

Date: May-31-12 3:02:58 PM

The University of British Columbia

Office of Research Services

Behavioural Research Ethics Board

Suite 102, 6190 Agronomy Road

Vancouver, BC V6T 1Z3

Principal Investigator: [Joanna McGrenere](#)

### 1. Principal Investigator & Study Team - Human Ethics Application [View Form]

1.1. Principal Investigator Please select the Principal Investigator (PI) for the study. Once you hit Select, you can enter the PI's name, or enter the first few letters of his or her name and hit Go. You can sort the returned list alphabetically by First name, Last name, or Organization by clicking the appropriate heading.

| Last Name                 | First Name             | Employer.Name                    | Email                            |
|---------------------------|------------------------|----------------------------------|----------------------------------|
| <a href="#">McGrenere</a> | <a href="#">Joanna</a> | <a href="#">Computer Science</a> | <a href="#">joanna@cs.ubc.ca</a> |

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

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.

| Last Name                 | First Name             | Rank                                |
|---------------------------|------------------------|-------------------------------------|
| <a href="#">McGrenere</a> | <a href="#">Joanna</a> | <a href="#">Associate Professor</a> |

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.

| Last Name               | First Name                 | Institution/Department                       | Rank                      |
|-------------------------|----------------------------|----------------------------------------------|---------------------------|
| <a href="#">MacLean</a> | <a href="#">Karon E.</a>   | <a href="#">UBC/Science/Computer Science</a> | <a href="#">Professor</a> |
| <a href="#">Booth</a>   | <a href="#">Kellogg S.</a> | <a href="#">UBC/Science/Computer Science</a> | <a href="#">Professor</a> |

Wolfman Steven UBC/Science/Computer Science Instructor/Lecturer  
 Pai Dinesh K. UBC/Science/Computer Science Professor  
 Munzner Tamara UBC/Science/Computer Science Professor

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.

| Last Name | First Name | Institution/Department | Rank |
|-----------|------------|------------------------|------|
|-----------|------------|------------------------|------|

1.5. Additional Study Team Members - No Online Access Click 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.

| Last Name | First Name | Institution / Department | Rank / Job Title | Email Address |
|-----------|------------|--------------------------|------------------|---------------|
|-----------|------------|--------------------------|------------------|---------------|

1.6.1. All undergraduate and graduate students and medical residents are expected to complete the TCPS Tutorial before submission. It is strongly recommended that the Principal Investigator and all Co-Investigators are familiar with the TCPS. Indicate completion of the TCPS tutorial below: All Undergraduate/Graduate Students: [Yes](#)

1.6.2. All Medical Residents: [N/A \(no medical residents participating in this study\)](#)

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.

[CS Human-Computer Interaction Course Projects \(CPSC 344/444/530P/543/544/547/548/554M\)](#)

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](#)

NOTE, if this application was converted to RISE from our previous database, ORSIL, here is the previous ORSIL application number for your information.

2 Study Dates and Funding Information - Human Ethics Application [\[View Form\]](#)

2.1. A. Start date: [September 1, 2012](#)

2.1. B. End date:

2.2. 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 to enter the name of the source of the funds to be listed on the certificate of approval. [No Funding](#)

If you selected Other, specify the type of funding below.

2.3. Research Funding Application/Award Associated with the Study 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.

| UBC Number | Title | Sponsor |
|------------|-------|---------|
|------------|-------|---------|

2.3.1. Is this a DHHS grant?

2.3.2. If yes, please select the appropriate DHHS funding agency from the selection box, and attach the grant application.

Attach DHHS Grant Application for each sponsor listed above

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.

| UBC Number | Title | Sponsor |
|------------|-------|---------|
|------------|-------|---------|

2.4.1. Is this a DHHS grant?

2.4.2. If yes, please select the appropriate DHHS funding agency from the selection box, and attach the grant application.

Attach DHHS Grant Application for each sponsor listed above

2.5. Conflict of Interest Do any of the following statements apply to the Principal Investigator, Co-Investigators and/or their partners/immediate family members? Receive personal benefits in connection with this study over and above the direct cost of conducting this study. For example, being paid by the

funder for consulting. (Reminder; receiving a finders' fee for each subject enrolled is not allowed). Have a non-financial relationship with the sponsor (such as unpaid consultant, advisor, board member or other non-financial interest). Have direct financial involvement with the sponsor (source of funds) via ownership of stock, stock options, or membership on a Board. Hold patent rights or intellectual property rights linked in any way to this study or its sponsor (source of funds). [No](#)

#### 4. Study Review 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 - Behavioural](#)

#### 4.2. Institutions and Sites for Study

A. Enter the locations for the institutions and sites where the research will be carried out under this Research Ethics Board approval (including specimens processed by pathology, special radiological procedures, specimens obtained in the operating room, or tissue requested from pathology). Click Add and enter the appropriate letter to see the locations for the institutions and sites where the research will be carried out under this Research Ethics Board approval: B for BC Cancer Agency C for Children's and Women's Health Centre of BC P for Providence Health Care U for UBC Campus V for Vancouver Coastal Health (VCHRI/VCHA). If you are NOT using any of these sites select N/A from the list.

