Intro to GitHub

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What is version control?

- Some parallels with track changes in Microsoft Word

  - Who changed what, where, when, why

  - But better: Can integrate changes made by multiple people, even with conflicts

- Some parallels with syncing/backup software like Google docs/dropbox/sciebo

  - Offsite backup, syncing between multiple team members and/or machines

  - But better: Keep working versions of <u>projects</u> and not just individual files

- Some parallels & integrations with data sharing & preregistration services like OSF

There is definitely a learning curve

But it's worth it

Nomenclature

- Repo

- Commit

- Push

- Diff

- Fetch

- Pull

- Branch

- Pull request

- Fork

- README

- .gitignore

- .gitattributes

- Integration with .Rmd / Rprojects

- Integration with psychDS data standard

Nomenclature
Core functionality

- Repo - a unit of project organisation

- Commit - local snapshot of files, changes, and annotations

- Push - server/cloud snapshot of commits

- Diff - line-by-line differences between the last and current commit

- Fetch - list all commits on server/cloud that differ from local

- Pull - retrieve the fetched list of commits

Nomenclature

More advanced functionality

- Pull request - request to move commits from one branch to another or one fork into another, e.g. to integrate development work into the main project

- Branch - parallel non-identical versions of a repo allowing for development *within* that repo. E.g., dev by same team with higher tempo of pull requests.

- Fork - parallel non-identical versions of a repo allowing for development *between* repos. E.g., dev by a separate team with a lower (or zero) tempo of pull requests.