rmarkdown\_docx

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# Different outputs

* There are five versions of this document. We will examine them:
  + *.Rmd*: The R markdown document.
  + *.html*: A webpage as we saw in the previous section. Follow workshop using this version.
  + *.docx*: A MS Word document.
  + *.tex*: A [LaTeX](https://www.latex-project.org) document.
  + *.pdf*: A Portable Document Format.

# html document

---   
title: "rmarkdown\_pdf"   
author: "Sébastien Renaut"   
date: '2018-09-06'   
output:   
 html\_document:   
 toc: yes   
 theme: cerulean   
---

* You can specify it when you create a new Rmarkdown document.
* You can also specify it later in the header.
* Then, it’s just a matter of kniting the document!

# Microsoft Word

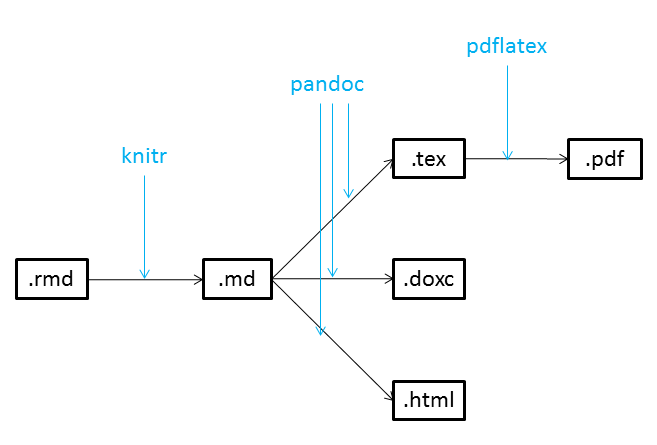
---   
title: "rmarkdown\_docx"   
author: "Sébastien Renaut"   
date: '2018-09-06'   
output:   
 word\_document:   
 toc: yes  
---

* Little documentation, few options & configurations are possible (This is probably not the format that should be promoted, as it moves away from an open source environment).
* Can specify a [LibreOffice](https://www.libreoffice.org/) OpenDocument Text (output: odt\_document) or Rich Text Format (output: rtf\_document) instead.
* FYI, there is a spellchecker in Rstudio: Edit >Check Spelling…

# Portable Document Format (.pdf)

---   
title: "rmarkdown\_pdf"   
author: "Sébastien Renaut"   
date: '2018-09-06'   
output:   
 pdf\_document:  
 keep\_tex: true  
 toc: yes   
---

* You need an extra step to go from a LaTeX (*.tex*) format to a *.pdf*. This is handled by the R tinytex pdflatex function in R.



* [LaTeX software](https://www.latex-project.org) 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 [here](https://www.latex-project.org/get/).
* If interested, follow this discussion: [*Why LaTeX is such a bloated system?*](https://ubuntuforums.org/showthread.php?t=395863)
* So…[*TinyTeX*](https://yihui.name/tinytex/r/) is a custom LaTeX distribution that is small in size (~150MB) but functions well in most cases, especially for R users .
* tinytex  is an R studio package that installs *TinyTeX*.
* You should know have all the tools to generate your fully reproducible manuscripts in R!

# Exercice 1

* If you haven’t done so, install the tinytex R package from the console and run install\_tinytex(). It may take a few minutes to download and compile (~150MB).

install.packages("tinytex")   
library(tinytex)   
install\_tinytex()

* Create a new document, compile it as *.pdf*.
  + Add a Table of Content.
  + Add a graphic.
* Now compile it as a Word document (*.docx*)
* Add some reference by specifying the csl: ../csl/peerj.csl and bibliography: ../biblio/test\_library.bib in the header

