



# Reading from other sources

Jeffrey Leek  
Johns Hopkins Bloomberg School of Public Health

# There is a package for that

- Roger has a nice video on how there are R packages for most things that you will want to access.
- Here I'm going to briefly review a few useful packages
- In general the best way to find out if the R package exists is to Google "data storage mechanism R package"
  - For example: "MySQL R package"

# Interacting more directly with files

- file - open a connection to a text file
- url - open a connection to a url
- gzfile - open a connection to a .gz file
- bzfile - open a connection to a .bz2 file
- *?connections* for more information
- Remember to close connections

# foreign package

- Loads data from Minitab, S, SAS, SPSS, Stata, Systat
- Basic functions *read.foo*
  - `read.arff` (Weka)
  - `read.dta` (Stata)
  - `read.mtp` (Minitab)
  - `read.octave` (Octave)
  - `read.spss` (SPSS)
  - `read.xport` (SAS)
- See the help page for more details <http://cran.r-project.org/web/packages/foreign/foreign.pdf>



# Examples of other database packages

- RPostresSQL provides a DBI-compliant database connection from R. Tutorial-<https://code.google.com/p/rpostgresql/>, help file-<http://cran.r-project.org/web/packages/RPostgreSQL/RPostgreSQL.pdf>
- RODBC provides interfaces to multiple databases including PostgreSQL, MySQL, Microsoft Access and SQLite. Tutorial - <http://cran.r-project.org/web/packages/RODBC/vignettes/RODBC.pdf>, help file - <http://cran.r-project.org/web/packages/RODBC/RODBC.pdf>
- RMongo <http://cran.r-project.org/web/packages/RMongo/RMongo.pdf> (example of Rmongo <http://www.r-bloggers.com/r-and-mongodb/>) and [rmongodb](#) provide interfaces to MongoDB.

# Reading images

- jpeg - <http://cran.r-project.org/web/packages/jpeg/index.html>
- readbitmap - <http://cran.r-project.org/web/packages/readbitmap/index.html>
- png - <http://cran.r-project.org/web/packages/png/index.html>
- EBImage (Bioconductor) - <http://www.bioconductor.org/packages/2.13/bioc/html/EBImage.html>

# Reading GIS data

- rdgal - <http://cran.r-project.org/web/packages/rgdal/index.html>
- rgeos - <http://cran.r-project.org/web/packages/rgeos/index.html>
- raster - <http://cran.r-project.org/web/packages/raster/index.html>

# Reading music data

- tuneR - <http://cran.r-project.org/web/packages/tuneR/>
- seewave - <http://rug.mnhn.fr/seewave/>