

Physical Sciences & Engineering Ethics Review and Approval Form



IMPORTANT NOTE: Research projects cannot begin until ethical approval has been granted.

Please complete the relevant sections of this form if, after filling out the relevant ethical review checklist (Annex A), you have identified a potential ethical issue. Please send the completed form and supporting documentation to copsethics@abdn.ac.uk.

Name:	Arthur-Louis Heath
ID number: <i>(for students only)</i>	51768263
School:	Natural and Computing Science
Department or discipline:	Department of Computing Science
Programme (e.g., PhD, MSc): <i>(for students only)</i>	BSc Computing Science and Mathematics
¹Project Title:	Black-Box Explainability (working title)
Course Number and Name: <i>(for students only)</i>	CS4525
Names of other individuals involved in the research/project?	Prof. Yaji Sripada -- supervisor
Name and email address of main supervisor: <i>(for students only)</i>	yaji.sripada@abdn.ac.uk
Application date:	31-3-2021

Please note:

1. Research involving NHS staff, patients, facilities and premises is subject to ethical review by the NHS [North of Scotland Research Ethics Service](#). This includes research involving individuals when their status as NHS staff or patients is relevant to the research, even when a medical condition is not the subject of the research. Research involving adults who do not have the capacity to consent is also subject to these ethical review procedures.
2. Research involving animal and biological materials is subject to Home Office regulations. Forms and guidance can be obtained from the university's Research Governance Section (researchgovernance@abdn.ac.uk).

¹ Project = the particular piece of work for which you are applying for ethical approval (not your overall programme of research)

3. Research involving the collection of genetic resources (organisms, microorganisms, DNA, RNA, proteins, small molecules) from signatories to the Convention on Biodiversity/Nagoya Protocol requires a formal agreement to be in place before this research can begin. Contact your Business Development Officer for further guidance
(<https://www.abdn.ac.uk/staffnet/secure/research-grant-funding-2405.php#business-development-team->)

CHECKLIST

The purpose of this checklist is to make sure no information has been inadvertently left out and to allow reviewers to assess the application more quickly. **If you do not complete the checklist and attach a completed Annex A, the application will be returned to you.**

I confirm that if my project changes significantly then I will notify the Ethics Board. ☒

I have **attached** a completed checklist (Annex A). ☒

I confirm that I have discussed this application with my supervisor. ☒

(for students only)

I have completed the University's [online ethics training](#). YES/NO
(for Staff and PGR students only. NB: PGT students will undertake this training at the discretion of their Programme Coordinator.)

This project requires me to **travel outwith the UK** YES/NO
If YES, please provide the following confirmation:-

- I will comply with the requirements of the University's [Overseas Travel Policy](#), including obtaining permission to travel (where required by the policy), completion of a [risk assessment](#) and will obtain [University travel insurance cover](#). ☐

Other Attachments (delete YES/NO as appropriate):

I have attached a Participant Information Sheet. YES/NO

I have attached a Consent Form. YES/NO

I have attached a schedule of questions for surveys and/or interviews. YES/NO

Section 1: Research projects involving human participants (not NHS staff or patients)

If you answered 'No' to Q1 and/or Q2 then omit Q 3 – 18 and proceed straight to Q19. In this case, please explain your answers to Q1 and/or Q2 in Section 7.

Recruitment Procedures

		Yes	No
1	Does your project involve human participants? This includes use of surveys, questionnaires, on-line surveys and tests, focus groups and workshops where human participants provide information or data to inform the research.	x	
2	(a) Does your project involve human remains? (b) If so, does your work conform with the Historic Environment Scotland guidelines?		x
3	Does your project involve people less than 18 years of age?		x
4	Does your project involve people with learning or communication difficulties?		x
5	Is your project likely to involve people involved in illegal activities?		x
6	Does your project involve people belonging to a vulnerable group, other than those listed above?		x
7	Does your project involve people with whom you have, or are likely to have, a working or professional relationship: for instance, staff or students of the university, professional colleagues or clients?		x
8	Does your project involve people who do not have English as their first language?		x
9	Does your project require the recording of audio or video of participants or of others not involved in the research?		x
10	Do you plan to conceal your own identity during the course of your project?	x	

*Please explain in **Section 7** how you will recruit your participants. If you answered 'Yes' to any of the above questions, please give details.*

*If you answered 'Yes' to **Q1** then you must provide a Participant Information Sheet and a Consent Form. For web-based research, screenshots of the appropriate web pages suffice.*

If your project involves surveys or interviews then you must provide a schedule of questions.

