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## Plan Overview

*A Data Management Plan created using DMPonline*

**Title:** Study on neural engagement factors in crowdfunding decision making

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**Template:** University of Manchester Generic Template

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### **Project abstract:**

We want to follow up on a similar study assessing neural engagement, i.e., the strength of the response in terms of neural activity measured directly from the brain to audio-visual stimuli representing video clips of start-up pitches aimed at attracting investments, that used functional Magnetic Resonance Imaging (fMRI) for that purpose, and to try to obtain similar results using multi-modal measurements that do not use fMRI, but use methods for measuring electrical signals on the surface of the skin and eye-tracking (gaze location and pupil size) to assess neural engagement.

**ID:** 106550

**Start date:** 07-09-2022

**End date:** 22-12-2023

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### **Copyright information:**

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# Study on neural engagement factors in crowdfunding decision making

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## Manchester Data Management Outline

### 1. Will this project be reviewed by any of the following bodies (please select all that apply)?

- Ethics

### 2. Is The University of Manchester collaborating with other institutions on this project?

- No - only institution involved

### 3. What data will you use in this project (please select all that apply)?

- Acquire new data

Personal data:

- Name
- Email address
- Age
- Gender
- Vision abilities (Normal/Corrected to normal (glasses/contact lenses)/Impaired)
- Handedness (Left-handed/Right-handed/Ambidextrous)

Neurophysiological data:

- 32-channel EEG recording of brain activity
- EDA (EDA (Electrodermal activity/Galvanic skin response) from index and ring fingers
- Heart Rate via ECG (Electrocardiography) from two wrists and left collar bone
- Pupil size via eye tracking device

Audio and video recording of the participant with a frontally facing camera

### 4. Where will the data be stored and backed-up during the project lifetime?

- Other storage system (please list below)

The pseudonymised neurophysiological data and the audio and video recordings will be stored on the Research Data Storage service. The personal identifiable data will be stored on paper in a locked cabinet in the Behavioural Research Laboratory office. The paper document will also contain the ID linking the personal data to the neurophysiological data.

### 5. If you will be using Research Data Storage, how much storage will you require?

- < 1 TB

One experimental session is expected to generate about 4Gb of data. We are aiming to have up to 40 participants in the experiment, which amounts up to 160Gb of data.

### 6. Are you going to be receiving data from, or sharing data with an external third party?

- No

**7. How long do you intend to keep your data for after the end of your project (in years)?**

- 5 - 10 years

**Guidance for questions 8 to 13**

Highly restricted information defined in the [Information security classification, ownership and secure information handling SOP](#) is information that requires enhanced security as unauthorised disclosure could cause significant harm to individuals or to the University and its ambitions in respect of its purpose, vision and values. This could be: information that is subject to export controls; valuable intellectual property; security sensitive material or research in key industrial fields at particular risk of being targeted by foreign states. See more [examples of highly restricted information](#).

Personal information, also known as personal data, relates to identifiable living individuals. Personal data is classed as special category personal data if it includes any of the following types of information about an identifiable living individual: racial or ethnic origin; political opinions; religious or similar philosophical beliefs; trade union membership; genetic data; biometric data; health data; sexual life; sexual orientation.

Please note that in line with [data protection law](#) (the UK General Data Protection Regulation and Data Protection Act 2018), personal information should only be stored in an identifiable form for as long as is necessary for the project; it should be pseudonymised (partially de-identified) and/or anonymised (completely de-identified) as soon as practically possible. You must obtain the appropriate [ethical approval](#) in order to use identifiable personal data.

**8. What type of information will you be processing (please select all that apply)?**

- Anonymised personal data
- Personal information, including signed consent forms
- Audio and/or video recordings
- Pseudonymised personal data

The neurophysiological data will be pseudonymised at the time of recording and will be anonymised by destroying the link between the personal data and the neurophysiological data two weeks after the end of the study.

NB: The audio recording will not contain any identifiable information, since the participant will be silent during the recording. The video recording will be moved to password protected files two weeks after the end of the study.

