Social Acceptability and Usefulness Experiment Information

This Experiment is part of Robbie Thomson's 4th Year Computing Science project at the University of Glasgow, which is investigating the relationship between social acceptability and the perceived usefulness of new interaction techniques. I hypothesis that if a novel interaction method is perceived to be more effort than what it's worth then people will see it as more acceptable to use the standard method of interaction.

Social acceptability is the extent to which you find an action acceptable in a certain context. Your choice of action may also be dependent on available alternative actions and their perceived acceptableness in similar circumstances. In simpler terms, this is how you decide if an action conforms to social norms or would be seen as "unusual" or "unacceptable" in a certain context.

This Process will require you to initially complete a short survey followed by installing an Android Application that I have created called Motion Music. This is a simple Music Player app which makes use of Motion and Mid-Air Gestures for various functions described later in the document. You are asked to casually make use of this app over the space of a week. This can be as frequently or for as long as you please, but it is hoped that you use it for a short time at least once a day, however this is not required.

Following this you will complete three additional short surveys. One after a single day of use, another after 3 days of use and a final survey after the full week of use. These will assess how frequently you use the app and your use and opinions on the features of the app. To do this it may be best to take notice and possibly record your usage to ensure you can answer these surveys in the most effective way.

Throughout these surveys you will be asked to enter a pseudonym so that your surveys responses can be linked to each other. This can be a random word, number or sequence that you will remember as you will need to provide it in all surveys. To ensure anonymity please do not make this your name, email, username, password or similar yet still obscure enough that it is unlikely other participants will choose the same pseudonym. Eg Lemon721

It is hypothesised that initially the use of the Novel Interaction will become more instinctive as the week passes and therefore become easier to use. Since it may no longer be a conscious decision to use of the Gestures it may be concluded that it will become more acceptable to use in more social situations than it may not have been prior to the use throughout the week.

No personal information will be gathered, and your participation is completely anonymous. You may choose to withdraw or stop at any time. If you choose to do so, contact either person below and all data associated with you (i.e. Survey Responses) will be deleted and removed from the study.

If you have any further questions about the survey, please contact me:

(Robbie Thomson, 2314819t@student.gla.ac.uk)

or my supervisor:

(Euan Freeman, euan.freeman@glasgow.ac.uk).

Motion Music Install Instructions

If there are any issues, or if you do not understand something, for assistance, please contact 2314819t@studentgla.ac.uk. Remember you may also choose to stop taking part at any time.

Step 1 – Enter Developer Mode

Many manufacturers vary how you can enter Developer Mode on various devices. If these steps do not apply to your device simply make a google search as follows and follow the instructions, alternatively you can tell me what device you have, and I can find how to and provide you with instructions:

Android Developer mode *Your Phone Manufacturer and model*

E.g Android Developer mode Google Pixel 4a

Step 1.1 – Enter Phone Settings

Step 1.2 – Go to System Setting section

Step 1.3 – Go to About Phone (generally at the bottom of the list in settings)

Step 1.4 – Tap Build Number Several Times (This may ask you to enter the pin to unlock your device)

Step 2 – Download Music

This step is optional if you already have Music files downloaded to your device, this does not include Spotify, apple music or any other streaming platforms music.

You can either follow these instructions to download up to 6 songs or you can find your own. They must have either .mp4 or .wav file types and you can same them anywhere in your phone's storage.

Step 2.1 – Go to: https://www.dropbox.com/sh/0n7o4a23cfbt6pd/AABckUUil536GPeaAlxFOj8ea?dl=0

Step 2.2 – Select the Files you would like.

Step 2.3 – Select Download / Save to Device

Step 3 – Install the App

The app will be installed via a .apk file, not via the google play store. Permissions on your device may vary for this type of download. If these instructions are not clear or do not seem to work, please contact me and I can assist you through the process.

Step 3.1 – Enter Phone Settings

Step 3.2 – Search for Install apps from external sources (this is often under Security > More settings

Step 3.3 – Find Dropbox in the list of Apps, or your favoured browser if you do not have the Dropbox app

Step 3.4 – Switch to Allow app installs.

Step 3.5 – Open:https://www.dropbox.com/s/5vgh0wy4oeg240g/MotionMusic.apk?dl=0

Step 3.6 – Select Download / Save to Device

Step 3.7 – You may be prompted that this is not the usual place app installs happen from, allow these and select install.

Step 3.8 – Once Install is complete, in settings, again search for Install apps from external sources and find the app you allowed this for and revert it to the default.

Motion Music Usage Details

The app has 3 main pages; the Calibration page which you will come across when you open the app to ensure the phone sensors are calibrated, the Song list Page to display all available songs stores on your phone that the app can play, and the Player page which will be displayed when you start playing a song. Take note that if you leave the Player page.

Calibration

When you open the app, you will be presented will a calibration page, on this page, shake your device a comfortable amount and then press calibrate. Simply, this sets the sensors to understand what constitutes a shake on your device.

Song List

You will then be shown a list of all music files on your phone. You may choose to select any song on this list or choose to press the shuffle where a random song will be played from the list. You may also choose to shake your device to play a random song. This is done by reading the devices accelerometer data, make the best use out of this shake it a similar way you did when calibrating.

Player

When a song is playing you can do the expected of button presses to pause, play, skip and play the previous song in the list. As well as this, there is the opportunity to put your hand over the front of the device to pause/play the current song. This is done by reading the proximity sensor data. This is usually next to the front-facing camera so you can make the best use out of this feature by directing your hand over this area, about an inch away from the device.