

Data horrors & fighting ghosts

Vrije Universiteit Amsterdam – Data Conversations

Dr. Veronika Cheplygina

@drveronikach



<https://www.veronikach.com>



My Science CV

- Area: machine learning / medical imaging
- 2011-2015 PhD TU Delft
- 2015-2016 postdoc Erasmus Medical Center
- 2017- 2020 assistant professor TU Eindhoven

- Publications, invited talks (incl. open science...)



The Iceberg



CV, open science talks ...

Lost data

Time wasted

Stress

Errors

Can't reproduce own results

Etc

Data Horrors – PhD

- Public, tiny .CSV datasets
- Publicly available MATLAB toolbox
- Analysis takes minutes/hours

But

- Multiple toolbox versions
- No connection between results & version

[

PhD writing (& procrastinating)

- Preprints
- Share data & code “badly”
- Still a bit effective

The CRAPL: An academic-strength open source license

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Academics rarely release code, but I hope a license can encourage them.

Generally, academic software is stapled together on a tight deadline; an expert user has to coerce it into running; and it's not pretty code. Academic code is about "proof of concept." These rough edges make academics reluctant to release their software. But, that doesn't mean they shouldn't.

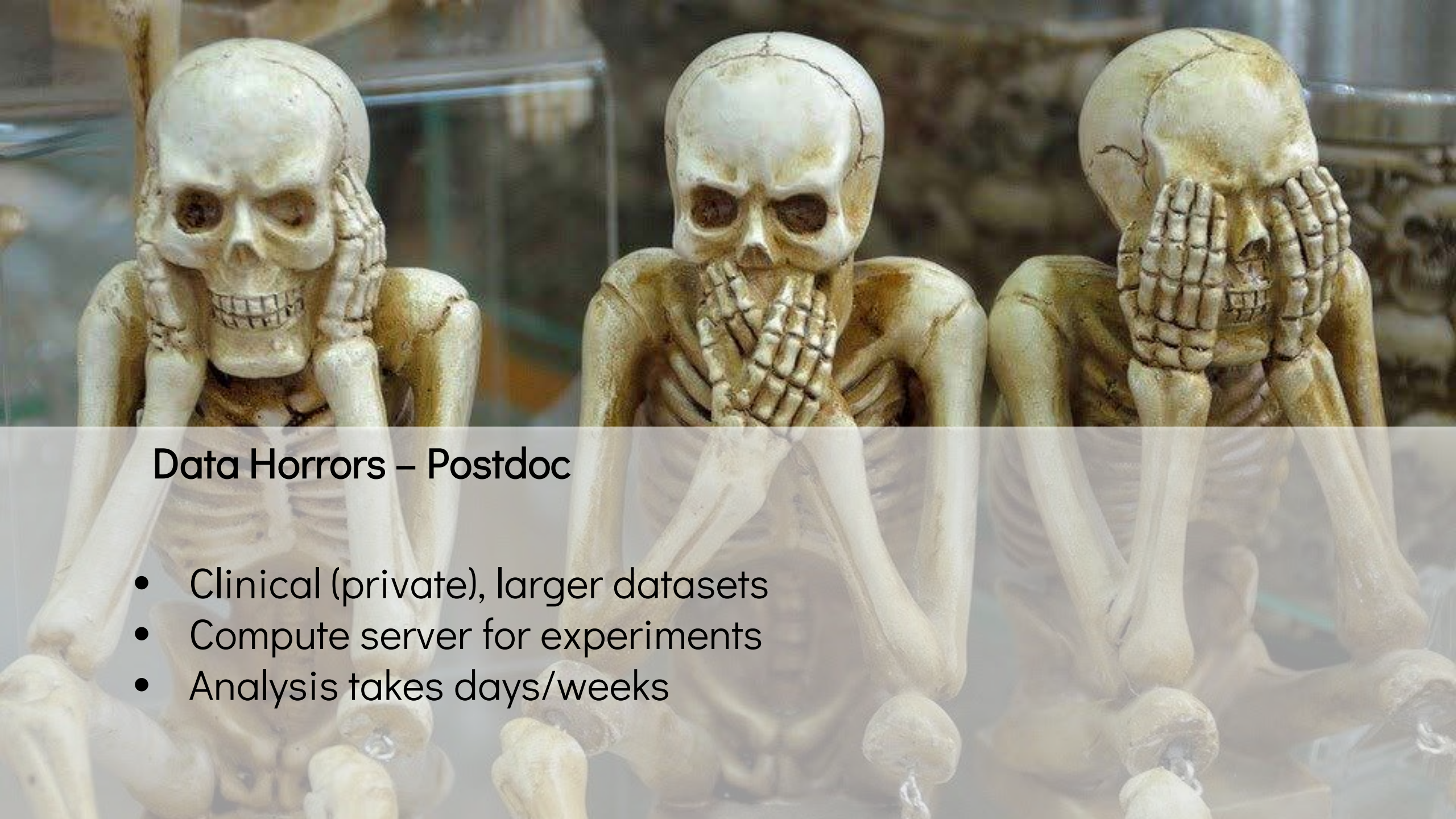
Most open source licenses (1) require source and modifications to be shared with binaries, and (2) absolve authors of legal liability.

