Carney Summer Program

Wrapping Up a Computational Research Project

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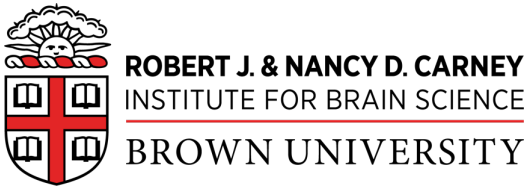


https://github.com/brownritt/cfsc2023

What does it mean to wrap up?

Generally you will want to share your work with at least one of these groups of people:

- Lab members
- Outside collaborators
- Other scientists in your field
- Future you

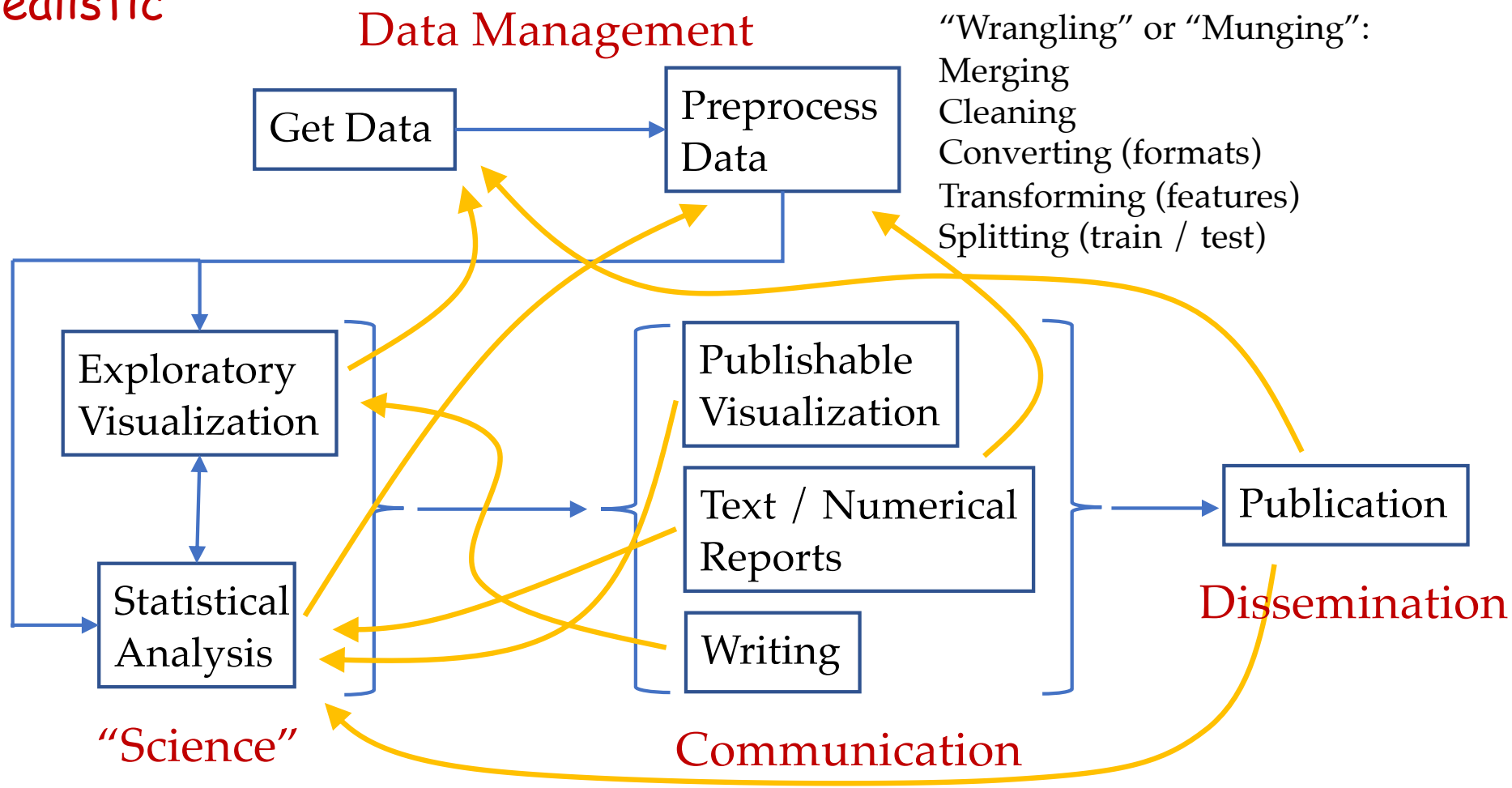
They all have the issue that they will not have internal memory of what you did, so in order to build upon your work, they may first need to laboriously excavate it (or give up and start over).

