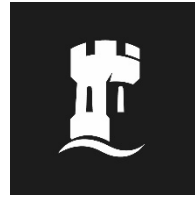


PROJECT INFORMATION



University of
Nottingham
UK | CHINA | MALAYSIA

Date: 12/06/2020

Project: Low Density Data Collection

School of Computer Science Ethics Reference: [CS-2019-R13]

Funded by: Horizon CDT, Mixed Reality Laboratory

We would like to invite you to take part in our research study. Before you decide whether to participate, we would like you to understand why the research is being done and what it would involve for you. One of our team will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish. Ask us if there is anything that is not clear.

What is the purpose of the study?

This research project aims to investigate individual variations of mental workload levels in daily life, how mental workload is considered, and what consequences tracking mental workload might have, what impact this may have, and the individual experiences of this.

Why have I been invited?

You are being invited to take part because you are considered to represent a profile which might have use in the future for a device that could track brain activity, like a Fitbit. We are inviting 20 participants like you to take part.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time and without giving a reason. This would not affect your legal rights.

What will happen to me if I take part?

You will be required to be a participant in the study for 5 full days. Throughout this time, you will be asked to continue with your activities as normal with the addition of completing certain measures and allowing further measures to be taken from you. Before beginning the study, you will be asked to prepare for the data collection by reading a pre-study preparation sheet. At a specified time the week following the data collection, you will be asked to take part in a post-study interview. Each measure is outlined below; for the measures that you need to install, you will be guided through how to do this:

Mobile application: We will ask you to install a file onto your phone that includes an application that is not commercially available. Every 1 hour outside of working hours, and every 30 minutes during working hours, you will be asked to answer 3 questions through a mobile application; a notification will alert you when your responses are due. Each question will require one button click and should only take about 10 seconds to complete. At the same time, a final question will ask you to complete a brief text summary of the activity/activities you have participated in since the last input; if there is information that you do not wish to share, please mention that you are

withholding information, or provide the nature of the information you do not wish to share. You are encouraged to complete these questions as soon as you are alerted, but the time for the next notification will begin after your last completion. You should activate the app when you wake up each day and deactivate it before going to sleep; compliance scores will only be counted during waking hours, and the practicalities sheet will detail how to activate and deactivate the app.

Evening Questionnaires: Each evening you will be asked to complete a further 7 questionnaires. These questionnaires should be completed using Microsoft Word and should take approximately 15 minutes to complete. The questionnaires will regard your stress level, sleep, fatigue, mood, food craving, food intake, and alcohol consumption. You will be asked to complete them at approximately the same time each evening – this should be *after* your evening meal, and preferably close to bedtime. We will also ask you to complete a personality and personal information questionnaire, but this will only need to be completed once. If possible, the sleep questionnaire should be started on Tuesday (at any time convenient for you) and the last entry should be on Saturday, so there is data from Monday-Friday on your sleep; it might be convenient to complete the last sleep entry on Saturday when uninstalling the software.

Online activity: We will ask you to install an application called DeskTime onto your computer. This will track your online activity. The application will be able to track which websites and programmes you are using, including the website or document titles, what time you are using them, and how long you are using them for. The application will not be able to track the content of what is on your screen; this information will only be accessible to you. If you wish to stop your online activity from being tracked at any time or remove any data, you will be provided with information about how to do this.

Phone activity: We will also ask you to install an application called RescueTime on your personal mobile device. The application will track what applications you are using, and what time and for how long you are using them for. RescueTime will not track what you are doing on the applications (e.g. which websites you are using); it will simply track what applications are open. If you wish to stop this activity being tracked at any time or remove any data, you will be provided with information about how to do this.

Calendar: you will be asked to provide your schedule for the 5 days of data collection, in any form. You are not required to provide any sensitive information; if there is information that you do not wish to share you may leave the space blank in your schedule, or provide the nature of the information, e.g. 'sensitive meeting'.

