

LAB 6: DESIGNING A VOICE INTERFACE BASED ON THE SOCIAL RESPONSES TO COMPUTER TECHNOLOGY LITERATURE

INFO 300 Intellectual Foundations of Informatics

GOALS

1. To apply research findings from the literature on social responses to computer technology to the design of an interface.
2. To gain experience with designing a voice interface including the development of a character, script and prototype.

OVERVIEW

In this lab, you will work in groups of 3-4 to design a voice interface for a car navigation system. In order to design your interface you will need to develop a character, script, and prototype to demonstrate its use.

HOW TO PROCEED

1. Form a group with 3-4 people and read over together the handout titled “Social Responses to Computer Technology Research Findings Relevant for Voice User Interfaces.”
2. Choose a context. You may develop your voice interface for the navigation system of a *minivan* or a *sports car*.
3. Identify your user. Once you have identified your context (e.g., a minivan or a sports car), consider what type of user you are likely to have. Who drives minivans? Who drives sports cars? Make a list of the type of individuals who are likely to be your users. For one or two of them, write a paragraph describing them in greater detail (e.g., for the minivan, a woman, aged 38 with three children ages 6, 3, and 1, living in the Eastside, typically driving the minivan to preschool and the market).
4. Develop a character. Taking your context into account and drawing on the social responses to computer technology literature, develop a character for your interface that makes sense for your anticipated users. You will need to specify characteristics such as gender, personality, accent or dialect, age, and background. Write a 1-2 paragraph description of your character in which you envision your character and how he or she behaves in different types of situations. Make a list of the types of language or phrases your character might say (for example, to convey an affirmative response, would your character tend to say: “Yeah”, “Yes Sir”, “Yes”, “Yep”, “Go for it!”, “That would be fine” or some other phrase).
5. Write the script. Now that you have chosen a context, identified typical users, and developed your character, you’re ready to write a script for your voice interface. Again, draw on the social responses to computer technology literature to guide your script development. The script should be specified completely – that is, you are writing a scenario for use to demonstrate how your voice interface will perform. You should also specify how the user will respond to the interface, so you can explore the back and forth interactions. At a minimum, your script must contain the following five elements:
 - a. Factual inquiry: A request and response for directions from point A to point B.
 - b. Warning about driving conditions: An unsolicited alert about a current or upcoming driving condition (e.g., “you’re approaching an elementary school where the speed limit is 20 miles per hour” or “your gas tank is less than one-quarter full and you are approaching a Shell gas station”).
 - c. Corrective information. An unsolicited remark about the need to change a current driving practice (e.g., “you’re driving 35 miles per hour faster than the speed limit”, “you’re parked within 3 feet of a fire hydrant”).
 - d. Reminder. A solicited reminder about some event (e.g., “You asked me to remind you when it was time to pick up the kids; it’s now 2:45 PM.”).
 - e. Chit Chat. Unsolicited conversation about “stuff” (e.g., “Great weather today – you might be able to see Rainier!”).

6. Audio record your script. Try to find someone in the class who has a voice somewhat similar to the voice you have specified for your character. Ask that person to help you record your script.
7. Prepare a 2-3 page write-up that includes (a) your context, (b) a description of your typical user, (c) a description of your character and a discussion of how your character is informed by the social responses to computer technology literature, (d) a copy of your script and a discussion of how your script was guided by the social responses to computer technology literature.
8. To save your audio recording, follow the directions on the handout "Using Sound Recorder."

WHAT TO TURN IN AT THE BEGINNING OF LAB NEXT WEEK

Turn in a copy (in paper form or by email) of your 2-3 page write-up. Write-ups may be done as a group or individually.