

# CIVILITY

## Team Members

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## PROBLEM AND SOLUTION OVERVIEW

Conflicts are a common and normal part of relationships, regardless of whether they are romantic, platonic or professional. However, most individuals do not have any training in how to conduct a successful and civil argument and have to learn from experience or do not learn at all. Therefore, a large portion of all conflicts to be dysfunctional and stressful. In addition, due to the lack of a partial third-party, it is difficult for individuals to make improvements on their behavior. Our solution is an un-intrusive Smartwatch application that uses natural language processing to offer suggestions during conflicts and provide feedback on emotional management on a day-by-day basis.

## TASKS

One of the most important changes that were made to Civility is that it is no longer constrained to the work environment. It is intended as a day-to-day emotional improvement tool. Our prototype performs three main tasks.

- *Providing Feedback (Simple)*: A simple task that Civility is able to perform is the act of providing its user with feedback regarding emotion control. This data includes times that a customer lost its cool on a particular given day, that individual's aggregated average for losing his or her temper, and the person's current volume level and speech rate. Although the task itself has remained the same, we changed a few aspects of the way in which Civility would provide feedback. In our Low-fi prototype, the feedback was very detailed and far too much to fit into a watch screen. In this iteration, we have chosen to combine all the information into one "losing your cool" metric which is calculated by aggregating volume, speech rate, and other conversational aspects. By having one major metric, the user will not only find the feedback easier to process but the presentation will also be much more pleasant to the eye.
- *Sending Warning Notifications (Moderate)*: The moderate task is that of sending push notifications when a conversation is starting to get out of hand. Civility is a way to self-check during arguments. The application will send vibrating notifications to the watch-wearer letting him or her know that the voice volume is getting too loud or words are being spoken too quickly, or both. An important change that we made to this task is that the input is no longer from both sides of the argument, only from the current wearer of the watch. This is because we wanted to focus more on self-improvement rather than mutual blaming. Another change that we made was the simplification of the icons. The new ones are much more design friendly and fit better in a smaller screen.

- *Identifying Fruitless Conversations (Complex)*: The most difficult task that Civility must perform is to identify and try to end fruitless conversations. This would be done through advanced natural language processing. If Civility detects that the topic of conversation has deviated from its original purpose, it will show a notification warning the user that the conversation is off-topic. We have chosen to leave this task as it is, especially since it is simple enough for any user to understand the task at hand.

## REVISED INTERFACE DESIGN

- *Two screen sign up process*. In our low-fi prototype, the user could enter name and password in one screen. We have now changed it to two screens, once the user enters the username and it is validated, we will move on to the second screen, the password. This was mostly due to the size constraint of a smartwatch.
- *Simplified feedback screen instead of the previous cluttered interface*. As mentioned above, many of the aspects to be taken into consideration during a conversation were consolidated into a single metric that was both easier to understand and less burdensome to read.
- *Removal of graphs in the feedback screens*. Not only were the graphs difficult to read at such a small scale but they almost discouraged users from paying attention to their feedback. As a result, we decided to completely get rid of the graphs because they did not provide enough value to justify the strain that the watch users had to go through to even read the graph labels.
- *Icon-based design to fit the most information in the watch screen*. Instead of our previous text-heavy interface, we now rely much more on icons and symbols. For example, we use a rabbit as a way to signal speed, for rate of speech. We also use the speaker icon to signal voice volume. These symbols are much easier to understand at a glance in a small screen without taking away from the meaning.
- *Navigation through tapping and swiping*. We observed through user tests that our users tended to tap on the arrows to navigate from screen to screen more than the swiped. This could be due to the nature of the paper prototypes or because tapping was the more obvious option. In any case, we decided to allow both tapping and swiping for ease of use. This way, each user can perform whichever tasks is more comfortable.

