### 1. Principal Investigator & Study Team - Human Ethics Application

**[View Form]**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Employer Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>McGrenere</td>
<td>Joanna</td>
<td>Computer Science</td>
<td><a href="mailto:joanna@cs.ubc.ca">joanna@cs.ubc.ca</a></td>
</tr>
</tbody>
</table>

Enter Principal Investigator Primary Department and also the primary location of the PI's Institution:

- **Computer Science**

### 1.2. Primary Contact

Provide the name of ONE primary contact person in addition to the PI who will receive ALL correspondence, certificates of approval and notifications from the REB for this study. This primary contact will have online access to read, amend, and track the application.

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>McGrenere</td>
<td>Joanna</td>
<td>Professor</td>
</tr>
</tbody>
</table>

### 1.3. Co-Investigators

List all the Co-Investigators of the study. These members WILL have online access which will allow them to read, amend and track the application. These members will be listed on the certificate of approval (except BC Cancer Agency Research Ethics Board certificates). If this research application is for a graduate degree, enter the graduate student's name in this section.

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Institution/Department</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wolfman</td>
<td>Steven</td>
<td>UBC/Science/Computer Science</td>
<td>Instructor/Lecturer</td>
</tr>
<tr>
<td>MacLean</td>
<td>Karon E.</td>
<td>UBC/Science/Computer Science</td>
<td>Professor</td>
</tr>
<tr>
<td>Link</td>
<td>Juliette</td>
<td>UBC/Science/Computer Science</td>
<td>Graduate Student</td>
</tr>
<tr>
<td>Booth</td>
<td>Kellogg S.</td>
<td>UBC/Science/Computer Science</td>
<td>Professor</td>
</tr>
<tr>
<td>Fritz</td>
<td>Thomas</td>
<td>UBC/Science/Computer Science</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Munzner</td>
<td>Tamara</td>
<td>UBC/Science/Computer Science</td>
<td>Professor</td>
</tr>
<tr>
<td>Bucci</td>
<td>Paul</td>
<td>UBC/Science/Computer Science</td>
<td>Graduate Student</td>
</tr>
<tr>
<td>Dawson</td>
<td>Jessica Q.</td>
<td>UBC/Medicine, Faculty of</td>
<td>Unspecified</td>
</tr>
<tr>
<td>Aflatoony</td>
<td>Leila</td>
<td>UBC/Science/Computer Science</td>
<td>Post Doctoral Fellow</td>
</tr>
</tbody>
</table>
1.4. Additional Study Team Members - Online Access
List the additional study team members who WILL have online access to read, amend, and track the application but WILL NOT be listed on the certificate of approval.

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Institution/Department</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pai</td>
<td>Dinesh K.</td>
<td>UBC/Science/Computer Science</td>
<td>Professor</td>
</tr>
<tr>
<td>Yoon</td>
<td>Dongwook</td>
<td>UBC/Science/Computer Science</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Van der Loos</td>
<td>Hendrik</td>
<td>UBC/Applied Science/Mechanical Engineering</td>
<td>Associate Professor</td>
</tr>
</tbody>
</table>

1.5. Additional Study Team Members - No Online Access
Add to list study team members who WILL NOT have online access to the application and will NOT be listed on the certificate of approval.

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Institution / Department</th>
<th>Rank / Job</th>
<th>Email Address</th>
</tr>
</thead>
</table>

Tri Council Policy Statement2 (TCPS2) Tutorial
All study team members (including but not limited to faculty, undergraduate and graduate students, medical residents and research staff) are required to complete the TCPS2 Tutorial (CORE) before submission. Indicate completion of the TCPS2 (CORE) tutorial below:

1.6.A. All Faculty, including hospital appointment equivalents deemed a PI by an affiliated institution or by a Dean:
Yes

1.6.B. All Other Study Team members:
N/A

Comments:

1.7. Project Title
Enter the title of this research study as it will appear on the certificate. If applicable, include the protocol number in brackets at the end of the title. If this is a class-based project, see guidance on the right. Title given must match the title on all study documents.

