R: Getting Help

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Getting Help

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Documentation

Official R Site

`https://cran.r-project.org/manuals.html`

- continuously updated
- introductory topics (about 100 pages)
- data import/export (about 40 pages)
- installation and administration (about 80 pages)
- writing extensions (about 200 pages)
- reference index (about 3'700 pages)

R's Built-in Help

Every function has a help page that can be accessed using the prefix `?` or `help(`*`function name`*`)`.

Example: Get Help for `mean()`

```
?mean   ##  same as: help(mean)
```

```
## mean                    package:base                    R Documentation
##
## Arithmetic Mean
##
## Description:
##
##      Generic function for the (trimmed) arithmetic mean.
##
## Usage:
##
##      mean(x, ...)
##
##      ## Default S3 method:
##      mean(x, trim = 0, na.rm = FALSE, ...)
##
```

R's Built-in Help

Help for `mean()`

```
##
## Arguments:
##
##         x: An R object.  Currently there are methods for numeric/logical
##            vectors and date, date-time and time interval objects.
##            Complex vectors are allowed for 'trim = 0', only.
##
##      trim: the fraction (0 to 0.5) of observations to be trimmed from
##            each end of 'x' before the mean is computed.  Values of trim
##            outside that range are taken as the nearest endpoint.
##
##     na.rm: a logical value indicating whether 'NA' values should be
##            stripped before the computation proceeds.
##
##       ...: further arguments passed to or from other methods.
##
```

R's Built-in Help

Help for `mean()`

```
##
## Value:
##
##      If 'trim' is zero (the default), the arithmetic mean of the values
##      in 'x' is computed, as a numeric or complex vector of length one.
##      If 'x' is not logical (coerced to numeric), numeric (including
##      integer) or complex, 'NA_real_' is returned, with a warning.
##
##      If 'trim' is non-zero, a symmetrically trimmed mean is computed
##      with a fraction of 'trim' observations deleted from each end
##      before the mean is computed.
##
```

R's Built-in Help

Help for `mean()`

```
##
## References:
##
##      Becker, R. A., Chambers, J. M. and Wilks, A. R. (1988) _The New S
##      Language_.  Wadsworth & Brooks/Cole.
##
## See Also:
##
##      'weighted.mean', 'mean.POSIXct', 'colMeans' for row and column
##      means.
##
## Examples:
##
##      x <- c(0:10, 50)
##      xm <- mean(x)
##      c(xm, mean(x, trim = 0.10))
##
```

R's Built-in Help

The examples in the documentation can be executed in R by typing `example()`.

```
example(mean)
##
## mean> x <- c(0:10, 50)
##
## mean> xm <- mean(x)
##
## mean> c(xm, mean(x, trim = 0.10))
## [1] 8.75 5.50
```

R's Built-in Help

Tricky Syntax

```
?"+"    ##  Help for '+', '-', '*', '/', '^', '%%', and '%/%'.
?"<-"   ##  Help for '<-', '=' and '->'.
?"["    ##  Help for '[', '[[' and '£'.
?"("    ##  Help for '(' and '{'.
?":"
```

R's Built-in Help

Search for a Term (in installed packages):

```
help.search("Laplace")   ##  equivalent: ??"Laplace"
```