An open source license for academics has additional needs: (1) it should require that source and modifications used to validate scientific claims be released with those claims; and (2) *more importantly*, it should absolve authors of shame, embarrassment and ridicule for ugly code.

Openness should also hinge on publication: once a paper is accepted, the license should force the release of modifications. During peer review, the license should enable the confidential disclosure of modifications to peer reviewers. If the paper is rejected, the modifications should remain closed to protect the authors' right to priority.

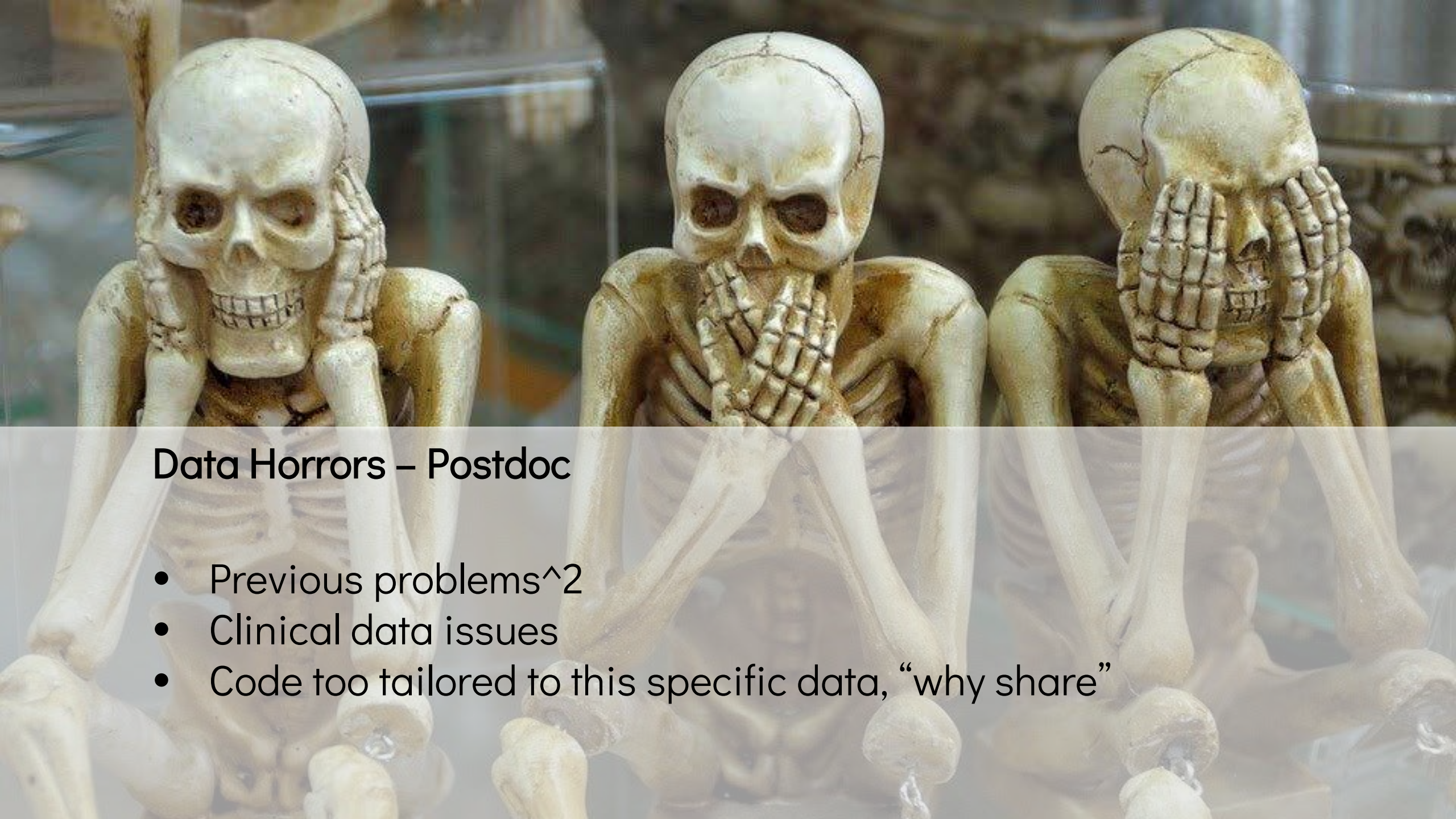
Toward these ends, I've drafted the **CRAPL--the Community Research and Academic Programming License**. The CRAPL is an open source "license" for academics that encourages code-sharing, regardless of how much how much Red Bull and coffee went into its production. (The text of the CRAPL is in the article body.)

