

Rmarkdown: Word and pdf documents

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Microsoft Word

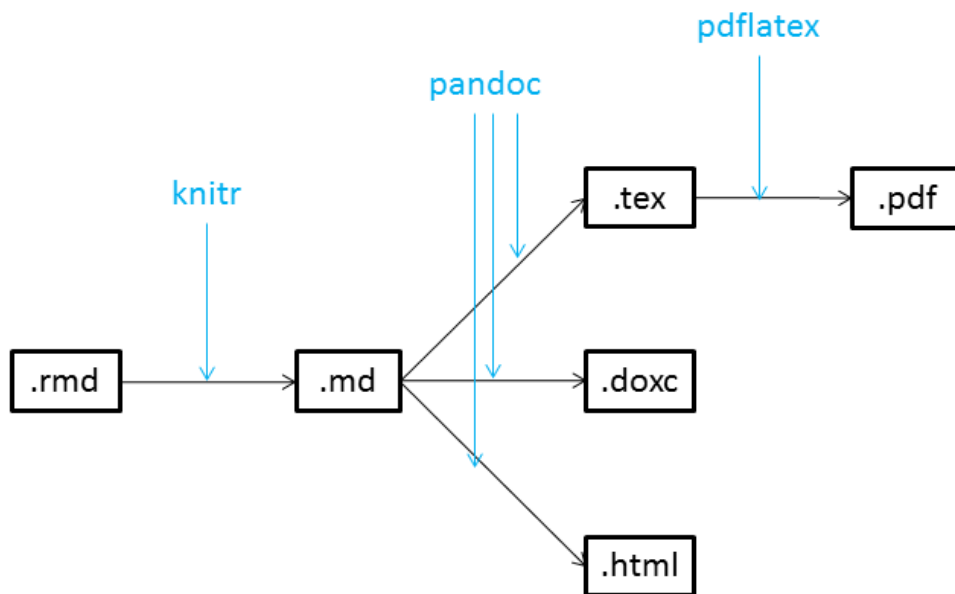
- You can specify it when you create a new `rmarkdown` document.
- You can also specify it later in the YAML header.

```
---  
title: "rmarkdown_pdf_docx"  
author: "Sebastien Renault"  
date: '2018-09-06'  
output: word_document  
---
```

- Then, it's just a matter of knitting the document!
- Little documentation, few options & configurations are possible. (This is not the course of events that should be promoted, as it moves away from an open source environment).

Portable Document Format (.pdf)

- You need a extra step to go from LaTeX (*.tex*) format to a *.pdf*. This is handled by the `pdflatex` function in R.
- LaTeX software is a high-quality typesetting system.
- It is the *de facto* standard for the communication and publication of scientific documents.
- LaTeX is available as free software.



- Latex software is available [here](#).
- If interested, follow this discussion: *Why LaTeX is such a bloated system?*
- So... *TinyTeX* is a custom LaTeX distribution based on TeX Live that is small in size (~150MB) but functions well in most cases, especially for R users .
- `tinytex` R package is a wrapper function that installs *TinyTeX*.

Exercise 1 (15min.)

- Install the `tinytex` R package from the console.

```
install.packages("tinytex")
```

```
library(tinytex)
```

It takes a few minutes to download and compile tinytex (~150MB)

```
install_tinytex()
```

- Compile your document as *.pdf*:

—

```
title: "rmarkdown_pdf_docx"
```

```
author: "Sebastien Renault"
```

```
date: '2018-09-06'
```

```
output: pdf_document
```

—

More complex header

```
—  
output  
pdf_document:  
  keep_tex: true  
  fig_caption: true  
  latex_engine: pdflatex  
  title: “This is my first Rmarkdown manuscript”  
  date: February 07, 2019  
  geometry: margin=1in  
  fontfamily: mathpazo  
  fontsize: 11pt  
  spacing: double  
  csl: ../reference_material/peerj.csl  
  bibliography: ../reference_material/reference.bib  
—
```

