UNIVERSITY OF ST ANDREWS SCHOOL OF COMPUTER SCIENCE Artifact evaluation umbrella ethics application form

Please read the following ethical approval and ethics application forms.

If your project involves more than 60 minutes of evaluation, non-anonymous questionnaires, or the use of any other tools, then you must submit a full ethics application form. Please discuss this with your supervisor.

If your project can be covered by this artifact evaluation application, when you send out the questionnaires to your participants (online or in-person), please use the following statements (in grey color) as the first page:

This project is covered by the ethics application for "Evaluation of artefacts produced for CS projects" (with the ethics approval code CS15727) at the University of St Andrews.

The participation in this project is completely voluntary and you can withdraw from the study at any time without giving an explanation and with no disbenefit. You can ask questions about the project and have had them answered satisfactorily.

In this project, no personal data will be collected. Data collected in this project will be anonymised and the raw data will be deleted within 3 months after the completion of the project. The data will be only accessible to the named researchers on the project and the data analysis results will be published in a dissertation or an academic publication.

Juan Ye
School of Computer Science Ethics Convener September 2021

School of Computer Science Ethics Committee

09 September 2021

Dear Michael,

Thank you for submitting your ethical application which was considered by the School Ethics Committee.

The School of Computer Science Ethics Committee, acting on behalf of the University Teaching and Research Ethics Committee (UTREC), has approved this application:

Approval Code:	CS15727	Approved on:	09.09.2021	Approval Expiry:	09.09.2026
Project Title:	Evaluation of Artefacts produced for CS Projects				
Researcher(s):	Michael Young				
Supervisor(s):					

The following supporting documents are also acknowledged and approved:

1. Application Form

Approval is awarded for 5 years, see the approval expiry data above.

If your project has not commenced within 2 years of approval, you must submit a new and updated ethical application to your School Ethics Committee.

If you are unable to complete your research by the approval expiry date you must request an extension to the approval period. You can write to your School Ethics Committee who may grant a discretionary extension of up to 6 months. For longer extensions, or for any other changes, you must submit an ethical amendment application.

You must report any serious adverse events, or significant changes not covered by this approval, related to this study immediately to the School Ethics Committee.

Approval is given on the following conditions:
- that you conduct your research in line with:
  - the details provided in your ethical application
  - the University's Principles of Good Research Conduct
  - the conditions of any funding associated with your work
- that you obtain all applicable additional documents (see the 'additional documents' webpage for guidance) before research commences.

You should retain this approval letter with your study paperwork.

Yours sincerely,

Wendy Boyter

SEC Administrator

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School of Computer Science Ethics Committee
Dr Juan Ye/Convenor, Jack Cole Building, North Haugh, St Andrews, Fife, KY16 9SX
Telephone: 01334 463252 Email: ethics-cs@st-andrews.ac.uk
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University Teaching and Research Ethics Committee (UTREC)

Standard/Proportionate Review Filter

This form requires use of Microsoft Word desktop version (available via IT Services)

Standard/proportionate review filter

Please complete the filter questions - these determine whether your application will undergo standard review or proportionate review by your School ethics committee. If you are unsure which responses to select, please contact your School ethics committee.

For more information on the review process please visit the Ethical review application webpage.

