**School of Engineering Research Ethics Committee**

**Application Form**

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| Name | Changhong Li |
| School | Trinity College Dublin School of Engineering |
| Position | Postgraduate Student |
| Supervisor (if applicable) | Shreejith Shanker |
| Contact email | Lic9@tcd.ie |

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| Project title | HeyDude |
| Start Date | December 26, 2023 |
| End Date | December 26, 2024 |
| Funder (if applicable) | N/A |

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| Date of Submission | January 3, 2024 |

Please read through the checklist below and tick the relevant boxes provided to ensure that each required item has been included or considered with your application. Please put ‘N/A’ against items that are not relevant to your application. Applications submitted without a completed checklist will not be reviewed by the Committee.

This form is for Level 1 applications. Applications involving vulnerable groups, minors, and/or healthcare patients should be addressed to a Level 2 committee. Please see the School website for further details.

**Please note deadlines for submission of applications and outcome dates published on the School webpage when considering the start date of your project.**

Please submit the completed form and any supplementary documents to [mary.kerrigan@tcd.ie](mailto:mary.kerrigan@tcd.ie).

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| **Application Checklist** | X |
| No vulnerable participants are included in the study, and no hospital or clinical procedures are involved. | X |
| No minors are participants in the study | X |
| Letter of permission provided from the organisation/industry/institution hosting the study, or holding relevant data. | X |
| Application form (Section 20) states that data will be stored for as long as is necessary for the purposes of the research project, in line with Trinity College’s data retention policy. | X |
| Participant and study Information/Debriefing sheet Consent Form   * The Information Sheet should contain Trinity College work contact details (phone number, e-mail and postal address) of applicant and supervisor (if applicable). * The Consent Form must include space for participants to both print and sign their name. | X |
| Provision of any advertising material that will be used for the purpose of recruiting participants (e.g., posters) | X |
| Fully Completed Application for Approval (see below) | X |

**School of Engineering**

**Research Ethics Committee**

**Application for approval**

**Study Design & Methods**

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| **1. Specify the aim(s) of the research** |
| **This research aims to build up a hands-free speaker control with users’ voice called TheBox. TheBox connects to the HeyDude Voice Service to supply multimedia services. In the research, the developers need to testify the algorithm with a variety of different voices, running of experiments in which audio recordings of test subject’s speech. The audio are used to test the accuracy of the machine learning algorithm and improve the experience of the users.** |
| **2. Describe the research design and briefly outline the methods that will be used** |
| **Research Design: The research is an observational study, and researchers should evaluate the performance of the cloud software, and user experience, ensure the ethical compliance of the software services. The data of the research is from the speech of the students and staff in the university. The developers should evaluate the performance of the software with different scenarios and mark the product with its accuracy, speed, ethical compliance, etc.**  **Methods: The research methods involve Data Collection, Ethical Considerations, data analysis and results reporting, etc.** |
| **3. Describe the procedures that participants will encounter during the study. This account should convey, in straightforward language, exactly what will happen to participants in the study.** |
| **Students or employees participating in the trial as voice samples will be asked to record multiple voice audio commands for different scenarios to serve as training datasets.**  **Project researchers will use these data samples to train the model and evaluate its performance and compliance** |
| **4.** **How will reliability and validity be assessed. If not known, what steps will be taken to establish reliability and validity?** |
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| **5. Clearly state what data will be collected, and how will the data collected be used in the analysis. Please justify why you have chosen to collect this type of data for this research."** |
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**Access & Recruitment of Participants**

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| **6. Will human participants be involved in the project?** | |
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| **7. How many participants are required?** | |
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| **8. Please identify the expected composition of the participant group, considering age, gender, background, employment status etc where applicable. .** | |
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| **9. State how participants will be recruited. If participants will be recruited via another institution or organisation, please attach a letter confirming cooperation.** | |
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| **10. Specify how participants will be informed of the nature of the study (e.g., aim, rationale) and what participation entails (attach copy of Information Sheet, Briefing or Debriefing Forms). This should consider information provided to participants before, during and after the participation.** | |
|  | **Mark to confirm attachment of Information Sheet and/or forms** |
| **11. Specify how informed consent will be obtained (attach copy of consent form).** | |
|  | **Mark to confirm attachment of Consent form** |
| **12. If observational research is to be undertaken without prior consent, describe the situation and how privacy, confidentiality and dignity will be preserved.** | |
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**Fieldwork/Data Collection/ Testing**

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| **13. Where will the study take place? Specify where participants will be tested/interviewed** |
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| **14. How long (per participant) will testing / interviewing take? Will participants be offered a break?** [if testing period extends beyond one hour, then a break must be offered] |
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| **15. Will participants be paid? If so, what is the rate of payment?** |
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| **16. Specify how confidentiality of participants will be assured.** |
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| **17. Can participants withdraw from the study at any point without penalty? If so, how will this information be communicated to participants?** |
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**Assessment of Risk and Risk Management**

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| **18. Specify whether the study involves any risk of harm to the participants or the environment. If so, justify why it is necessary and how it will be minimised.** |
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| **19. Specify any requirements for continued engagement with participants following completion of the project.** |
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**Data Storage & Management**

Please note that data collected by M-level students should not be stored on personal laptops, but on an appropriate cloud service managed by the project supervisor.

