

Building an R-centered Reproducible Research Framework

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The (Recognition of the) Reproducibility Crisis is Upon Us

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EDITORIAL

Progress on reproducibility

Jeremy Berg

[+ See all authors and affiliations](#)

Science 05 Jan 2018:
Vol. 359, Issue 6371, pp. 9
DOI: 10.1126/science.aar8654

Cell Metabolism

CROSSTALK | VOLUME 24, ISSUE 3, P348-360, SEPTEMBER 13, 2016

Never Waste a Good Crisis: Confronting Reproducibility in Translational Research

Daniel J. Drucker [person](#) [email](#)

 **PLOS** | BIOLOGY
FIFTEENTH ANNIVERSARY

[BROWSE](#)

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Reproducible research practices, transparency, and open access data in the biomedical literature, 2015–2017

Joshua D. Wallach, Kevin W. Boyack, John P. A. Ioannidis [email](#)

Published: November 20, 2018 • <https://doi.org/10.1371/journal.pbio.2006930>

The Washington Post
Democracy Dies in Darkness

Science

No, science's reproducibility problem is not limited to psychology

By **Joel Achenbach**
August 28, 2015

 **nature**
International journal of science

Special | 18 October 2018

Challenges in irreproducible research

Challenges to Reproduce an Analysis

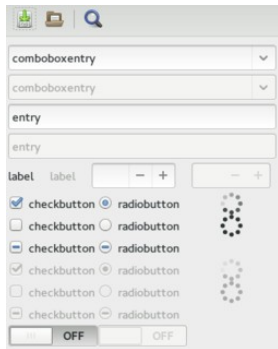
Missing Files



Immutable Storage



Untracked GUI Interactions



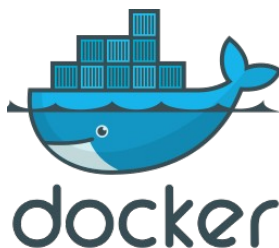
Full Scripting



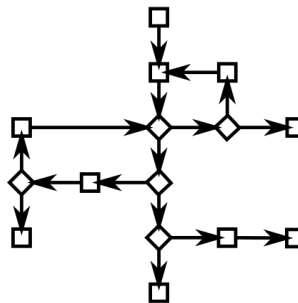
Retired Hardware



Virtualization



Untracked Modifications



Version Control



Absent Services



Extensive Serialization

```
ls -lh \
  *.rds \
  *.json \
  *.sqlite \
  *tsv \
```

Researcher Turnover



Documentation

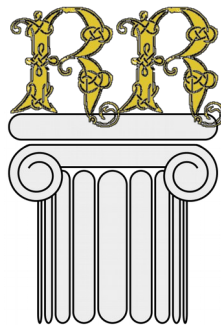


Making a Note Here, Huge Success

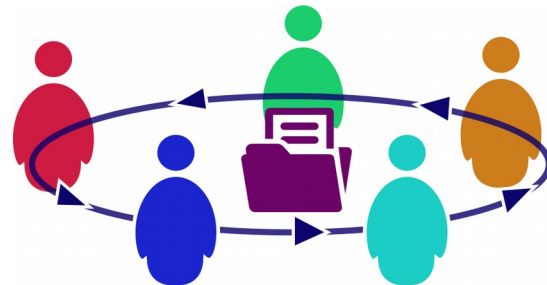
**Fully Adopted in Team
of 50+, Still Evolving**



Culture is Critical



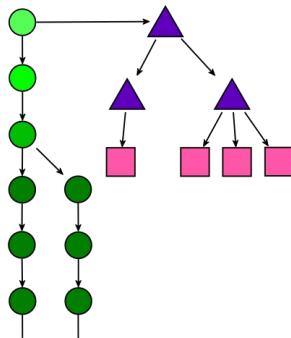
**Standards Enhance
Collaboration**



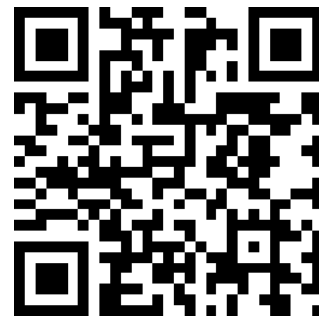
**Shared Code
Accelerates Research**



**Complete Traceability
on all Analyses**



More Info on GitHub



[maptracker/EARL-2018](#)