

# Installing R

*Lecture 1: Installing Things  
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# Installing R

- ◆ Go to: <http://cran.r-project.org/>
- ◆ Get the appropriate version windows or mac and follow installation steps
- ◆ To add packages, open R, go to “packages&data” menu, then “package installer”
- ◆ Open up Ireland Mirror site and click on package you want

g r wordcloud package instal x The Comprehensive R Arch x

cran.r-project.org

Apps Home Home&Abroad Finance Net&Functions Google Scholar ISI Health&Exer Popular Hacking Wikis BBC News | News Frc New Tab

# The Comprehensive R Archive Network



**Download and Install R**

Precompiled binary distributions of the base system and contributed packages, **Windows and Mac** users most likely want one of these versions of R:

- [Download R for Linux](#)
- [Download R for \(Mac\) OS X](#)
- [Download R for Windows](#)

R is part of many Linux distributions, you should check with your Linux package management system in addition to the link above.

**Source Code for all Platforms**

Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!

- The latest release (2014-04-10, Spring Dance) [R-3.1.0.tar.gz](#), read [what's new](#) in the latest version.
- Sources of [R alpha and beta releases](#) (daily snapshots, created only in time periods before a planned release).
- Daily snapshots of current patched and development versions are [available here](#). Please read about [new features and bug fixes](#) before filing corresponding feature requests or bug reports.
- Source code of older versions of R is [available here](#).
- Contributed extension [packages](#)

**Questions About R**

- If you have questions about R like how to download and install the software, or what the license terms are, please read our [answers to frequently asked questions](#) before you send an email.

## What are R and CRAN?

R is 'GNU S', a freely available language and environment for statistical computing and graphics which provides a wide variety of statistical and graphical techniques: linear and nonlinear modelling, statistical tests, time series analysis, classification, clustering, etc. Please consult the [R project homepage](#) for further information.

CRAN is a network of ftp and web servers around the world that store identical, up-to-date, versions of code and documentation for R. Please use the [CRAN mirror](#) nearest to you to minimize network load.

Grab File Edit Capture Window Help

R Console



Help Search

```
R version 3.0.3 (2014-03-06) -- "Warm Puppy"  
Copyright (C) 2014 The R Foundation for Statistical Computing  
Platform: x86_64-apple-darwin10.8.0 (64-bit)
```

```
R is free software and comes with ABSOLUTELY NO WARRANTY.  
You are welcome to redistribute it under certain conditions.  
Type 'license()' or 'licence()' for distribution details.
```

Natural language support but running in an English locale

```
R is a collaborative project with many contributors.  
Type 'contributors()' for more information and  
'citation()' on how to cite R or R packages in publications.
```

```
Type 'demo()' for some demos, 'help()' for on-line help, or  
'help.start()' for an HTML browser interface to help.
```

Type 'q()' to quit R.

[R.app GUI 1.63 (6660) x86\_64-apple-darwin10.8.0]

[History restored from /Users/user/.Rapp.history]

>

2% Mon 15:15

R Package Installer

Packages Repository

CRAN (binaries)

Get List  Binary Format Packages Package Search

Package	Installed Version	Repository Version
wmtsa		2.0-0
wnominate		0.98
wombssoft		2.0
wordcloud		2.4
wordmatch		1.0
wordnet		0.1-9
WordPools		1.0-2
wpp2008		1.0-1
wpp2010		1.2-0
wpp2012		2.0-0
wppExplorer		1.2-0
wq		0.4-1
WrightMap		1.1
write.ssns		0.0-4.2
WriteXLS		3.5.0
wrspathrow		0.1
wrspathrowData		1.0
wskm		1.4.7

Install Location

At System Level (in R framework)  
 At User Level  
 In Other Location (Will Be Asked Upon Installation)  
 As defined by .libPaths()

