

# PROJECT INFORMATION



University of  
**Nottingham**  
UK | CHINA | MALAYSIA

**Date:** 21<sup>st</sup> January 2022

**Project:** 'Think Aloud' Walking Engagement Study

**Funded by:** Horizon CDT

## **Purpose of the research.**

The purpose of this research is to capture rich information regarding how people use leisure walking routes and their engagement with places of interest. The research aims to gather and analyse information relating to (1) the choices participants make while using leisure walking routes (e.g. choice of routes, navigation), (2) thoughts on places of interest and paths, and (3) what engagements occur while walking. This research project is part of a larger PhD study exploring how leisure-based walkers interact with places of interest and understanding active travel experiences to better produce recommendations. The PhD study is alongside the industry partner Ordnance Survey; however, all data will be retained by the University of Nottingham.

## **Nature of participation.**

Participation in this study involves the individual or group (18+) completing a walking route of their choice, while a wearable camera is attached. GPS data of the walk will be captured using a smart watch. The walking route will be in a public space and its location and route waypoints agreed in advance via email (about 30 minutes – 1 hour). Around 15 minutes before and after the walk will be needed to answer questions and exchange equipment. The participant will be asked to 'think aloud' during the study (e.g., Speak aloud about their walking route decisions and attention to places of interest recorded on a wearable camera) and provided with a prompt sheet should they get need it. Participants can choose to walk as an individual or as a small group (with 1-3 other people).

Before the walk, participants will be asked to complete a short pre-walk questionnaire which captures data relating to demographics such as: age, gender, and typical amount of walking each month. After the walk, participants should answer the post-walk questions on the overall experience of the walk. These questions will be recorded using the wearable camera.

## **Participant engagement.**

To organise a route and time, interested participants are asked to email and request a study interest document from: [James.Williams@Nottingham.ac.uk](mailto:James.Williams@Nottingham.ac.uk). Interested participants will then be contacted by the study team and participants that proceed with this process will be provided with ethics documentation, which should be completed and submit via email or in person. Upon meeting, participants will be provided the following equipment:

- Wearable Camera with mounting device. This camera will capture what the participant is seeing on the walk and their 'think aloud' utterances
- A smart watch which will capture a GPS trace of the walk including location, altitude, steps taken and distance.

- Pre-walk and post-walk Question Sheets
- Prompt Sheet

A wearable camera will be attached forward-facing to the participant using a mounting device or backpack. The pre-walk sheet will be completed and then the participant should follow the route by themselves and ‘think aloud’ about the environment, routes, and places they engage with. The participant will then be asked to finish answering the post-walk sheet and return the equipment at an agreed time/location.

### **Benefits and risks of the research.**

Due to the public nature of the study, a health safety risk assessment was completed, a short description of these risks is provided below (for the full risk assessment please contact the study team).

- Distractions while walking: Participants may be distracted through use of the equipment or method while walking or in hazardous situations and therefore participants should only engage with the study in safe locations or stop if required.
- Obvious camera in public: Participants will have a camera attached in public which introduces risks due to theft or confrontation, participants will be provided with a bag or chest mount to embed the camera and will be provided with extra information should these need to be distributed. Participants are also allowed to delete footage if a member of public requests this.
- Walking individually: Participants may be walking individually which increases the risk of crime, theft, or other incidents. Participants can walk individually or as groups should this be more comfortable and should only select routes in public places in daylight hours. Should someone confront the participant, equipment should be handed over with the safety of the participant paramount.
- Weather: Should weather conditions be deemed dangerous or uncomfortable by the project team or participant, the route should be rearranged to another day. Unsafe pavements should be avoided if possible.
- Covid-19: All equipment will be cleaned between use, with participants allowed to also clean the equipment if requested. All government, university and council guidance will be followed.
- Health Problems: Participants should select routes they are comfortable with and can end the study at any time and contact 999 or 111 if needed.
- Ending the study: Participants may end the study in unfamiliar places, however, should consider the time of the study and length of the walk. Participants can use a mobile phone and should have a trusted contact who knows of the study and of the route selected. Participants should identify a method of travel when proposing their route and only use these routes should they feel comfortable.

A data protection impact assessment was completed for the study (participants can request this if needed), identifying the importance of participants focusing on their engagement with the walk in public places and not of other individuals on the walk. Participants should be aware of potential data loss should equipment be stolen and consider this when speaking aloud. Participants should not select a route from their home address and should not speak aloud regarding their personal data during the walk. If this does occur, participants should notify the study team who will attempt to anonymise this data during analysis.

### **Use of your data.**

Each participant will be given an ID number so that their data is anonymised (as much as it can be given that visual and audio utterances are being captured in the study). Captured data will then be analysed using these ID's, so as to remove direct identification by use of participant names. Ethics Agreements, study interest sheets and email correspondence will be stored separate from the research data, so they are not aligned and identifiable. In the case of a participant wishing to withdraw the captured research data can be cross referenced with the consent documentation to identify and delete all the relevant participant data. All paper-based records will be scanned into a computer system and be stored in University of Nottingham OneDrive, and paper formats destroyed after this.

Video data of the 'think aloud' utterances will be transcribed and analysed alongside the captured GPS (longitude, latitude, and altitude) data. This data will be removed from the recording devices once stored on the University of Nottingham OneDrive. This data (Video, transcripts, and GPS) will be used in analysis as highlighted in 'Purpose of the research' section. The data may also be used to illustrate and perform analysis within work published in both non-public and public domain documents. In these reports, personal data will be replaced by details such as: 'Participant A (M, 21)' and may be linked to screenshots of the video footage, transcripts, GPS traces and analysis.

During and after the study data will be stored within the University of Nottingham encrypted Microsoft OneDrive. The data will be used in supervision sessions or project meetings and project reports for the purposes of the research. Results of the research may be shared through conference workshops, presentations, publications, and online databases. Personal data collected will be held in a secure and safe manner in accordance with the Data Protection Act 2018. However, no computer system is perfectly secure, and it is always possible that a third party might gain unauthorised access to the collected data.

#### **Future use of your data.**

Anonymised data may be archived and reused in future for purposes that are in the public interest, or for historical, scientific, or statistical purposes. Reuse and archiving the data enables other research to be performed relating to this data, throughout this time the data will remain and be stored on the University of Nottingham OneDrive.

#### **Procedure for withdrawal from the research**

Participation is voluntary and participants are free to withdraw at any time and all their data will be excluded from further use and deleted. If you wish to withdraw, please contact the researcher who gathered the data. If you receive no response from the researcher, please contact the Faculty of Engineering Ethics Committee.

To withdraw from the study, quote the participant ID in an email to [James.Williams@Nottingham.ac.uk](mailto:James.Williams@Nottingham.ac.uk)

**Contact details of the researcher:** If you wish to register for the study, discuss the project or any information provided, you can contact James Williams at: [James.Williams@Nottingham.ac.uk](mailto:James.Williams@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: [ez-eng-ethics@nottingham.ac.uk](mailto:ez-eng-ethics@nottingham.ac.uk)