

The aim of the University's Research Ethics Policy is to establish and promote good ethical practice in the conduct of academic research. The questionnaire is intended to enable researchers to undertake an initial self-assessment of ethical issues in their research. Ethical conduct is not primarily a matter of following fixed rules; it depends on researchers developing a considered, flexible and thoughtful practice.

The questionnaire aims to engage researchers discursively with the ethical dimensions of their work and potential ethical issues, and the main focus of any subsequent review is not to 'approve' or 'disapprove' of a project but to make sure that this process has taken place.

The Research Ethics Policy is available at www.intranet.rgu.ac.uk/credo/staff/page.cfm?pge=7060

SÉBERT

DE TRAVEL

ANTHONY

| el visor | ANDREI PETROVS XI | | |
|---|---|--|--|
| ject Title | REAL-TIME OPERATING SYSTEM. | IN RO | IST |
| rse of Study | Computer Science | |) W. C. S. |
| ool/Department | Computy Science & Digital 1 | leolia | |
| RT 1: DESCRIPTIVE QUES | TIONS | | |
| Does the research involve [see Guidance Note 1] | e, or does information in the research relate to: | Yes | No |
| (a) individual human subj | ects | | × |
| (b) groups (e.g. families, | communities, crowds) | | X |
| (c) organisations | 4 | | X |
| (d) animals? | | | X |
| Please provide further del | ails: | | beamanas en persona en precia |
| n/a | | | 9.5 |
| Will the research deal wit [see Guidance Note 2] | h information which is private or confidential? | Yes | No × |
| Please provide further det | ails: | | |
| War | | | |
| | ject Title rse of Study ool/Department T1: DESCRIPTIVE QUES Does the research involve [see Guidance Note 1] (a) individual human subj (b) groups (e.g. families, (c) organisations (d) animals? Please provide further del W Will the research deal with [see Guidance Note 2] | rise of Study Computer Science Computer Science Digital Market 1: DESCRIPTIVE QUESTIONS Does the research involve, or does information in the research relate to: [see Guidance Note 1] (a) individual human subjects (b) groups (e.g. families, communities, crowds) (c) organisations (d) animals? Please provide further details: What Will the research deal with information which is private or confidential? | rese of Study Computer Science Computer Science Digital Media T: DESCRIPTIVE QUESTIONS Does the research involve, or does information in the research relate to: [see Guidance Note 1] (a) individual human subjects (b) groups (e.g. families, communities, crowds) (c) organisations (d) animals? Please provide further details: W Will the research deal with information which is private or confidential? [see Guidance Note 2] Yes [see Guidance Note 2] |

Version: April 2012

Student Name

| 3. | In the process of doing the research, is there any potential for harm to be done to, or costs to be imposed on: [see Guidance Note 3(i)] | Yes | No | | |
|----|--|-----|---------|--|--|
| | (a) research participants? | | × | | |
| | (b) research subjects? [see Guidance Note 3(ii)] | | X | | |
| | (c) you, as the researcher? | | X | | |
| | (d) third parties? [see Guidance Note 3(iii)] | | X | | |
| | Please state what you believe are the implications of the research: | | | | |
| | hala you believe are the implications of the research: | | | | |
| 4. | When the research is complete, could negative consequences follow: | Yes | No | | |
| 4. | n/a | Yes | No × | | |
| 4. | When the research is complete, could negative consequences follow: | Yes | No × | | |
| 4. | When the research is complete, could negative consequences follow: (a) for research subjects | Yes | No × | | |

| (a) research participants? (b) research subjects? [see Guidance Note 5(ii)] (c) external bodies? [see Guidance Note 5(iii)] | 5. | Does the research require informed consent or approval from: [see Guidance Note 5(i)] | Yes | No |
|---|----|---|-----|----|
| (c) external bodies? [see Guidance Note 5(iii)] | | (a) research participants? | | 1 |
| | | (b) research subjects? [see Guidance Note 5(ii)] | | × |
| | | (c) external bodies? [see Guidance Note 5(iii)] | | X |
| If you answered yes to any of the above, please explain your answer: | | If you answered yes to any of the above, please explain your answer: | | |

