## Application for Research Ethics Panel Ethical Approval

Photo of Aberystwyth University Logo.

**Research, Business & Innovation**

This form is to be completed for research proposals that require review by the University Research Ethics Panel (REP).

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| AU Status | Postgraduate Research |
| Name | Matthew Howard |
| AU Email address | Mah60@aber.ac.uk |
| Department | Computer Science |
| Co-investigators (if applicable): | Click here to enter text. |
| Supervisor Name (if applicable) | Richard Shipman |
| Supervisor AU Email address (if applicable) | rcs@aber.ac.uk |
| Proposed Project Title | “Investigating the use of individuals mobile devices as a mechanism to enhance locational information within a geographic setting” |

How to make an application:

1. Visit [www.aber.ac.uk/ethics](http://www.aber.ac.uk/ethics) to familiarise yourself with the application process and upcoming Panel meeting dates.
2. Complete this application with advice and support from your department and the Ethics Team: [ethics@aber.ac.uk](mailto:ethics@aber.ac.uk).

* Students should complete this form with their supervisor in the first instance.
* Applications may be proportionate to the level of research being undertaken, but care should be taken to ensure that applications are of a sufficient standard and level of detail.

1. Ensure you’ve submitted your application (including any supporting documentation) at least 10 days prior to the meeting date.
2. Once submitted, we’ll confirm that the application is complete and will keep you updated.
3. Applicants are normally invited to briefly attend the Panel meeting (students should attend with their supervisor). All applicants will receive an outcome on the day.

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| **1A)** Please provide a lay summary of your research: |
| The research involves using an ESP8266 board, to ping off mobile wifi devices that enter the range of the device. This will count the footfall of devices that enter the area. The data recorded will be the mac address, the RSSI, the dwelling time in the ESP8266 range. The data will be collected and recorded to a database, with a one way hash on the mac address to make the data collected completely anonymous.  The data collected will then be processed to give feed back such as total count of visitors and peak hours that they arrive and stay for. Once the data has been used for its purpose it will be deleted. |

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| **1B)** Please summarise the key ethical issues as you see them: |
| * Tracking a person’s movement without permission, invasion of privacy. * Not keeping the data secure, as the mac address could be personal data |

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| **2)** Please describe the rationale and the main aims of the research, including the principal research question and statement of any intended benefits: |
| The main principle around this research problem is to look at what wifi counters can be used for and their benefits, whilst staying within legal and ethical boundaries. The data will be used as follows.   * Count the visitors in an event * Dwelling time in an event (Arrival and departure times and their difference) * Most used areas in an event * Path tracking in an event |

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| **3)** Please detail the proposed research sites, including the country that the research is due to take place in: |
| Aberystwyth University, Wales in the computer science or physics building. This will be for testing purposes; there will be a filter applied to ensure only devices that have given consent will be recorded.  Before testing has begun, permission from the appropriate officials will be required to start any form of testing and to be able to place the WiFi counter at the specified location. |

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| **4)** Please detail the number of intended participants; age range; gender; any inclusion and exclusion criteria. Please provide justification where necessary. |
| Any person with a mobile device that is over 18 years old. However, the main people who will be asked to participate will be lecturers around the testing area. E.g. the Computer Science building or Physics building.  As well, as friends that have a chance of going near the area of where the wifi counter is. |

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| **5A)** How long do you expect each participant to be in the study in total and what steps, if any, will be taken to safeguard against the effects of any repetitive research? |
| The maximum length of time that a participant will be included in the study is the length they are at the event with an active device. Data collection will be passive and no participant will be asked to do anything. |
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| **5B)** How will the participant’s suitability for participation be assessed? |
| The participant will need one or more mobile devices. As well, they must be above the age of 18 years old. |