**9. How do you plan to store, protect and ensure confidentiality of any highly restricted data or personal data (please select all that apply)?**

- Store data in buildings, rooms or filing cabinets with controlled access
- Store data on University of Manchester approved and securely backed up servers or computers
- Store data on servers, computers or devices not connected to an external network
- Store data in encrypted files, folders, computers or devices
- Pseudonymise data and apply secure key management procedures
- Anonymise data
- Where needed, follow University of Manchester guidelines for disposing of personal data

**10. If you are storing personal information (including contact details) will you need to keep it beyond the end of the project?**

- Yes - Other

The standard retention period of personal data for auditing purposes is 5 years. That period is much longer than the expected duration of the study.

**11. Will the participants' information (personal and/or sensitive) be shared with or accessed by anyone outside of the University of Manchester?**

- No

**12. If you will be sharing personal information outside of the University of Manchester will the individual or organisation you are sharing with be outside the EEA?**

- Not applicable

**13. Are you planning to use the personal information for future purposes such as research?**

- No

**14. Will this project use innovative technologies to collect or process data?**

- No

**15. Who will act as the data custodian for this study, and so be responsible for the information involved?**

Doctor Siobhan Caughey

**16. Please provide the date on which this plan was last reviewed (dd/mm/yyyy).**

2021-05-04

## **Project details**

**What is the purpose of your research project?**

The project is a study aiming to find out what neural engagement factors play a role in decisions regarding crowdfunding of start-up businesses using multimodal methods of measuring brain and physiological functions.

**What policies and guidelines on data management, data sharing, and data security are relevant to your research project?**

The University of Manchester Research Data Management Policy  
Records Management Policy  
Data Protection Policy  
Information Security Policy

## **Responsibilities and Resources**

**Who will be responsible for data management?**

Doctor Siobhan Caughey will be responsible for data management until the expected end of the project. If the project lifetime extends beyond this date, Professor Mark Healey will assume responsibility for managing the project.

### **What resources will you require to deliver your plan?**

Storage space on the RDS service. Locked cabinets in the Behavioural Research Laboratory.

## **Data Collection**

### **What data will you collect or create?**

The neurophysiological recordings will be created in files located in subfolders of a single folder on the PC in the Behavioural Research Lab used for data recordings and transferred to the RDS after the recording. The personal data will be collected via paper documents (consent form and assessment form) filled out by the participant.

### **How will the data be collected or created?**

The neurophysiological recordings will be created by the iMotions software, installed on the PC in the Behavioural Research Lab. Each recording will be labelled with a Participant ID and will not contain any personal data (except the video recording of the participant's face). The paper forms containing the personal data will be filled out by the participants and will contain the Participant ID in the upper right corner.

## **Documentation and Metadata**

### **What documentation and metadata will accompany the data?**

An Excel spreadsheet containing information about the participant ID, session details (time, date, experimenter, location) and payment to the participant, located in the personal account of Siobhan Caughey on the Dropbox service provided by the University of Manchester.

## **Ethics and Legal Compliance**

### **How will you manage any ethical issues?**

PI's will observe university guidelines on safety, ethical and data protection issues. Confidentiality in handling participant information will be observed by all experimenters.

### **How will you manage copyright and Intellectual Property Rights (IPR) issues?**

The copyright and IPR are owned by the University of Manchester. Third parties will be allowed to use the anonymised experimental data upon reasonable request.

## **Storage and backup**

### **How will the data be stored and backed up?**

After the recording session, the experimental data will be moved from the recording PC to the Research Data Storage service provided by IT services.

#### **How will you manage access and security?**

The risks to the data security are minimal, because the personal data is kept separately from the experimental data and it is not in electronic format. There will be one data custodian, Doctor Siobhan Caughey, who will ensure that only authorised persons get access to the data on the RDM service and to the paper records.

## **Selection and Preservation**

#### **Which data should be retained, shared, and/or preserved?**

The anonymised experimental data will be retained and can possibly be made available to third parties on request. Open access publication typically requires that the authors provide the data from the experiment without undue reservation, and this is likely to apply to this set of data.

#### **What is the long-term preservation plan for the dataset?**

The anonymised experimental data will be kept on the RDM service long-term. If it needs to be deleted from there, it will be stored on an external data storage device (e.g., external hard drive).

## **Data Sharing**

#### **How will you share the data?**

The anonymised experimental data will be made available to third parties upon a reasonable request. University managed data transfer services will be used for this purpose (e.g., Dropbox, OneDrive).

#### **Are any restrictions on data sharing required?**

There are no restrictions envisaged on the sharing of the anonymised experimental data.