| 6. | Are there reasons why research subjects may need safeguards or protection? [see Guidance Note 6] | Yes | No |
|-----|--|---------------|---------|
| | If you answered yes to the above, please state the reasons and indicate the meas taken to address them: | l sures to | be |
| | n/a | | |
| 7. | Has PVG membership status been considered? [see Guidance Note 7] | Yes | No |
| | (a) PVG membership is not required. | X | ¥ |
| | (b) PVG membership is required for working with children. | | X |
| | (c) PVG membership is required for working with protected adults. | | X |
| | (d) PVG membership is required for working with both children and protected adults. | | * |
| | If you answered yes to (b), (c) or (d) above, please give details: | | |
| | | | |
| | Are specified procedures or safeguards required for recording, management, or | Yes | No |
| 8. | Are specified procedures or safeguards required for recording, management, or storage of data? [see Guidance Note 8] | Yes | No × |
| 8. | | Yes | No X |
| 8. | storage of data? [see Guidance Note 8] | Yes | No X |
| | storage of data? [see Guidance Note 8] | Yes | No × |
| | If you answered yes to any of the above, please give details: | Yes | No X |
| PAR | If you answered yes to any of the above, please give details: The Research require you to give or make undertakings to research | | No |

Is the research likely to be affected by the relationship with a sponsor, funder or

If you answered yes to the above, please identify how the research may be affected:

10.

employer? [see Guidance Note 10]

Yes

No

| art | 5: Other Issues | | | |
|---|--|--|------|--------------|
| 11. | Are there any o | other ethical issues not covered by this form which you believe e? | Yes | No |
| | ula | | | |
| | | | | |
| State | ement by Stude | nt | | |
| I bel | lieve that the in | nt formation I have given in this form is correct, and that I ha al issues as fully as possible at this stage. | ave | |
| [bel | lieve that the in | formation I have given in this form is correct, and that I ha | |) (<i>d</i> |
| I beladdr Sign If anfurth | lieve that the in ressed the ethic nature: ny ethical issues her Student Programmer Pro | formation I have given in this form is correct, and that I had all issues as fully as possible at this stage. | 9/20 | e a |
| I bel addr Sign If an furth | lieve that the incressed the ethic nature: ny ethical issues her Student Programmer Student Programmer Student Programmer Student Programmer Student Programmer Student Ethics Programmer Student Ethic | formation I have given in this form is correct, and that I have all issues as fully as possible at this stage. Date: 19/0 3 arise during the course of the research, students should conject Ethical Review (SPER) form. Olicy is available at www.intranet.rgu.ac.uk/credo/staff/page.cfm? PLETED BY THE SUPERVISOR The have potentially negative implications for the University? | 9/20 | e a |

| 13. | Are any potential conflicts of interest likely to arise in the course of the research? [see Guidance Note 12] | Yes | No |
|---------------|--|--------|---|
| | If you answered yes to the above, please identify the potential conflicts: | | X |
| | W/a | | |
| 14. | Are you satisfied that the student has engaged adequately with the ethical implications of the work? [In signifying agreement, supervisors are accepting part of the ethical responsibility for the project] | Yes | No |
| | If you answered no to the above, please identify the potential issues: | | |
| | Wa | * | |
| 15. | Appraisal: Please select one of the following | | |
| | i. The research project should proceed in its present form – no further action is required | V | / |
| | ii. The research project requires ethical approval by the School Ethics Review Panel (SERP) (or equivalent) | | *************************************** |
| | iii. The research project requires ethical review by the University's Research Ethics Sub-Committee | | |
| | iv. The project needs to be returned to the student for modification prior to further action | | - 267-101 |
| | v. The research project requires ethical review by an external body (N.B. Question 5 above). If this applies, please give these details: | | |
| | Title of External Body providing ethical review | | |
| , | Address of External Body | | |
| | Anticipated date when External Body may consider project | | |
| AFFI | RMATION BY SUPERVISOR | | |
| tude by th | re read the student's responses and have discussed ethical issues arising went. I can confirm that, to the best of my understanding, the information properties to allow an informed judgement on were ethical approval is required. | resent | ed |
| | nture: AB / A.PETROVSKI / Date: 27/09/ | , | |

(i) Guidance Note 1

Ethical principles normally apply to information, data, and derivative substances in the same way as they apply to the subjects themselves. Consequently, work with individual financial data is governed by the principles of work with individual human subjects, and work with animal tissue is governed by the principles of work with animals.

[return to Question 1]

(i) Guidance Note 2

The Australian National Health and Medical Research Council argues: "Individuals have a sphere of life from which they should be able to exclude any intrusion ... A major application of the concept of privacy is information privacy: the interest of a person in controlling access to and use of any information personal to that person." This principle applies to all information about a person, whether or not it is obtained directly from that person. The area that is private is conventional and culturally defined; in the UK it commonly includes income and family arrangements.

