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Ethics program type: **Undergraduate** Requested start date: **23/08/2021** Requested end date: **23/12/2021** 

Protocol title: Sensible application user testing

### **Investigators**

Name	Role	Department
Carden, Madeleine	Primary investigator	School of Computing, CECS School of Computing, ANU
Suominen, Hanna	Supervisor	School of Computing, CECS School of Computing, ANU

## **Investigators Detailed**

Name: Carden, Madeleine Role: Primary investigator

**Expertise:** ANU Software Engineering Student in the final year of my degree. Part of the development team for the Sensible application. I have conducted user testing on other applications in the past.

Name: Suominen, Hanna Role: Supervisor

**Expertise:** MSc (Applied Mathematics), PhD (Computer Science). Team Leader, Theory and Applications in Multimodal Pattern Analysis (TAMPA) within Machine Learning, Data61, CSIRO. Has been a supervisor for research projects in the past.

## **External Investigators**

I	Name	Role	Institution
I			

## **Departments**

Primary	Department	Faculty	
Yes	School of Computing	CECS School of Computing	

## **Project Questions Detailed**

## **Description of Project**

Describe the research project in terms easily understood by a lay reader, using simple and non-technical language. The Sensible project is a mobile phone application that is being developed to collect data from the sensors on a mobile phone. These sensors include the accelerometer (a device for collecting movement) and the microphone (a device for collecting audio). The application allows you to record data from these sensors and graph it in real-time. It also gives you the ability to add labels to this data in real-time to record the activity you are undertaking while using the application and export the data you have collected. The purpose of building this application is to give researchers a tool that can be used by any person who has a smartphone and wants to assist in the collection of data for machine learning projects.

The goal of this user testing is to determine if the Sensible application is intuitive and gain information about how we can modify the application to improve usability and user satisfaction.

**Location of Data Collection** 

Australia Yes

Overseas No.

Provide country / area where data collection will be conducted

### Aims of the Project

**List the hypothesis and objectives of your research project.** The data collected from undertaking this user testing will be used to make changes to the Sensible application, to improve usability and user satisfaction.

#### Methodology

In language appropriate for a lay reader, explain why the methodological approach

minimises the risk to participants. (For surveys, include justification of the sample size). We are recruiting any participants who are willing to assist us with our user testing and aim to have participants from a variety of age groups. We aim to involve a minimum of 10 participants in this study and no more than 50. We will get users to follow a set of tasks, with the aim being to demonstrate and measure how easy and intuitive it is for them to follow and interact with our system. These tests will be performed on a test mobile device, owned by the development team or on their own device if over Zoom.

Provide the survey method, a list of the questions to be asked or an indicative sample of questions. These should give a good sense of the most intrusive/sensitive areas of questioning. The set of tasks we will get participants to accomplish are (in order):

- Open the application
- Press the button to open the New Recording screen
- Add some sensors (accelerometer, microphone) to the recording
- Add a label named slow walk to the recording
- Add a label named fast walk to the recording
- Start the recording
- Select the slow walk label and slowly walk around the room
- Select the fast walk label and walk briskly around the room
- Deactivate the label
- Switch the active sensor to the microphone
- Test the microphone by speaking into the phone
- Finish the recording
- Find the recording on the home screen
- Export the recording

And then we will ask them to complete the following survey:

- How would you rate the looks/design of our application out of 10 and what do you think could be improved in the looks/design of our application?
- How would you rate how easy it was to complete the tasks out of 10 and what do you think could be improved in how easy it was to complete tasks?
- How would you rate our application on the whole out of 10 and what do you think could be improved in our application on the whole?
- Do you have any remaining comments/things you want to say?

What mechanisms do the researchers intend to implement to monitor the conduct and progress of the research project? For example:

How often will the researcher be in touch with the supervisor? Is data collection going as expected? If not, what will the researcher do? Is the recruitment process effective?

How will the researcher monitor participants' willingness to continue participation in the research project, particularly when the research is ongoing? The testers conduct a weekly meeting with the supervisor and communicate regularly via email. If data collection isn't going as expected, the testers will notify the supervisor and complete the testing where possible.

During a test session with a participant, notes will be taken on how they perform tasks, in the interest of bettering the application. These notes may take on the form such as User found it hard to find the Add Recording button, make it more obvious. Testers will be recruited by the Sensible development team through the ANU, seeking both staff and student participation.

A participant may withdraw from the study at any time and for any reason or no reason. They

must tell the testers that they wish to withdraw from the study. Information that has been collected about them, prior to their withdrawal, will continue to be used in the data analysis, however, they can request that we not use this data. No new information will be collected or used after they have withdrawn from the study.

#### **Participants**

Provide details in relation to the potential participant pool, including:

target participant group; identification of potential participants; initial contact method, and

**recruitment method.** We are recruiting any participants who are willing to assist us with our user testing and aim to have participants from a variety of age groups. We aim to involve a minimum of 10 participants in this study and no more than 50. We expect that the participant owns a smartphone and if testing cant be completed in person due to COVID restrictions, the participants know how to use Zoom.

Participants will be initially contacted via their ANU email and will be recruited based on their willingness to participate.

#### **Proposed number of participants 20**

**Provide details as to why these participants have been chosen?** We believe participants who are associated with the ANU will be more willing to participate in this study as they are interested in assisting their colleagues with user testing.

