R Users Workshop – Easy data visualisation with ggplot

Outline

Ever wanted to start exploring your data but spent all day trying to code one simple plot? Ever finally got that plot working after hours, only to realise you wanted a *different* sort of plot? Ever finally got the basic plot ready, only to realise it looks a bit, well… basic?

This workshop will introduce you to ggplot2; a powerful and elegant R package that allows you to go from importing data to saving a plot in less than 10 lines of code. It’s incredibly powerful; allowing users to go from boxplot to scatterplot by just changing a few terms. And the plots themselves look good enough to present right out of the box.

This workshop will take you from never even looking at ggplot before, to customising and saving your own plots, potentially using your own data! (Providing you have some, if not we’ll use R’s built in iris dataset)  
  
We will cover;

* A basic recap of data frames, variable types, and importing data into R.
* A breakdown of ggplot’s syntax so you understand each step of the process
* A showcase of how to create a range of plots covering different data combinations, with time for you to have a go yourself.
* Some important plot customisations including; adding titles, changing scales, colour schemes, using themes, etc.
* Providing a robust way of saving plots.

We’ll also cover some intermediate ideas such as:

* Plotting models such as regressions and smooths directly within ggplot
* Facetting; a powerful way to split plots by factors.
* Arranging multiple plots using the GridArrange extension.

Finally, I’ll introduce some worthwhile extensions for ggplot and open the floor for questions.

To actively participate in the workshop you’ll just need Rstudio at the very least. Having ggplot and GridArrange pre-installed would be also be useful, plus having your own dataset to play around with would be good as well!

There will also be a commented script available to help with all the steps throughout.

Hope to see you there!