The information obtained in research is not, however, necessarily private. Some material is in the public sphere, which includes published and broadcast material, academic discourse, and the activities of government. Activities undertaken in a public place are public, rather than private, if they are openly displayed (e.g. artistic exhibition or attendance at a public event) or subject to public regulation (e.g. driving)."

[return to Question 2]

(i) Guidance Note 3

- (i) "Harm" refers to negative consequences beyond those which would occur in the normal course of events. Costs may include putting subjects under stress, causing them anxiety, or even wasting their time. The question asks only about potential harm. Potential harm is not cancelled out by potential benefit. Broader consequences are considered in the following question. Reviews of information are also subject to ethical consideration. It should never be assumed that no harm can be done to people simply by writing about them.
- (ii) "Research subjects" includes not just participants and informants but those about whom data is collected. The term covers any research subject, including humans, animals, and inanimate subject matter.
- (iii) The University has a responsibility to avoid putting you at risk, and potentially dangerous situations should always be drawn to the University's attention.
- (iv)"Third parties" include any person, group or organisation who may be affected by the process of the research.

 [return to Question 3]

(i) Guidance Note 4

"Elsewhere" is an open category, intended to include consequences for third parties, sections of the community (e.g. "the voluntary sector"), the economy ("the catering industry") or the environment. ("the national park"), globally, and generalities which are harder to identify (e.g. "animal welfare"). Student researchers should never assume that their work is harmless only because they don't believe others will read it.

[return to Question 4]

(i) Guidance Note 5

(i) Research in the public sphere (question 2) may not require the consent or approval of research subjects. The advice of the Canadian Tri-Boards is that "REBs (research ethics boards) should recognize that certain types of research - particularly biographies, artistic criticism or public policy research - may legitimately have a negative effect on organizations or on public figures in, for example, politics, the arts or business. Such research does not require the consent of the subject ... Consent is not required from organizations such as corporations or governments for research about their institutions".

There is a general presumption that consent should be obtained from subjects whenever the information is private. The requirement to seek consent can, however, be waived in certain exceptional cases, for example where there is necessary deception, or where the consent of a subject may jeopardise the welfare of an informant. All such cases require explicit ethical review and an extended justification.

- (ii) The consent of research *subjects* cannot be presumed because the consent of *informants* has been obtained. For example, one member of a family cannot necessarily be taken to speak for others, and an employer cannot always give consent on behalf of employees.
- (iii) The consent of external bodies is required for several types of research, including e.g.
 - research relating to the NHS
 - research for work with dangerous substances, and
 - research involving experimentation with animals.

The existence of external consent does not ethically exclude the project from consideration by the University, or vice-versa. Please provide a brief description of the project as submitted to the external body for ethical review.

[return to Question 5]

(i) Guidance Note 6

This may apply, for example, to human subjects who are regarded as vulnerable (e.g. children or prisoners) and to animals. Consent should not be taken as sufficient protection.

[return to Question 6]

(i) Guidance Note 7

If your research will involve some form of work with children or protected adults or both, you may need to apply to join the Disclosure Scotland PVG Scheme. For further details and notes on applying please refer to www.rgu.ac.uk/about/governance/policies-and-legal/disclosure-scotland and www.disclosurescotland.co.uk/.

[return to Question 7]

(i) Guidance Note 8

Private data should be presumed to be under the control of the person or organisation to whom it relates. Anonymity is not a sufficient condition for confidentiality. Removing names from a report, or using aggregate data, may not be enough to ensure that respondents cannot be recognised or identified; and even where material is not identifiable except by the person who gave it, using it in ways that go beyond the terms on which it has been given may be a breach of trust.

[return to Question 8]

(i) Guidance Note 9

The integrity of the researcher, and the status of future research, requires that such undertakings should be respected. Promises should not be given in circumstances where they cannot be kept. For example, a researcher is not at liberty to conceal criminal activity and consequently cannot offer unconditional confidentiality in a study of such activity.

[return to Question 9]

i Guidance Note 10

Students who are undertaking research within the context of a work placement or employment should be aware that this is likely to have implications for the research and should identify what those implications are.

Sponsorship includes the grant of access to material by a responsible organisation.

[return to Question 10]

(i) Guidance Note 11

The University needs to know if the research may jeopardise its reputation through, for example, work for oppressive governments or other research relationships (e.g. work for tobacco firms) that might compromise or bias the research. Negative consequences in the form of criticism of the University or negative evaluations by students are legitimate potential outcomes.

[return to Question 12]

i Guidance Note 12

This includes, for example, conflicts between researchers, funders, stakeholders, employers and other research projects.

[return to Question 13]