Filter questions	Yes	No
Will your research involve participants from any of the following groups: • Children under 16 years of age (18 in England) • Protected adults • NHS patients or staff • Individuals engaged in criminal activity • Individuals in custody, care homes, or other residential institutions • Individuals impacted by a traumatic event such as war, displacement, acts of terrorism, abuse, discrimination, crime, disasters, life-changing illness or injury, bereavement • Individuals where there is any doubt over their capacity for freely given consent such as through cognitive impairment, language barriers, legal status, terminal illness. • Any other individuals where the researcher or SEC identifies a vulnerability that cannot be satisfactorily mitigated.	☐	☒
Will your research involve sensitive topics such as: • Criminal activity • Traumatic experiences like those detailed above • Self-identity i.e. gender, national, ethnic or racial identity • Body image • Mood or mental health conditions	☐	☒
Will your research involve collection, creation or inference of special category data. Special category data is identifiable data that is also: • personal data revealing racial or ethnic origin • personal data revealing political opinions • personal data revealing religious or philosophical beliefs • personal data revealing trade union membership • data concerning health • data concerning a person's sex life or sexual orientation • genetic data • biometric data (where this is used for identification)	☐	☒
Will your research involve collection, creation or inference of any other personal, confidential or sensitive data where you feel this might cause distress or that could cause harm should this data be intercepted?	☐	☒
Is there a risk that the research may result in participants becoming distressed? (For remote research, consider that this may be harder to monitor and whether participants will be able to access support)	☐	☒
Will your research involve the use of deception, the withholding of any information about the aims of the research or anything other than total transparency over your role as a researcher?	☐	☒
If you answered **YES** to **ANY** of the above, your application will undergo standard review by your SEC.		
If you answered **NO** to **ALL** of the above, your application will undergo proportionate review by your SEC.		

University Teaching and Research Ethics Committee (UTREC)

Application Form – Cover Sheet
Version 2021-22_1.0

Note: this page contains meta data about your research which is subject to audit and monitoring

This form requires use of Microsoft Word desktop version (available via IT Services)

Existing approval – renewal / extension ⓘ	☐	Approval Code		Date last approved	dd/mm/yyyy

Application Type (check applicable)

Undergraduate	☐	Staff	☐
Postgraduate Research	☐	Postgraduate Taught	☐

Module Co-ordinator, taught module ⓘ	☒	If yes, Module Code:	CS4099 CS4098 CS5098 CS5099 CS5199 CS5898 CS5899

Child Panel review ⓘ	☐	PVG ⓘ	☐
Clinical research (definition) ⓘ	☐	Security Sensitive ⓘ	☐

Applicant Name	Michael Young		
Email	project-coord-cs@st-andrews.ac.uk	**Date Submitted**	08/09/2021
School/Unit:	School of Computer Science	**Supervisor (if student):**	

Project Title
(If your title is not immediately understandable to a lay audience, be sure it is clearly explained in the project description)

Evaluation of artefacts produced for CS projects.

Project description: Give a concise narrative description without technical terminology of what you are proposing to do; who your participants are (e.g. age, organisation) and how they will be approached/ recruited; where the research will take place (e.g. site, country); what methods you will use, (e.g. survey, interview).*) (see exemplars). (900 characters for database reasons – using a font size of 11 or larger will help ensure you do not go over this limit)*

CS projects involve the production of software artefacts, and a critical evaluation of the artefact is an expected component of the project report. This application covers questionnaires that help the student evaluate their artifact.

Ethical Considerations: Give an overview of both **the ethical issues raised** by your research and **how you will address** them (see exemplars). This could include: the risks and benefits, how you will ensure consent is voluntary and informed; confidentiality and how your data will be managed to protect this; potential risks to participants such as distress or reputational harm. NOTE: this should not substantially duplicate the response given in 'Project description' above**.**
(900 characters for database reasons – using a font size of 11 or larger will help ensure you do not go over this limit)

Participants will be internal to the University, and will be asked to provide anonymous feedback on the effectiveness, design and utility of a project-based artifact. Questions are limited to the artifact and opinions of the artifact. No personal data is needed nor collected.

Has ethical approval for this research already been obtained from an external ethics committee? If YES, do not complete the rest of this form. Instead submit a copy of the external application paperwork and approval, and a copy of this page, to your School Ethics Committee.