CS Human-Computer Interaction Course Projects (CPSC 344/444/530P/539F/543/544/547/548/554K/554M/554Y)

1.8. Project Nickname
Enter a nickname for this study. What would you like this study to be known as to the Principal Investigator and study team?
CS HCI Course Projects

2 Study Dates and Funding Information - Human Ethics Application

You plan to start collecting data immediately after obtaining ethics and any other required approvals (the start date on the ethics certificate will reflect the approval date),

no

You plan to start data collection at a later date i.e., 2 months or more after approvals are

September 1, 2012
obtained. Click the calendar icon below to select the dates (Internet Explorer) or enter the dates manually using the format yyyy-mm-dd.

<table>
<thead>
<tr>
<th>Estimated start date:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1. B. Estimated end date:</td>
<td>August 30, 2015</td>
</tr>
</tbody>
</table>

2.2.A. Types of Funds Please select the applicable box(es) below to indicate the type(s) of funding you are receiving to conduct this research. You must then complete section 2.3 and/or section 2.4 for the name of the source of the funds to be listed on the certificate of approval.

<table>
<thead>
<tr>
<th>Grant</th>
</tr>
</thead>
</table>

2.2.B. For Industry Sponsored studies, please provide a sponsor contact.

2.2.C. Please enter any applicable information about your funding which is not already shown in Box 2.3 or 2.4 (including funding applied for but not yet received).

2.3. Research Funding Application/Award Associated with the Study that was Submitted to the UBC Office of Research Services Please click Add to identify the research funding application/award associated with this study. Selecting Add will list the sources of all research funding applications that have been submitted by the PI (and the person completing this application if different from the PI). If the research funding application/award associated with this study is not listed below, please enter those details in question 2.4.

<table>
<thead>
<tr>
<th>UBC Number</th>
<th>Title</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>F16-03959</td>
<td>NSERC CREATE in Designing for People (DFP): Crossdisciplinary Program in Interactive Computational Technology</td>
<td>Natural Sciences and Engineering Research Council of Canada (NSERC)</td>
</tr>
</tbody>
</table>

2.4. Research Funding Application/Award Associated with the Study not listed in question 2.3. Please click Add to enter the details for the research funding application/award associated with this study that is not listed in question 2.3. When you press Add you can do a search for your funding award by doing a search in the Sponsor box - over 7000 options are listed.

<table>
<thead>
<tr>
<th>UBC Number</th>
<th>Title</th>
<th>Sponsor</th>
</tr>
</thead>
</table>

2.5.A. Is this a DHHS grant? (To view a list of DHHS funding agencies click on add in 2.5.B below)

| no |

2.5.B. If yes, please select the appropriate DHHS funding agency from the selection box, and attach the grant to box 9.8. of the application.

<table>
<thead>
<tr>
<th>DHHS Sponsor List:</th>
<th>Order:</th>
<th>Active:</th>
</tr>
</thead>
</table>

Attach DHHS Grant Application for each sponsor listed above

2.6. Conflict of Interest Conflicts of Interest (COIs) can arise naturally from an Investigator’s engagement inside and outside the University,
and the mere existence of a COI or the perception of a COI does not necessarily imply wrongdoing on anyone's part. Nonetheless, real and perceived COI must be recognized, disclosed, and assessed. This question asks Investigators to disclose COIs that may relate to the research study that is the subject of the REB application. Do the Principal Investigator, Co-Investigators and/or their related parties (defined at s.8.12 UBC Policy 97) have any personal interest(s) that could compromise or reasonably be perceived to compromise the objective conduct of the research or the integrity of the data generated by the study? Personal interests may include business, commercial or financial interests, as well as personal matters and career interests.

