**ggplot**

Data visualization is an important step of data exploration and presentation. ggplot2 package provides a mature and consistent system for plotting in R.

**1. Why do we use ggplot2?**

**2. What’re the advantages and drawbacks of ggplot**

**3. Syntax and usage**

**Further Reference about ggplot2**

ggplot2 cheatsheet

<https://www.rstudio.com/wp-content/uploads/2015/03/ggplot2-cheatsheet.pdf>

Introduction to R Graphics with ggplot2

<http://tutorials.iq.harvard.edu/R/Rgraphics/Rgraphics.html>

A quick introduction to ggplot()

<http://www.noamross.net/blog/2012/10/5/ggplot-introduction.html>

**Digital Social Science Center Blog**

<https://blogs.cul.columbia.edu/dssc/>

**Sign up for future workshops**

<http://library.columbia.edu/research/workshops.html>

**For those new to R**

Learning with Swir**l**

To install swirl, first install R if you haven’t already and open it. In the command line, type

install.packages("swirl")

and hit Enter. You need a working internet connection. Once R has installed the package, you also need to load it. Type

library(swirl)

and hit Enter. Once you do that, swirl will take over and start giving you instructions (and peppy feedback!) to take you through the basics of R. Have fun!