In this form there are icons, links and guidance to assist you, hover over them for tips or ctrl+click to follow links:		
📄	This icon indicates that a supporting document may be required - see Appendix 1. DOCUMENT CHECKLIST	
✏️	This icon indicates that you may need to provide an explanation or more information in Q31	
ℹ️	This icon indicates there is guidance on how to answer (hover the pointer over the icon)	
⏭️	This icon follows 'skip to question X' statements - Ctrl+Click the icon to skip to that part of the document	
Link	This formatting indicates a link to relevant documents or webpages	

RESEARCH INFORMATION

1.	a. Estimated start date of research activities ℹ️	Week 2 of the semester the module is running.	
	b. Will the research involve any of the following (tick all that apply)	In-person face-to-face contact with participants	☒
		Remote or online contact with participants	☒
		No direct participants (i.e. secondary or archival data)	☐
		Engagement of fieldworkers, or similar, to collect data	☐
		Travel	☐

LOCATION AND EXTERNAL APPROVALS

2.	Location of the research ℹ️	University of St Andrews	
📄 ✏️	**3.** If applicable, have you obtained permission to access the site of research? ℹ️ If YES please state agency/authority etc. and provide documentation: If NO please indicate why in Q31		**NOT APPLICABLE**

FUNDING

4. Is this research funded by any external sponsor or agency? ℹ️	**NO**
If **YES**, please provide the name of the funder:	
📄 **5.** Does the funder appear on the automatically approved list of ethical funders? If NO, you must complete an ethical funder application and attach the approval to your application	**NOT APPLICABLE**

COLLABORATION & ROLES ℹ️

6. a. Does this research entail collaboration with researchers from other institutions and/or across other University Schools/Units? If YES state name and affiliations below:	**NO**

Name	Affiliation

b. If the research is collaborative, has a framework been devised to ensure that all collaborators, are given appropriate recognition in any outputs?	**NOT APPLICABLE**
7. Where projects raise ethical considerations to do with roles in research, intellectual property, publication strategies/authorship, responsibilities to funders, research with policy or other implications etc., have you taken appropriate steps to address these issues?	**NOT APPLICABLE**

RESEARCH PARTICIPANTS	

	8. Are you using **only** library or archival sources; media publications; secondary data (with appropriate licenses and permissions) or data in the public domain? ⓘ If **YES**, skip questions 9-28 and complete: • Q29-30 if there are any data management considerations ⏭ • Q31 if there are any ethical considerations ⏭ • If there are no other ethical or data management consideration, skip to 'Declarations' ⏭ If **NO**, continue with the rest of the form	**NO**
	9. Who are your participants? ⓘ	
	Students and staff aged 18+	
	10. Describe below how you will identify, approach and recruit participants ⓘ	
	Students and staff aged 18+ from within the university will be approached and recruited by email or Microsoft Teams.	
	11. Estimated duration of participant involvement ⓘ	
	Up to one hour	
	12. Do participants fall into any of the following groups (which may require additional documents or approvals)? ⓘ	Check all that apply
	Children (under 16 years of age in Scotland or 18 in England and Wales)	☐
	Protected adult, receiving care or welfare services	☐
	People with learning or communication difficulties	☐
	Residents/Carers in a specific location e.g. Care Home	☐
	NHS patients or staff ⓘ	☐
	People in custody	☐
	People engaged in illegal activities (e.g. drug taking) ⓘ	☐

ETHICAL RISK CHECKLIST

If you answer 'NO' to any of the following please provide a full explanation in Q31

13. Will you tell participants that their participation is voluntary and that they can decline to participate with no disbenefit? ⓘ		**YES**
14. Will you describe the main project/experimental procedures to participants in advance so that they can make an informed decision about whether or not to participate? ⓘ		**YES**
15. Will you tell participants that they may withdraw from the research within the time specified in the PIS and for any reason, without having to give an explanation, and with no disbenefit? ⓘ		**YES**
16. Will you obtain appropriate consent from participants? ⓘ		**YES**
17. If the research is photographed, videoed or audio-recorded, or observational, will you ask participants for their consent to being photographed, videoed, recorded or observed? ⓘ		**NOT APPLICABLE**
18. Will participants be free to continue in the study if they reject the use of research methods such as audio-visual recorders and photography?		**NOT APPLICABLE**
19. Will you tell participants that their data will be treated with full confidentiality and that if published or shared, it will not be identifiable as theirs? (see DATA MANAGEMENT Q30) ⓘ		**YES**
20. Will participants be clearly informed of how the data will be stored, who will have access to it, and when the data will be destroyed? (see DATA MANAGEMENT Q30) ⓘ		**YES**
21. Will you give participants a debrief explanation in writing of the study after participant involvement explaining where participants can find out about the results of the project and access sources of support, if appropriate? ⓘ		**YES**
22. With questionnaires and/or interviews, will you give participants the option of omitting questions they do not want to answer?		**YES**