Install Selected  Install Dependencies Update All



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[R.app GUI 1.63 (6660) x86\_64-apple-darwin10.8.0]  
[History restored from /Users/user/.Rapp.history]

```
trying URL 'http://ftp.heanet.ie/mirrors/cran.r-project.org/bin/macosx/contrib/3.0/tm_0.5-10.tgz'
Content type 'application/x-tar' length 659607 bytes (644 Kb)
opened URL
=====
downloaded 644 Kb

The downloaded binary packages are in
  /var/folders/7f/wq5bcksd44g7gv6xkvj380000gn/T//RtmpncbV90 downloaded_packages
trying URL 'http://ftp.heanet.ie/mirrors/cran.r-project.org/bin/macosx/contrib/3.0/wordcloud_2.4.tgz'
Content type 'application/x-tar' length 329593 bytes (321 Kb)
opened URL
=====
downloaded 321 Kb

The downloaded binary packages are in
  /var/folders/7f/wq5bcksd44g7gv6xkvj380000gn/T//RtmpncbV90 downloaded_packages
```

> |

R Package Installer

Packages Repository

CRAN (binaries)

Get List  Binary Format Packages  Package Search

Package	Installed Version	Repository Version
widals		0.5.4
widenet		0.1-2
wikibooks		0.2
WikipediR		1.0.0
WilcoxCV		1.0-2
wild1		1.09
witness		1.2
wle		0.9-9
WMCapacity		0.9.6.6
WMDB		1.0
wmtsa		2.0-0
wnominate		0.98
wombsoft		2.0
wordcloud	2.4	2.4
wordmatch		1.0
wordnet		0.1-9
WordPools		1.0-2
wpp2008		1.0-1

Install Location

At System Level (in R framework)  
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Install Dependencies

castillo\_elha\_udad\_p...cle.pdf xx\_kdd12-trimine.pdf nature05302 copy 2.pdf

# Using R Console: Stats

- ◆ Try adding two numbers, using `+`
- ◆ Assign values to 3 different variables, e.g.  
using `x <- 4`
- ◆ List the variables created, using `ls()`
- ◆ Assign a vector to a variable using `c()`
- ◆ Get the mean of the vector, using `mean()`