4. **Study Type - Human Ethics Application** [View Form]

4.1. UBC Research Ethics Board Indicate which UBC Research Ethics Board you are applying to and the type of study you are applying for: UBC Behavioural Research Ethics Board

N/A

4.2.A. Institutions and Sites for Study

<table>
<thead>
<tr>
<th>Institution</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>UBC</td>
<td>Vancouver (excludes UBC Hospital)</td>
</tr>
</tbody>
</table>

4.2.B. Please enter any other locations where the research will be conducted under this Research Ethics Approval (e.g., Name of privately owned clinic, community centre, school, classroom, participant's home, in the field - provide details).

Community centres, participants' homes, and in public places in and around Vancouver, such as shopping malls or parks.

4* **Behavioural Study Review Type** [View Form]

4.3.A. If this proposal is closely linked to any other proposal previously/simultaneously submitted, enter the Research Ethics Board number of that proposal. H03-80490 B03-0490

4.3.B. If applicable, please describe the relationship between this proposal and the previously/simultaneously submitted proposal listed above. This is an update of the previous proposal which was written 9 years ago, the details of which are mostly on file with BREB rather than being in RISE.

4.3.C. Have you received any information or are you aware of any rejection of this study by any Research Ethics Board? If yes, please provide known details and attach any available relevant documentation in question 9.7. While this has not received formal peer review, each of the investigators regularly engages in conversations with peers at other institutions about how to run our respective class

4.4.A. External peer review details: While this has not received formal peer review, each of the investigators regularly engages in conversations with peers at other institutions about how to run our respective class
projects; those conversations always include ethical considerations. This proposal conforms to the best practices that are thus shared and developed.

<table>
<thead>
<tr>
<th>4.4.B. Internal (UBC or hospital) peer review details:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4.C. If this research proposal has NOT received any independent scientific/methodological peer review, explain why no review has taken place.</td>
<td>N/A - class projects</td>
</tr>
<tr>
<td>Participant Vulnerability</td>
<td>Low</td>
</tr>
<tr>
<td>Research Risk</td>
<td>Low</td>
</tr>
</tbody>
</table>

4.5.B Explain/justify the level of risk and group vulnerability reported above.

In terms of research risk, as reported in section 6.2, there will be:
- no contentious questions
- no offensive materials
- all subjects will be competent and over 19 (UBC students 17 and over can also be considered emancipated for the studies)
- no public display of identifiable subject images
- no physical risks
- no highly personal/medical data
- no identifying data sent out of Canada, all data storage servers located in Canada

In terms of participant vulnerability, as reported in section 5.2:

Age -- eligible research participants must be:
- People aged 19 and over; or
- Any UBC students aged 17 and over.

Capacity to consent -- eligible research participants must be:
- individuals who can fully understand what they are consenting to; and
- individuals who are not vulnerable in any way relative to the student researchers.

4.5.C Does your application fall under minimal risk (i.e., it was assigned an overall risk level of 1 on the minimal risk matrix) and therefore is eligible to be considered for Delegated Review? yes

4.6. Multi-Jurisdictional Studies Is this study a multi-jurisdictional study that requires review by one or more institutions? (Note: If submitting an amendment for an already approved study, you must respond No to this question) no

4.7.A Creation of a Research Database or Registry Does this study involve the creation of a research database or registry for future unspecified research? [if no, skip to 4.8] no
4.7.B Is the purpose of this application exclusively to obtain approval for the creation of a research database or registry? [Note: if the creation of the database or registry is part of a bigger project also included in this application, you must answer no below].

no

4.8. Class-based research and the department level research ethics review process Is this study a minimal risk class-based research project conducted for pedagogical purposes, e.g., a research methods course exercise, or other exercises designed to give students training in conducting and/or presenting research? The activity should not be an undergraduate or graduate thesis/dissertation.

If Yes, please state whether your department has a Departmental Ethics Officer (DEO) and, if so, indicate their name below.

5. Summary of Study and Recruitment - Human Ethics Application for Behavioural Study [View Form]

5.1.A Provide a short summary of the project written in lay language suitable for non-scientific REB members. DO NOT exceed 100 words and do not cut and paste directly from the study proposal.