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| **6)** How do you intend to select and recruit participants? Please identify the recruitment process and how initial contact with gatekeepers and / or participants will be made. |
| The participants must be over the age of 18 years old. As well, will be required to have one or more mobile device. Participants will be required to sign a consent form that allows for data to be collected from the provided mac addresses and store their mac address till the project is completed on the 27th September.  The recruitment methods to gain participants for this project testing phase is to send emails around to the lecturers or friends that are likely to pass the WiFi counter. However, this may also be done in person. |

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| **7)** What methods will be used to obtain informed consent and at what stage(s) will consent be obtained? |
| A consent form will be given out either through email or handed to them in person. This will contain a description of why the data is being collected, how the data will be handled and that it will be deleted once the project is complete.  As well, saying that any person can opt out of the testing process at any time and any data that connects to that person will be deleted. |

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| **8)** Will participants be given the right to withdraw from the study without giving reason? |
| **Yes – then all data will be removed from that database on that person.** |
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| **9)** If the research may induce stress, anxiety, cause harm or any other negative consequences beyond the risks of day-to-day life, please explain how you will minimise or mitigate these risks and how you would deal with any adverse effects. |
| If a person who has given permission for the collection and use of data is unhappy they can opt out of the experiment and all data will be removed on that person. |

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| **10)** How will you ensure participant confidentiality and anonymity? |
| One-way hashing will be applied against the device mac address and even if the mac address is discovered, the data collected can only be used to find the vendor information. This would not give any personal data about the person, which means the data is completely anonymised.  <https://www.lifewire.com/tracing-mac-address-stolen-computer-3971329>  The only data that can be gathered from a mac address is the vendor information. |

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| **11)** How will you ensure data storage and data security? Include how data will be stored, when data will be destroyed and how you will avoid participants being identified through your findings (if applicable). |
| There will be a one-way hash applied to the mac address which means that data cannot be related to any individual person. The data will be deleted once the MSc project has been completed. Prior to that the data will be stored in a secure location. |

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| **12)** Have you attended any relevant training? Have any further training needs been identified or does the research pose potential to cause any adverse effects to the researcher? |
| Undergraduate lectures and postgraduate lectures. Which include ethical and professional issues. |

**Do you have any further issues relating to this proposal that you would like to discuss with the Panel? Please include information of any issues which have not been covered by this application.**

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| No |

Please ensure that you either attach or forward the following supporting documentation to [ethics@aber.ac.uk](mailto:ethics@aber.ac.uk) at least 10 days prior to the intended meeting date.

**Applications will not be accepted for review unless they are accompanied by the relevant supporting documentation.**

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|  | Attached: Y / N / N/A | Comment |
| Recruitment advertisement(s) / email(s) | N/A |  |
| Participant Information Sheet(s) | N/A |  |
| Consent form(s) | Yes | Attached in email. |
| Debrief sheet(s) | N/A |  |
| Questionnaire(s) | N/A |  |
| Interview/ Focus Group questions | N/A |  |
| Gatekeeper approval (i.e. letter or email from Headteacher) | N/A |  |

The following documents do **not** need to be attached:

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|  | Y / N / N/A | Comment |
| Has a risk assessment been completed? | N/A |  |
| Is a DBS certificate required? | N/A |  |

*I confirm that to the best of my knowledge the information given above, together with any accompanying information is correct and I approve submission of the application to the appropriate Research Ethics Panel.*

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| Wet or digital signature of applicant: | Wet or digital signature of Supervisor or Director of Research: |
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| Date: | Date: |

**Data Protection Information for Research, Business & Innovation (RB&I)**

RBI collects and processes the information requested through this form in line with current UK data protection legislation.  We do so as it is necessary for the legitimate interests of the University and of you as an academic member of staff / student (GDPR Art. 6(1)(f)).

Data protection information for RBI (including further details on how we collect and process this information) can be found here: <https://www.aber.ac.uk/en/rbi/about/data-protection-information/>

You can also contact [drbi@aber.ac.uk](mailto:drbi@aber.ac.uk) directly for more information, or contact the Data Protection Officer on [infocompliance@aber.ac.uk](mailto:infocompliance@aber.ac.uk)