

Introduction: What is reproducible research and why should we care?

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About this lecture series:

Primary aim: teach you how to conduct reproducible research & aid with aspects of your dissertation



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<https://osf.io/kh5px/>

Edinburgh ReproducibiliTea

What is reproducible research and why should we care?

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What does 'reproducible' mean?

Reproducible **IS NOT** the same as replicable

Replicable:

To be able to repeat a specific experiment and obtain a consistent result

Reproducible:

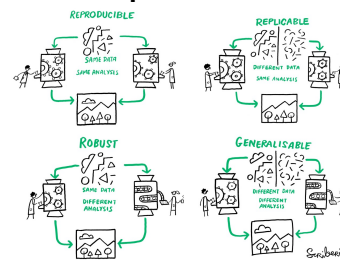
Research presented in such a way that others may verify the findings, replicate the results, reproduce or extend upon the methods **with relative ease**



What is reproducible research and why should we care?

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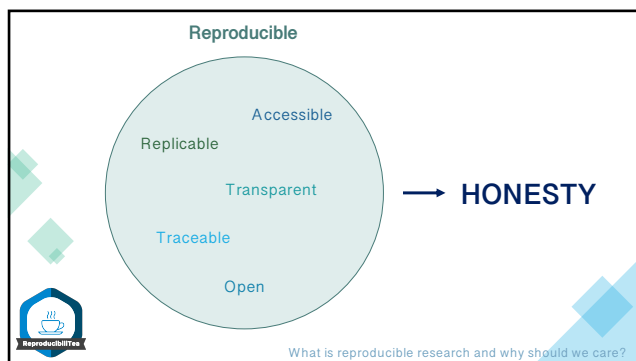
What does 'reproducible' mean?



Picture created by
Scriberia for The Turing
Way Community

What is reproducible research and why should we care?

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The Three T's

1. Think before you do
2. Trace your steps
3. Be transparent

The three images correspond to the list items: a monkey thinking (Think), footprints on a beach (Trace), and a globe on a table (Be transparent). In the bottom left corner is a logo with a coffee cup and the text "Reproducibility". At the bottom center, the text "What is reproducible research and why should we care?" is displayed.

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About this lecture series:

Videos	Live Sessions
1: Introduction	S1: Shortly after your poster session
2 & 3: Think before you do	
4: Trace your steps	
5: Be transparent	S2: TBD

At the bottom center, the text "What is reproducible research and why should we care?" is displayed.

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Why should you care?

Short-term reason:

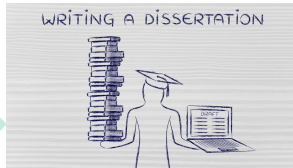
1. Plan a research study
2. Plan & run the analysis
3. Write a progress report

At the bottom center, the text "What is reproducible research and why should we care?" is displayed.

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Why should you care?

Short-term reason:



1. Plan a research study
2. Plan & run the analysis
3. Write a progress report



What is reproducible research and why should we care?

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Why should you care?

Long-term:

RESEARCH ARTICLE

Estimating the reproducibility of psychological science

Open Science Collaboration^{1,2}

• See all authors and affiliations

Science 28 Aug 2015
Vol. 349, Issue 6251, aac4716
DOI: 10.1126/science.aac4716

97% studies
significant

→ 36%
replications
significant



What is reproducible research and why should we care?

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Why should you care?

Long-term:

Research is changing!
... & psych is helping to lead the way

Already implementing some of these
practices!



What is reproducible research and why should we care?

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What should you take from this course

What you can!

- Clarity and guidance on key parts of dissertation
- An insight into the open science movement
- Change your perspective on scientific research!



What is reproducible research and why should we care?

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What should you take from this course

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