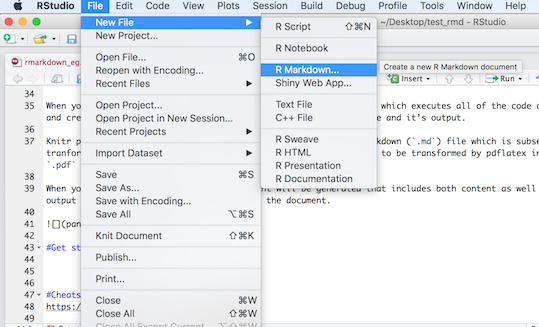
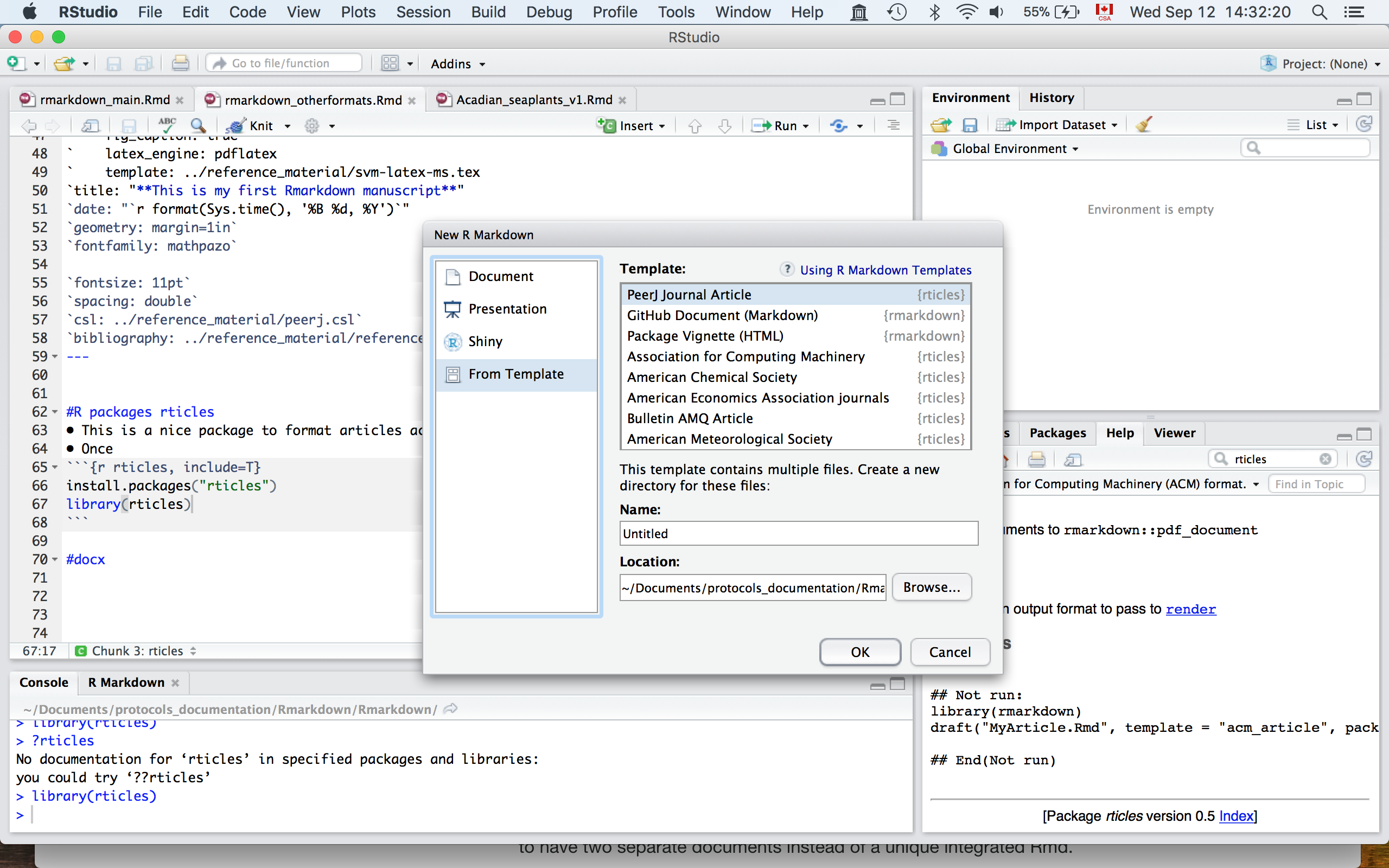
# Further customization

## rticles

* R packages rticles is a (potentially) useful 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")

* Once installed, you can start a new R markdown document according to your journal of interest.

* Right now, few templates available.
* Some templates may be slower to render, depending on what *LaTeX* package they depend on and need to be installed.

## LaTeX template: manuscript

* This allows further options in the *.Rmd* file when going from *.tex* file to *.pdf*.
* You can build your own *.tex* template if you know LaTeX…
* But, there are also many templates available on the web that you can use.
* Here is one I like for [manuscripts](https://github.com/svmiller/svm-r-markdown-templates/blob/master/svm-latex-ms.tex) (Thanks [svmiller](https://github.com/svmiller) on )
  + For example, using this template, I am writing a scientific paper [entirely in R markdown](https://github.com/seb951/Acadian_seaplants/blob/master/manuscript_Rmd/Acadian_seaplants_v5.pdf).  
       
    
  + The only real objection I see, is integrating the comments of co-authors.

