Module 5 – lesson 04: More ways to disseminate your R markdown documents

Script

To wrap up, let’s explore some other options for disseminating content based on R markdown files and templates.

Let’s take a look at some of the examples on the RStudio R markdown gallery website at

<http://rmarkdown.rstudio.com/gallery.html>

We’ve already explored the options for creating documents in HTML, DOCX, PDF and Tufte Handout formats. [COMPUTER DEMO – I scroll down] We’ve also explored several of the Presentation slides formats for slidy, ioslides and reveal.js. We’ve also briefly explored the book format using the bookdown package, custom templates through the rticles package and even package vignettes.

But back up at the top, we can also take a look at example “Dashboards” that were built using the flexdashboard package. Let’s take a look at a couple of these. Click on the examples in the gallery and in the top right, click on the button for the source code to see what the underlying R markdown file looks like that generates these dashboard examples.

You can learn more about using the flexdashboard package at <http://rmarkdown.rstudio.com/flexdashboard/index.html>

As a quick example, open RStudio and open the project for “Module5\_project1”. Then install the flexdashboard package. Once this package is installed, create a new R markdown file – click File/New File/R Markdown – choose template and look for Flex Dashboard and click OK. This opens a template that creates a simple dashboard with 3 panels. Each panel has a header created with 3 hashtags. After each header, there is a blank R code chunk. In the first code chunk put in a plot of the builtin cars dataset

plot(cars)

in the next 2 code chunks put in these 2 lines of R code

plot(pressure)

summary(pressure)

Then save the file “flextest.Rmd” and KNIT to flex\_dashboard. This opens in the RStudio Viewer but open the HTML file in a browser window to view the dashboard in a better layout. [COMPUTER DEMO]

Explore some of the other dashboard examples provided in the Gallery.

You can also build a website based on a collection of multiple R markdown files. See the R markdown websites link at <http://rmarkdown.rstudio.com/rmarkdown_websites.html>

[INSERT Website Demo here – this section not scripted]

I encourage you to read further on this example to see how to build out a website based almost exclusively on R markdown files. At the bottom of this site there are links to several websites built using this approach include the websites for rmarkdown, bookdown and flexdashboard. I have personally used R markdown to build websites for the courses I teach at Emory [COMPUTER DEMO of my websites]

<https://melindahiggins2000.github.io/N736Fall2017/index.html>

<https://melindahiggins2000.github.io/N741bigdata/>

In addition to using R markdown to build websites, Yihui Xie has also developed the blogdown R package for building websites using R markdown and Hugo. To learn more see <https://cran.r-project.org/web/packages/blogdown/index.html>

<https://github.com/rstudio/blogdown>

and a link to his most recent book on blogdown

<https://bookdown.org/yihui/blogdown/>

There is also an intro by Yihui Xie at <https://blog.rstudio.com/2017/09/11/announcing-blogdown/> and by Allison Presmanes Hill at <https://alison.rbind.io/post/up-and-running-with-blogdown/> and by Tyler Clavelle <https://tclavelle.github.io/blog/blogdown_github/>

Building a blog website using the blogdown package and Hugo is beyond the scope of this course. However, at this point, you have all of the basic skills to go forward building document templates and disseminating your work using R markdown with RStudio and the R programming language. And you’ve become proficient using Git for version control hosting your work in the cloud using Github repositories. So I encourage you to try building a website using your new found skills with R markdown or the blogdown package for your professional or personal use or just to have some fun.

I hope you continue to explore the ever expanding possibilities of these tools to improve your workflow and documentation efficiency. And with luck I hope you have some fun doing it!!