If you answer YES to any of the following please provide a full explanation in Q31

23. Is there any significant risk (inc. physical/psychological harm or distress) to the researcher and / or any participants, field assistants, students, collaborators involved in the project? ⓘ		**NO**
24. Will your project involve deliberately misleading participants in any way? ⓘ		**NO**
25. Will any financial inducement, other than expenses, be offered to participants? ⓘ		**NO**
26. Are any of the participants in a dependent relationship with the investigator? i.e. family members, patients, students ⓘ		**NO**

RISK ASSESSMENTS & INSURANCE

27. Does your research require a <u>risk assessment as per University policy</u> ? ⓘ (if YES, and already in hand, include this with your application) *If you are unsure, seek advice from your School Health and Safety contact or the <u>travel and fieldwork</u> page.* ⓘ		**NO**
28. For fieldwork and travel - have you checked that you are covered by <u>University insurance</u> ?		**NOT APPLICABLE**

DATA MANAGEMENT

Collection, storage and destruction of data should be undertaken in accordance with University guidance and policies plus data protection law. For queries on data protection, contact dataprot@st-andrews.ac.uk ; on research data management, contact research-data@st-andrews.ac.uk. Additional training is available.

In this section, the following definitions are used:
- **Personal data -** information relating to natural persons who: can be identified directly from the information in question; or who can be indirectly identified from that information in combination with other information.   NOTE: consent forms are not considered personal data (copies must be securely retained for the lifetime of the research)
- **Special category data** - personal data relating to race, ethnic origin, politics, religion, trade union membership, genetics, biometrics (where used for ID purposes), health, sex life, or sexual orientation
- **Fully identifiable data** - personal data that can be directly linked to an individual
- **Pseudonymised data** - personal data that can be indirectly linked to an individual using a 'key'
- **Anonymised data -** data that cannot be linked to an individual using any reasonable means, is NOT personal data.

29. Given the definitions above - at the point of collection, will data collected by your research include:	
a. personal data?	**NO**
b. special category data?	**NO**

30. Data Lifecycle
Describe how you will ensure the confidentiality of personal data over the full lifecycle (see exemplars).
You should include in each of these sections:
- What form the data will take, particularly if and how it will be anonymised or pseudonymised or if it will remain identifiable
- Who will have access to the data, e.g. John Doe and Professor X or me and my supervisor/co-researcher(s)
- Secure locations where data is stored, e.g. encrypted file on secure University Server, locked filing cabinet
- Consideration of the requirements of data protection law and Open Access requirements of funders

The information you provide in these sections should reflect the contents of your participant documents

a.   Collection and Transfer ⓘ
Describe what data you will be collecting (ensuring it is the minimum amount necessary for your purposes), including how/when you will collect it, and how you will ensure its safe transfer into storage

All collected feedback will be anonymous, and all projects will use approved University services (Qualtrics, Microsoft Teams, Skype for Business) and the standard UTREC template text.

b.   Storage, Backup and Access ⓘ
Describe how the data will be securely stored, backed up and accessed

Data will be kept as electronic records, and destroyed after grading.

c.   Sharing and Publication ⓘ

Describe if, where and in what form the data will be shared. Researchers should consider institutional, funder and publisher policies before deciding on their approach to sharing data arising from their study. It is crucial that researchers anticipate their potential future data sharing and/or publication requirements.

