

Suggested Readings

Three different degrees of reproducibility:

1. Experiment reproducibility
2. Data reproducibility
3. Method reproducibility

For a description, see: <https://aaai.org/ocs/index.php/AAAI/AAAI18/paper/view/17248>

Reproducibility:

1. Deep Reinforcement Learning that Matters: <https://aaai.org/ocs/index.php/AAAI/AAAI18/paper/view/16669>
2. Reproducibility of Deep Reinforcement Learning methods <https://www.openreview.net/forum?id=BJNuErQX-¬elId=BJNuErQX->
3. Half of psychology studies fail reproducibility test, <https://www.nature.com/news/over-half-of-psychology-studies-fail-reproducibility-test-1.18248>
4. How to better create reproducible results: <https://dl.acm.org/citation.cfm?id=2213908>
5. P-hacking and why many of the published research is wrong: <https://www.youtube.com/watch?v=42QuXLucH3Q>
6. Article on statistical significance: <https://www.nature.com/articles/s41562-017-0189-z.epdf>
7. <http://www.nature.com/news/how-scientists-fool-themselves-and-how-they-can-stop-1.18517>
8. Improving reproducibility: <https://www.youtube.com/watch?v=xGLF6oIIZYY&t=25s>
9. Reproducibility, Reusability, and Robustness in Deep Reinforcement Learning, ICLR 2018: <https://youtu.be/Vh4H0gOwdlg>
10. Recommendations: http://www.idi.ntnu.no/~odderik/RAI-2019/On_Reproducible_AI_preprint.pdf

Tools and software that helps to reproduce research:

1. Coda Lab: <http://codalab.org/>
2. BEAT platform: <https://www.beat-eu.org/platform/>
3. COCO: <http://coco.gforge.inria.fr/>

Other attempts in making research more reproducible:

1. Rescience: <https://rescience.github.io/>
2. The reproducibility project: <http://www.nature.com/news/cancer-reproducibility-project-releases-first-results-1.21304>
3. ACM Sigmod reproducibility: <http://db-reproducibility.seas.harvard.edu/>
4. Journal of Statistical Software: <https://www.jstatsoft.org/pages/view/mission>

ICML 2018 Workshop on Enabling Reproducibility in Machine Learning:

<https://mltrain.cc/events/enabling-reproducibility-in-machine-learning-mltrainrml-icml-2018/>

Slides from ICML 2017 reproducibility workshop:

<https://sites.google.com/view/icml-reproducibility-workshop/home/slides?authuser=0>

Talks and Abstract from ICML Reproducibility workshop:

<https://sites.google.com/view/icml-reproducibility-workshop/home/talks-and-abstracts?authuser=0>

Submitted and accepted papers at the reproducibility workshop:

<https://openreview.net/group?id=ICML.cc/2017/RML>

ICLR 2018 Reproducibility Challenge:

<https://www.cs.mcgill.ca/~jpineau/ICLR2018-ReproducibilityChallenge.html>