Institution      Site

[UBC](#)    [Vancouver \(excludes UBC Hospital\)](#)

B. Please enter any other locations where the research will be conducted under this Research Ethics Approval (e.g. private physician's office, community centre, school, classroom, subject'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.](#)

4.3. 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](#)

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.](#)

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 9.8.

4.4. If this research proposal has received any independent scientific/methodological peer review, please include the names of committees or individuals involved in the review. State whether the peer review process is ongoing or completed.

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.

B. Internal (UBC or hospital) peer review details: N/A

C. If this research proposal has NOT received any independent scientific/methodological peer review, explain why no review has taken place. N/A – class projects

4.5. After reviewing the minimal risk criteria on the right, does your application fall under minimal risk (and therefore is eligible to be considered for Delegated Review, executive review or review by an Undergraduate Research Review Committee)? yes

4.6.A. Pandemic Research Does this study involve research concerning H1N1 or any other urgent public health event such that it requires urgent review and approval? [if no, move on to 5, if yes, answer 4.6B]  
no

4.6.B. Does this pandemic study require review and approval by multiple Canadian Research Boards (i.e. more than those covered under the certificate of approval for this application) [If no, move on to 5, if yes, answer 4.6.C]

4.6.C. Are you the Lead Investigator for this pandemic study? (i.e. the pandemic study involves numerous co-investigators from various sites external to UBC and you have been selected as the lead investigator for the entire project) [If YES, move on to 5, if NO move on to 4.7]

4.7. Pandemic Research Lead PI REB Please review the guidance note on the right and then answer the following question: If the study has NOT been approved by the Lead PI's REB, UBC's REBs will not proceed to review the study independently. They will be participating in the Lead REB approval process and accordingly, your application is premature. Please discontinue this application and submit a new application as soon as the study approval by the Lead PI REB has been obtained. If the study HAS been approved by the Lead PI's REB, UBC's REBs will make every effort to review your study as quickly as possible. In order to ensure that the required documentation is incorporated into the RISE system, you will be directed to respond to Question 9. For more information please see the accompanying guidance note. Has this study been reviewed and approved by the Lead Principal Investigator's REB?

#### 4A. Study Review Type - Undergraduate Behavioural Research [View Form]

4. A1. Has this study been approved by another Canadian Research Ethics Board? [no](#)

If Yes, provide the name of the Research Ethics Board (REB) and the REB contact information below and proceed to the next page. Attach all relevant documentation in Section 9 of the form, including all documents submitted to the other Canadian REB. The application and correspondence between the researcher and the REB must be attached in Question 9.8. If No complete question 4. A2.

4. A2. Does this study involve individual, honours thesis or course based research by UNDERGRADUATE students that is being conducted as part of an undergraduate course offered by The University, that is NOT PART OF A FACULTY MEMBER'S research program [yes](#)

If Yes, please select the applicable Undergraduate Student Research Review Committee from the list of established committees below. NOTE: There are currently no committees established, so please select No Research Committees Available:

[No Research Committees Available](#)

#### 5. Summary of Study and Recruitment - Human Ethics Application [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 protocol.

[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 subjects being selected for this study, and list the criteria for their inclusion. For research involving human pluripotent stem cells, provide a detailed description of the stem cells being used in the research.

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 subjects will be excluded from participation, and list the criteria for their exclusion.

Individuals who do not meet the inclusion criteria.



5.4. Provide a detailed description of the method of recruitment. For example, describe who will contact prospective subjects 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 Page 9.

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. Describe how prospective normal/control subjects will be identified, contacted, and recruited, if the method differs from the above.

5.6 If existing records (e.g. health records, clinical lists or other records/databases) will be used to IDENTIFY potential subjects, please describe how permission to access this information, and to collect and use this information will be obtained.

No existing records will be used.

#### 5.7. 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 hi-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.

## 6. Subject Information and Consent Process - Human Ethics Application [View Form]

6.1. How much time will a subject be asked to dedicate to the project beyond that needed for normal care?

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. If applicable, how much time will a normal/control volunteer be asked to dedicate to the project?  
N/A

6.3. Describe what is known about the risks (harms) of the proposed research.

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

6.4. Describe any potential benefits to the subject that could arise from his or her participation in the proposed research.

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.

6.5. 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 subjects. Provide full details of the amounts, payment schedules, and value of gifts-in-kind.

Participants will not receive compensation.

6.6. Specify who will explain the consent form and invite the subject to participate. Include details of where the consent will be obtained, and under what circumstances.

