Creating reproducible research outputs

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Abstract

How to succeed in making your research workflows and outputs fully reproducible? This workshop offers a gentle introduction to RMarkdown, which can be used to generate dynamic reports, write scientific articles or books, create websites, develop applications, or make interactive presentations. Participants will develop an understanding of the basic principles that underlie the framework of document generation with RMarkdown and they will be able to rely on out-of-the-box templates for their own future reproducible research outputs.

Agenda

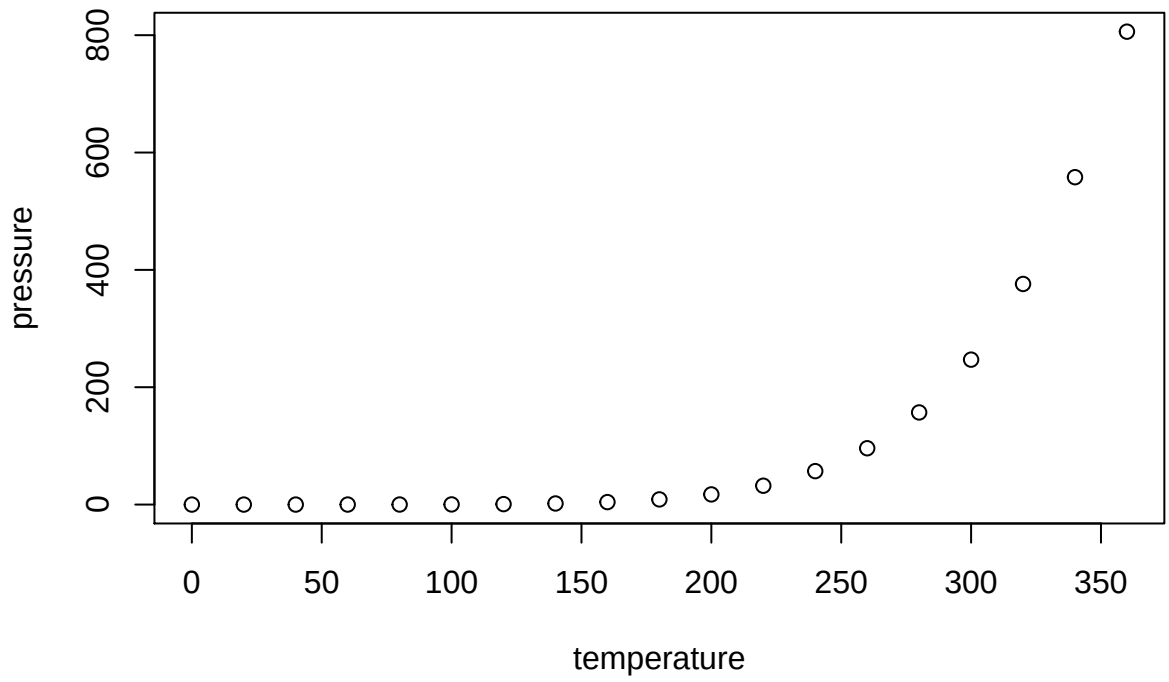
- 1. Intro - Why, when and how? The benefits of RMarkdown for research workflows
- 2. Static reproducible Rmd-documents based on LaTeX
- 3. Dynamic reproducible Rmd-documents based on CSS, Hugo, remark.js and more
- 4. Outlook: parameterized Rmd-documents)

0.1 Slide with R Output

```
##
## Summary statistics
## ===============================================================
## Statistic   N     Mean  St. Dev.  Min  Pctl(25) Pctl(75)   Max
## ---------------------------------------------------------------
## collgrad  28,534 0.168   0.374     0      0        0        1
## hours     28,467 36.560  9.870   1.000  35.000   40.000  168.000
## ---------------------------------------------------------------
```

For additional insights see MacFarlane (2020).

0.2 Slide with Plot



References

MacFarlane, John. 2020. "Pandoc User's Guide." *Link: Https://Pandoc.org/MANUAL.pdf.*