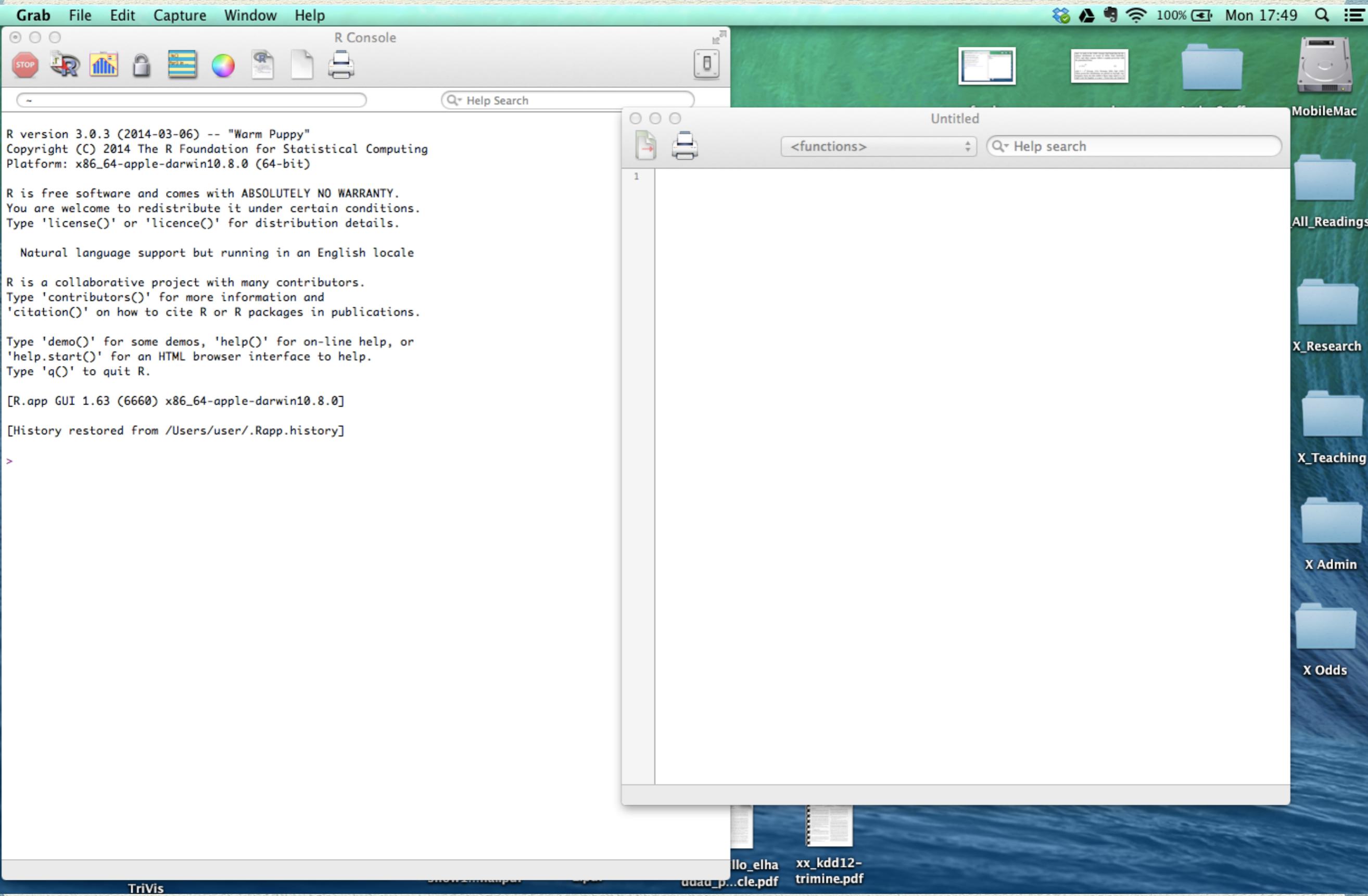
# Using R Console: Data

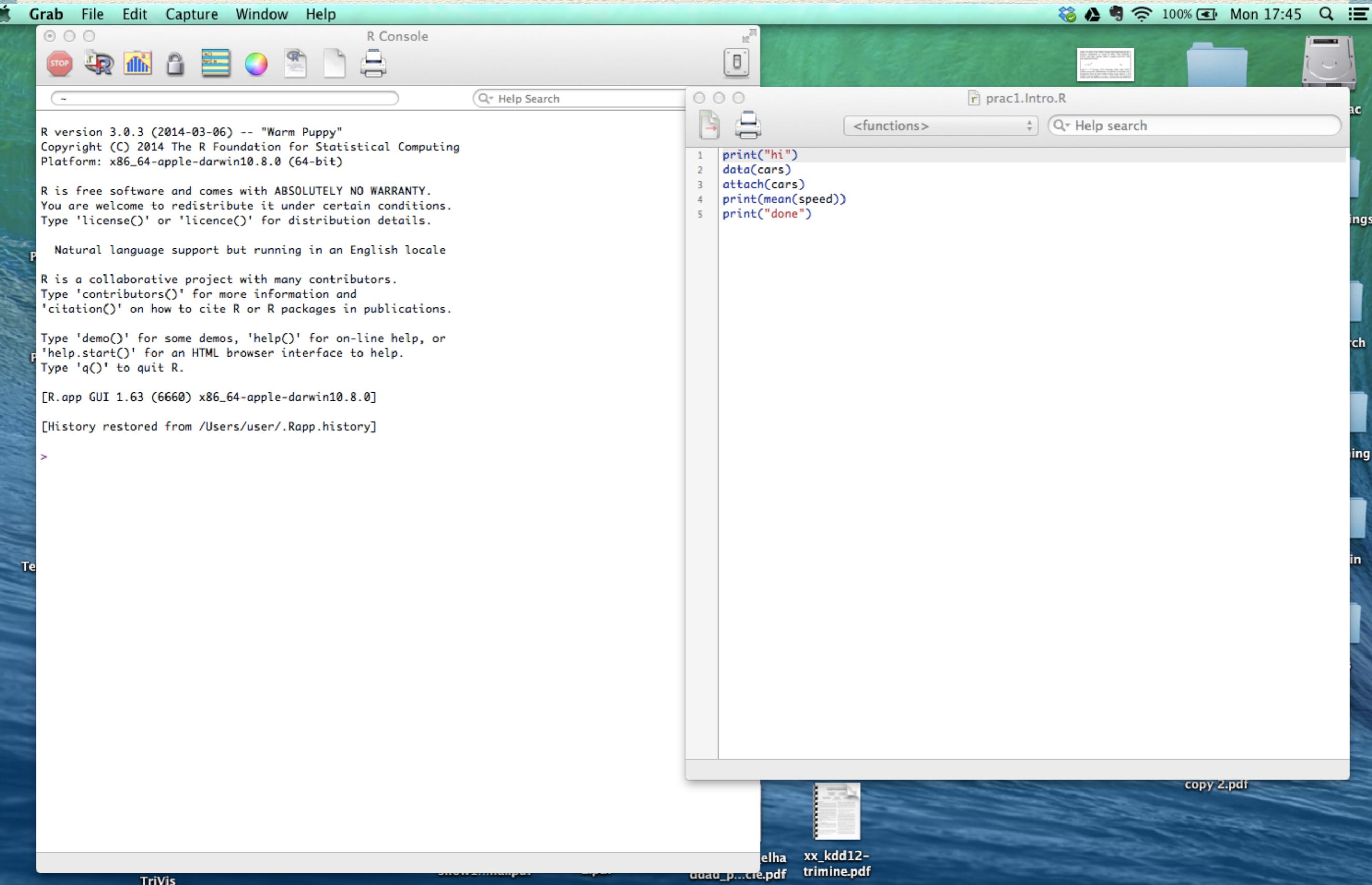
- ◆ Look at pre-defined data sets using `data()`
- ◆ Load one data set using e.g. `data(cars)` and review its contents using e.g. `cars[]`
- ◆ What are its column names?
- ◆ Make cars into a directory, using `attach(cars)`
- ◆ Now we can get column `dist` ...
- ◆ And `mean(dist)` gives us?

