UNIVERSITY OF TORONTO
Office of the Vice President, Research
Office of Research Ethics

UNDERGRADUATE ETHICS REVIEW PROTOCOL FORM
STUDENT-INITIATED PROJECT

DELEGATED ETHICS REVIEW COMMITTEE (DERC) reviewing this project:

FACULTY SUPERVISOR:
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Department Electrical and Computer Engineering
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PRINCIPAL INVESTIGATOR (UNDERGRADUATE STUDENT):
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Department
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COURSE:
Course Title Capstone Design Project
Project Title Reflection Chat Bot
Course Code ECE496 Course Start Date 10 September 2015
(The student's project will be considered completed once the course is over. It is possible, however, to submit an annual renewal form if the project continues beyond the course.)

MINIMAL RISK AND DELEGATED REVIEW:
Risk to participants should be proportionate to *student experience* and *pedagogical goals*, with appropriate levels of responsibility and supervision. Typically, undergraduate research should involve *minimal risk*, which means that the probability and magnitude of harm due to participation in the research is no greater than that encountered by participants in their everyday lives. Assessing risk may to some degree be affected by discipline-specific considerations—e.g., forensics, medicine, and nursing may involve work with participants in clinical settings, with attendant requirements for oversight and team qualifications.

Departments will likely want to work with the Office of Research Ethics (ORE) to decide how best to handle different levels of risk. Additional on-line resources may also be helpful, including:

- http://www.research.utoronto.ca/for-researchers-administrators/ethics/ (U of T Office of Research Ethics website)
- http://pre.ethics.gc.ca/eng/policy-politique/tcps-eptc/readtcps-lireeptc/ (Tri-Council Policy Statement)
- www.pre.ethics.gc.ca/english/tutorial/ (TCPS Tutorial)

To evaluate risk for this protocol, consider:

- *Group vulnerability—i.e.,* any pre-existing vulnerabilities associated with proposed participant groups, e.g., relating to pre-existing physiological or health conditions, cognitive or emotional factors, and socio-economic or legal status.
- *Research risk—i.e.,* the probability and magnitude of harms participants may experience as a result of the proposed methods to be used and types of data to be collected, e.g., relating to physiological or health issues such as clinical diagnoses or side effects, cognitive or emotional factors such as stress or anxiety during data collection, and socio-economic or legal ramifications such as stigma, loss of employment, deportation, or criminal investigation (e.g., in the event of duty to report intent to cause serious harm, subpoena, or breach of confidentiality).

Please provide over-all assessments of group vulnerability and research risk (i.e., *low*, *medium*, *high*) and locate the protocol in the matrix, below.

RISK MATRIX: Review Type by Group Vulnerability and Research Risk--circle one:

		Research Risk	
Group vulnerability	**Low**	**Medium**	**High**
Low	*Delegated*	Delegated	Full*
Medium	Delegated	Full*	Full*
High	Full*	Full*	Full*

*Review by the appropriate REB in Office of Research Ethics

Briefly explain the group vulnerability and research risk, and explain any exceptional circumstances (e.g., student experience) justifying greater than minimal risk:

The research will be conducted so that only the participant will have access to the information shared between them and the chatbot. Furthermore the participants will be informed about the nature of the research experience.

CO-INVESTIGATORS:

Are co-investigators involved? *Yes* □ No □
If **YES**, provide the name(s) and contact information on a separate sheet.

HOST SITES:
Indicate the location(s) where the research will be conducted:
University of Toronto □
Affiliated teaching hospital □ _____ (specify site(s))
Community within the GTA □ _____ (specify site(s))
Other □ Online on a website (specify site(s))

N.B. If the research is to be conducted at a site requiring administrative approval/consent (e.g., in a school), please include all draft administrative consent letters. It is the responsibility of the researcher to determine what other means of approval are required, and to obtain approval prior to starting the project.

Other Research Ethics Board Approval:
(a) Does the research involve another institution or site? Yes □ *No* □
(b) Has any other REB approved this project? Yes □ *No* □
(c) If **Yes**, please provide a copy of the approval letter upon submission of this application.
(d) If **No**, will any other REB be asked for approval? Yes □ *No* □
If **Yes**, please specify which REB _____

BACKGROUND, PURPOSE, AND OBJECTIVES:
Briefly describe the pedagogical goal and scholarly motivation for the project.

