

## **Participant Information Sheet**

Project title: Mandelbrot Maps

Principal investigator: Philip Wadler

Researcher collecting data: Freddie Bawden

This study was certified according to the Informatics Research Ethics Process, RT number 2019/17630. Please take time to read the following information carefully. You should keep this page for your records.

### **Who are the researchers?**

Freddie Bawden, Undergraduate Student

Philip Wadler, Project Supervisor

### **What is the purpose of the study?**

We aim to gain feedback on the user experience when using Mandelbrot Maps, an application created as part of Freddie Bawden's honour project. We will use the data collected during this study guide improvements to the app.

### **Why have I been asked to take part?**

The application's target audience is students or those who wish to learn more about fractals.

### **Do I have to take part?**

No – participation in this study is entirely up to you. You can withdraw from the study at any time, without giving a reason. Your rights will not be affected. If you wish to withdraw, contact the PI. We will stop using your data in any publications or presentations submitted after you have withdrawn consent. However, we will keep copies of your original consent, and of your withdrawal request.

### **What will happen if I decide to take part?**

Supervised participants will be asked to individually perform tasks within the Mandelbrot Maps application, during which participants "speak aloud" their thought process. The researcher will take anonymous notes on your experience, noting any places the participant is stuck or confused as well as offering help when required. At the end of the session, we will ask you to fill out an anonymous survey about their overall experience.

Unsupervised participants are asked to complete an anonymous survey about their overall experience

The session should last around 10 minutes.

No audio or video will be recorded of the session, all data will be anonymised.

### **Are there any risks associated with taking part?**

There are no significant risks associated with participation.

### **Are there any benefits associated with taking part?**

No

**What will happen to the results of this study?**

The results of this study may be summarised in published articles, reports and presentations. Quotes or key findings will be anonymised: We will remove any information that could, in our assessment, allow anyone to identify you. With your consent, information can also be used for future research. Your data may be archived for a minimum of 2 years.

**Data protection and confidentiality.**

Your data will be processed in accordance with Data Protection Law. All information collected about you will be kept strictly confidential. Your data will be referred to by a unique participant number rather than by name. Your data will only be viewed by the researcher/research team; Freddie Bawden and Philip Wadler.

All electronic data will be stored on a password-protected encrypted computer, on the School of Informatics' secure file servers, or on the University's secure encrypted cloud storage services (DataShare, ownCloud, or Sharepoint) and all paper records will be stored in a locked filing cabinet in the PI's office. Your consent information will be kept separately from your responses in order to minimise risk.

**What are my data protection rights?**

The University of Edinburgh is a Data Controller for the information you provide. You have the right to access information held about you. Your right of access can be exercised in accordance Data Protection Law. You also have other rights including rights of correction, erasure and objection. For more details, including the right to lodge a complaint with the Information Commissioner's Office, please visit [www.ico.org.uk](http://www.ico.org.uk). Questions, comments and requests about your personal data can also be sent to the University Data Protection Officer at [dpo@ed.ac.uk](mailto:dpo@ed.ac.uk).

**Who can I contact?**

If you have any further questions about the study, please contact the lead researcher, Philip Wadler, [wadler@ed.ac.uk](mailto:wadler@ed.ac.uk)

If you wish to make a complaint about the study, please contact [inf-ethics@inf.ed.ac.uk](mailto:inf-ethics@inf.ed.ac.uk). When you contact us, please provide the study title and detail the nature of your complaint.

**Updated information.**

If the research project changes in any way, an updated Participant Information Sheet will be made available on <https://web.inf.ed.ac.uk/infweb/research/study-updates>.

**[NB:** the PI should notify the Ethics panel on [inf-ethics@ed.ac.uk](mailto:inf-ethics@ed.ac.uk) to upload any update PIS to the website]

**Alternative formats.**

To request this document in an alternative format, such as large print or on coloured paper, please contact Freddie Bawden, [s1636469@sms.ed.ac.uk](mailto:s1636469@sms.ed.ac.uk)

**General information.**

For general information about how we use your data, go to: [edin.ac/privacy-research](http://edin.ac/privacy-research)