Undergraduate and graduate computer science courses in Human-Computer Interaction (HCI) require that students design and conduct user studies as part of their learning experience. These are supervised by the course instructors and TAs.

The learning goals for the user study component of the HCI courses are (1) to know how to conduct user research (to learn the methods) and how to analyze the data collected, and (2) to know how to use that analysis to inform the design of useful and usable technologies.

5.1.B Summarize the research proposal:

This ethics proposal relates to UBC Computer Science courses, undergraduate and graduate, that involve Human-Computer Interaction (HCI), as listed in section 1.7. HCI is an area of study that broadly encompasses the design, implementation, and evaluation of interactive technology. Interactive technology is quite varied. It includes mainstream “traditional” applications and devices/platforms such as word processors and standard desktop/laptop computers, as well as mobile and large display technologies and their applications, such as games on smartphones, architecture applications on tabletop systems, and novel visualizations of large complex datasets on wall sized displays. Interactive technology also includes more novel platforms such as those utilizing haptic technology, including tactile display surfaces, force feedback devices and lap-sized robotic creatures that can synchronize their breathing to that of the user’s.

There exist different methodologies for designing and evaluating interactive technology, one of which is to work with actual users (or intended users) of the technology. This is known as user-centered design (UCD). Our core courses (CPSC
344, 444, and 544) aim to teach students the UCD process, whereas the other courses listed in this ethics application employ one or more of the methods that make up the UCD process that students have learned in earlier courses. The full UCD process involves the researcher (in this case student) performing a number of steps:

1. Gathering information from users about their requirements for some particular interactive technology. This may take the form of informal meetings with users, focus groups, structured or semi-structured interviews, online or paper-based questionnaires, or observing users in either a naturalistic or artificial (lab) setting for the purposes of understanding their current practices.

2. Creating low-fidelity prototypes. Based on Step One, the students generate new interface designs for the targeted interactive technology. Rather than implementing the new interfaces right away (i.e., writing computer programs), the students create prototypes that mock up the interface using materials such as paper, glue, foam, and plastic. These low fidelity prototypes are then evaluated with users. Users will be asked to interact with the prototypes to the extent that is possible in order to give the student researchers (who are observing) an idea of the quality of the interface design. Questionnaires and interviews may be used at this stage as well.

3. Medium and hi-fidelity prototypes. Based on what the students learn in Step Two, medium and hi-fidelity prototypes will be created. These prototypes are actually implemented in software and hardware. Students are once again required to evaluate these prototypes with real users. The evaluation at this stage is often more formal, in that users will be asked to complete a series of tasks (such as completing some transaction on an e-commerce website) and the student researchers assess dependent measures (such as time on task and errors). In some cases, there will be an experimental control such that some users may be evaluated with a competing existing interactive system so that the two systems can be compared. Questionnaires and interviews may be used at this stage as well.

Videotaping and analysis is only required in some of the HCI courses (e.g., CPSC 444 and 554m), often because students are being taught how to appropriately use these technologies (including understanding the ethical concerns that arise) in the context of HCI user studies.

Note that the HCI courses are not courses in experimental design. Thus, students generally only work with about 10-20 different users per project. Although some statistical analysis may be done on the data collected, students are not expected
to achieve statistically significant results.

Projects are done individually or in small groups of 2 to 5 students.

Example student projects include: developing a taxonomy of users in terms of how they manage their tasks based on observational studies, or designing and evaluating a prototype for an interactive tour guide of the UBC campus on a mobile device, a web browser with “smart” tab management, a grocery store kiosk to support efficient shopping, or a smartphone application to allow diners to review and rate individual meals at restaurants.

To summarize, one or more of the following methods will be included in each user study:
- Expert and non-expert interviews
- Questionnaires
- Focus groups
- Naturalistic and non-naturalistic observation
- Videotaping
- Experiments

5.2. Inclusion Criteria Describe the participants being selected for this study, and list the criteria for their inclusion.

In terms of age, eligible research participants must be:
- People aged 19 and over; or
- Any UBC students aged 17 and over.