Some examples of sharing data include:
- depositing the data (raw or edited) in a research data repository
- including data files with a publication, dissertation or other research output
- including excerpts of data like tables, figures or quotes in a publication, dissertation or other research output

✏️   If your data will be shared or published in an IDENTIFIABLE form, provide a rationale and further explanation in Q31

Anonymised excerpts of data may be included in student dissertations, and may therefore be retained by the School of Computer Science and the university library afterwards.

d.   Retention and Destruction ⓘ

Describe how long the data will be retained for and if or when the data will be destroyed (see University guidance).
This may be a fixed date, relative to an event such as study completion, or could be indefinite.
Include here if and how the data will change form (i.e. pseudonymised data becoming anonymised for long term retention).

Gathered data will be destroyed after grading is complete, except for the excerpts that are included in final dissertations.

ETHICAL ISSUES

31. a. Please provide a clear, concise description of the anticipated benefits of the research to the participant, the participant's community, the academic community, or wider society. Considering any residual risks indicate why you believe there is a favourable risk-benefit balance.
Use sub-headings for structure where appropriate. If necessary, continue on a separate sheet.

These questionnaires help project students evaluate the quality of their artefacts and may give them a chance to improve them based on user feedback. These are low-risk activities for participants, and so the risk–benefit balance is positive.

b. Please provide a clear, concise description of your research design and methodology, the ethical issues raised and how you will address them (see exemplars). You should also include:

- Consideration of the enhanced ethical issues of conducting research during the coronavirus pandemic
- Details of how you will obtain consent
- Description and rationale for adjustments made to the template participant documents
- Detailed responses for questions marked ✎, if required

Use sub-headings for structure where appropriate. If necessary, continue on a separate sheet.
Note –there are supplementary questions on the next page for in-person face-to-face research and research involving travel

It is expected that students produce a software and/or hardware artifact as part of their CS project. Examples of such artifacts are devices, computer applications, games, and web site development. Students may wish to collect opinions concerning the quality of their artifact as part of their critical evaluation. This collection of opinions would be in the form of a questionnaire which comprises only of questions relating to the artifact, and has no questions about the participant. We do not believe it to be proportionate to require written consent nor participant debriefing for such short and non-personal questionnaires. Data gathered will only be presented in the project report – no personal participant data will be collected, stored or disseminated. The participation or non-participation in the questionnaire will not affect the potential participating student's academic assessment in any way. This application is not intended to cover any project that involves any interaction with humans otherthan a simple set of questions about an artifact that does not require personal participant data.

At the front page of the questionnaire, the student will insert the following ethical statement:

This project is covered by the ethics application for "Evaluation of artefacts produced for CS projects" at the University of St Andrews.

The participation in this project is completely voluntary and you can withdraw from the study at any time without giving an explanation and with no disbenefit. You can ask questions about the project and have had them answered satisfactorily.

In this project, no personal data will be collected. Data collected in this project will be anonymised and the raw data will be deleted within 3 months after the completion of the project. The data will be only accessible to the named researchers on the project and the data analysis results will be published in a dissertation or an academic publication.

DECLARATIONS

o I am aware of, understand and will enact my responsibilities as a researcher as detailed in:	
o The University's Principles of Good Research Conduct policy and ethical guidelines	☐
o Any relevant professional guidelines (e.g. BPS, MRC, ASA)	☐
o The University's Policy and guidance on Data Management and Protection	☐
o I am aware of the conditions of any funding associated with my work and will ensure that information given to my research participants is in line with those conditions.	☐
o I understand that I must store the final completed copy of this form as part of my research project paperwork.	☐

Researcher signature	M. Young	Date	08/09/2021

ADDITIONAL SECTION FOR STUDENT RESEARCHERS

Student researchers must not submit an ethical amendment application without first discussing it with their Supervisor, and the Supervisor reading and signing this form. Applications submitted without the below section completed by the Supervisor will be returned to the applicant.

Supervisor Comment	
I confirm that I have discussed the ethical implications of this project with the student applicant, that I have read this application, and that I approve its submission to the ethics committee for consideration	
Supervisor signature		Date	Click or tap to enter a date.

