

EXPLANATORY STATEMENT

Project title: Evaluating adaptive user interfaces for chronic disease applications

MUHREC No: 43895

Investigators

Chief Investigator: Prof John Grundy, Faculty of Information Technology, Monash University, Australia, john.grundy@monash.edu.

Co-investigators:

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You are invited to take part in this study. Please read this Explanatory Statement in full before deciding whether or not to participate in this research. If you would like further information regarding any aspect of this project, you are encouraged to contact the researchers via the email address listed above

This study is conducted as a part of PhD project at the HumaniSE Lab, Faculty of Information Technology, Monash University, Australia.

This research is funded by the **Australian Research Council Australian Laureate Fellowship (FL190100035)**.

What does the research involve?

Adaptive user interfaces are software applications where some aspect(s) of the interface is modified to cater for different user needs and/or preferences e.g. font or button size, colour, layout, complexity, interaction style and so on. We are researching how adaptive user interfaces can be leveraged to better cater for users with chronic diseases. Chronic diseases have become one of the biggest challenges facing the healthcare system. mHealth technologies have been increasingly used to foster proactive self-management skills for individuals with chronic diseases. However, it is challenging to provide each user with their desired support due to the dynamic and diverse nature and impacts of each chronic disease. In this context, we see the adaptive user interface as an effective instrument for getting users continuously engaged and active, eventually leading to better physical and mental conditions.

The study will be conducted in two parallel steps: we will conduct a survey of discrete choice experiments (DCE) to explore what factors will affect user's preference for different designs of adaptation in the mHealth applications. The target audience of this DCE survey will be individuals who use chronic disease related

applications. The DCE survey has a total of 19 questions distributed in four different sections and takes about 10-15 mins to complete.

Meanwhile, we will conduct the interview study. Participants will have the chance to play with both two versions of the applications. One version is the non-adaptive app, while the other is the adaptive app. After the interview, participants will be asked to finish a short post-session survey.

Interview sessions will be held in-person/virtually (zoom) at times that suit our participants. The user will **not be required to show their face** during the Zoom call. The duration of each interview session will last for **40-60 minutes**.

Direct but anonymous quotes expressed in your Zoom session/offline session or from your survey may be used in our resulting paper for discussion purposes.

Why am I being invited to participate in this study?

You have been informed about this study, either via our email, advertisement on social media or as a personal contact to one of our research team members. You are being invited because you indicated you use the mHealth applications regularly to cope with chronic disease conditions or prevent chronic disease. Your input in this study will help improve the way such applications are delivered and consumed by end users. In the long term, participants will benefit from the software development teams to build an adaptive user interface that caters to the diverse and dynamic needs of users.

Consenting to participate in the project and withdrawing from the research

You will be provided with this explanatory statement and a statement of consent at the start of the online survey. For participants who register for the interview study, an Explanatory Statement and consent form will first be emailed to them. To consent to this project, you must first read and understand this explanatory statement. Then you must read and complete the Consent form as well. You retain the right to withdraw this consent up to thirty (30) days following the conclusion of the interview session, without giving a reason, and any data collected will be removed from the study and deleted.

Possible benefits and risks to participants

For the interview, we will reimburse each participant with a \$30 voucher. The vouchers are a token of appreciation and will be handed out to the participants at the end of the interview session they attend.

There are no perceived harmful risks to participants involved in the study. Participation is voluntary and the participants are free to withdraw at any time. All participants will be adults who are able to consent for themselves. Participants will be informed that the collected data will not be used to profile them or to measure their performances. We do not expect any of our research activities to cause stress, emotional and otherwise, or harm to the participants. Participants will not have to reveal information that they are uncomfortable with.

Confidentiality

The DCE survey will not ask for any identifying information. The survey data will be stored and retained by the researchers only and will not be shared with any third party. The interview registration form will ask for your name and email address if you are interested in the interview study. The registration data will be stored and retained by the researchers only and will not be shared with any third party. The audio recording of the interview study will be done with your permission, otherwise, the monitoring researcher will take notes instead during the interview study. Information collected during the interview will only be accessible by the

investigators of this research and any personal information will not be shared outside the group. All the information collected during the interview sessions will be de-identified (especially audio recordings, notes/sketches) and processed in an anonymised fashion. Otter.ai (online transcription tool) will be used for transcribing audio recordings from our interview sessions due to its strong commitment to data security and privacy. Otter.ai is compliant with the General Data Protection Regulation (GDPR), ensuring adherence to strict data protection standards. Furthermore, it has been independently audited and awarded a SOC 2 certification, which verifies that Otter.ai maintains high levels of security and privacy in its operations, as evaluated over time by an external auditor. Additionally, as the session will only be audio recorded in an anonymised fashion, it is impossible for Otter.ai to identify individual participants. Personally identifiable information collected with the Consent Form may also be made available to Monash Finance if requested for audit purposes.

Storage, Retention, Destruction and Future Use of Data

The survey data will be stored securely in a Google Drive and researchers' computers during different phases of data collection, analysis and write-up. All of these systems and computers are protected by passwords and cannot be accessed by others. Survey data will be destroyed five years past the study.

Secondly, a third-party commercial online transcription service such as Otter.ai, Dovetail or Nvivo will be used to transcribe and process the audio recordings of interview sessions. The named commercial services adhere to strict data security and privacy policies including server-side encryption and data encrypted in transit to/from their servers. However, we will not enable the "Otter Assistant" during Zoom sessions. The recorded audio will be manually uploaded to Otter.ai. Since the session will only be audio recorded in an anonymized manner, Otter.ai cannot identify individual participants. Moreover, any of the audio recordings uploaded to the online transcription tool Otter.ai will be deleted from the platform as soon as the transcription process is successfully completed. The Otter.ai service will then permanently delete the audio files and their text transcriptions.

Use of data for other purposes

The data collected during this research may be used for future related studies by the investigators. If data is reused, it will still be in anonymised form and covered by ethics approvals of those future projects.

Results

The results of this study may be published in peer-reviewed academic conferences and/or journals and may be summarised at relevant industry workshops. A research report will also be available to participants upon request.

Complaints

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics Committee (MUHREC):

Executive Monash University Room 111, 26 Sports Research Monash University VIC 3800	Human Research Chancellery Walk, Clayton	Ethics Committee Building Clayton	Officer (MUHREC) D, Campus Office
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Thank you,

John Grundy