

Tools for Reproducible Research

POLS 7012: Introduction to Political Methodology

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RMarkdown

git and GitHub

RMarkdown

R Markdown

This is an R Markdown presentation. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

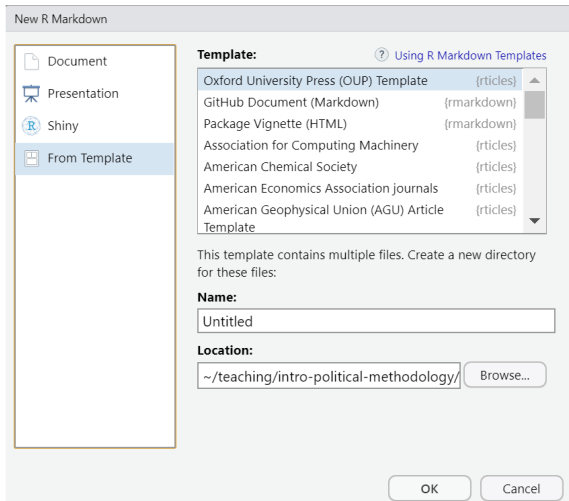
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document.

Slide with Bullets

- Bullet 1
- Bullet 2
- Bullet 3

rticles package for academic papers

```
install.packages('rticles')
```



Try It!

Further Reading

Links:

RMarkdown Tutorial

RMarkdown Cheat Sheet

Common Symbols in \LaTeX

git and GitHub

The Typical Academic's Version Control System

The screenshot shows a Windows File Explorer window titled "my_project". The left sidebar displays the navigation pane with "Documents" selected. The main pane shows a list of files and folders. The "data" folder is highlighted. The list includes folders like "R scripts", "dataset", and "FINAL_dataset", and files like "analysis", "analysis_old", "analysis_v2", and several "paper_..." files.

Name	Date modified	Type	Size
data	6/17/2020 9:36 AM	File folder	
R scripts	6/17/2020 9:37 AM	File folder	
analysis	6/17/2020 9:32 AM	R File	
analysis_old	6/17/2020 9:32 AM	R File	
analysis_v2	6/17/2020 9:32 AM	R File	
dataset	6/17/2020 9:33 AM	Microsoft Excel Work...	
datasetToMerge	6/17/2020 9:33 AM	Microsoft Excel Work...	
FINAL_dataset	6/17/2020 9:33 AM	Microsoft Excel Work...	
FINAL_dataset_v2	6/17/2020 9:33 AM	Microsoft Excel Work...	
paper_06_17_2020 - Copy	6/17/2020 9:31 AM	Microsoft Word Doc...	
paper_06_17_2020	6/17/2020 9:31 AM	Microsoft Word Doc...	
paper_06_17_2020_RAH_EDITS - Copy	6/17/2020 9:31 AM	Microsoft Word Doc...	
paper_06_17_2020_RAH_EDITS	6/17/2020 9:31 AM	Microsoft Word Doc...	
paper_VERSION2	6/17/2020 9:31 AM	Microsoft Word Doc...	
paper_VERSION2_JTO_EDITS	6/17/2020 9:31 AM	Microsoft Word Doc...	
paper_VERSION2_RAH_EDITS	6/17/2020 9:31 AM	Microsoft Word Doc...	

The Typical Academic's Version Control System

Problems:

- It's a psychic nightmare.
- Which is the most recent copy of the paper?
paper_VERSION2_RAH_EDITS or
paper_VERSION2_JTO_EDITS?
- All those copies waste memory.
- What's up with the directory structure? Why is some data outside of the data/ folder?

Actual Version Control System (VCS)

Picture of GitHub

- Requires an initial investment to learn, but it's **WORTH IT**.

Slide with R Output

```
summary(cars)
```

##	speed	dist
##	Min. : 4.0	Min. : 2.00
##	1st Qu.:12.0	1st Qu.: 26.00
##	Median :15.0	Median : 36.00
##	Mean :15.4	Mean : 42.98
##	3rd Qu.:19.0	3rd Qu.: 56.00
##	Max. :25.0	Max. :120.00

Slide with Plot

