

# CIVILITY

## Team Members

Lorena Huang-Liu: *User Testing*

Steven Qian: *Developer*

Katie Stockdale: *Manager/Design*

Jessica Xu: *Documentation*

## INTRODUCTION AND MISSION STATEMENT

Our team sets out to create an application that promotes a general increase in mental well being within society through the way people interact amongst each other. The way Civility works towards this goal is by introducing an incentive for people to maintain composure during frustrating interactions, thereby decreasing the number of conflicts that get out of hand due to the loss of tempers.

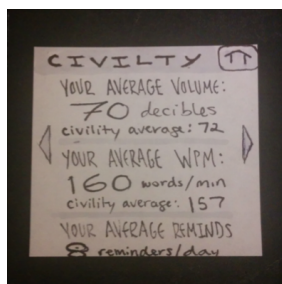
The system used in our experiments consisted of a set of paper screenshots of our application that would be managed by a 'Human Computer', who would give the tester/participant the corresponding screenshot everytime he or she interacted with the interface. Our team decided this would be the most straightforward and intuitive way for us to test our product with first time users as it would simulate all the features we were offering without needing to develop a software prototype.

## PROTOTYPE

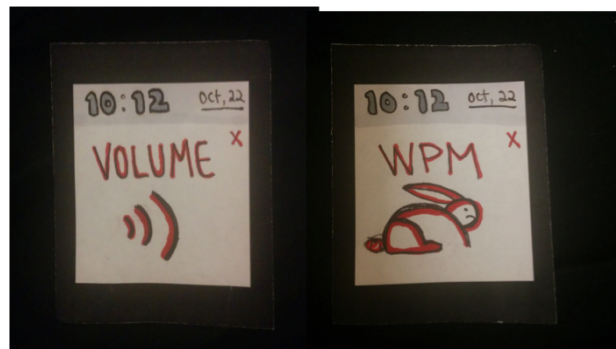
Our prototype is a set of paper screenshots meant to simulate the experience of a smartwatch application, where the user interacts with each screen and the computer (person demonstrating the prototype) switches the screenshots out accordingly with what the user does. The users of the prototype interacted with each separate screenshot just as they would on a touch screen device (tapping, swiping, typing). For example, **Figure 1** shows all the screens that can be accessed through swiping when the user first reaches the home page.



Figure 1

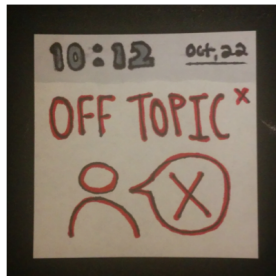


The first task that Civility allows is giving personal feedback. **Figure 2** is the feedback summary page of Civility. This can be



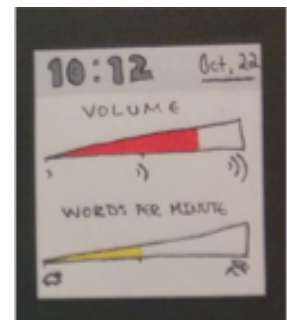
accessed by swiping from the home page.

The second task Civility allows users to do is receive gentle notifications that warn them when they start getting too riled up in a conversation. As can be seen in **Figure 3**, the two notifications that Civility provides are for when the user gets too loud or starts to speak too fast. These notifications can be closed by tapping the “x” on the top right or if the user starts to speak softer or slower.