The goal of this project is to create a chat bot that will allow the user to reflect on their values and actions. It is an exercise in trying to merge psychology and natural language processing. The product will be presented as either a mobile or web app, where users can converse with the chat bot.

METHODS AND DATA:
- If the research takes place in a controlled environment (e.g., clinic, laboratory, formal interview or tests), describe sequentially, and in detail, all procedures in which research participants will be involved.
- If the research involves naturalistic or participant observation, please describe the setting, the types of interactive and observational procedures to be used, and the kinds of information to be collected.
- If the research involves secondary analysis of previously collected data, describe the original source of the data and measures that have been taken to protect data subjects' identities.
- If the project involves using specialized methods with participants, describe the student's relevant past experience, or the nature of any supervision they may receive.

N.B. Attach a copy of all questionnaires, interview guides or other test instruments.

During the conversation with the chatbot, the user will be asked certain questions designed to get them to reflect on their values and actions. They are listed on a separate sheet.

PARTICIPANTS, INFORMANTS, OR DATA SUBJECTS:

Describe the individuals whose personal information is to be used as part of the assignment (i.e., in terms of inclusion and exclusion criteria, especially where active recruitment is involved). If the assignment involves working with a vulnerable population, describe the student's relevant past experience, or the nature of any supervision they may receive.

The user will decide whether they want the chatbot to save personal information about them or not. This functionality is enabled so that returning users can pick up where they left off in a conversation with the chatbot. Otherwise no personal information will be stored.

RECRUITMENT:

Where there is formal recruitment, please describe how and from where the participants will be recruited. Where participant observation is to be used, please explain the form of insertion of the researcher into the research setting (e.g., living in a community, visiting on a bi-weekly basis, etc.) Where relevant, please explain any non-research relationship between the student and the research participants (e.g., teacher-student, manager-employee, nurse-patient).

N.B. Attach a copy of any posters, advertisements, flyers, letters, or telephone scripts to be used for recruitment.

To recruit participants we will focus most of our efforts on our friends, family, contemporaries. We may also choose to host our bot online and pay people to use the bot. In both cases we will post a disclaimer about the bot, explaining its purpose and what the participant's role is in the research. The research will only begin once the user has agreed to the terms and conditions we listed.

RISKS:

Indicate if the participants might experience any of the following risks:

(a) Physical (e.g., bodily contact, administration of any substance)? Yes □ *No* □

(b) Psychological/emotional (e.g., feeling embarrassed, anxious, upset)? Yes □ *No* □

(c) Social (e.g., possible loss of status, privacy, reputation)? Yes □ *No* □

(d) Is there any deception involved (see "Debriefing", below)? Yes □ *No* □

(e) Are risks to participants greater than in their everyday life? Yes □ *No* □

If you answered **Yes** to any of the above, please explain the risks, and describe how they will be managed, and how they are proportionate to student experience and pedagogical goals.

BENEFITS:

Discuss any potential direct benefits to the participants from their involvement in the project. Comment on potential benefits to the student, the scholarly community, or society that would justify involvement of participants in this study. (See the note on courtesy copies of final reports in the "Debriefing" section, below)

The participants may gain a deeper understanding of themselves and what they want in life. This project could be used as a tool to help people perform reflective exercises they might not otherwise have a chance to.

COMPENSATION:

Will participants receive compensation for participation? *Yes* □ No □

Financial	Yes □	No □
In-kind	Yes □	No □
Other	Yes □	No □

(b) If **Yes**, please provide details.

Users who will interact with the bot via online platforms will be financially compensated.

(c) Where there is a withdrawal clause in the research procedure, if participants choose to withdraw, how will you deal with compensation?

There will be no compensation provided if a participant decides to withdraw from the study.

CONSENT PROCESS:

Describe the process that the student will use to obtain informed consent. Please note, it is the quality of the consent not the format that is important: if there will be no written consent form, please explain (e.g., if culturally inappropriate). If the research involves extraction or collection of personal information from a data subject, please describe how consent from the individuals or authorization from the custodian will be obtained. For information about the required elements in the information letter and consent form, please refer to: http://www.research.utoronto.ca/wp-content/uploads/2010/01/GUIDE-FOR-INFORMED-CONSENT-April-2010.pdf

N.B. Where applicable, please attach a copy of the Information Letter/Consent Form, the content of any telephone script, letters of administrative consent or authorization and/or any other material which will be used in the informed consent process.