Submission guidance:
To submit your application, it must be sent to your School Ethics contact:
- Electronic form (.doc, .docx, .pdf) is the preferred submission format for Ethics Applications, as it allows for easy transferral of text to the database
- If you submit a scanned copy of a handwritten or typed form, or a hardcopy, please email your School Ethics contact an electronic form version of the Cover Sheet (first page).

Signing the form:
- Creating an electronic signature is straightforward – sign a piece of blank paper, take a photo i.e. with a smartphone, copy and paste the image into the signature box and resize it as necessary
- If you or your supervisor wish to physically sign a hardcopy, please follow the guidance above on submission requirements
- If you/your supervisor choose to type a signature:
    - staff: email the form to your School Ethics administrator from your @st-andrews.ac.uk email address to confirm your identity.
    - students - email the form to your supervisor from your @st-andrews.ac.uk email address.
        - supervisor: add your name/ signature to the form and then forward it to the School Ethics administrator from your @st-andrews.ac.uk email address

Under **no circumstances** should this form, or supplementary documents, contain identifiable information about your participants i.e. completed consent forms.

APPENDIX 1. DOCUMENT CHECKLIST

Please ensure **all relevant documents** are attached to your application.

You should indicate in Q31 if your research will require any additional documents/approvals. If you have approvals in hand when submitting this form, you should append these to the application and indicate this below. Some School Ethics Committees may require all documents/approvals to be fully obtained before you seek ethical approval.

For online research, such as surveys, you may include relevant screenshots or excerpts of text instead of forms.

Templates are available for some documents, follow the links. Preferably, template participant documents should be used as given. You may adjust the content to suit your project, but you MUST document a rationale for the changes in Q31 of the application form ✎

Application document(s)	Attached?	When to include this	
Participant Information Sheet	**NO**	Research involves human participants.	
Participant Consent Form	**NO**	Research involves human participants.	ⓘ
Participant Debrief	**NO**	Research involves human participants.	ⓘ
All advertisements	**NO**	Participants will be recruited using adverts.	ⓘ
Questionnaire / Online Survey Screenshots	**NO**	Research includes questionnaires or surveys.	ⓘ
Interview questions/Focus Group guide	**NO**	Research includes interviews or focus groups.	
Copies of letters to parents/ guardians/children	**NO**	Research involves children or educational establishments.	ⓘ
External approvals/documents	**Attached?**	**When to include this**	
Approved risk assessment	**NOT APPLICABLE**	If you have already obtained this - for research with fieldwork risk, such as travel abroad, lone working and in-person face-to-face research. This may be a University risk assessment, for the site(s) of your research if this is external to the University, or both.	ⓘ
Insurance documents	**NOT APPLICABLE**	If you have already obtained this - likely required for fieldwork or travel abroad.	ⓘ
Data Management Plan (DMP)	**NOT APPLICABLE**	ONLY if you already have a DMP (e.g. due to funder requirements). If YES, also email a copy to research-data@st-andrews.ac.uk.	ⓘ
Ethical funder approval letter	**NOT APPLICABLE**	The research is funded by an organisation not on the approved funders list.	ⓘ
DBS / PVG documents	**NOT APPLICABLE**	Research involves vulnerable participants: • Children (under 16 in Scotland/18 in England) • Vulnerable adults	ⓘ
External permission forms / emails	**NOT APPLICABLE**	Research requires permission for access to sites, data, participants or other aspects.	ⓘ
Security sensitive research declaration	**NOT APPLICABLE**	Research involves contact with individuals, data or material linked to terrorist or extremist activity.	ⓘ
External ethical application/approval documents	**Attached?**	**When to include this**	
NHS ethical approval documents - in full	**NOT APPLICABLE**	Research involves: • NHS data, patients, sites or staff • Participants who are in custody • Participants who are in health or social care	ⓘ
Ethical approval documents (in full) from an external review body	**NOT APPLICABLE**	Your research has already been reviewed and approved by another institution or organisation.	ⓘ

Please list below any other documents that are included in your application:
NONE