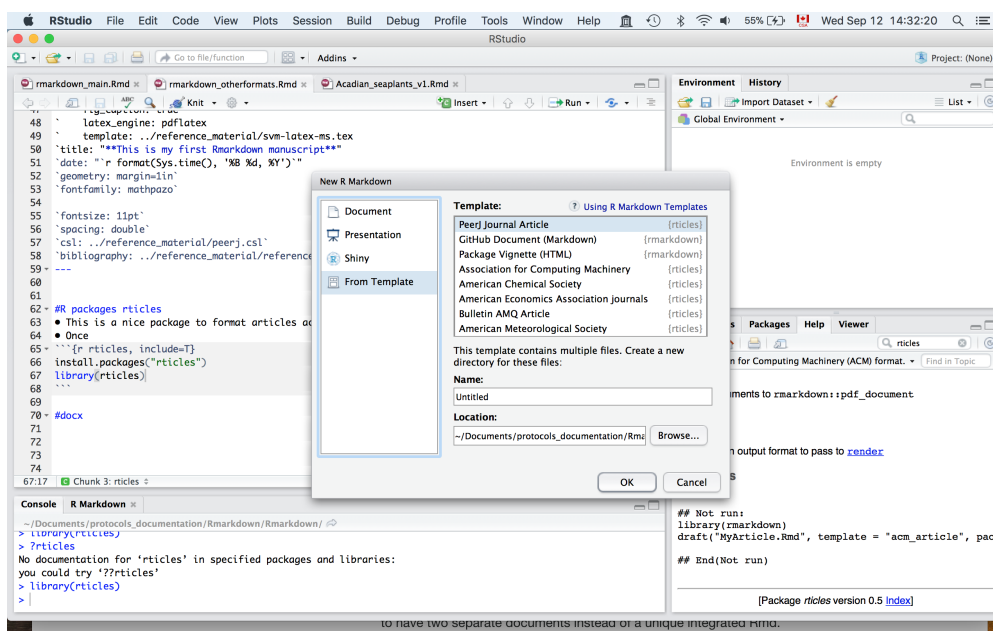
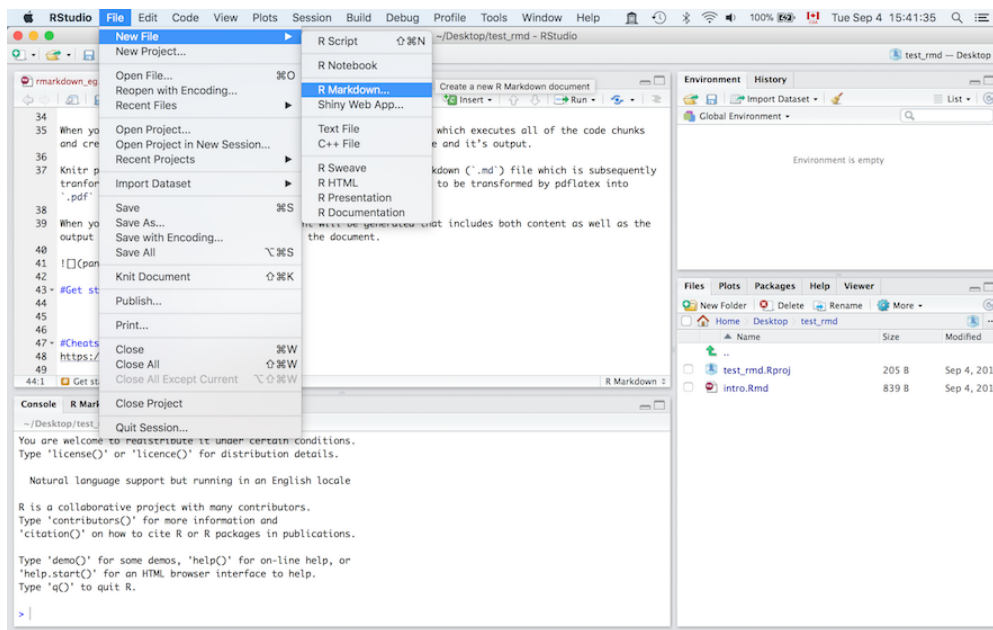
- Note the indentation in the **.Rmd** document.
- Note the bibliography file and csl file for formatting references.

Exercise 2: R packages **rticles** (10min.)

- This is a nice package to format articles according to the specification of a journal.
- But first, you need to install it in the R console `install.packages("rticles")`.

```
“{r rticles, include=T}  
#install.packages("rticles")  
library(rticles)  
““
```

- Once installed, try starting a new R markdown document according to your journal of interest.