*If you answered 'Yes' to **Q3**, **Q4** or **Q6** then you may need to apply for disclosure through Disclosure Scotland.*

Consent Procedures

	Yes	No

11	Do you have set procedures that you intend to use for obtaining informed consent from all participants, including (where appropriate) parental consent for children?	X	
12	Will you tell participants that their participation is voluntary?	X	
13	Will you obtain written consent for participation, including for audio and/or video recording?	X	
14	Will you tell participants that they may withdraw from the research at any time and for any reason?	X	
15	Will you give potential participants a period of time to consider participation?	X	
16	Does your project involve concealment or deliberately misleading participants?		X

Please explain in **Section 7** how you will obtain consent from participants. If you answered 'Yes' to Q16 or 'No' to any of the other questions, please give details.

Possible Harm to Participants

		Yes	No
17	Is there any realistic risk of any participants experiencing physical or psychological harm or discomfort?		X
18	Is there any realistic risk of any participants experiencing a detriment to their interests as a result of participation?		X

If you answered 'Yes' to either question, please explain in **Section 7** how this risk was assessed and how you propose to manage it.

Section 2: Data protection, handling and storage

IMPORTANT NOTE:

The General Data Protection Regulation imposes a number of obligations for the use of **personal data** (defined as any information relating to an identified or identifiable living person) or including the use of personal data in research.

If you are using personal data, you should consider whether your research requires a Data Protection Impact Assessment and complies with the University Data Protection policy.

If you are, you now need to see the [Data Protection Checklist for Researchers](#)² for guidance.

If you then feel that a DPIA may be required or you need data protection advice, then you should contact the Data Protection Officer dpa@abdn.ac.uk.

Please provide the following confirmation:

I have read the above guidance and have met the relevant data protection obligations.

☒ **Please tick the box to confirm**

		Yes	No
19	(a) Will any non-anonymised and/or personalised data be generated and/or used? (b) Will you use an existing dataset in your research? (c) If 'yes', do you have permission to do so?		X
20	Will any data be stored (temporarily or permanently) anywhere other than on password-protected University computers or servers?	X	
21	Will you gain access to sensitive ³ data about living individuals or organisations <u>that is not already publicly available elsewhere</u> ? If 'Yes', will you gain the consent of the individuals concerned?		X
22	Does your project require access to personal data about participants from other parties (e.g., teachers, employers), databanks or files? <i>If yes, please explain in Section 7 how you will gain the consent of these participants.</i>		X
23	Does the project involve collecting personal data from websites or from social media (e.g., Facebook, Twitter)?		X
24	Will the data be stored, collected or accessed from: - outside the UK? - outside the EU?	X	
25	Is the data likely to contain material that is indecent, offensive, defamatory, threatening, discriminatory or extremist? <i>If yes, see here for an explanation of the obligations of the researcher and the university under the Prevent duty.</i>		X
26	Are there any contractual conditions attached to working with or storing the data? (E.g., an HSCIC data sharing agreement.)		X

² Click on 'Guides' to find the checklist

³ Sensitive data includes data that relates to racial or ethnic origin, political opinions, religious beliefs, trade union membership, physical or mental health, sexual life, actual and alleged offences.

27	Could working with this data damage the University's reputation? (E.g., bad press coverage, public protest.)	X
28	Could working with this data cause an increased risk of attack (cyber- or otherwise) against the University? (E.g., from pressure groups.)	X

For further advice on Data Protection and GDPR, please refer to www.abdn.ac.uk/dataprotection.

Please provide details in **Section 7** of how you intend to ensure that data is stored securely and in line with the requirements of the Data Protection Act and funding bodies (if applicable). Please give specific consideration to whether any non-anonymised and/or personalised data will be generated and/or stored and what precautions you will put in place regarding access.

If you answered 'Yes', to any of the questions above, please give details in **Section 7**.