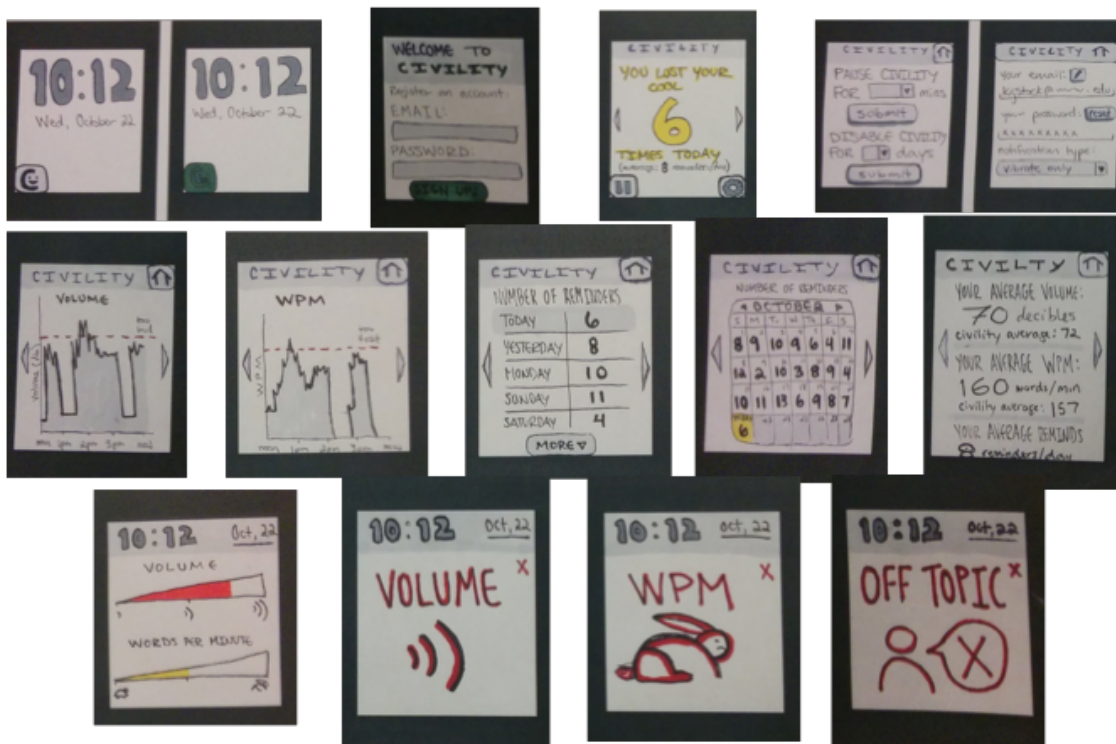


A third task Civility provides is actually the most complex, as it requires advanced natural language processing. When the user starts getting off topic, a notification will be sent to them which reminds to bring the conversation back on topic. **Figure 4** shows the interface for this. This notification can be closed by tapping the “x” on the top right or by bringing the conversation back on topic.

**Figure 5** shows the screen that is displayed when the user is in conversation. On this screen, there are two bars: one for volume and one for rate of speech. When the user gets too loud or too fast, then the color of the bar turns red and the respective notification is notified.



Below in **Figure 6** is the overall layout of Civility.



## METHOD

### **Participants:**

#### T.C.

- Current Student at University of California, Berkeley
- Gender: Male
- Age: 20
- Recruited as a student from a different school and perspective
- Compensated with warm place to sleep

#### M.S.

- Member of Cleaning Staff at Stanford University
- Gender: Male
- Age: 50-60 years
- Recruited through scoping out people at Tressider's Starbucks
- Compensated with 5 dollars for his time

#### D.O.

- Stanford Alumni visiting for 36th class reunion
- Gender: Female
- Age: 56
- Recruited through scoping out people at Tressider's Starbucks
- Offered 5 dollar compensation but she declined

### **Environments:**

T.C. : **Coffee House**

M.S. : **Starbucks**

D.O. : **Starbucks**

### **Task List:**

1. Sign Up with New Account
2. Change notification option
3. Find Average Words Per Minute
4. Control Volume in Heated Conversation
5. Stay on Topic in Conversation
6. Pause Application

### **Procedure:**

The user is given a couple of minutes to explore the application. He or she is then given a set of tasks to perform (those listed above). In the meantime, one of the interviewers notes everything the participant likes, dislikes, has trouble with, and gets stuck on. To imitate the smart-watch experience, our team used paper screenshots of possible screen results from the User Interaction with the interface.

### **Member Roles:**

**Computer:** Katie Stockdale

**Note Taker:** Steven Qian

**Facilitator:** Jessica Xu

**Facilitator:** Lorena Huang

**Test Measures:** Likes, Dislikes, # of Instances of Confusion, # of Hesitations, Time per Task

## RESULTS

The results of our experiment can be summarized in a few points.