In terms of capacity to consent, eligible research participants must be:
- individuals who can fully understand what they are consenting to; and
- individuals who are not vulnerable in any way relative to the student researchers.

5.3. Exclusion Criteria Describe which participants will be excluded from participation, if any, and list the criteria for their exclusion.

Individuals who do not meet the inclusion criteria.

5.4. Recruitment Provide a detailed description of the method of recruitment. For example, describe who will contact prospective participants and by what means this will be done. Ensure that any letters of initial contact or other recruitment materials are attached to this submission on view 9 (section 9.7).

Recruitment will take the following forms: email or newsgroup or web page notice, in person request to participate, or notices posted in an area such as a library bulletin board, coffee shop, or community centre. There is one template for the recruitment notice (call for participation) that will be used; it covers all possible methods. The template is attached to this protocol. For all user studies, students will employ this template, with modifications permitted only as indicated in the template.

For in person requests, the student researcher will have a printout of the recruitment notice, and will verbally step through it after introducing him/herself.
All recruitment notices will be viewed by the instructor and/or a TA before being distributed.

### 5.5. Use of Records

If existing records (e.g., health records, course grade sheets or other records/databases) will be used to IDENTIFY potential participants, please describe how permission to access this information, and to collect and use this information, will be obtained.

No existing records will be used.

### 5.6. Summary of Procedures

Procedures will vary depending on which method(s) the students use in their user study (survey/questionnaire, interview, observation, focus group, and experiment). However, all students will be required to obtain informed consent (See Section 6.6 for details). Informed consent will be followed by the survey/interview/observation/focus group/experiment. At the end of the study, participants will be thanked for their participation. None of the students’ projects will involve deception.

When there is an experimental component, participants may be asked to perform specified tasks with low, medium, or high-fidelity prototypes of the interactive technology under study. Both qualitative data (e.g., user quotes) and quantitative performance data (e.g., measures of errors, time on task, etc.) may be collected.

When there is an observational component, participants may be observed while interacting with existing technology in its natural environment or asked questions about their use and attitudes about existing technology in its natural environment. Here, the data collection will be predominantly qualitative.

When there is an interviewing component, participants may be interviewed by one or more students to obtain further information on the participant's experience with the interactive technology.

When there is a focus group component, participants will be asked questions about an interactive technology or about their behaviours related to a possible interactive technology (e.g., their music listening practices), all in a group setting. They may also be asked to interact with a prototype in this setting.

Surveys/questionnaires may be used before or after an evaluation session, or they may be used independently from any other evaluation. For example, questionnaires can be used to assess a participant's familiarity with computer technology, familiarity with tasks being performed, and subjective opinions of the interactive technology being investigated.

On occasion, video and/or audio recordings may be made (with
the explicit consent of each participant) to help interpret the collected data in a more qualitative manner or with the robustness of quantitative data collection (e.g., counting the number of times that participant clicked on a particular part of the interface). Participants who do not wish to be recorded during a session will either be excused from further participation, or will not have video/audio data collected during their session.

For most studies, the student researchers and the participants will be physically present in the same space. However, for some studies, it may be more convenient for participants to participate remotely, e.g., through a skype interview or by completing an online task conducted through a web browser.

| 5.7. Checklist for Research Methods | Naturalistic Observation | Videotaping | Expert Interviews | Focus Groups |

6. Participant Information and Consent Process - Human Ethics Application for Behavioural Study

6.1. Time to Participate

The time required for participants to take part in the students’ projects will range from 10 minutes (quick survey/observation) to one hour (experiment, interview, and detailed observation). Very occasionally there may be a study that requires multiple sessions (e.g., three 10 minute sessions, each one a day apart). The amount of time required and the number of sessions will be made explicit in the consent form.

