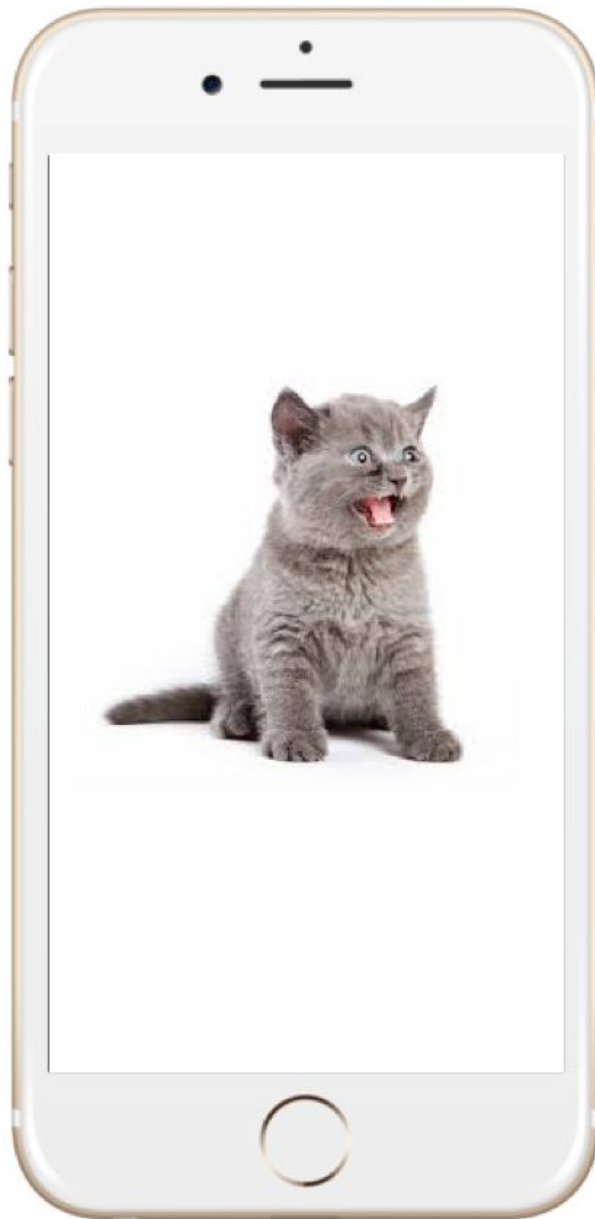
Figure 1. The main (and only) screen of the Meow app. Pressing and holding anywhere on the screen begins playing streaming audio. Releasing stops playing the audio.