SCC Undergraduate Ethics Form

1. Basic information

Name of Student: Luca Davies **Student ID:** 34653856

Course: M.Sci. Hons. Computer Science (with Industrial Experience)

Name of Supervisor: Tracy Hall

Project Title: SCC.421 Dissertation: Examining the Effects of Advanced Programming Language Constructs on the Maintainability and Extensibility of Code

Aim(s) of the research project. To gather thoughts and opinions of professional developers on the usage of certain advanced syntactical programming constructs and their effects on the code they are used in.

To comply with GDPR you also need to have something about the 'lawful purpose' of the research.

This usually means a sentence in the 'aims' or the 'introduction' along the lines of "In line with GDPR the lawful purpose of this research is a '*task in the public interest' or 'for scientific research in accordance with safeguards'*." And then include a link to the University website https://www.lancaster.ac.uk/research/participate-in-research/data-protection-for-research-participants/

2. Proposed research methods and analysis

Qualtrics questionnaire digitally distributed to participants.

3. Information about Human Participants

If applicable, provide details about:

What type of participants will be used in the study?

Professional software developers working within Information Systems Services at the university.

What age range is to be used?

When completed this form **MUST** be countersigned by your supervisor. A signed copy should be kept on file by the School. You are also advised keep a signed copy for your own records.

All participants will be 18 or above.

What characteristics (if any) are to be used in selecting participants?

Employed within ISS as a developer or senior developer.

How many participants will be involved?

Between 10 and 50, depending on how many responses are submitted.

How will participants be recruited?

Questionnaire will be distributed to ISS staff via and/or with permission of Chris Dixon, Head of ITPI and lead over a team of developers within ISS. Filling out of the survey is voluntary and required affirmative action from participants to submit a response.

Does the research involve deception, trickery or other procedures that may contravene participants' informed consent, without timely and appropriate debriefing, or activities that cause stress, anxiety or involve physical contact?

Y/(N)

Access to records of personal or other confidential information, including genetic or other biological information, concerning identifiable individuals, without their knowledge or consent?

Y/(N)

Does the research project & associated experiments potentially risk the physical safety of yourself or the participants?

Y/(N)

Does the research involve travel to areas where you might be at risk?

Y/(N)

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4. **Information about non-human participants such as animals**

If applicable, provide details about:

Does the research involve animals?

Y/(N)

5. **Data handling**

Provide details about:

What type of data will be collected?

Multiple choice answer, Likert scale, free-from text questions.

How will this be stored?

Data will be collected and stored using Lancaster University Qualtrics.

What steps will be taken to ensure the anonymity of the data collected?

Setting the "Anonymous" option within Qualtrics such that no personal or identifying data is stored in the first place.

What steps will be taken to ensure the confidentiality of the data collected? State how individual identifying information will be removed, where the data will be stored and who will have access to the data.

This will be handled within the survey software. I, the researcher, will have no access to any personal or identifiable data. The collected raw data will be accessible only to myself.

6. Please complete all sections by ringing the appropriate answer.

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1. RISKS

Do any aspects of the study pose a possible risk to participants' physical well-being (e.g. use of substances such as alcohol or extreme situations such as sleep deprivation)?	Y	[N]
Are there any aspects of the study that participants might find embarrassing or be emotionally upsetting?	Y	[N]
Are there likely to be culturally sensitive issues (e.g. age, gender, ethnicity etc)?	Y	[N]
Does the study require access to confidential sources of information (e.g. medical, criminal, educational records etc.)?	Y	[N]
Might conducting the study expose the researcher to any risks (e.g. collecting data in potentially dangerous environments)?	Y	[N]
Does the intended research involve vulnerable groups (e.g. prisoners, children, older or disabled people, victims of crime etc.)	Y	[N]

2. DISCLOSURE

Does the study involve covert methods?	Y	N
Does the study involve the use of deception, either in the form of withholding essential information about the study or intentionally misinforming participants about aspects of the study.	Y	[N]

3. DEBRIEFING

Do the planned procedures include an opportunity for participants to ask questions and/or obtain general feedback about the study after they have concluded their part in it?	NA	[Y]	N

4. INFORMED PARTICIPATION/CONSENT

Will participants in the study be given accessible information outlining: a) the general purpose of the study, b) what participants will be expected to do c) individuals' right to refuse or withdraw at any time?		[Y]	N
Will participants have an opportunity to ask questions prior to agreeing to participate?		[Y]	N
Have appropriate authorities given their permission for participants to be recruited from or data collected on their		[Y]	N

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premises (e.g. shop managers, head teachers, classroom lecturers)?			

5. ANONYMITY AND CONFIDENTIALITY

Is participation in the study anonymous?		Y	N
If anonymity has been promised, do the general procedures ensure that individuals cannot be identified indirectly (e.g. via other information that is taken)?		Y	N
Have participants been promised confidentiality?		Y	N
If confidentiality has been promised, do the procedures ensure that the information collected is truly confidential (e.g. that it will not be quoted verbatim)?		Y	N
Will data be stored in a secure place which is inaccessible to people other than the researcher?		Y	N
If participants' identities are being recorded, will the data be coded (to disguise identity) before computer data entry?		Y	N

7. SUMMARY OF ETHICAL CONCERNS

If any of the boxes below require ticks, more detail may be required to get ethical approval. If none of the boxes require ticks, then it is reasonable to expect approval.

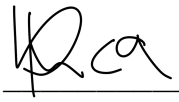
If you have answered 'YES' to any of the questions in Section 1 (risks), please tick the box	
If you have answered 'YES' to any of the questions in Section 2 (Disclosure/covert methods), please tick the box	
If you have answered 'NO' to any of the questions in Section 3 (debriefing), please tick the box	
If you have answered 'NO' to any of the questions in Section 4 (consent), please tick the box	
If you have answered 'NO' to any of the questions in Section 5 (confidentiality), please tick the box	

8. Declaration

When completed this form **MUST** be countersigned by your supervisor. A signed copy should be kept on file by the School. You are also advised keep a signed copy for your own records.

I confirm that this is an accurate record of the project to be undertaken.

Student signature Date



25/03/2021

I confirm that I have read this proposal and agree that it is a clear and accurate assessment of the project to be undertaken. I have emailed a copy of this ethics form to the teaching office.

Project supervisor Date

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