The participant will be told of the purpose of the study and their role in it. Once they agree to the terms and conditions, they will begin the research portion.

If the participants are children, or are not competent to consent, describe the proposed alternate source of consent, including any permission/information letter to be provided to the person(s) providing the alternate consent as well as the assent process for participants.

n/a

Where applicable, please describe how the participants will be informed of their right to withdraw from the project. Outline the procedures which will be followed to allow them to exercise this right.

The participants will receive an initial message from the chatbot to inform them they are talking to a chatbot and their conversation will be used for research purposes. They will be allowed to stop at any time.

Indicate what will be done with the participant's data and any consequences which withdrawal may have on the participant.

The data will be used to train the chatbot, and studied to help us fine tune how to chatbot's behavior. There will be no consequences for the participant.

If the participants will not have the right to withdraw from the project at all, or beyond a certain point, please explain.

PRIVACY AND CONFIDENTIALITY:

Will the data be treated as confidential? *Yes* □ No □

If **Yes**, please describe the procedures to be used to protect confidentiality during the conduct of research and in preparation of the final report.

The data will be studied, but the data will be procured in such a way that we will not be able to know which user had which conversation.

Explain how written records, video/audio tapes and questionnaires will be stored (e.g., password protected computer, double locked office and filing cabinet), and provide details of their final disposal or retention schedule. Data security measures should be consistent with U of T's *Data Security Standards for Personally Identifiable and Other Confidential Data in Research*:

The data will be stored on a private Github account, and all of the conversations with the chatbot will be numbered, so no user information is stored.

If **No**—i.e., confidentiality is not appropriate in the context of this assignment—please explain (e.g., participants are key informants with established reputations in their field).

n/a

DEBRIEFING:

Explain what information (e.g., research summary) will be provided to the participants after participation in the project. If deception will be used in the research study, please explain

what information will be provided to the participants after participation in the project—if applicable, attach a copy of the written debriefing form.

N.B. Please note that all copies of the students' final reports—e.g., for circulation as courtesy copies, or future writing samples—must clearly indicate on the cover page the instructor, course number, and department or program at the University of Toronto that the report was prepared for.

The participants can receive a transcript of their conversation.

U of T - Office of Research Ethics
12 Queen's Park Crescent West ; McMurrich Building 2nd Floor
Ethics.review@utoronto.ca

SIGNATURES:

As the **Principal Investigator** on this project, my signature testifies that I will ensure that all procedures performed under the project will be conducted in accordance with all relevant University, provincial and national policies and regulations that govern research involving human participants. Any deviation from the project as originally approved will be submitted to the Research Ethics Board for approval prior to its implementation.

Signature of Principal Investigator: Date:
(Undergraduate Student)

As the **Faculty Supervisor** on this project, my signature testifies that I have reviewed and approve the scholarly merit of the research project and this ethics protocol submission. I will provide the necessary supervision to the student researcher throughout the project, to ensure that all procedures performed under the research project will be conducted in accordance with University, provincial and national policies and regulations that govern research involving human subjects. This includes ensuring that the level of risk inherent to the project is managed by the level of research experience that the student has, combined with the extent of oversight that will be provided by the Faculty Supervisor and/or On-site Supervisor.

Signature of Faculty Supervisor: Date:

As the **Undergraduate Coordinator**, my signature testifies that I am aware of the proposed activity, and understand that the level of risk inherent to the project should be managed by the level of research experience that the student has, combined with the extent of oversight that will be provided by the Faculty Supervisor and/or On-site Supervisor.

Signature of Undergraduate Coordinator: Date:

As the **Departmental Chair/Dean**, my signature testifies that I am aware of the proposed activity, will allocate space and other resources required, and will provide administrative support to the research activity. My department, faculty or division will oversee the conduct of research involving human subjects to ensure compliance with University, provincial and national policies and regulations. My signature also reflects the willingness of the department, faculty or division to administer the research funds, if there are any, in accordance with University, regulatory agency and sponsor agency policies.

Signature of Departmental Chair/Dean: Date:

Co-Researcher Information

INVESTIGATOR (UNDERGRADUATE STUDENT):
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Structured Questionnaire

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