6.2. Risks

All projects will fall under the classification of minimal risk because there will be:
- no contentious questions
- no offensive materials
- all subjects will be competent and over 19 (UBC students 17 and over can also be considered emancipated for the studies)
- no public display of identifiable subject images
- no physical risks
- no highly personal/medical data
- no identifying data sent out of Canada, all data storage servers located in Canada

6.3. Benefits

Participants may gain practice and knowledge of the particular interactive technology that they are asked to use during the study. A long-term benefit to participants and others may be interactive technology that is better designed to suit a wider range of individuals.

6.4. Impacts on Community

If your research involves an identified group or 'community', outline the likely impacts of the research on the
| 6.5. Reimbursement | Describe any reimbursement for expenses (e.g., meals, parking, medications) or payments/gifts-in-kind (e.g., honoraria, gifts, prizes, credits) to be offered to the participants. Provide full details of the amounts, payment schedules, and value of gifts-in-kind. | Participants will not receive compensation. |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- hypocrisy |
6.8. Capacity to Consent

Will every participant have the capacity to give fully informed consent on his/her own behalf? Please click Select to complete the question and view further details.

<table>
<thead>
<tr>
<th>Will the participant have the capacity to give fully informed consent?</th>
<th>Details of the nature of the incapacity</th>
<th>If not, who will consent on his/her behalf?</th>
<th>If not, will he/she be able to give assent to participate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>[Details]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.9. Renewal of Consent

Describe any situation in which the renewal of consent for this research might be appropriate, and how this would take place.

N/A

6.10. Provisions for Consent

What provisions are planned for participants, or those consenting on a participant’s behalf, to have special assistance, if needed, during the consent process (e.g., consent forms in Braille, or in languages other than English).

N/A

6.11. Restrictions on Disclosure

Describe any restrictions regarding the disclosure of information to research participants (during or at the end of the study) that the funder/sponsor has placed on investigators, including those related to the publication of results.

N/A

7. Number of Participants - Human Ethics Application for Behavioural Study

7.1. External Approvals

External approvals for research involving other institutions and other jurisdictions: Provide written proof of agency approval for projects carried out at other institutions and, when applicable, other jurisdictions. Indicate external approvals below:

A. Other Institutions:

- no

B. Please select Add to enter the name of the institution and if you have already received approval attach the approval letter.

- Name of Institution

C. Other Jurisdiction or Country (if answer is No go to 7.1.G):

- no

D. Please select Add to enter the name of the jurisdiction or country and if you have already received approval attach the approval letter.

- Name of Jurisdiction or Country

E. Has a Request for Ethics Approval been submitted to the institution or responsible authority in the other jurisdiction or country? (Send a copy to the Research Ethics Office when approval is obtained).

