

## Appendix A, Volunteer Comments

This appendix is divided into two sections:

- Comments - First Round of Usability Tests
- Comments - Second Round of Usability Tests

### Comments - First Round of Usability Tests

Question to volunteers: What did you like best about the interactors?

Comments:

- They understood what I was saying pretty well, though there were parts when I had to repeat myself even if I was saying it correctly.
- Options were given singly, in a list, I did not have to give multiple answers, just ok or yes or no.
- Easy to understand. Prompt wording.
- The cheeky futuristic vibe of speaking to a computer.
- I like the speaking.
- They responded quickly, giving speedy feedback that it had heard and was doing something with the answer.
- Spoke clearly.
- They are audible.
- The voice sounds very human.
- The speed of the interaction was not too fast and not that slow.
- Instructions are given clearly, most of the time.
- It was familiar, like what I often encounter in my daily business. I liked the way this provided extra supports and cues to help you with answers.
- This worked well. As it went on some were difficult but at the end I caught on.
- Picking from multiple things and have them on a list.
- It was fun talking to the computer.
- Preferred those where I could enter my own choices, rather than waiting while a list was enumerated and responding ok.
- Written feedback.
- It was very patient! I liked most of the written directions were short and clear.
- For the most part, everything was easily understood and easy to accomplish.
- It was fine. Nothing stuck out in my mind as being great, but it is nice to be able to talk rather than just answer questions with the click of the mouse.
- Good directions about what to do, or what to expect during the process.
- Prompt for more time when making a decision.
- What are the interactors? I liked that the computer confirmed what was ordered on the lists of items.
- I liked that they repeated what I chose rather than just putting the answers in the boxes. It is nice to get verbal confirmation.
- The computer voice was easy to understand. The words were spoken clearly.

Question to volunteers: What did you like least about the interactors?

Comments:

- I had to repeat myself, and I had to talk very slowly and enunciated.
- I sometimes had trouble with the diction of the speaker, might have been my hearing. I had to concentrate all the time, if this had been a normal room with background noise; I think I would have had some trouble hearing correctly.
- The word "neh" in the 2nd fries questions. Was this supposed to be "no"?
- Having to wear a headset. The timing in the speech was off at times, and felt very un-natural. This made it difficult to know when to time my responses. Having to listen and say OK after the correct answer seemed in- practical, but being able to speak the direct destinations was nice. Also some of the instructions at the top of the screen contradicted the numbered steps, if that could be corrected the test would be slightly less confusing.
- The computer voice.
- Sometimes seemed pretty slow, and the requests didn't always match the options.
- They Are not human.
- I didn't know at first if I was supposed to wait for more choices if several were to be given. In other words, the pause was long between choices, so I wasn't sure if another option was coming.
- I was confused at first by the directions. It became clearer the further into the program I went.
- Some ambiguity on saying "Yes" or "ok" on some of the question options made it slightly confusing.
- It did not recognize my voice. When I gave an incorrect answer the program stopped and didn't continue list of options.
- When I said Neh, it didn't respond with anything and I didn't know what to do. Once, I said Juice and Soda popped up.
- Once the computer did not finish the task and I had to start the comment over. I was supposed to say OK after Paris Texas and the computer only said Paris France. Otherwise I was able to figure out the instructions in 2 tries or less.
- It did not pick up words the where not spoken clearly enough.
- Some of the commands were to fast.
- Occasionally my response came too quickly after the prompt and the program looped back to the question ... some folks will answer quickly just because that is natural (or they've become familiar with the program and know right away what's needed). Program should not treat responses from these folks as errors.
- Nothing.
- On a few tests the voice had a rather "gulpy sound" and this made some words difficult to understand.
- Terminology should be the same in the visual/screen as in the hearing e.g. city verses destination. Some of the earlier tests were a little fast for

comprehension and reaction. The computer voice was hollow sounding and took some getting used to. The voice recognition seemed at times to have trouble with recognizing vowels. Have you tested this with people with strong accents, e.g. southern?

- I did not dislike any part of it.
- The limitation of answers, sometimes I was not correctly recognized if I spoke too fast, or too slow. The program also skipped directions or steps a few times. I was also not too fond of the interactor voice.
- Somewhat slow asking for choices.
- Some times written instructions inconsistent with verbal instructions.
- They are a bit monotonous (which is to be expected). They are also a bit slow. Could a system be created that could mimic the humans response time? I have been frustrated with voice systems before (like Bank of Americas) because they seem to take longer than just punching or typing the information in.
- I didn't dislike anything.

Question to volunteers: What features would you like to see added?

Comments:

- I don't know.
- None that I can think of. It is good to have visual confirmation of what was said in the box. So no additions.
- A less disjointed voice.
- The timing of the speech to feel more natural, and to not have such a rushed feeling when answering questions (But that does not mean to slow down the rate of speech.) Having a practical interface to see how this technology could be applied would help knowing how I would actually want to time my answers and as to how fast the computer speaks to me.
- It seemed to be testing for predetermined answers. Nothing there gave any indication that it had to understand what it heard, just any response in the place. It also seemed to be mostly testing the words ok, yes, and no. Randomize the inputs and repeating the tests would be more satisfying. A reviewer likes to think they are giving the product a workout!
- Things are fine.
- Not sure.
- Laughter!!
- Unclear if the generated voice is necessary -- what would a completely recorded option with more human features do? Ultimately, the listener might find it more accessible.
- Text of what exactly will be asked and options that will be given.
- Where possible, avoid naming lists of choices for users to respond "ok" on their choices ... Id rather state "carrots, broccoli, eggplant" myself than wait thru a list until my choice(s) come up.
- It was fine.
- A female voice.
- Only having used this one time before, I can't think of anything. I do suggest

again testing with people having strong accents.

