

Appendix C(i): Participant Information Sheet and Research Consent Form

# Project title: A Blind Accessible Approach to Game Engine and Tools Development (EMS6662)

# Researcher name(s): Bridget Casey

What is the research about?

You are invited to participate in a research project about improving blind accessibility in the field of computer games development.

In recent years, there has been an increase in accessibility options available in video games for blind gamers, such as audio narration. However, the same cannot easily be said for the tools used to develop these games. The most popular and powerful commercial tools on the market, such as Unreal Engine, lack basic screen reader support and feature complex user interfaces, meaning a visually impaired developer cannot use them effectively.

The focus of the research is examining techniques to design a small game development tool which is blind accessible. A prototype tool has been created to demonstrate these techniques, which will allow the user to create simple 2D games. The application features screen reader support and a simplified navigation system.

Do I have to take part?

You have been invited to participate in this research as you have indicated you have a visual impairment and rely partially or entirely on the use of a screen reader to interact with computer software. You may have also indicated an interest in or experience with computer games and computer games development, meaning you would fit the target audience for using the prototype application. Please note, the prototype is currently only supported on x64 bit Windows operating systems. If you exclusively use Linux, Mac, or another operating system, and you are unable to access a suitable Windows device, then you will unfortunately not be able to participate in this research.

This form has been written to help you decide if you would like to take part. It is up to you and you alone whether you wish to take part. If you do decide to take part, you will be free to withdraw at any time without providing a reason and without penalty. As data will be pseudonymised, it will be possible to identify and withdraw your data at any point, should you request it.

What will I be required to do?

This form will be distributed via email in advance of testing. If you decide to participate, you must send this form back to the researcher, signed and dated, with the appropriate consent box ticked. You will then be sent a follow-up email with a copy of the prototype application to install on your home machine and asked to schedule time for an online meeting with the researcher, who will talk you through the process of using it. The test session will be conducted fully remotely, through Microsoft Teams or another video chatting software if preferred.

At the start of the meeting, you will be debriefed again on the research and what is expected of your participation, to confirm if you want to proceed. If you agree, you will then be asked a handful of pre-testing questions to build a basic profile, such as your age bracket and degree of visual impairment. These questions are optional and can be omitted if desired.

During the call, you will be asked to share your screen and computer audio, as well as microphone audio. This is so the researcher can observe your activity while using the application and listen to your thought process using the “Think Aloud” method. You will also be asked for permission for the researcher to record the call session, which you can freely decline.

The test session will consist of completing a list of tasks to familiarise yourself with the prototype tool, which will be the same for all testers and functions as a general tutorial. By the end of the session, you will have a basic level for a simple 2D game. You will then be asked a list of closing questions about your experience with the application and your opinions on its overall useability. Assuming there are no major technical issues, the test session should take no longer than 30 minutes, including question time.

Post-session, users are free to take their copy of the prototype application with them and experiment with it in their own time. If you would like to do this, you will be provided a place you can send your creations to by a specified deadline, so they may be included in the research discussion.

Reward

There is no monetary or otherwise physical reward for participation, however your feedback will be beneficial in evaluating the effectiveness of the chosen techniques for creating blind accessible software for computer games development.

How will you handle my data?

Your data will be stored in a pseudonymised form and will only be accessible to the researcher, Bridget Casey ([1802644@abertay.ac.uk](mailto:1802644@abertay.ac.uk)). This means that a key stored separately will link your research data to your real identity. Your data will be stored in a private online Git repository, with data fully anonymised at the earliest opportunity (i.e., when data that could identify you is no longer necessary for the purposes of the research). Your responses are treated in the strictest confidence - it will be impossible to identify individuals within a dataset when any of the research is disseminated (e.g., in publications/presentations). Abertay University acts as Data Controller (DataProtectionOfficer@abertay.ac.uk).

Retention of research data

Researchers are obliged to retain research data for up to 10 years’ post-publication, however your anonymised research data may be retained indefinitely (e.g., so that researchers engage in open practice and other researchers can access their data to confirm the conclusions of published work). Consistent with our data retention policy, researchers retain consent forms for as long as we continue to hold information about a data subject and for 10 years for published research (including Research Degree thesis).

# Consent statement:

Abertay University attaches high priority to the ethical conduct of research. Please consider the following before indicating your consent on this form. Indicating your consent confirms that you are willing to participate in the research, however, indicating consent does not commit you to anything you do not wish to do, and you are free to withdraw your participation at any time. You are indicating consent under the following assumptions:

* I understand the contents of the participant information sheet and consent form.X
* I have been given the opportunity to ask questions about the research and have had them answered satisfactorily.X
* I understand that my participation is entirely voluntary and that I can withdraw from the research (parts of the project or the entire project) at any time without penalty and without having to provide an explanation.X
* I understand who has access to my data and how it will be handled at all stages of the research project.X

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| --- | --- | --- |
| **PLEASE INITIAL BOX:** | **Yes, I do consent** | **No, I do not consent** |
| I consent to take part in this study conducted by the researcher, Bridget Casey, who intends to use my data for further research examining blind accessible software design in the context of computer games development.X |  |  |
| I consent to allow the researcher, Bridget Casey, to use audio and video footage captured during the call session in future presentations of research on blind accessibility in computer games development.X | X |  |
| I consent to allow the researcher, Bridget Casey, to use quotes I have provided during the call session, verbal or written, in future presentations of research on blind accessibility in computer games development.X |  |  |

# Signature:Ahmat Djouma

**I confirm that I am willing to take part in this research:X**

# DATE:03/26/2023

# You can find our procedure for complaints (regarding research projects) and our privacy notice and legal basis for processing research data at: <https://www.abertay.ac.uk/legal/privacy-notice-for-research-participants/>