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| **20. Specify the measures the study will adopt for storing data. Please see <https://www.tcd.ie/info_compliance/index.php> for guidelines.** | |
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| **21. Please mark to confirm that all personal data will be kept for as long as is necessary to conduct the research, and no longer in line with [Trinity’s data storage policy](https://www.tcd.ie/research/dean/assets/pdf/FINAL_Good%20Research%20Practice%20policy_COUNCIL%20APPROVEDandminutedgg.pdf)?** |  |

**GDPR**

22. Does the study involve collecting, using, accessing or sharing personal data[[1]](#footnote-0)?

Yes No

If No, please go to end of form declaration

If Yes, please list all categories of personal data.

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| **Type of Data** | **Justification:**  **Explain why you need the data** | **Processing Activity:**  **List: data formats and storage** | **Identifiable, coded, or anonymised?** |
| *EXAMPLE:*  Name  DOB  Email | *Identification, so that we can apply matching codes across data sets.* | *Stored in Excel spreadsheet in OneDrive in encrypted format.* | *Identifiable* |

23. Does the study involve collecting, using, accessing or sharing sensitive data[[2]](#footnote-1)

Yes No

If Yes, please list all categories of the sensitive data collected.

If No, please go to question 24

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| **Type of Data** | **Justification**  **Explain why you need the data** | **Processing Activity**  **List different formats of data and storage** | **Identifiable, coded, or anonymised?** |
| *EXAMPLE: Video recording of interview* | *Relevant to research* | *Original Video stored in encrypted format in SharePoint. Accessed by PI only.* | *Identifiable* |

24. Who determines how and why the personal and/or sensitive data is used?

(Data Controller[[3]](#footnote-2) or Joint Data Controllers)

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| Provide Details: |

25. Will the personal and/or sensitive personal data be shared with any third parties[[4]](#footnote-3)?

If Yes, provide details including information on the contractual arrangements in place.

This list should include all Data Processing Agreements with external laboratories, Cloud-based Solutions Agreements etc. and any and Data Sharing Agreements with Collaborators.

**Please contact [researchDPO@tcd.ie](mailto:researchDPO@tcd.ie) if you need assistance with Agreements and/or for any transfer outside EEA (including England, Wales, Scotland or Northern Ireland).**

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| **Provide Details:** |

26. What steps will you take to protect the confidentiality of personal or sensitive personal data?

Please see checklist on secure storage available [here.](https://www.tcd.ie/ITSecurity/gdpr/checklist.php)

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| *EXAMPLE: pseudonymisation and encryption, access controls, logs, etc.*  Provide Details: |

27. What is the retention period for the personal data and how will this be implemented?

**Please see good [research practice guide](https://www.tcd.ie/dental/research/research-ethics/TCDGoodResearchPractice.pdf) for guidance on retention of data**

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| EXAMPLE: *The data will be retained for the duration of the research project plus 7 years (10 years in total) to allow for publication. The data will be retained in pseudonymised form.*  Provide Details: |

28. Will the personal data be fully anonymised or destroyed after it is no longer necessary?

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| **See [advice](https://www.tcd.ie/itservices/security/data-disposal.php) on secure data disposal**  Provide Details: |

3.8 How will you inform participants of their rights under GDPR[[5]](#footnote-4):

Please note that the DPO’s contact details must be included on any information leaflet or privacy notice if you are using personal data for your research.

**Email:**[dataprotection@tcd.ie](mailto:dataprotection@tcd.ie)  
**Post:**  
Data Protection Officer  
Secretary’s Office,  
Trinity College Dublin,  
Dublin 2,  
Ireland

Please use the template information leaflet available here as the basis of your privacy/information leaflet.

**Declarations**

**Applicant**

*By submitting this application, II confirm that I have read and will abide by the School of Engineering Ethical Guidelines and the Trinity College Dublin Policy on Good Research Practice.*

**Print name of applicant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Supervisor (if applicable)**

*I have read through and approved the contents of this application to the Research Ethics Committee.*

*(For Masters Students) I confirm that I will retain project data on an approved cloud service that I will manage for the required period, being at least until 13 months following completion of the court of examiners.*

**Print name of Supervisor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Please submit the completed form and any supplementary documents to [mary.kerrigan@tcd.ie](mailto:mary.kerrigan@tcd.ie).

1. Personal data is information which can identify a person. In particular: a name, address, email, telephone number, an identification number, location data, an online identifier, an IP address, a code key linking back to identifiable data etc. Please note that pseudonymised data is personal data under GDPR. [↑](#footnote-ref-0)
2. Sensitive personal data means: personal data revealing racial and ethnic origin, political opinions, religious or ideological convictions, trade union membership, criminal convictions and offences, genetic, biometric (photos, videos, audio etc.) data concerning physical or mental well-being , information relating to education, professional training employment and career history, questionnaires, Information relating to the family of the individual and the individual’s lifestyle and social circumstances. [↑](#footnote-ref-1)
3. *Employees and students of TCD are not data controllers. TCD is the data controller for the institution**. However, if other institutes jointly decide how and why the data will be used, they should also be noted as controllers here.*  [↑](#footnote-ref-2)
4. Third parties could be collaborators (institutes/industry) or service providers (transcribers, cloud storage etc.) [↑](#footnote-ref-3)
5. Under GDPR, these include:

   * right of access;
   * right to rectification;
   * right to erasure;
   * right to object to processing based on legitimate or public interest;
   * right to data portability;
   * right to object to profiling or making decisions about individuals by automated means?

   [↑](#footnote-ref-4)