## LaTeX template: CV

* Here is a template I like for [*Curriculum Vitae*](https://github.com/svmiller/svm-r-markdown-templates/blob/master/svm-latex-cv.tex)
  + For example, using this template, I re-wrote my [CV](http://sebastien.renaut.com/wp-content/uploads/2019/02/cv.pdf) to give it a fresh look!

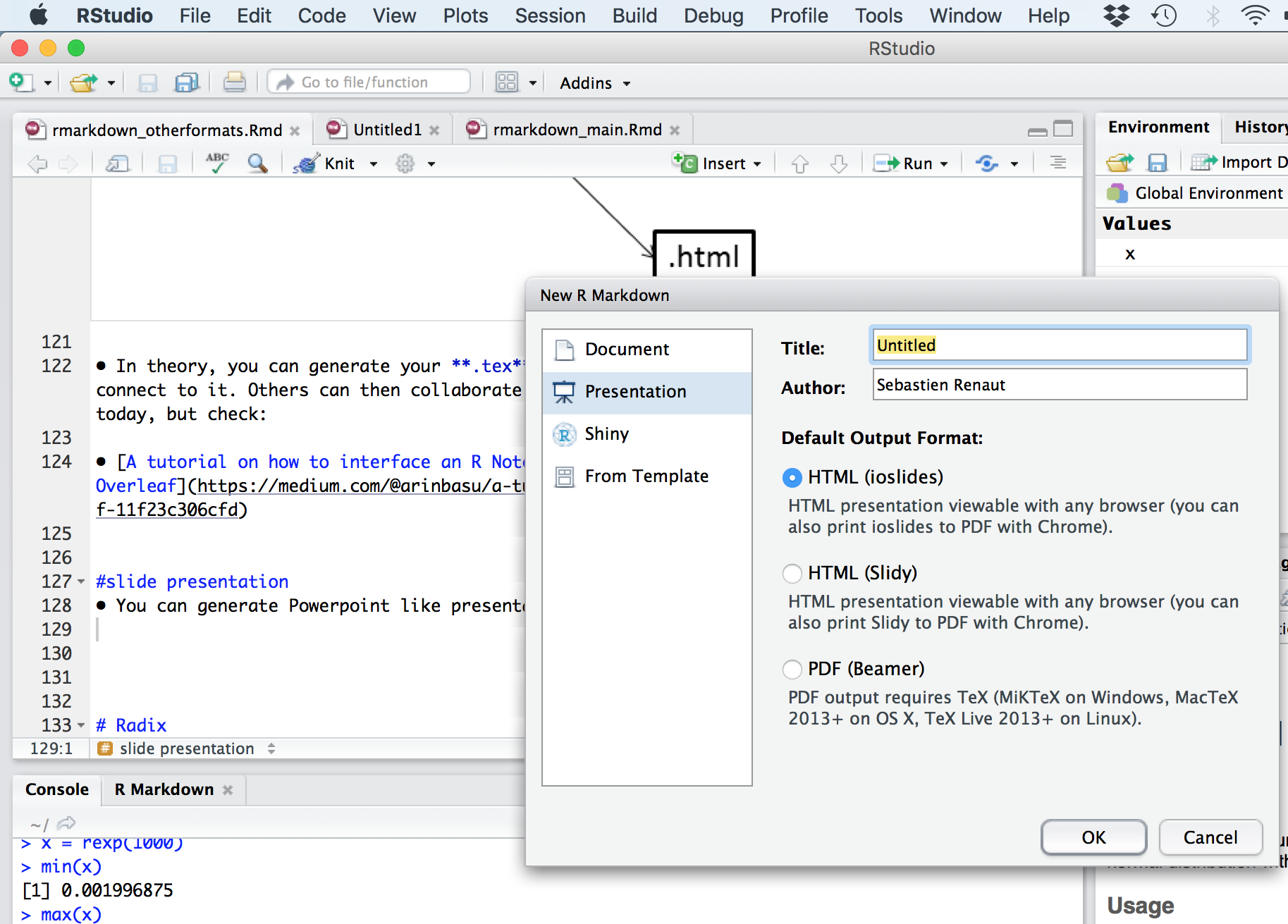


* Let’s briefly examine and knit the *svm-rmarkdown-cv.Rmd* file in the reference\_material directory.

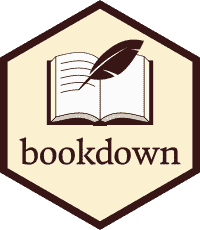
# Presentations

---  
title: "Untitled"  
author: "Sebastien Renaut"  
date: "27/02/2019"  
output: ioslides\_presentation  
---

* You can also generate Powerpoint-like presentations.



# Bookdown

* [Bookdown](https://bookdown.org/)  is an open-source R package that facilitates writing books and long-form articles/reports with R Markdown.