<http://matt.might.net/articles/crapl/>



Data Horrors – Postdoc

- Clinical (private), larger datasets
- Compute server for experiments
- Analysis takes days/weeks



Data Horrors – Postdoc

- Previous problems²
- Clinical data issues
- Code too tailored to this specific data, “why share”

Current situation

- Work with others
- Public data, share generated data
- “Lazy Github”

Still difficult:

- Procedures/conventions
- Responses



“Shouldn’t you do more real research instead?”

“THAT’s not how to do open science!”



Navigating Open Science as Early Career Feminist Researchers

AUTHORS

Madeleine Pownall, Catherine Talbot, Anna Henschel, Alexandra Lautarescu, Kelly Lloyd, Helena Hartmann, Kohinoor Darda, Karen Tang, Parise Carmichael-Murphy, Jaclyn Siegel



Fighting ghosts

1. Start somewhere, but show up



OpenMR talk

🗨️ 👤 ⋮

∨ Before talk:

- Send title, abstract, bio to host 26 Oct 2018
- Prepare slides OpenMR 2 Jan 18:00
- Announce on social media 2 Jan
- Update slides Today 09:00
- Practice talk 🕒 Today 17:00

∨ After talk:

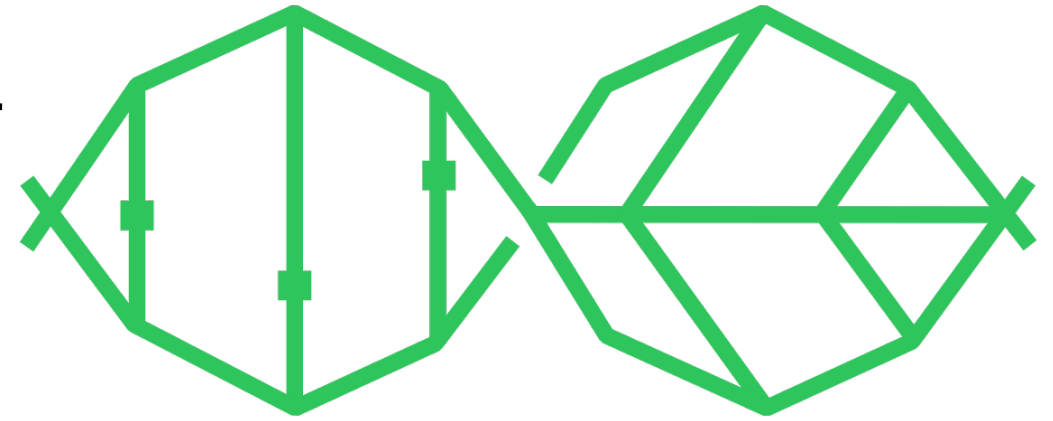
- Add talk to CV Thursday
- Upload slides to website and/or repository Thursday
- Share slides on social media Thursday
- Follow up with host / any other contacts Sunday

+ Add Task 🔄

2. Find accountability & support



2. Find accountability & support



Open Life Science

<https://openlifesci.org/>



<https://the-turing-way.netlify.app/welcome>

3. Reward yourself

OVERVIEW

ACHIEVEMENTS

TIMELINE

PUBLICATIONS

7 ACHIEVEMENTS



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THANKS!



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