1. Users generally had no problem figuring out how the interface was used and did not take too much time or effort to complete the tasks that we presented to them.
2. We observed that users did not tend to swipe the screen, but defaulted to tapping the left and right arrows to move through the application
3. During the scenario where the participant was to escalate his or her volume during the conversation. Each time we performed this scenario, there was usually a small awkward transition from the normal conversation to where the participant would find something to escalate his or her voice over. After the participant did this, they were then given the volume notification and he or she almost immediately let the conversation just fade out.
4. When performing the scenario to analyze the Off-Topic Notification, participants would almost immediately try to revert to the original conversation topic when presented with the notification, much more of a smooth transition than what they made with the volume notification.
5. The only constructive criticism for the interface that our team received centered around the more detailed aspects of the application such as having a different option to have a preset pause time or changing the pause icon to a play icon after the application was paused.

## DISCUSSION

In general, the results of the experiment showed that our interface was very intuitive and easy to use, even for first time users. Most of the tasks we asked participants to perform went very smoothly, and the only things commented on tended to be pretty detail oriented rather than big picture problems. Our only design concern involved how the participants reacted to the volume notification when they were getting too loud. The participants, instead of simply lowering their volume, dropped the conversation. However, this could be explained by how the actual social interaction was rather awkward, considering we were telling the participant to raise his or her voice at a complete stranger. This made the conversation uncomfortable, and pushed the participant to end the conversation as soon as possible. These results seemed great at first. Yet, it is very unlikely that we could have done such a good job on our application that people would have almost no suggestions or constructive criticisms for our app as a whole. This made our group worry that there could be another underlying reason that everything went so smoothly. From there, our group concluded that the people we interviewed simply did not care enough. We realized that there were never any comments of, 'oh that is so cool', or 'I want to be able to download this in the future.' Instead, participants remained very polite and patient until the experiment was over, giving us the notion that this application was missing an important factor of excitement and hook.

These results did not reveal too much about how we could change the design of the interface. However, it did tell us that we needed to change how we portrayed the product to users. The experiment could not reveal what this change could be, because the participants never indicated what part of the product that they were simply not excited in, or what we could

have done to make them more engaged in the application. This has lead our team to realize that our next big focus is to find a way to make our product not only useful but also attractive.

## Appendix

Script || Raw User Testing Notes || User Testing Heuristics || Consent Form

### Script

We are conducting an experiment to test the user experience/interface for our application, Civility. Civility is an application that endeavors to improve conflicts between individuals in everyday conversations. The application notifies you when you are speaking too loudly, too quickly, or are getting off topic in a conversation. It also allows you to track your improvement over time and to pause the application at will.

I'm going to give you a couple minutes for you to explore the application. After that, I will give you a set of tasks to perform. Please perform these tasks to the best of your ability and give us honest feedback of our interface. If at any time you get stuck, I can give you a small hint to keep you moving forward. Our goal is to make these tasks as intuitive as possible.

We will be giving you what is called a "paper prototype". You can interact with it, just like you would with any digital device, specifically a touchscreen enabled smartwatch. If you tap on a button or swipe, we will act as the smartwatch and give you the next screen. If at any time you get stuck or frustrated, please let us know -- it is important we recognize all problems in our design. Because this application is still being designed, we encourage you to give us your honest thoughts and opinions. If you could also try to think out loud while using the application, that would be ideal. Good luck.

I will now give you 2 minutes to explore the application.

*(Give 2 minutes to explore the app)*

2 minutes are up. We are now entering the next part of our experiment. I will give you a set of tasks to perform. I will now send you back to the home screen.

*(Give them the home screen)*

You have just downloaded the application and are opening it for the first time. I would like you to make an account on Civility.

*(Task #1: Make an account)*

Now, please figure out how to change your notification type.

*(Task #2: Change settings)*

I would like you to find and tell me your average words per minute.  
(Task #3: Feedback)

Now, navigate back to the home screen.  
(See if swipe back or tap the “home” button)

We are going to change things up a bit. Please pretend that you are having a conversation with a friend and things are getting heated. (Give them the conversation home screen). Now raise your voice. (Give them the volume notification). What are you going to do with this notification?

(Task #4: See if they “exit” out or lower their voice)

Now, I want you to engage with your imaginary friend in a conversation about cups. Now pretend you get off topic. (Give them the off topic notification)

(Task #5: See if they “exit” out or go back on topic)

Pretend that your conversation is concluded. You want to pause Civility. What do you do?

