

## Participant Information Sheet

As on 14<sup>th</sup> December 2020

**Project title:** Vibration-based communication for the deafblind.

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You are invited to take part in a study that I am conducting as part of my Undergraduate Dissertation Project.

This study has received ethical approval from the Durham University department of Computer Science Ethic's committee.

Before you decide whether to agree to take part it is important for you to understand the purpose of the research and what is involved as a participant. Please read the following information carefully. Please get in contact if there is anything that is not clear or if you would like more information.

The rights and responsibilities of anyone taking part in Durham University research are set out in our 'Participants Charter':

<https://www.dur.ac.uk/research.innovation/governance/ethics/considerations/people/charter/>

### **What is the purpose of the study?**

The aim of this study is to develop a system for Android phones that enables deafblind persons to communicate remotely – with one another and with sighted persons. This system will use the capacity of all modern phones to vibrate in order to convey messages to the user. The study will, in its first phase, assess how deafblind persons can learn to use vibrotactile input and output, and in its second phase assess specifically the application of this technology to messaging. The study will end in March 2021.

### **Why have I been invited to take part?**

You have been invited because you are a person who has both visual and auditory impairments. This means you are uniquely relevant to assessing what challenges other people in your situation might face when learning to use the system being developed.

### **Do I have to take part?**

Your participation is voluntary and you do not have to agree to take part. If you do agree to take part, you can withdraw at any time, without giving a reason. Your rights in relation to withdrawing any data that is identifiable to you are explained in the accompanying Privacy Notice.

### **What will happen to me if I take part?**

If you agree to take part in the study, you will be asked to:

- Participate in an interview about your previous experiences with assistive technology and communication (or fill a questionnaire, if you are unavailable or prefer not to be interviewed).
- Participate in an experiment in which you are asked to perform tasks using a system on an Android phone. You may be asked, for instance, to input words into the phone

using the system, or to recognize words the system is vibrating. This should take no more than an hour, though you may choose to repeat the experiment if you wish.

- Participate in a second interview about this experiment. This should be shorter than the first interview (about half an hour).
- Participate in a second experiment in which you are asked to use the system to exchange messages with the researcher. This will be to assess how useable the system is for communicating, as opposed to simply, reading and writing text.
- Participate in a final interview about the system and your impressions of it. This should again take no more than an hour.

For every interview/questionnaire, you may omit any question you do not wish to answer.

### **Are there any potential risks involved?**

- We do not expect any risks are involved in taking part in the study.
- The benefit of taking part is that by the end of the study, you should be able to use the system to communicate with anyone who has an Android or iOS phone with the Signal messenger app installed.

### **Will my data be kept confidential?**

All information obtained during the study will be kept confidential. If the data is published it will be entirely anonymous and will not be identifiable as yours. You can, if you wish, allow us to publish direct quotes from you and still images of you using the system in the consent form, but you do not have to consent to this in order to participate in the study.

Full details are included in the accompanying Privacy Notice.

### **What will happen to the results of the project?**

- The project results will be a part of my final year dissertation. This will be submitted to the Department of Computer Science. It is also possible that it will be submitted for publication. In the event that it is, you will be asked before any references to you are included (e.g. if you consented to being directly quoted for the dissertation, you will be asked if you wish to withdraw that consent for the published version of the final paper).
- Your data will be kept in pseudoanonymized form for 2 years after the end of the study. You may at any point request that your data be deleted. If you request this before the end of the study, data associated with you can also be removed from the paper itself.
- All research data and records needed to validate the research findings will be stored for 2 years after the end of the project.

Durham University is committed to sharing the results of its world-class research for public benefit. As part of this commitment the University has established an online repository for all Durham University Higher Degree theses which provides access to the full text of freely available theses. The study in which you are invited to participate will be written up as a thesis. On successful submission of the thesis, it will be deposited both in print and online in the University archives, to facilitate its use in future research. The thesis will be published open access.

### **Who do I contact if I have any questions or concerns about this study?**

If you have any further questions or concerns about this study, please speak to the researcher or their supervisor. If you remain unhappy or wish to make a formal complaint, please submit a complaint via the University's [Complaints Process](#).

Thank you for reading this information and considering taking part in this study.