Wrapping up a computational project means leaving it in a state that

- is findable and accessible
- concisely and accurately describes what you did
- can be continued and built upon with little overhead

https://xkcd.com/1421/

An ~~ideal~~ realistic scientific analysis workflow (1000 ft view)



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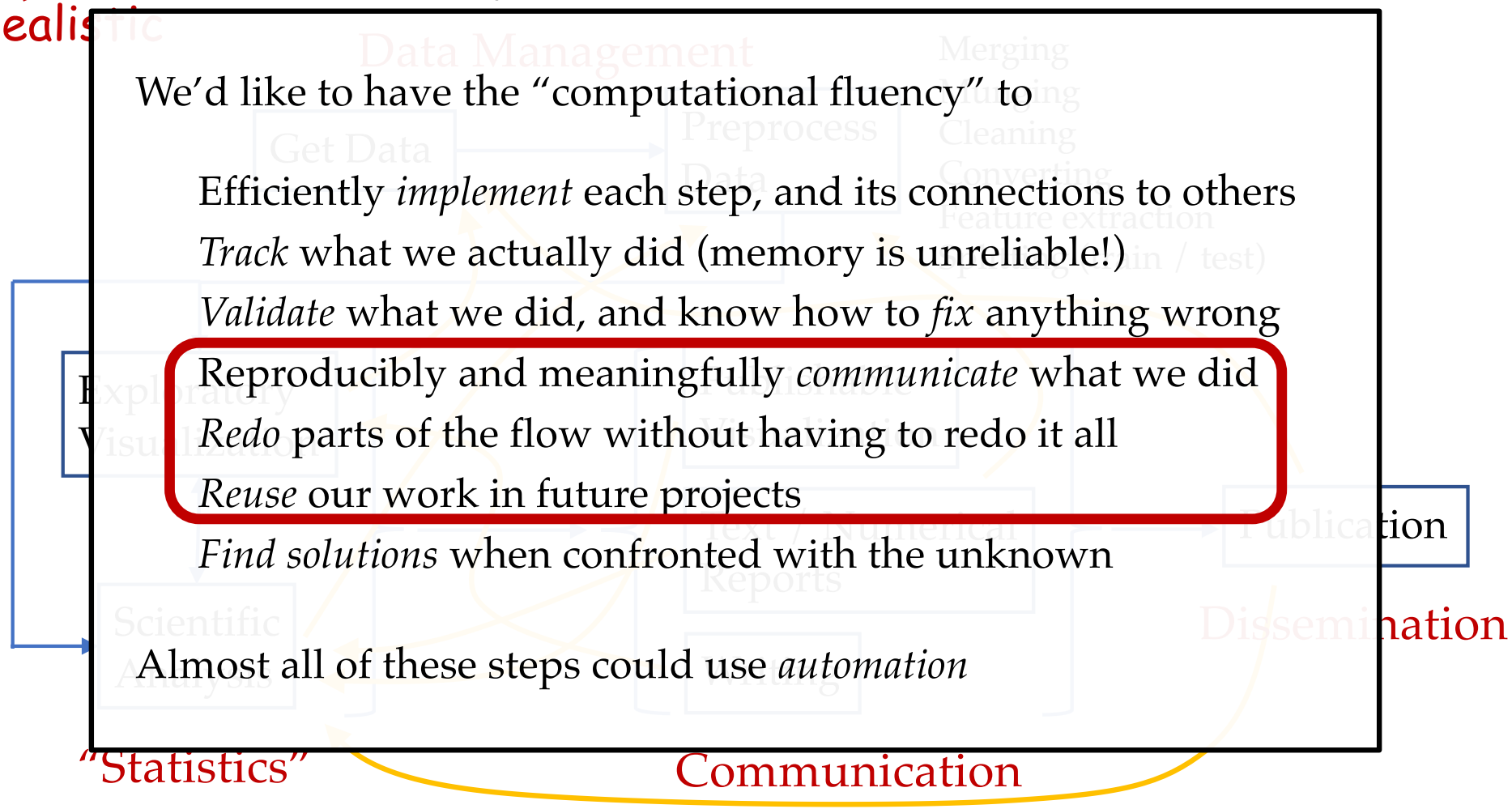

Checklist for wrapping up a **computational** research project

These are prompts for reflection; not every question applies to every project.

- ❑ Is there a publication that describes *and links* to all research outputs?
- ❑ Do you have an intetnal summary of your work including “post review”?

- ❑ Is all essential code archived in a *findable* and *accessible* place?
- ❑ Is there a README or high level introduction?
- ❑ Is data (completely or partially) archived in a *findable* and *accessible* place?
- ❑ Is there inline documentation in the code?

- ❑ Are there instructions on how to install and run the code?
- ❑ Are all software dependencies provided in machine readable form?
- ❑ Does the code “just work”? Is it machine independent (including paths!)?

- ❑ Is there a declaration of who “owns” and is responsible for the research output?
- ❑ Is there a description of what others can do with the research output?