(Task #6: Pause Civility)

You have reached the end of our experiment. Thank you so much for your time.

## Raw User Testing Notes

### Subject #1 (R.O.): Male Stanford student well versed in wearable tech; age: 20

- General:
  - Arrows on screen: did not swipe but tap
  - Lot of information on the screen regarding performance which is good
  - Because he saw the “pause” button, he knew Civility was still recording
- Task 1: Make account
  - Very straightforward
- Task 2: Change settings
  - Very straightforward
- Task 3: Find average wpm
  - First looked at the chart that showed you your “wpm” (your history) before going to the screen that gave you the average wpm
- Task 4: Control Volume
  - Did not notice the notification for the volume at first
- Task 5: Stay On Topic
  - Right when he saw the notification, he tried to change the conversation back
- Task 6: Pause

- Suggestion: Change paused pause button to play
- 2 buttons for pause: long press vs short press

**Subject #2 (M.S.): Male staff on campus for cleaning; age: 50-60**

- General:
  - Trouble discerning back and forward options
  - Hesitated to swipe also pressed button
  - Very confused in general
- Task 1: Make account
  - Very straightforward
- Task 2: Change settings
  - Pressed pause first
- Task 3: Find average wpm
  - First looked at the chart that showed you your “wpm” (your history) before going to the screen that gave you the average wpm
- Task 4: Control Volume
  - Right when he saw the notification, he ended the conversation
- Task 5: Stay On Topic
  - Right when he saw the notification, he immediately tried to go back on topic
- Task 6: Pause
  - Pressed settings first
  - Asked if can pause for 0 minutes

**Subject #3 (D.O.): Female Stanford Alum coming back for 36th reunion; age: 56 years old**

- General:
  - Liked calendar
- Task 1: Make account
  - Very straightforward
- Task 2: Change settings
  - Very straightforward
- Task 3: Find average wpm
  - Didn't understand what “wpm” meant
    - However, deduced it very quickly
  - Found the correct page first by lucky because she tapped the screen 4 times
- Task 4: Control Volume
  - Right when he saw the notification, he ended the conversation
- Task 5: Stay On Topic
  - After receiving notification, immediately brought the conversation back on topic
- Task 6: Pause
  - No problems

## User Testing Heuristics

Problem	Location	Severity Rating	Possible Fix	Task Number
Tapped arrows rather than swiping to access other pages	Home page	1	Redesign the arrow	3
Confused between “wpm history” and the wpm on your summary page	WPM graph & feedback summary	2	Have more clear titles on the pages	3
Didn't know what to do with the volume notification pop up	While in conversation, volume notification pop up	2	Make the “x” more obvious	4

### Severity Rating Scale:

- 0 = This is not a usability problem
- 1 = Cosmetic problem only: doesn't need to be fixed urgently
- 2 = Minor usability problem: low priority fix
- 3 = Major usability problem: high priority fix
- 4 = Usability catastrophe: fix now

### Types of Tasks:

- Task 1: Make account
- Task 2: Change settings
- Task 3: Personal feedback
- Task 4: Volume notification
- Task 5: Fruitless conversation notification
- Task 6: Pause Civility

## Consent Form

The Civility application is being produced as part of the coursework for the Computer Science course CS 147 at Stanford University. Participants in experimental evaluation of the application provide data that is used to evaluate and modify the interface of Civility. Data will be collected by interview, observation and questionnaire. Participation in this experiment is voluntary.

Participants may withdraw themselves and their data at any time without fear of consequences. And concerns about the experiment may be discussed with the researchers



Lorena Huang Liu, Steven Qian, Kate Stockdale, Jessica Xu or with Professor James Landay, the instructor of CS 147:

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Stanford University  
650-498-8215  
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Participant anonymity will be provided by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the researchers and their supervisors.

I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the experiment and my participation in it. I give my consent to have data collected on my behavior and opinions in relation to the Civility experiment. I understand I may withdraw my permission at any time.

Name \_\_\_\_\_  
Date \_\_\_\_\_  
Signature \_\_\_\_\_  
Witness name \_\_\_\_\_  
Witness signature \_\_\_\_\_