Post study interview: The interview may take up to 2 hours and will be taken via video call. In order to analyse the interview, it will be recorded.

Expenses and payments

You will be offered £75 to participate in the study. With satisfactory participation in the study, the amount will be increased to £100. Participation will be considered satisfactory if all evening questionnaires are completed, and there is at least an 80% response rate to the mobile application questions.

What are the possible disadvantages and risks of taking part?

Your safety and confidentiality are of the utmost importance to us, and these will not be compromised through your participation in this study. However, a possible disadvantage of participation may include the disruption of your activity when required to complete the mobile questions; whilst we have tried to make this measure as least intrusive as we can, it will still require input that is separate to your current activity.

What are the possible benefits of taking part?

We cannot promise the study will help you but the information we get from this study may help progress research into gaining a much deeper understanding of mental workload in an everyday context and identifying which measures can be used to capture mental workload levels in daily life.

What happens when the research study stops?

You will be able to return to your routine without any further requirements from the experimenters. You will always be welcome to contact the research team if you have any further queries after the study has ended. After the end of the study, the research team will spend time analysing the data that you have helped provide in order to answer our research questions. All of this data will be stored securely, remaining available to the research team for up to 10 years before being deleted. Data in which you cannot be identified from, such as digitalised questionnaire responses, may be made available on the University research dataset archive.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions. The researchers contact details are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you can do this by the University.

Will my taking part in the study be kept confidential?

Your participation in the study will be kept strictly confidential before, during, and after data collection. Your personal data will be protected in line with the General Data Protection Regulation (GDPR) and the Data Protection Act 2018; further information about this is provided on a separate sheet. Please be assured that your data will be anonymised and you will not be identifiable in any data, analyses, or publications, and any data in which you may be identifiable (e.g. audio recordings) will only be accessible to the experimenters. We will follow ethical and legal practice and all information about you will be handled in confidence.

All data collected from you will comply with the GDPR guidelines. This includes DeskTime and RescueTime; the experimenters will delete your accounts for these applications after data analysis which will remove your data from their databases.

Please note that the experimenters have a duty of care and are obligated to act accordingly if any data collected indicates endangerment to the health or life of yourself or others, or indicates a criminal act. If this is the case, protocol will be first for the researcher to discuss the data with a senior member of the research team. For this study, if questionnaire data indicates excessive alcohol consumption, the researcher would discuss the findings with you and provide guidance on where to seek help. If the questionnaire data or online activity data indicates a clinically relevant low mood, the researcher would discuss the data with you and provide guidance on where to seek help, unless this is deemed to be more harmful to you. In this case, the researcher may raise their concern about you directly with a mental health professional. Although the data collected is unlikely to identify criminal activity, if contacted by authorities about the data then we shall cooperate.

What will happen if I don't want to carry on with the study?

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw then the information collected so far may still be used in the project analysis unless specifically requested otherwise. Once data analysis has started and your data has been anonymised, you can no longer withdraw your participation.

What will happen to the results of the research study?

The results of the research will be used as the basis for a PhD thesis submitted in 2021. The results are also likely to be published in conference papers and/or journal articles, and be discussed in research activities, such as presentations.

Who is organising and funding the research?

The research is being organised by the University of Nottingham and is being funded by the Horizon CDT and Mixed Reality Laboratory based in the School of Computer Science.

Who has reviewed the study?

All proposed research in the University is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and approved by the School of Computer Science Research Ethics Committee in the University of Nottingham.

Further information and contact details

If you have any further queries, please do not hesitate to contact the research team:

Serena Midha: serena.midha@nottingham.ac.uk

Dr Max L. Wilson: max.wilson@nottingham.ac.uk

Dr Horia Maior: horia.maior@nottingham.ac.uk

Contact details of the ethics committee.

If you wish to file a complaint or exercise your rights you can contact the Ethics Committee at the following address: cs-ethicsadmin@cs.nott.ac.uk