A black background with white text

Description automatically generatedSchool of Computer Science and Statistics

***Project Title***

*Gayathri Girish Nair*

Supervisor: Brendan Tangney

Co-supervisor: Silvia Caldararu

August 2024

A Thesis submitted in partial fulfilment

of the requirements for the degree of

*Master of Science in Computer Science*

**Declaration**

I, the undersigned, declare that this work has not previously been submitted as an exercise for a degree at this, or any other University, and that unless otherwise stated, is my own work.

Include statement 1 or 2 as appropriate.   
1.    I did not make use of AI tools in the work described in this document, including the preparation of the document itself.   
OR  
2.    The use made of AI tools in work described here, including the preparation of the document itself, is outlined in an appendix,  as per the School guidelines. If relevant, use made of AI is also described in the body of the document.

GAYATHRI GIRISH NAIR

Name

August ??, 2024

**Acknowledgements**

**Abstract**

**Table of Contents**

[1 Introduction 7](#_Toc161823847)

[1.1 Referencing 7](#_Toc161823848)

[1.2 Ethics 7](#_Toc161823849)

[1.3 What the 2nd Reader is Looking For 7](#_Toc161823850)

[2 Background (start each chapter on a new page) 8](#_Toc161823851)

[2.1 The Content Area 8](#_Toc161823852)

[2.2 Related Work 8](#_Toc161823853)

[2.2.1 Climate Change Education (optional) 8](#_Toc161823854)

[2.2.2 Existing Tools 8](#_Toc161823855)

[2.3 Summary 8](#_Toc161823856)

[3 Design 9](#_Toc161823857)

[3.1 Scope 9](#_Toc161823858)

[3.2 Pedagogical Approach 9](#_Toc161823859)

[3.3 User I/F Design 9](#_Toc161823860)

[3.4 System Architecture 9](#_Toc161823861)

[3.5 Detailed Technical Design 9](#_Toc161823862)

[3.6 Summary 9](#_Toc161823863)

[4 Implementation 10](#_Toc161823864)

[5 Testing and Evaluation 11](#_Toc161823865)

[5.1 Pilot Testing 11](#_Toc161823866)

[5.2 Bridge2College Workshop 11](#_Toc161823867)

[5.3 Usability Evaluation 11](#_Toc161823868)

[5.3.1 System Usability Scale (SUS) 11](#_Toc161823869)

[5.3.2 Post-Study Usability Questionnaire (PSSUQ) 11](#_Toc161823870)

[5.3.3 Usability Results 11](#_Toc161823871)

[5.4 User and Educator Feedback 11](#_Toc161823872)

[5.4.1 Instruments Used 11](#_Toc161823873)

[5.4.2 Findings 11](#_Toc161823874)

[5.5 Summary 11](#_Toc161823875)

[6 Conclusion 12](#_Toc161823876)

[6.1 Recap 12](#_Toc161823877)

[6.2 Limitations 12](#_Toc161823878)

[6.3 Future Work 12](#_Toc161823879)

[6.4 Personal Reflection 12](#_Toc161823880)

[7 Bibliography 13](#_Toc161823881)

[8 Appendices 14](#_Toc161823882)

[8.1 Survey Instruments Used 14](#_Toc161823883)

[8.2 Use of GenAI in this Work 14](#_Toc161823884)

# Introduction

## Referencing

## Ethics

The tool was used by (N=20) TY students for a period of 1.5 hours as part of a two-day workshop, within the Bridge2College programme, exploring different aspects of climate change. Ethical approval for researching different aspects of the Bridge2College programme had been granted by the School of Computer Science & Statistics.

# Background (start each chapter on a new page)

## The Content Area

## Related Work

### Climate Change Education (optional)

### Existing Tools

## Summary

# Design

## Scope

## Pedagogical Approach

## User I/F Design

## System Architecture

## Detailed Technical Design

## Summary

# Implementation

# Testing and Evaluation

## Pilot Testing

## Bridge2College Workshop

## Usability Evaluation

### System Usability Scale (SUS)

### Post-Study Usability Questionnaire (PSSUQ)

### Usability Results

## User and Educator Feedback

### Instruments Used

### Findings

## Summary

# Conclusion

## Recap

## Limitations

## Future Work

## Personal Reflection

# Bibliography

# Appendices

## Survey Instruments Used

## Use of GenAI in this Work