

Building an R-centered Reproducible Research Framework

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Reproducibility is Important

Science Home News Journals

| EDITORIAL

Progress on reproducibility

Jeremy Berg



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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  

 **PLOS** | BIOLOGY
FIFTEENTH ANNIVERSARY

BROWSE PUBLISH ABOUT

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

Joshua D. Wallach, Kevin W. Boyack, John P. A. Ioannidis 

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

 **nature**
International journal of science

Special | 18 October 2018

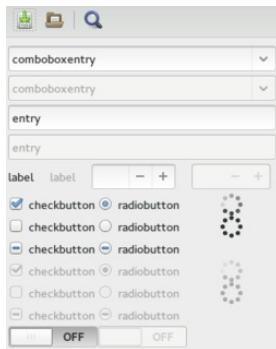
Challenges in irreproducible research

Challenges to Reproduce an Analysis

Missing Files



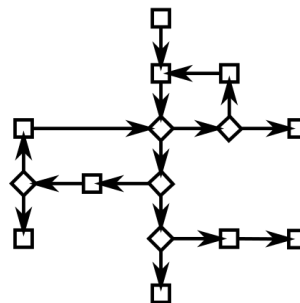
Untracked GUI Interactions



Retired Hardware



Untracked Modifications



Absent Services



Researcher Turnover



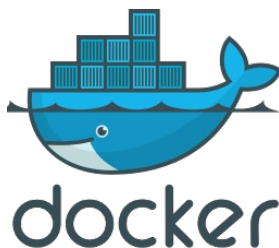
Versioned Storage



Full Scripting



Virtualization



Version Control



Extensive Serialization

```
ls -lh \  
*.rds \  
*.json \  
*.sqlite \  
* +srv \  

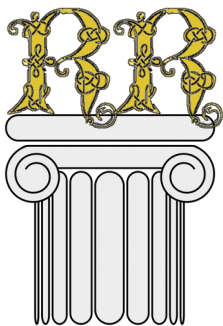
```

Documentation



Making a Note Here, Huge Success

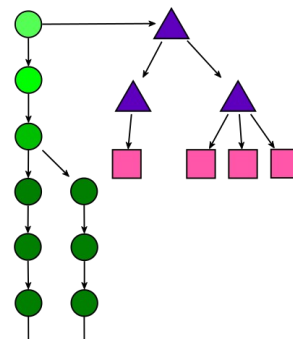
Culture is Critical



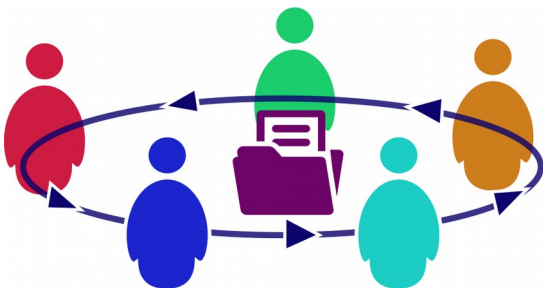
**Fully Adopted in Team
of 50+, Still Evolving**



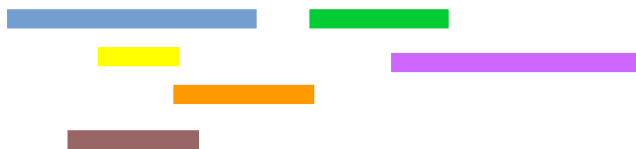
**Complete Traceability
on all Analyses**



**Standards Enhance
Collaboration**

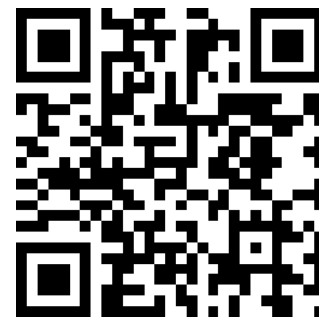


**Shared Code
Accelerates Research**



Delivered Early!

More Info on GitHub



[maptracker/EARL-2018](#)