

# **CS228: Human Computer Interaction**

## **Deliverable 9**

### **Description**

In this deliverable, you will incorporate three forms of scaffolding. The first will challenge the user to sign an increasing number of digits as their performance improves. The second will increasingly challenge the user to remember the gesture associated with a digit as they improve. The third will increasingly challenge the user to sign that gesture faster as they improve.

### **Instructions**

1. Now that you are recording performance data about your user, implement some scaffolding: your program's behavior should change as the user improves. It is up to you to decide (and implement) how your program should change. As a first step, the choice of which of the 10 digits to show next should no longer be random: what aspects of the user's performance should your program consult, and how will it use that information to determine which digit to show next?
2. Shoot a short video of this scaffolding in action. First, show yourself repeatedly failing to sign one (or more) of the digits. Then, sign those digits more successfully. Make sure the video demonstrates how your program changes its behavior as this change occurs.
3. Now, implement a second form of scaffolding: as the user becomes better, they should receive less support during the signing of a specific digit. For example, you may write the digit they must sign to the screen, as well as an image of the gesture corresponding to that digit. As the user becomes better, the image is flashed onto the screen for an increasingly short period of time. After they become sufficiently good, only the digit is written to the screen; the image is not shown at all. You may implement this kind of scaffolding, or a different way of forcing the user to remember the gesture on their own.
4. Again, shoot a short video demonstrating this scaffold.
5. Finally, reduce the time window that the user has to sign the appropriate gesture, according to their performance.
6. Shoot a video demonstrating this third form of scaffolding.
7. Upload the three videos to YouTube.
8. Stitch them together into a playlist.
9. Submit the playlist to BlackBoard.