Template (.tex)

- You can build your own template if you know LaTeX...
- There are many templates available on the web that you can use.
- Here is one I like for manuscripts (Thanks svmler!):
- Here is one I like for CVs:
- Simply download it and add it to the YAML header like this: `template: ../reference_material/svm-latex-ms.tex`

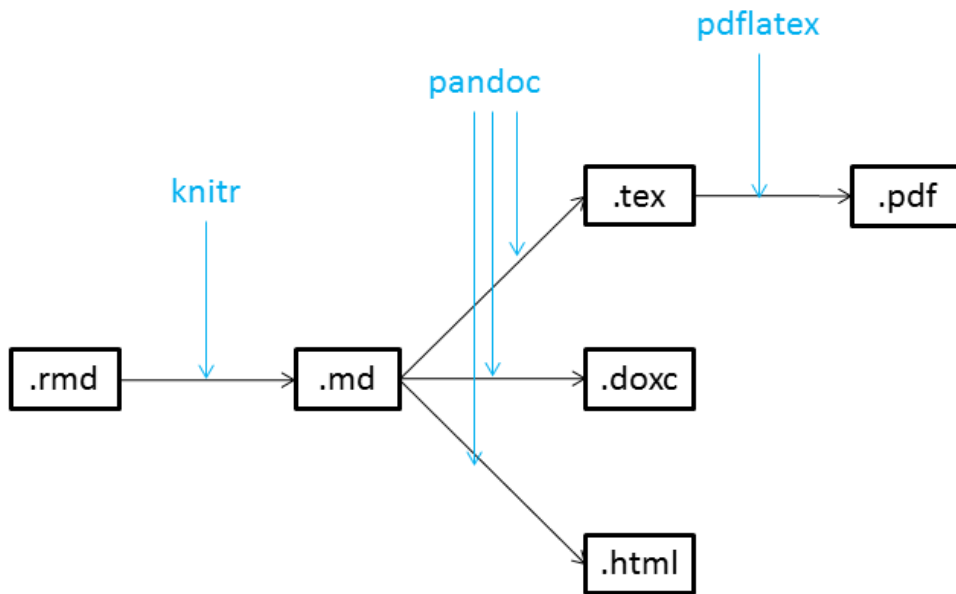
— output:
pdf_document:
keep_tex: true
fig_caption: true
latex_engine: pdflatex
template: ../reference_material/svm-latex-ms.tex
title: "This is my first Rmarkdown manuscript"

Overleaf

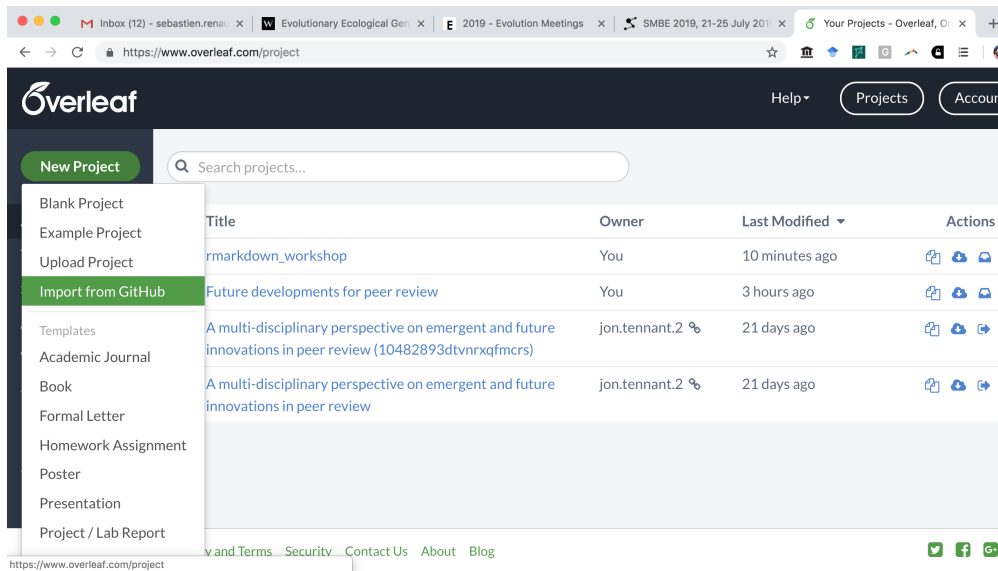
- Overleaf is an online LaTeX and Rich Text collaborative writing and publishing tool that makes the whole process of writing, editing and publishing scientific documents much quicker and easier.