Students will be involved in recruiting participants for their own studies, and will obtain consent from participants. Two consent templates will be provided by the instructor for students to modify: (1) questionnaire-only consent, and (2) general consent, which will cover user studies that involve methods in addition to questionnaires. The consent templates are attached to this protocol. For all user studies, students will employ one of these two consent templates, with modifications permitted only as indicated in the templates.

Consent will be obtained explicitly in one of the following ways:

- 1) by returning a completed questionnaire (questionnaire-only consent),
- 2) through the participant signing a consent form (general consent), or
- 3) by replying affirmatively to an email that contains the consent form text (general consent).

Case 3 above will be used in situations where the participant is remote (for example, for a skype interview, or completing a task online through a web browser).

All consent forms will be viewed by the instructor and/or a TA before being used.

6.6.A. If you are asking for a waiver or an alteration of the requirement for subject informed consent please justify the waiver or alteration and confirm that the study meets the criteria on the right. N/A

6.7. How long after receiving the consent form will the subject have to decide whether or not to participate? If this will be less than twenty-four hours, provide an explanation.

In cases where an individual is approached to participate in a quick survey, s/he may choose to participate at that time, or take the contact information of the researcher and do the survey at a later time. In most cases, student researchers will be using email lists, web pages, and notice boards to recruit, which means that participants will have time to see the notice, make a decision, and contact the researcher should they wish to participate. Whenever possible, students researchers will also provide a copy of the consent form in advance (e.g., by email) so that the participant has an even fuller description of the study before participating.

6.8. Will every subject be competent to give fully informed consent on his/her own behalf? Please click Select to complete the question and view further details.

Will subject be competent to give fully informed consent?  
incompetence If not, who will consent on his/her behalf?  
to participate? If Yes, explain how assent will be sought.

Details of the nature of the  
If not, will he/she be able to give assent

Yes

[Details]

6.9. 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. What provisions are planned for subjects, or those consenting on a subject'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. Describe any restrictions regarding the disclosure of information to research subjects (during or at the end of the study) that the sponsor has placed on investigators, including those related to the publication of results. N/A

7. Number of Subjects - Human Ethics Application for Behavioural Study [View Form]

7.1. Indicate external approvals below: A. Other Institutions:

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:

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).

F. If a Request for Approval has not been submitted, provide the reasons below:

G. Does this research involve aboriginal communities or organizations; or aboriginals as an identified subject category?

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 9.8. Please describe the community consent process. If no community consent is being sought, please justify.

7.2. A. How many subjects (including controls) will be enrolled in the entire study? (i.e. the entire study, world-wide)

B. How many subjects (including controls) will be enrolled at institutions covered by this Research Ethics Approval? (i.e. only at the institutions covered by this approval)

Of these, how many are controls?

7.3. Are any of the following procedures or methods involved in this study? Check all that apply.

Naturalistic Observation

Videotaping

Expert Interviews

Focus Groups

7.4. 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).

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 graduate HCI students) will be required to complete the TCPS prior to working with any of the students and their projects.

## 8. Confidentiality - Human Ethics Application for Behavioural Study [View Form]

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, PDA, 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 or portable lap-top, backup files should be stored appropriately). If any data or images are to be kept on the Web, what precautions have taken to prevent it 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? (For example, co-investigators or students). How will all of those who have access to the data be made aware of his or her 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 subjects will be protected both during and after the research study, including how subjects 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 subjects 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 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; however, destruction of the data is the best way of ensuring that confidentiality will not be breached. Please note that the responsibility for the security of the data rests with the Principal Investigator.

Please see 8.1

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 subjects Are there any plans for feedback on the findings or results of the research to the subject? 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. Documentation - Human Ethics Application [View Form]

9.1.A. Protocol Examples of types of protocols are listed on the right. Click Add to enter the required information and attach the documents.

Name    Version Date    Password (if applicable)

9.1.B. Health Canada regulatory approval (receipt will be acknowledged)

Name    Version Date    Password (if applicable)

9.1.C. FDA IND or IDE letters (receipt will be acknowledged)

Name    Version Date    Password (if applicable)

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

Name    Version Date    Password (if applicable)

9.3. Assent Forms Examples of types of assent forms are listed on the right. Click Add to enter the required information and attach the forms.

Name    Version Date    Password (if applicable)

9.4. Investigator Brochures/Product Monographs (Clinical applications only) Please click Add to enter the required information and attach the documents.

Name   Version Date   Password (if applicable)

9.5. Advertisement to recruit subjects Examples are listed on the right. Click Add to enter the required information and attach the documents.

Name   Version Date   Password (if applicable)

9.6. Questionnaire, questionnaire cover letter, tests, interview scripts, etc. Please click Add to enter the required information and attach the documents.

Name   Version Date   Password (if applicable)

9.7. Letter of initial contact Please click Add to enter the required information and attach the forms.

Name   Version Date   Password (if applicable)

9.8. A. Other documents: Examples of other types of documents are listed on the right. Click Add to enter the required information and attach the documents.

Name   Version Date   Password (if applicable)

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.

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]