Section 3: Research involving possible harm to the environment

	Yes	No
29	Is the research likely to have any significant detrimental or lasting impact on the environment? <i>This includes the natural environment but also buildings and structures created by people, especially ones of historical or archaeological importance.</i>	X

If you answered 'Yes', please explain in **Section 7** how this risk was assessed and how you propose to manage it. Say whether relevant guidelines exist in your discipline, and whether you intend to follow them.

Section 4: Research which may have an adverse impact on national security

	Yes	No
30	Does your project give rise to a realistic risk to the national security of any country?	X

If you answered 'Yes', please give details in **Section 7**. Explain how this risk was assessed and how you propose to manage it.

Section 5: Funding and conflict of interest

		Yes	No
31	Is your project funded by the university or an outside organisation, or have you applied for funding?		X
32	Is there any potential conflict of interest between research funder and researchers or participants and researchers which may potentially affect the research outcome or the dissemination of research findings?		X
33	Might the project lead to financial gain to funders, investigators or participants?	X	

If you answered 'Yes' to any question, please give details in **Section 7**. Explain any potential conflict of interest and how you propose to manage it.

Section 6: Collection of genetic resources

		Yes	No
34	Does the project involve the collection of genetic resources (organisms, microorganisms, DNA, RNA, proteins, small molecules) from signatories to the Convention on Biodiversity/Nagoya Protocol?		X

If you answered 'Yes', then a relevant agreement must be in place before the research can begin. This agreement must provide prior informed consent with mutually agreed terms and the must be in keeping with the Convention on Biodiversity/Nagoya Protocol and be obtained via the national focal point of the provider country. Please explain in **Section 7** how you propose to arrange the agreement. Please indicate the need for confidentiality where appropriate.

Section 7: Additional Information

All questions must be answered fully in the space provided (however each box can be expanded as necessary). Incomplete or incorrectly completed forms will be returned to the applicant, delaying the process of obtaining ethics approval.

7.1	<u>Project description</u> <i>Please attach a project descriptor or summary document (where available)</i>	The project aims to evaluate various automatically generated explanations of machine learning models. Users will be asked to imagine a fictional scenario where they have been rejected for a bank loan by an automated tool. They will then be shown an explanation seeking to clarify the machine learning tool's decision. They will then be asked to evaluate their subjective experience of the tool's explanation and asked to answer some questions about the explanation aimed at gauging their comprehension. All participants will be asked several standard demographic questions (gender, education, English language proficiency, familiarity with survey topic and age).
7.2	<u>Start date and duration</u>	I aim to commence the study as soon as I gain ethical approval (Start Date after 09.04.2021).

7.3	<u>Methodology</u>	Copies of the survey questions as they will be presented to participants (order etc...) are attached to this application. They also include copies of the consent form participants are asked to agree to. In addition to minor changes such as spelling corrections, the graphics for explanations and user data will be repeated in each section following the second in the final draft.
7.4	<u>Recruitment of participants</u>	Participants will be recruited online via the Amazon Mechanical Turk platform and offered a financial incentive for their time.
7.5	<u>Consent</u>	Consent forms are included as the first slide of the survey (Attached). Users are prompted to ask for clarification before explicitly giving their consent.
7.6	<u>Harm to participants</u>	I foresee no potential harm to participants.
7.7	<u>Data storage</u>	.Data will be temporarily stored on Google Drive as it will be aggregated via Google Forms. The account used to access the drive will be password protected, and the data will be moved out of the cloud once it has been collected. As participants are being sourced online, they could potentially come from any part of the world. Data will subsequently be stored on a password protected computer. All data handled will be Anonymized throughout the study.
7.8	<u>Ethical considerations</u> <i>Concise statement of the ethical considerations raised by the project and how you intend to deal with them. Include details related to Sections 3-6 above, if applicable.</i>	As the project deals with non-sensitive anonymized data and clearly outlines how this data is handled in the consent form, I do not foresee any ethical considerations arising.

For any contractual or intellectual property questions, please contact the business development team in Research & Innovation (june.middleton@abdn.ac.uk).

Make sure you have completed the checklist on page 2.

FOR STAFF AND PGR STUDENTS: Please send your completed application form and any supporting documentation to copsethics@abdn.ac.uk.

FOR PGT STUDENTS: Please refer to the ethical review procedures outlined in your Project Guidelines or contact your Postgraduate Programme Coordinator for further advice.