The screenshot displays the Overleaf web interface. The left sidebar contains the LaTeX source code, and the right sidebar shows the rendered PDF document. The PDF title is "A multi-disciplinary perspective on emergent and future innovations in peer review". The authors listed are Jonathan P. Tennant¹, Jonathan M. Dugan², Daniel Graziotin³, Damien C. Jacques⁴, and Francois Waldner⁵. The footnotes list various academic institutions such as Imperial College London, Berkeley Institute for Data Science, and the University of California.

- Remember this:



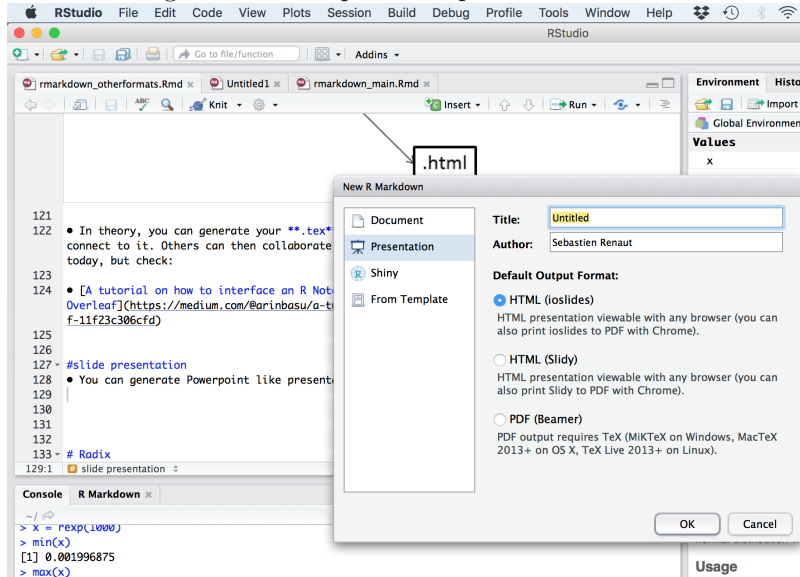
- So you can generate your **.tex** file, upload it to a github repo and Overleaf will connect to it. Others can then collaborate and modify the **.tex** file.
- Let's take a quick look at overleaf. Once you have an overleaf account, you can connect it to a github repository. You can then pull/push from overleaf to github, allowing others to modify your **.tex** file.




- A tutorial on how to interface an R Notebook with Overleaf
- How do I connect an Overleaf project with a repo on GitHub, GitLab or BitBucket?

Presentations

- You can also generate Powerpoint-like presentations.



Bookdown

- Bookdown  is an open-source R package that facilitates writing books and long-form articles/reports with R Markdown.

Radix

- Radix offers a better look for publishing blog, webpages, adapted to mobile devices.

Radix for R Markdown

JJ Allaire

2018-09-19

Categories: [R Markdown](#) Tags: [rmarkdown](#)

Today we're excited to announce [Radix](#), a new R Markdown format optimized for scientific and technical communication. Features of Radix include:

- Reader-friendly typography that adapts well to mobile devices.
 - Flexible [figure layout](#) options (e.g. displaying figures at a larger width than the article text).
 - Tools for making articles [easily citeable](#), as well as for generating [Google Scholar](#) compatible citation metadata.
 - The ability to incorporate JavaScript and D3-based [interactive visualizations](#).
 - A variety of ways to [publish articles](#), including support for publishing sets of articles as a [Radix website](#).
 - The ability to [create a blog](#) composed of a collection of Radix articles.
- You will need:
 - [Rstudio v1.2][<https://www.rstudio.com/products/rstudio/download/preview/>].
 - `radix`

```
“{r radix, echo = T}
install.packages(“radix”)
“
```

- Change output in header to:

```
—
title: “Rmarkdown: radix”
author: “Sebastien Renault”
output: radix::radix_article
—
```

- Then you can start playing with the `radix` options, such as in this example below (full width figures):

```
“{r radix_example, echo = F, layout=‘l-screen-inset’}
library(leaflet)
leaflet() %>%
addTiles() %>%
addMarkers(lng=174.768, lat=-36.852,popup=“The birthplace of R”)
“
```