Reproducible Self-Publishing via PythonTeX

Pitch and Reference Slides

[github.com/TheChymera/RepSeP]

Horea Christian

[@TheChymera]

Institute for Biomedical Engineering, ETH and University of Zürich

2020-06-20

Publish From Code, Openly.

- Transparency $\longrightarrow$ verifiability
- Reproducibility $\longrightarrow$ hackability, reusability
- Version management $\longrightarrow$ sustainability, attribution, e.g. via:
  - `diff` -ability
  - `blame` -ability

Publish in a Distributed Model, Free.

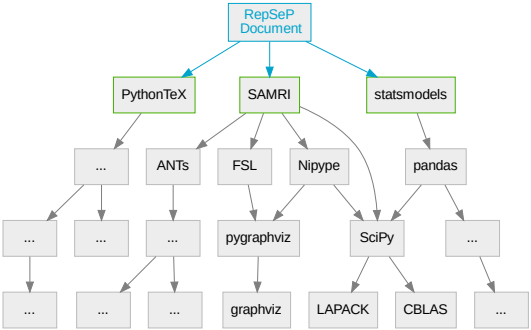
- No external entry barrier $\longrightarrow$ citizen science
- No institutional bias $\longrightarrow$ free science
- *Less* publication bias $\longrightarrow$ honest science

Publish, in a Presentable Format.

- Article
- Poster
- Slides

("Notebooks" integrate poorly with both presentation and development.)

Manage Dependencies for Reliable Reexecution



Automated dependency management via Gentoo Linux

- Because dependency graphs should never be managed ad hoc.

??

Produced by including:
?? PythonTeX ??

??

And So Much More

??

??

Produced by including: **?? PythonTeX ??**

Sometimes Less is More

??

Produced by including:

?? PythonTeX ??

But Sometimes You Just Want More

- Processing Factor: **??**
- Template Factor: **??**
- Processing:Template Intearction: **??**

Produced by including, e.g.:

?? PythonTeX ??

Help Test the Format

- Get help harnessing the power of reproducible documents for your own work.
- Already tested for three neuroimaging research articles — but does it work for you?

Co-Author the Reference Implementation

- The `article.tex` reference document is still in early draft.
- You can contribute, fork, and publish it together with us.

Co-Found a Valuable Service for the Modern Research Environment

- Powerful technologies should be provided as services.
- Discuss and join a publishing platform in its early stages.