Website Preparation

March 2020

In order to get as much out of this workshop as possible we have created this document as a pre-workshop guide to some of the software we will be using.

Definitions

1. **R** - is a language and environment for statistical computing and graphics. We will be using it to interact with our website generator.
2. **R Studio** - A tool to support R code editing and execution, as well as plotting, debugging and workspace managment. We will use it to edit and view our website
3. **Markdown** - A syntax for creating HTML, PDF, and word documents, can contain chunks of embedded R code (R markdown).
4. **Hugo** - An open-source static website generator.
5. **Blogdown** - An R package that allows you to create websites with R Markdown and Hugo.
6. **Git** - A system for tracking changes to source code during software development. We will be using it to track changes to the code for our websites.
7. **GitHub** - A company/website that provides hosting for software development version control using. Where our website code will be hosted
8. **Netlify** - A cloud computing site that hosts and automatically deploys web projects thorough
9. **Github YAML metadata** - Information at the top of your website pages.

Note: There are a million ways to skin a cat. You can use different static website generators, different languages and different hosting services. This is a simple method for people who do not know html, or do not have the time to build a website from scratch, or who simply do not want to pay (ever).

Pre-workshop Steps

1. Use the following link to download R

2. Use the following link to download RStudio. You cannot use Rstudio without R.

3. Once R and RStudio are installed, run the following lines of code within Rstudio to install Hugo from the blogdown package.

```r
## Install blogdown from CRAN
install.packages("blogdown",repos = "http://cran.us.r-project.org")

## Install Hugo from the blogdown package
blogdown::install_hugo()
```

4. Check and/or update Hugo version with the following functions:

```r
## Check version
blogdown::hugo_version()

## Update version
blogdown::update_hugo()
```

5. Create a Github account. You will probably want a pretty thoughtful username as you will probably use this professionally in the future. Download the GitHub desktop app. If things don't go well with Git we will revert back to this app.

6. Become familiar with Git using happygitwithr. The followig chapters will be important:

- Install Git - Chapter 6
- Introduce yourself to Git - Chapter 7
- Connect to GitHub - Chapter 9
- Connect Rstudio to Git and GitHub - Chapter 12

6. Create a Netlify account.

7. Get familiar with markdown syntax. Example: How to create headings or insert URLs? Use this cheatsheet or other links on the page as references. You can also install the Rmarkdown package by running the lines below if you want to include R code on your site.

```r
install.packages("rmarkdown") # install the package in R
# Follow the directions on the Rmarkdown website for creating a stand alone document from R
```

Note: You will only be able to produce HTML files until you install MiKTeX. This is beyond the scope of the workshop.

8. Be sure to gather the content you may want to put on your page prior to the workshop. This can include the following:

- Professional headshot
- CV or resume
- Short bio
- Blog entries
- Additional pictures
- Publication or presentations and the online links
- Anything you want to feature on your site