#### **Cultural and Social Considerations/Sensitivities**

What cultural and/or social considerations/sensitivities are relevant to the participants in this research project? All participants will be proficient in English and the testing will only require the user to know how to use a smartphone.

#### Incentives

Will participants be paid or any incentives offered? If so, provide justification and details. It is unlikely that users will personally benefit from participating in this user testing.

#### **Benefits**

What are the anticipated benefits of the research? We expect that this user testing will improve the accessibility of the Sensible application and we hope in the future it will be useful for machine learning research

**To whom will the benefits flow?** The research will benefit the Sensible development team and any future users of the application.

#### **Informed Consent**

Indicate how informed consent will be obtained from participants. At least one of the following boxes MUST be ticked 'Yes'.

Return of survey or questionnaire Yes
Orally No
Other No

If Oral Consent or Other, provide details.

### Confidentiality

In writing Yes

Describe the procedures that will be adopted to ensure confidentiality during the collection phase and in the publication of results. Only the testers will know whether or not participants are participating in this study. Any identifiable information that is collected about them in connection with this study will remain confidential and will be disclosed only with their permission, or except as required by law.

#### **Data Storage Procedures**

Provide an overview of the data storage procedures for the research. Include security measures and duration of storage. The results of this user testing will be added to the Sensible teams open-source Gitlab page to share with their client and assessors as part of the ANU Techlauncher program. No identifying information will be released publicly to protect their confidentiality as far as the law allows. Data will be retained for at least 1 year. The data will remain in its de-identified format after this time.

#### **Feedback**

Provide details of how the results of the research will be reported / disseminated, including the appropriate provision of results to participants. If appropriate, provide details of any planned debriefing of participants. The results of this user testing will be added to the Sensible teams open-source Gitlab page to share with their client and assessors as part of the ANU Techlauncher program. Participants can access the results from this Gitlab.

### **Supporting Documentation**

Have you uploaded all relevant supporting documentation, such as Participant Information Sheet and/or consent form, to the documents tab?
Yes

Has this work been approved by another Human Research Ethics Committee (HREC)? No

If yes, please give the name of the approving HREC. You will also need to include a copy of the approval letter in your application and also upload an electronic copy to the Documents tab.

#### **Funding**

Is this research supported by external funding? No

Provide the name/s of the external sources of funding. Please include grant number/s if available.

Is the research conducted under the terms of a contract of consultancy agreement between the ANU and the funding source? No

Describe all the contractual rights of the funding source that relate to the ethical consideration of the research.

**High Risk One Summary** 

Question	Answer
Is this a clinical trial?	No
Does this research involve the intentional recruitment or issues involving Aboriginal and / or Torres Strait Islander Peoples?	No

**High Risk Two Summary** 

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Question	Answer
Does this research involve Human Genetics?	No
Does this research involve Human Stem Cells?	No
Does this research involve Women who are pregnant and the Human Foetus?	No
Does the research involve people highly dependent on medical care who may be unable to give consent?	No
Does the research involve people with a cognitive impairment, an intellectual disability or a mental illness?	No
Does this research involve an intention to study or expose or is likely to discover illegal activity?	No
Does this research involve human gametes (eggs or sperm)?	No
Does this research involve excess ART embryos?	No

**Expedited Questions Summary** 

Expedited Questions Summary		
Question	Answer	
Third Party Identification	No	
Children or Young People	No	
Dependent or Unequal Relationship	No	
Membership of a Group, or Related Issues	No	
Physical Harm	No	
Psychological Harm (includes Devaluation of Personal Worth)	No	
Social Harm	No	
Economic Harm	No	
Legal Harm	No	
Covert Observation	No	
Deception	No	
Sensitive Personal Information	No	

Question	Answer
Overseas Research	No
Secondary Data	No
Collection, use or disclosure of personal information WITHOUT the consent of the participant	No

## **Supporting Documentation**

Please ensure electronic copies of the supporting documentation have been uploaded into the documents tab of your protocol

These may include (please circle the relevant answer):

List of indicative questions	Y/N
Copy of questionnaire / survey	Y/N
Invitation or introductory letter/s	Y/N
Publicity material (posters etc.)	Y/N
Information sheet	Y/N
Consent form	Y/N
External approval documentation	Y/N
Research visa (if applicable)	Y/N
Other (specify below)	Y/N

For other, please specify:

#### SIGNATURES AND UNDERTAKINGS

#### PROPOSER OF THE RESEARCH

Signod:

I certify that all the persons listed in this protocol have been fully briefed on appropriate procedures and in particular that they have read and are familiar with the national guidelines issued by the National Health and Medical Research Council (the National Statement on Ethical Conduct in Human Research 2007).

I certify that the above is as accurate a description of my research proposal as possible and that the research will be conducted in accordance with the National Statement on Ethical Conduct in Human Research 2007. I also agree to adhere to the conditions of approval stipulated by the ANU Human Research Ethics Committee (HREC) and will cooperate with HREC monitoring requirements. I agree to notify the Committee in writing immediately of any significant departures from this protocol and will not continue the research if ethical approval is withdrawn and will comply with any special conditions required by the HREC.

Data:

oignea	Date
ANU SUPERVISOR	
l certify that I shall provide appropriate project is undertaken in accordance wi	supervision to the student to ensure that the the undertakings above:
Signed: Da	ate:

AS FROM MONDAY 21ST OCTOBER 2013 THE SIGNATURE OF THE HEAD OF ANU DEPARTMENT/GROUP/CENTRE IS NO LONGER REQUIRED.