



PARTICIPANT INFORMATION SHEET

Co-designing user interfaces for computing carbon calculators: a case study with Green Algorithms

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We are a [group of researchers](#) working on sustainable computing.

Please take time to read the following information carefully before you decide whether or not you wish to take part in the co-design study we are organising.

What is the study about?

This study aims to investigate how information should be displayed in carbon calculators that focus on the environmental impacts of computing.

Why have I been invited?

We are looking for input from a variety of people, including users of carbon calculators, as well as calculator designers, researchers and professionals that develop tools and methods for environmental assessments of digital technologies and services. There are no special requirements for participants, apart from an interest in the topic.

We would be very grateful if you would agree to take part in this study.

What will I be asked to do if I take part?

You will be asked to take part in a two-hour online co-design workshop in which you will be encouraged to talk about your experiences with computing carbon calculators and ideas on how to improve the way they display information. You might also be asked to draw sketches to visualise some of your answers. The workshop will last two hours and will be recorded and later transcribed. Quotations from what you say during the workshop and any of the sketches you create may be used in publications, but they will be anonymised.

What are the possible benefits from taking part?

Taking part in this study will allow you to share your experiences with and opinion towards the design of carbon calculators that focus on the environmental impacts of computing. This will contribute to our understanding of the role of carbon calculators in encouraging sustainable practices.

Do I have to take part?

No. It is completely up to you to decide whether or not you take part. Your participation is voluntary, and you are free to withdraw at any time, without giving any reason.

What if I change my mind?

You are free to withdraw at any time; in this case, we will delete your personal data. If you withdraw during and after the online workshop, it will not be possible to withdraw your workshop



contributions. You will be reminded beforehand that due to the nature of the group activities and discussions, once the workshop has been started, workshop contributions cannot be withdrawn.

What are the possible disadvantages and risks of taking part?

It is unlikely that there will be any significant disadvantages to taking part in the study. You would need to invest roughly two hours of your time for the online workshop. While all participants will have agreed that any information disclosed during the workshop will remain confidential to the group, there remains a potential risk that any such information, including personal information, could be shared.

Will my data be identifiable?

After the online workshop, only we, the researchers conducting this study, will have access to the data you share with us.

Research team:

Dr Loïc Lannelongue, Assistant Research Professor (University of Cambridge)
Dr Christina Bremer, Research Associate (University of Cambridge)
Dr Marcia Tavares Smith, Senior Research Associate (Lancaster University)
Clément Morand, PhD Candidate (Université Paris-Saclay)

We will keep all personal information about you (e.g., your name and other information about you that can identify you) confidential, that is we will not share it with others. We will transcribe audio recordings and will delete the audio recording after that. We will pseudo-anonymise the transcriptions and hard copies of any data; this means that we remove any personal information from the transcriptions but keep a securely stored record of matchings between participants and pseudonyms.

How will my data be stored?

Your data will be stored in encrypted files (that is no-one other than us, the researchers, will be able to access them) and on password-protected computers. We will keep data that can identify you separately from non-personal information (e.g., your views on a specific topic).

In accordance with university guidelines, we will keep the data securely for a minimum of ten years.

How will we use the information you have shared with us and what will happen to the results of the research study?

We will use the data you have shared with us for academic purposes and to inform the design of the Green Algorithms online calculator (<https://calculator.green-algorithms.org/>). This will include publications, for example journal articles. We may also present the results of the study at academic conferences or workshops.

When writing up the findings from this study, we would like to reproduce some of the views and ideas you shared with us. When doing so, we will only use anonymised quotes so that although we will use your exact words, you cannot be identified in our publications.

Who has reviewed the project?

This study has been reviewed by the Cambridge Psychology Research Ethics Committee.



What if I have a question or concern?

If you have any queries or if you are unhappy with anything that happens concerning your participation in the study, please contact Dr Loïc Lannelongue (ll582@medschl.cam.ac.uk) or Dr Christina Bremer (cb2374@cam.ac.uk).

Thank you for considering your participation in this project.