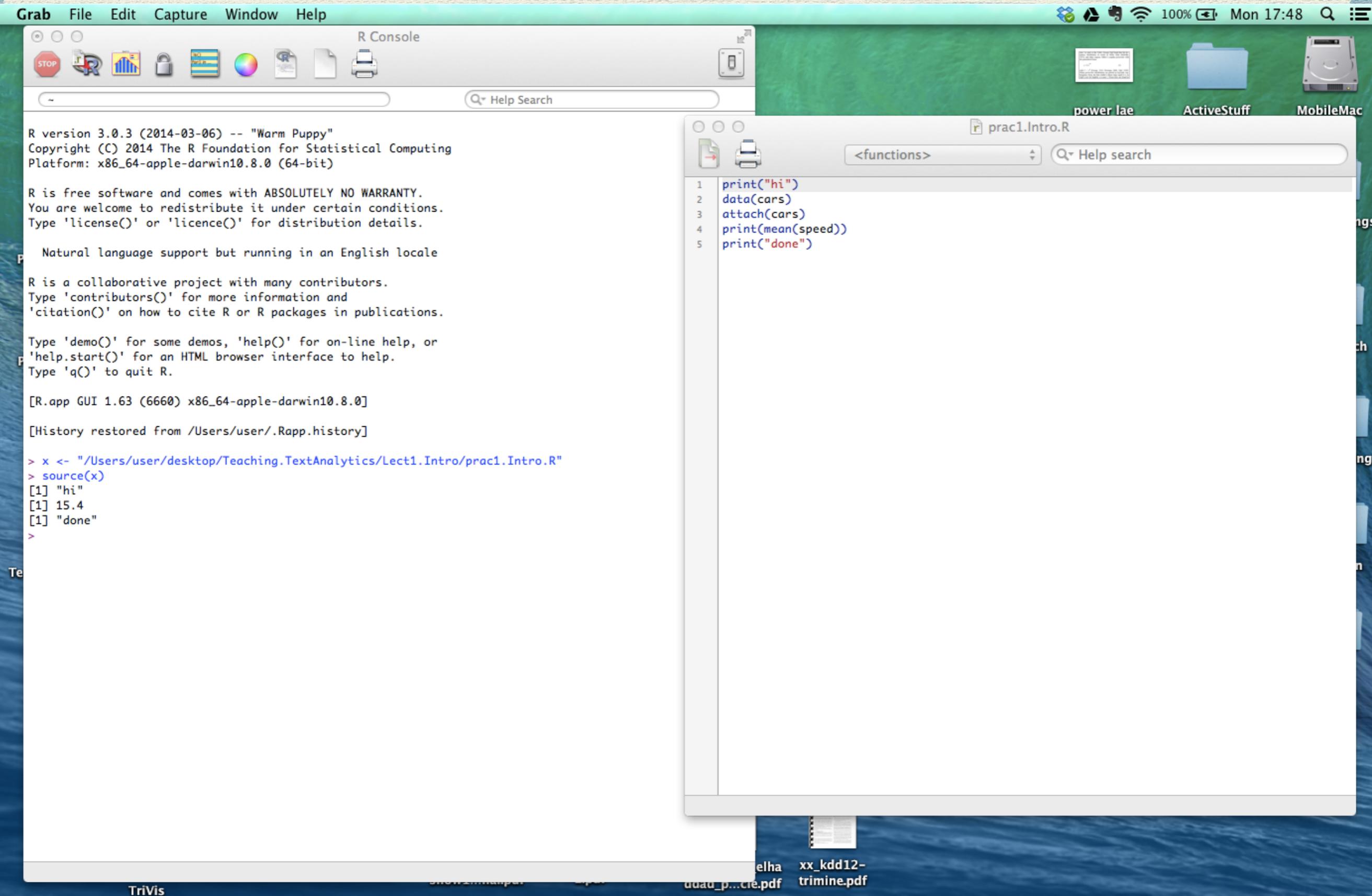
# Using R Console: Prog

- ◆ To set up a program in R:
  - ◆ Open “New Document” under “File” menu
  - ◆ Write in the lines of your program
  - ◆ Save the document to an appropriate place
- ◆ To run the program, gives its name and path to source:

```
> source("/Users/user/desktop/TextAnalytics/Lect1/prac1.Intro.R")
```