- no
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. If a Request for Approval has not been submitted, provide the reasons below:</td>
<td></td>
</tr>
<tr>
<td>G. Does this research focus on aboriginal peoples, communities or organizations?</td>
<td>no</td>
</tr>
<tr>
<td>If Yes, ensure that you are familiar with the guidance documents linked on the right. Also attach a copy of the research agreement with the community (if available) in question 9.7. Please describe the community consent process. If no community consent is being sought, please justify.</td>
<td></td>
</tr>
<tr>
<td>H. Registration for Publication of Clinical Trials. Does this study fall within the clinical/intervention trial definition stated on the right (in the guidelines)?</td>
<td></td>
</tr>
<tr>
<td>If 'Yes', click 'Add' to enter the following information. (Please note that registration by UBC ORS administration requires the prior ethical approval of the study. In that case, registration information should be added when it becomes available).</td>
<td></td>
</tr>
<tr>
<td>7.2. Number of Participants A. How many participants will take part in the entire study (i.e., the entire study, world-wide)?</td>
<td>approximately 10-20 per student project (roughly 40 student projects per year, but this will vary depending on the number of courses offered in a given year and the enrolment levels in the various courses)</td>
</tr>
<tr>
<td>B. How many participants will take part at institutions covered by this Research Ethics Approval (i.e., only at the institutions covered by this approval)?</td>
<td></td>
</tr>
<tr>
<td>7.3. Researcher Qualifications Who will actually conduct the study and what are their qualifications to conduct this kind of research? (e.g., describe relevant training, experience, degrees, and/or courses).</td>
<td>Students that are enrolled in the Computer Science courses listed in the title of this application. For some of the courses (e.g., 344/444/544), all of the students in the course will be required to run studies involving human subjects. In other courses (e.g., 543, 547) only some of the student projects will involve human subjects. A key point is that all students who run studies involving human subjects under this protocol will be required to read this ethics protocol and to take the Tri-Council Ethics tutorial (TCPS). They will also be required to provide a copy of their TCPS certificate to course staff prior to interacting with human subjects (if a verifiable version of the certificate is available, we will require that these be used). In each of the courses, there will also be some class/lab time devoted to instruction on working with human subjects. All of the instructors listed as co-investigators on this ethics applications are well versed in working with human subjects. All of the research faculty co-investigators are PIs on approved research ethics protocols. In addition, all of the TAs involved with these courses (typically</td>
</tr>
<tr>
<td><strong>8. Confidentiality - Human Ethics Application for Behavioural Study</strong> [View Form]</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>
| **8.1. Security of Data During the Course of the Study**  
How will data be stored? (E.g., computerized files, hard copy, videotape, audio recordings, personal electronic communications device, other.) How will security of the data be maintained? (For example, study documents must be kept in a secure locked location and computer files should be password protected and encrypted, data should not be stored or downloaded onto an unsecured computer, backup files should be stored appropriately.) If any data or images are to be kept on the Web, what precautions have been taken to prevent them being copied?  
While our enrolment in each of our graduate HCI courses ranges from 10-20 students, our undergraduate HCI courses are as high as 75-100 students. It is therefore not realistic that we will be able to lock all of the data/documents from all of the undergraduate course projects in the instructor's filing cabinet. Instead, students will be instructed to keep a password-protected electronic list of the names of all participants in their project. Each participant name will be associated with a participant number, specific to the project in which they participate.  
All data collection instruments (e.g., questionnaires) will require a participant number rather than a participant name. Students will be instructed to destroy the electronic list of participant names as well as any video recordings within 6 months of the termination of the course. This will allow students to keep complete copies of their projects, including data collected (except audio/video recordings), without comprising the confidentiality of their participants.  
Given the relatively lower enrolment of our graduate HCI courses, these courses will be treated slightly differently in that the students in these courses are graduate students and they may extend their course projects by generating research papers or creating thesis projects that build on their course projects. Graduate students that have no intention of extending their course projects will be instructed to destroy the list of participant names and any video recordings within 6 months of the termination of the course. Those students who do expect to build on their course projects will be instructed to store all confidential course material in a locked filing cabinet (which all grad students in Computer Science have access to) for a period of 5 years. If such a student leaves the university before 5 years have passed, the confidential material will be transferred to the instructor's locked filing cabinet.  
Copies of course project video recordings that the instructor believes will be instructive for future HCI graduate classes or research meetings will be kept in the instructor's locked filing cabinet. |
| **8.2. Access to Data**  
Who will have access to the data (e.g., co-investigators, students or translators)? How will all of those who have access to the data be made aware of their responsibilities concerning privacy and confidentiality issues?  
The course instructor and the students assigned to each project will have access to the data collected for that project. In the case of the undergraduate HCI courses and the entry level graduate course (CPSC 544), the student team's assigned teaching assistant will also have access to the data collected. |
No one other than those mentioned above will have access to the data. Therefore, it will be strictly prohibited for any raw data, including audio/video recordings and still images, to be made publicly available over the Internet or any other medium. The one exception is that audio/video and still images where the participant is not identifiable may appear in scholarly publications and theses, which are now commonly available online. The only other permitted uses of audio/video recordings will be for data analysis, and for the purposes of creating a short (3-5 min) video that is an overview of the entire student project and that may include short snippets of participants, for example, interacting with the prototype. That video will be shown as a part of the class project presentations. The video cannot be posted online if any participants are identifiable. Permission to videotape class project presentations will not be granted if the presentation includes identifiable participants.

