

Participant Information Sheet

Project Title: Simulating Echolocation through the use of Slow-light Radiosity

Ethics Committee Reference Number: TETHIC-2022-103005

Researcher:

Daniel John Ellis

up940148@myport.ac.uk

Supervisor:

Dr. Jacek Kopecký

jacek.kopecky@port.ac.uk

1. Invitation

I would like to invite you to give feedback on the artefact created for my final year project. Participation in this is entirely voluntary, and I implore you to go through this information sheet for as long as you need before deciding if you want to participate or not. Please do make contact with me if there is anything that you want further clarity on.

2. Who am I?

My name is Daniel Ellis, I'm a final year student at the University of Portsmouth, studying Software Engineering BSc (Hons).

3. What is the purpose of this research?

The purpose of this research is to gather user feedback on the software artefact that I have created for my final year project.

The artefact in question is a browser based simulation of a bat's echolocation system, using a slowed down illumination algorithm in a 3D environment.

4. Why have I been invited to participate?

This study is seeking 10-20 participants with a background in Education, Biological Science, Visual Arts, and/or Technology. You have been identified as a person who meets said criteria and have therefore been invited.

5. Do I have to take part?

No. It is completely up to you if you decide to participate in my research. The research will be described in this information sheet, and if you agree to take part, I will email you all the information required to participate.

6. What will happen to me if I agree to take part?

If you agree to take part, I will email you with a link to the deployed version of the artefact, the link for the Google Form that will be used to gather feedback, and a unique identifier that has been assigned to you alone.

The feedback form will ask you a series of questions with regards to the technical performance of the artefact as well as potential applications for the artefact.

Your completion of this feedback form will be seen as proof of your implied consent.

7. What will I have to do?

You will have to be willing to give honest feedback on the software artefact.

8. What are the possible disadvantages and risks of taking part?

Disadvantages:

The only identifiable disadvantage is the time taken to interact with the artefact and give your feedback. If you feel that this is taking too much of your time, you may start again at a better time for you, or simply stop and not submit any feedback. Neither of these choices will come at any disadvantage to you.

Risks:

The artefact is a static webpage, hosted on GitHub Pages, secured with an SSL certificate, which does not send any information about your usage to myself or any third party, so there are no foreseeable risks involved in your participation.

There is one button, identified by a camera icon, which will download an image of the simulation's current view. This button downloads a single .png file to your device. All the data generated for this image is created and downloaded from your local device, with no internet traffic that can be intercepted for malicious purposes.

9. What are the possible benefits of taking part?

There is no direct individual benefit for you as the participant, but the hope is to provide a visual representation to better understand how echolocation may be perceived in creatures that use it.

10. What will I need to take part?

As the artefact is web based, you will need a computer with a browser, and an internet connection to access it. It is possible to access the artefact via a mobile device, however due to the technical limitations of most mobile devices, the artefact will be unable to load on them and they should not be used for the testing of this artefact.

11. Will my taking part in this study be kept confidential?

Yes. Confidentiality and anonymity will be maintained. Participants will not be identified in my report, or in any other research output. During this study your confidentiality will be safeguarded and will be maintained after the study. This will be done through the following:

- The data collection and management will comply with the [Data Protection Act of 2018 \(DPA 2018\)](#).
- All data collected will only be stored using a unique identifier, which you will enter into the feedback form.
 - This unique identifier will then be used to identify your data if you wish to withdraw from the study.
- All data will be collected via Google Forms, and will be stored securely in Google Drive. For more information, please refer to Google's [privacy policy](#).
- Only I will have access to view identifiable data, however responsible University of Portsmouth staff or examiners may access the data to verify the study has been carried out correctly. All these persons have a duty of confidentiality.

At the end of the project, all data collected, including email correspondence, will be destroyed in order to protect anonymity and confidentiality.

12. What will happen if I don't want to carry on with the study?

You can withdraw from the study before and during data collection. You may also withdraw after data collection, but this will only be up until Friday 29th April 2022. After that there will be no way of withdrawing.

To withdraw from the study, please send me an email and I will destroy all data that has been collected. Before destroying the data, I will respond to your email letting you know that I am following your request so that you can be assured that your request has been heard and acted upon.

13. What will happen to the results of this research?

The results of this research will contribute towards the evaluation of my artefact in my report.

14. What if there is a problem?

If you have a query, concern, or complaint about any aspect of this research, in the first instance you should contact myself, as the researcher if appropriate. I also have an academic member of staff, Dr. Jacek Kopecký as my supervisor whom you can contact. The contact details for both myself and my supervisor are detailed on the first page of this document.

If your concern or complaint is not resolved by myself or my supervisor, you should contact the Head of the Department:

The Head of Department
School of Computing
University of Portsmouth
Buckingham Building
Lion Terrace
Portsmouth
PO1 3HE

Mrs Petronella Beukman
[023 9284 6400](tel:02392846400)
petronella.beukman@port.ac.uk

If your complaint remains unresolved, please contact:

The University Complaints Officer

[023 9284 3642](tel:02392843642) complaintsadvice@port.ac.uk

15. Who is funding this research?

None of the researchers or study staff will receive any financial reward by conducting this research, other than their normal salary as an employee, or bursary as a student at the University of Portsmouth.

16. Who has reviewed this study?

Research involving human participants is reviewed by an ethics committee to ensure that the dignity and well-being of participants is respected. This study has been reviewed by the School of Computing Faculty Ethics Committee and been given favourable ethical opinion.

Thank you

Thank you for taking time to read this information sheet and for considering volunteering for this research.