

# REPRODUCIBLE RESEARCH WITH R

## STATISTICAL ANALYSIS WITH R USING RSTUDIO, GITHUB, KNITR AND SHINY

*Maja Založnik*



The Oxford Institute of  
Population Ageing

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# OUTLINE

- Introduction
- Reproducibility
- RStudio
- GitHub
- knitr
- RPubS
- Shiny

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  4. Reproduce the analysis



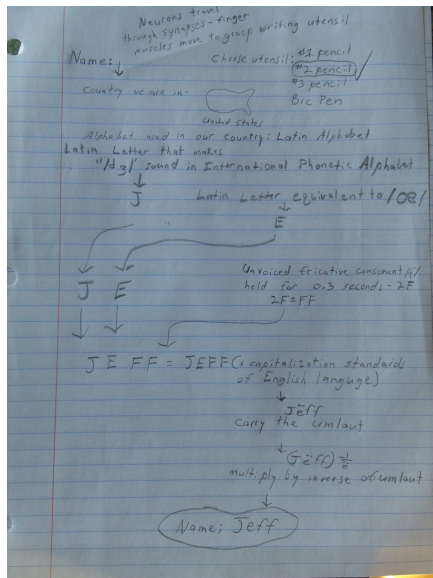
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# REPRODUCIBILITY: SHOW YOUR WORK!

imgur user TVsJeff:

*"A math teacher took points off for not showing all of my work. The next homework assignment i turned in looked like this. It was 45 pages long."*



- Probably the most popular IDE for R
- Launched February 2011
- January 2012 - Project system and Version control integration (git/SVN)
- May 2012 - knitr & R Markdown publishing tools added
- June 2012 - publish to RPubs integration
- December 2013 - Shiny integration
- October 2014 - direct publishing to shinyapps.io

# VERSION CONTROL: GIT

THIS IS GIT. IT TRACKS COLLABORATIVE WORK ON PROJECTS THROUGH A BEAUTIFUL DISTRIBUTED GRAPH THEORY TREE MODEL.

COOL. HOW DO WE USE IT?

NO IDEA. JUST MEMORIZE THESE SHELL COMMANDS AND TYPE THEM TO SYNC UP. IF YOU GET ERRORS, SAVE YOUR WORK ELSEWHERE, DELETE THE PROJECT, AND DOWNLOAD A FRESH COPY.



# GIT/GITHUB FOR REPRODUCIBLE RESEARCH

- Full documentation

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- But [click here](#) for five free private repos!