## PROTOTYPE OVERVIEW






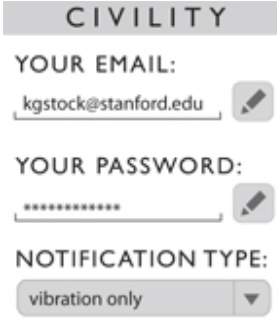

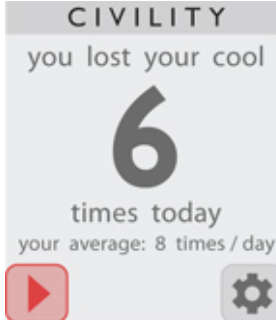
- *Tools*. We employed Adobe Illustrator to create all of the screens for Civility and InVision to link the screens together. We also considered employing Proto.io but we went in another direction for the reasons layed out below.
- *Limitations & Tradeoffs*. One big tradeoff that we had to make between Proto.io and InVision was the fact that Proto.io would make it easier for us to create and link the screens, all in one platform. We decided to use InVision instead because it would require a much lower learning curve since one of our teammates had previous experience with this program. Using Adobe Illustrator to create the screens instead of Proto.io gave us greater freedom because we were able to design the prototype

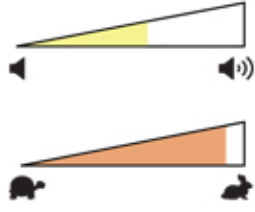


exactly how we wanted it to look. We were not constrained by the few options that Proto.io would have given us. Lastly, one drawback that we had to deal with in InVision is the fact that it automatically resizes all screens to fill up the entire screen. In order to address this issue, we had to create a screen of the size of an iPhone and have most of the screen be blank space.

- *Wizard of Oz*. Because an argument does not just happen organically when prompted to do so, we found ourselves in need of a Wizard of Oz approach. Instead of waiting for an argument to happen, the pop-ups are activated when one clicks on certain parts of the screen.

PROTOTYPE SCREENS

Link: <http://invis.io/7M1N5SSQ4>

			
<p><b>Figure 1</b></p>	<p><b>Figure 2</b></p>	<p><b>Figure 3</b></p>	<p><b>Figure 4</b></p>
			
<p><b>Figure 5</b></p>	<p><b>Figure 6</b></p>	<p><b>Figure 7</b></p>	<p><b>Figure 8</b></p>

<p><b>CIVILITY</b></p> <p>Civility is paused for another</p> <p><b>1 HR 12 MIN</b></p> <p>UNPAUSE NOW</p>	<p><b>CIVILITY</b></p> <p>Average Words/Min</p> <p>TODAY - 165</p> <p>YESTERDAY - 150</p> <p>LAST WEEK - 140</p> <p>OVERALL - 155</p>	<p><b>CIVILITY</b></p> <p>Number of Reminders</p> <table border="1"> <tr> <td>TODAY - 11/3</td> <td>10</td> </tr> <tr> <td>11/2</td> <td>9</td> </tr> <tr> <td>11/1</td> <td>10</td> </tr> <tr> <td>10/31</td> <td>7</td> </tr> <tr> <td>10/30</td> <td>6</td> </tr> <tr> <td>10/29</td> <td>8</td> </tr> </table> <p>SEE MORE ▾</p>	TODAY - 11/3	10	11/2	9	11/1	10	10/31	7	10/30	6	10/29	8	<p><b>CIVILITY</b></p> <p>Average Volume (db)</p> <p>TODAY - 70</p> <p>YESTERDAY - 68</p> <p>LAST WEEK - 72</p> <p>OVERALL - 70</p>
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<p><b>Figure 9</b></p>	<p><b>Figure 10</b></p>	<p><b>Figure 11</b></p>	<p><b>Figure 12</b></p>												
<p><b>CIVILITY</b></p> <p>you lost your cool</p> <p><b>6</b></p> <p>times today</p> <p>your average: 8 times / day</p> <p>⏸ ⚙</p>	<p><b>10:12</b> Oct 28</p> 	<p><b>10:12</b> Oct 28</p> <p>X</p>  <p>WPM</p>	<p><b>10:12</b> Oct 28</p> <p>X</p>  <p>OFF TOPIC</p>												
<p><b>Figure 13</b></p>	<p><b>Figure 14</b></p>	<p><b>Figure 15</b></p>	<p><b>Figure 16</b></p>												