- I don't know.
- More visual stimuli, the ability to answer freely.
- Better voice model.
- I would like to hear the computer tell me what I selected via audio.
- Faster prompts
- More detailed choices.

Question to volunteers: Would you recommend using this interactor to a friend?

Comments:

- Maybe if they couldn't read or couldn't type very well.
- Yes.
- Unknown.
- At this current stage in its technology no.
- Yes.
- For what, exactly?
- I guess so but I'm not a travel agent.
- Yes.
- Yes.
- Yes.
- No.
- Sure.
- Using this program would make me grumble if I was trying to do it on a personal need. It is better than pushing "1 for..." 2 for..." etc.
- Yes.
- Yes.
- Yes.
- Not sure how I would use it.
- Yes, depending on the task to be accomplished.
- Probably.
- It would depend on what it was being used for; this seems to be very specific.
- Yes if needed.
- Perhaps.
- It would depend on how they would be using it.
- Yes!!

Question to volunteers: Do you have any comments or suggestions?

Comments:

- Just work out a couple bugs in some of the tests, other than that it works pretty well.
- Again, sometimes the voice was too soft. Otherwise, no suggestions.
- In one of the scales, the difficulty rating was transposed.
- The idea of having a hands free computer environment is something that I find

interesting, but more often than not it is usually more of a novelty than a practical mechanism. If you could lose the headset and have it that microphone could pick you up with.

- A wider variety of things to say, and places to say them.
- No.
- I think this is a great idea.
- It would be helpful to tell participants to follow the directions explicitly. The way the first sentence is often worded (You will be asked to tell your favorite city, for example) suggests the participant can give his or her own opinion.
- Possibly bold type or color type the specific words.
- Clarification of Yes or OK and some more work with false positive questions might improved the relevancy of this exercise.
- The program only recognized names of places. Simple commands like; yes, no, okay, it did not understand.
- Fries and travel question has conflicting directions (or maybe I'm just overheated and not understanding correctly.)
- No.
- Where would I use this?
- Fun.
- Terminology should be the same in the visual/screen as in the hearing e.g. city verses destination. Some of the earlier tests were a little fast for comprehension and reaction. The computer voice was hollow sounding and took some getting used to. The voice recognition seemed at times to have trouble with recognizing vowels. Have you tested this with people with strong accents, e.g. southern?
- No.
- Some of the wording on the directions is a bit confusing.
- I would keep response to "yes" or "no", dropping the "ok" response.
- Vegetables: instruct in numbered lines to say ok (tried to say vegetable names) no instruction to say yes when asked to select more vegetables. Also ran out of time to say yes. Meat and drink: did not register chicken. Written instruction to wait for example on drink prompt. Travel choices: instruct to say yes when asked for additional destinations.
- Once again, see above about speed and monotony. But I don't really have a good suggestion for making the interactors more interesting. I understand that a lot of people need repetition for consistency in their responses.
- The "fries"/"first class" set of choices required answers that did not correspond to the directions I was given. You may want to take a look at that.

### **Comments - Second Round of Usability Tests**

Instructions to volunteers: If you have anything else to say about our program, please comment in the box below. The comments may include: what you liked best, least, desired features, suggestions, and etc.

Comments:

- This is a pretty easy system to learn and the instructions are quite clear. I found the voice easy to understand and I think the pace is slow enough for those who might not understand English well enough yet still fast enough for those who are native speakers.
- Recruit a lot of elderly people (or should that be honored citizens?) to gauge how easy the program is. Young and middle-aged people don't seem to have problems with telephone prompts. I was impressed at how the program was able to filter out the word "and."
- Good luck! Thanks for letting me participate.
- This is a nice program...Keep up the work!!!
- The voice was annoying.
- It was very useful to have the comment box at the end of each test. I didn't feel like I did as well with the responses and using the program as I did the first time.
- I didn't like having to listen to a list of items when I can just say what I want. Overall the program was much easier to use than last time.
- On the whole, I found it difficult to remember the instructions, and I found the whole process frustrating and one I would not want to repeat!
- I like that the program seems to be a little faster now. Listening to the list and not just being able to say the word is what I like least. Lists as an option are nice, but not as something you have to sit through if you don't want or need to.
- Sometimes I am a little too slow on the uptake, but I am not the most computer-savvy fellow on the block.
- Good luck. Very interesting. Sounds like the program could be very useful to people with disabilities.
- I liked the help feature that was available from some of the tests. I also like that you could choose whether you wanted to speak your choices or choose them from a list. This is close to how a live conversation would function. This program is one I could see in widespread use, especially with hands-free cell phone users who don't want to dial in numbers to choose options.
- Voice is easy to understand and not too annoying. On multiple choices it was somewhat confusing to have the machine keep talking after I had made the correct choices.
- This is interesting, but I still like talking to real people.
- Everything was pretty much o.k. It was difficult to tell when the voice recognition box (the moving graph) was active as it kept coming up under the pointer arrow.