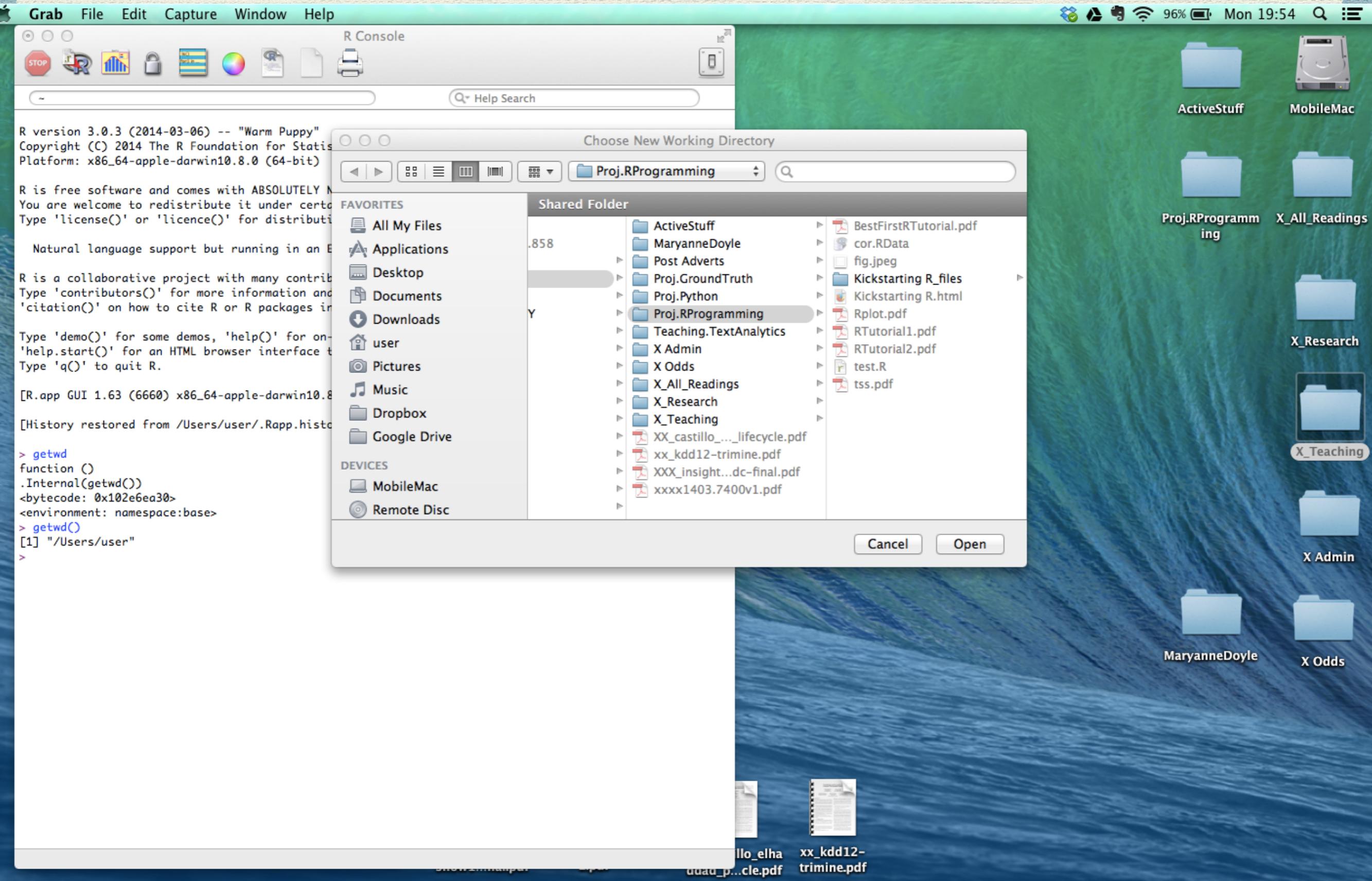






# Using R Console: Loading

- ◆ We have seen that you can load up a file by using `source()`, if you want to avoid writing long path names then:
  - ◆ Open “Change Working Director” under “Misc” menu; navigate to the directory you want to work and press “open” button
- ◆ You can check this using `getwd()`
- ◆ I used `paste` then to create a name for the file, including the pathname...



R Console

```
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[R.app GUI 1.63 (6660) x86_64-apple-darwin10.8.0]

[History restored from /Users/user/.Rapp.history]

> getwd
function ()
.Internal(getwd())
<bytecode: 0x102e6ea30>
<environment: namespace:base>
> getwd()
[1] "/Users/user"
> getwd()
[1] "/Users/user/Desktop/Proj.RProgramming"
>
```