

POIR 613: Computational Social Science

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Course website:
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Software we will use in the course

- ▶ R 4.1.1 – Install from <https://www.r-project.org/>
- ▶ RStudio Desktop – Install from <https://www.rstudio.com/products/rstudio/download/>
- ▶ GitHub Desktop – Install from <https://desktop.github.com/>

Introduction to Git/GitHub

Git is a type of **version control**.

- ▶ System that keeps track of changes to a codebase and who made them
- ▶ Distributed (entire code and history on each machine) – Allows for collaborative development
- ▶ Possibility of reverting any changes and go back to previous state
- ▶ Created by Linus Torvald in 2005 to facilitate Linux kernel development
- ▶ Other options: Mercurial, Subversion
- ▶ **GitHub** allows you to host repositories and adds extra functionalities (UI, documentation, issues, user profiles...)

Basic concepts of git

- ▶ Code lives in a **repository**: collection of all files (and history)
- ▶ Every time you make changes, you need to make a **commit**:
 - ▶ Creates a snapshot of your code.
 - ▶ Informs how files have changed (*differences*)
 - ▶ You need to add a message explaining changes
- ▶ After you commit, you need to **push** the changes to the repository on GitHub so that others can see them
- ▶ Note – you also need to **pull** first to receive changes from other people
- ▶ When you start from a repository someone created, you will have to first **fork** it (create a copy on GitHub) and then **clone** it (download) to your computer
- ▶ Other options for collaborative code development (**branches**, **pull requests**) – not necessary for the course

Our first assignment with GitHub Classroom

1. Access the GitHub classroom for challenge 0 through: https://classroom.github.com/a/X_BFsLDP and accept the assignment
2. This will create your own version of the repository
3. Clone it using GitHub desktop
4. Write your personal information in `information.md`, commit the file and push the changes.
5. Fix the RMarkdown file `RMarkdown-practice.Rmd` so that it can be compiled. Commit and push this change.