Students who wish to show images/videos in presentations at a venue other than their final class presentation (for example, at a conference) can only do so if the participants are not identifiable. If students cannot achieve this, they will be required to make a ‘demonstration’ version with a ‘stand-in’ rather than showing any actual participants in the video.

All students will take the Tri-Council tutorial to reiterate their responsibilities to maintain privacy and confidentiality with the data.

### 8.3. Protection of Personal Information
Describe how the identity of research participants will be protected both during and after the research study, including how participants will be identified on data collection forms.

Participants’ names will appear only on the consent forms; these will be handed in directly to the course TA and stored separately from any interview, survey, observation, focus group, or experiment data collected, in a locked file cabinet. Participants will be given different names in the reporting of interview results, and surveys will be labelled anonymously, such as P1, P2, P3, etc.

### 8.4. Transfer of Data
Will any data that identify individuals be transferred (available) to persons or agencies outside of the University?

No

If YES, describe in detail what identifiable information is released, to whom, how the data will be transferred, how and where it will be stored and what safeguards will be used to protect the identity of participants and the privacy of their data. Attach the data transfer agreement if applicable.

### 8.5. Retention and Destruction of Data
UBC policy requires that data be kept for at least 5 years within a UBC facility. If you intend to destroy the data at the end of the storage period describe how this will be done to ensure

Please see 8.1
confidentiality (e.g., tapes should be demagnetized, paper copies shredded). UBC has no explicit requirement for shredding of data at the end of this period and it may be kept indefinitely. Please note that the responsibility for the security of the data rests with the Principal Investigator.

8.6. Future Use of Data Are there any plans for future use of either data or audio/video recordings? Provide details, including who will have access and for what purposes, below.

There are no plans for future use of any data collected in the undergraduate HCI courses.

For the most part, there are no plans for future use of any data collected in the graduate HCI courses, including audio/video recordings. Three exceptions exist: (1) some video recordings may be used in future HCI classes as examples of Human-Computer Interaction projects that have been done before; (2) the video recordings may be used in research meetings conducted in the Department of Computer Science at UBC to present and discuss HCI projects that were done in our graduate classes; and (3) the data may be used to inform research publications and graduate theses.

8.7. Feedback to Participants Are there any plans for feedback on the findings or results of the research to the participant? Provide details below.

Should a participant desire, a full debriefing will be provided to that participant at the end of his/her period of participation. This debriefing will disclose the specific purpose, and motivations for the evaluation session(s).

9.1. Research Proposal Examples of types of proposals are listed on the right. Click Add to enter the required information and attach the documents.

<table>
<thead>
<tr>
<th>Document Name</th>
<th>Version</th>
<th>Date</th>
<th>Password (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>general consent</td>
<td></td>
<td>September 8, 2012</td>
<td></td>
</tr>
<tr>
<td>questionnaire-only consent form</td>
<td></td>
<td>August 27, 2012</td>
<td></td>
</tr>
</tbody>
</table>

9.2. Documentation of Consent Examples of types of consent documents are listed on the right. Click Add to enter the required information and attach the documents.

<table>
<thead>
<tr>
<th>Document Name</th>
<th>Version</th>
<th>Date</th>
<th>Password (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>participant list (blank)</td>
<td></td>
<td>August 27, 2012</td>
<td></td>
</tr>
<tr>
<td>9.6. Letter of Initial Contact</td>
<td>Please click Add to enter the required information and attach the forms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.7. Other Documents A. Other documents:</td>
<td>Examples of other types of documents are listed on the right. Click Add to enter the required information and attach the documents.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. If a Web site is part of this study, enter the URL below. Since URL’s may change over time or become non-existent, you must also attach a copy of the documentation contained on the web site to one of the sections above or provide an explanation.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**10. Fee for Service - Human Ethics Application for Behavioural Study**  [View Form]

Mechanism for Submitting Fee. Please indicate which of the following method of payment will be used for this application:

Contact information regarding where to send the invoice.

**12. Save Application - Human Ethics Application**  [View Form]