

Hi!



Hello!

I'm Sophia Batchelor

PhD student at University of Leeds
Skill learning in Virtual Reality



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I'm Sophia Batchelor

Building technologies that improve and support the way humans interact with the world, and doing it in a way that actively combats existing inequalities.





Origin Story

Originally from New Zealand

Studied Psychology and
Interdisciplinary Studies in
Computer Science,
Neuroscience, and Ethics in
California at UC Berkeley.



A reproducibility crisis?

The headlines were hard to miss: Psychology, they proclaimed, is in a crisis.

Science has been in a “replication crisis” for a decade. Have we learned anything?

Bad papers are still published. But some other things might be getting better.

Replication, falsification, and the crisis of confidence in social psychology

Published: 25 May 2016

1,500 scientists lift the lid on reproducibility

Monya Baker

Nature 533, 452–454 (2016) | [Cite this article](#)

20k Accesses | 1334 Citations | 3868 Altmetric | [Metrics](#)

 This article has been [updated](#)

Survey sheds light on the ‘crisis’ rocking research.

More than 70% of researchers have tried and failed to reproduce another scientist’s experiments, and more than half have failed to reproduce their own experiments. Those are some of the telling figures that emerged from *Nature*’s survey of 1,576 researchers who took a brief online questionnaire on reproducibility in research.

Replication crisis

From Wikipedia, the free encyclopedia

This article is about an issue of scientific methodology. For the reproducibility crisis in humans, see [Male infertility crisis](#).

The **replication crisis** (also called the **replicability crisis** and the **reproducibility crisis**) is an ongoing [methodological](#) crisis in which it has been found that the results of many scientific studies are difficult or impossible to [reproduce](#). Because the reproducibility of empirical results is an essential part of the [scientific method](#),^[2] such failures undermine the credibility of theories building on them and potentially of substantial parts of scientific knowledge.

Psychology’s Replication Crisis Is Running Out of Excuses

Another big project has found that only half of studies can be repeated. And this time, the usual explanations fall flat.

The replication crisis won’t be solved with broad brushstrokes

Image Sources (in order left to right): American Psychological Association <https://www.apa.org/monitor/2015/10/share-reproducibility>, Wikipedia https://en.wikipedia.org/wiki/Replication_crisis, Vox Media <https://www.vox.com/future-perfect/21504366/science-replication-crisis-peer-review-statistics>, The Atlantic <https://www.theatlantic.com/science/archive/2018/11/psychologus-replication-crisis-real/576223/>, Frontiers in Psychology <https://www.frontiersin.org/articles/10.3389/fpsyg.2015.00621/full>, *Nature* <https://www.nature.com/articles/533452a>, *Nature* <https://www.nature.com/articles/d41586-021-01509-7>

How will my actions contribute?



Journey to Reproducibility



The Turing Way Community

- Replication & Reproducible tools
- Contributions (Research ethics)
- Workshops

Open Life Science Fellowship

- Learnt about open science and community engagement
- Empowered to do Open Science

Journey to Reproducibility



Journey to Reproducibility



Lack of knowledge

Journey to Reproducibility



Lack of knowledge

Lack of tools

Journey to Reproducibility



Lack of knowledge

Lack of tools

Lack of existing practices

The Plan

Developing tools and standards to make VR research software reusable in psychology and neuroscience





Plans for the Fellowship



Supporting research skills

Developing targeted workshops for psychology and neuroscience students to support skill development and promote reproducibility.

+



Creating a knowledge network

Engagement with VR researchers across the UK to promote software practices and raise awareness of how software can support in a reusable and reproducible research.



Skill Development

Aim:

- Promote and support researchers and students in getting comfortable with using tools that support reproducibility



Skill Development

Aim:

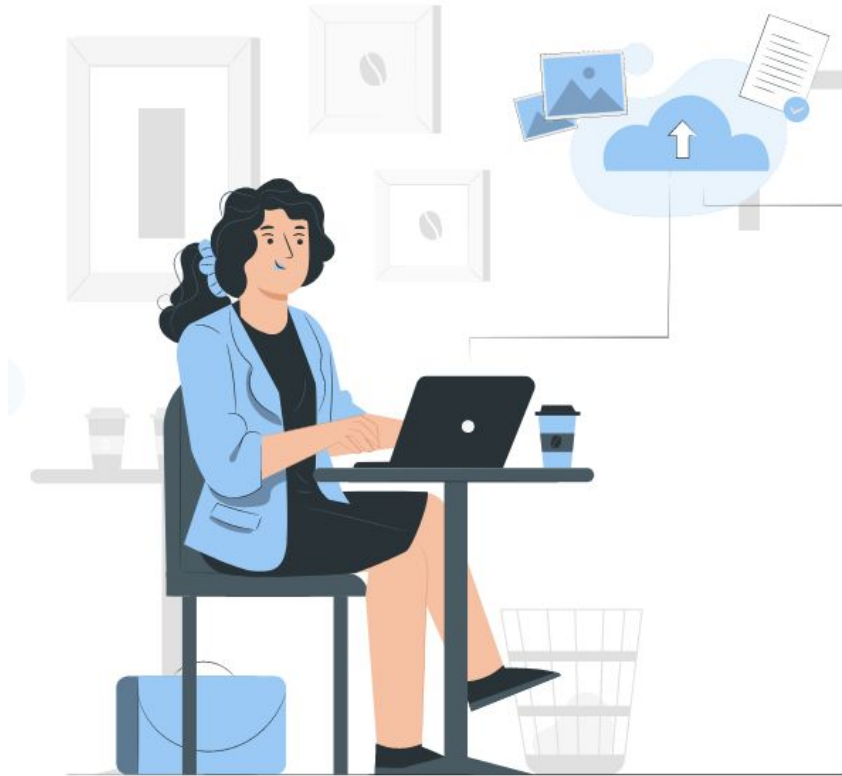
- Promote and support researchers and students in getting comfortable with using tools that support reproducibility

How:

- Start at University of Leeds and expand



Network of Knowledge



Aim:

- Promote sustainable software practices through mentoring and code sharing with researchers who currently use VR
- Raise awareness and use of tools that support reusable and reproducible research



Workshops and Outreach



Research Skills

Supporting psychology researchers as they develop skills.

Reproducible Environments

Advocate existing standards for replication and reproducible research.

Tools Workshops

Develop workshops that make software tools more accessible to researchers.

Sustainable Practices

Engage fellow researchers and promote sustainable software.

Engaged Community

Advocate for and establish sustainable research practices for VR



Thank you!

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