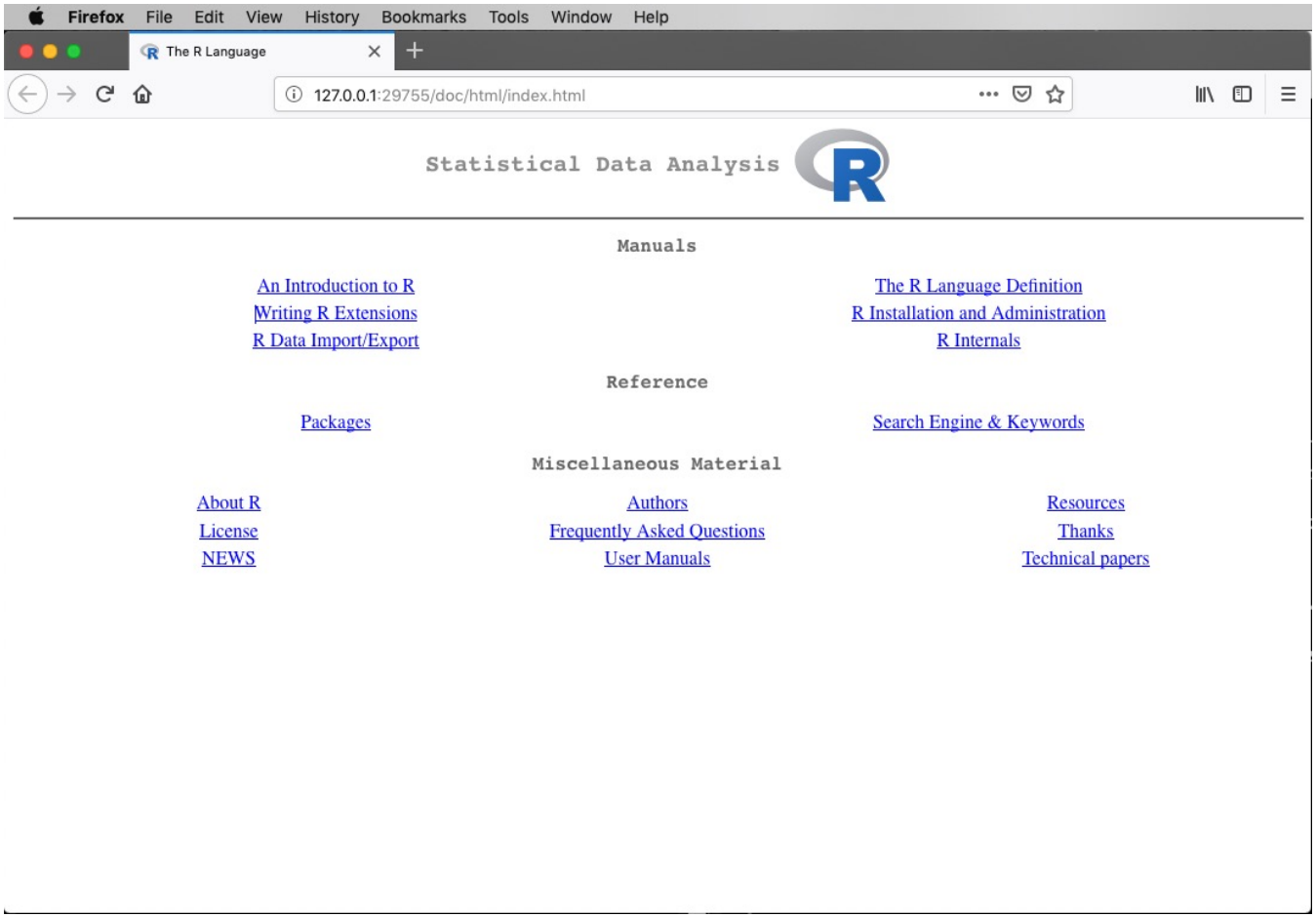
```
## Help files with alias or concept or title matching 'Laplace' using
## fuzzy matching:
##
## fastGHQuad::aghQuad     Adaptive Gauss-Hermite quadrature using Laplace
##                         approximation
## lme4::glmerLaplaceHandle
##                         Handle for 'glmerLaplace'
##   Aliases: glmerLaplaceHandle
## maptools::lineLabel     Line label placement with spplot and lattice.
## maptools::panel.pointLabel
##                         Label placement with spplot and lattice.
## maptools::pointLabel    Label placement for points to avoid overlaps
##
## Type '?PKG::FOO' to inspect entries 'PKG::FOO', or 'TYPE?PKG::FOO' for
## entries like 'PKG::FOO-TYPE'.
##
```

Often helpful: `help.search("...", package = "...")`

R's Built-in Help

`help.start()` opens the off-line help in a browser.

```
help.start()
```



Frequently Asked Questions

Most problems a beginner encounters have been discussed before.

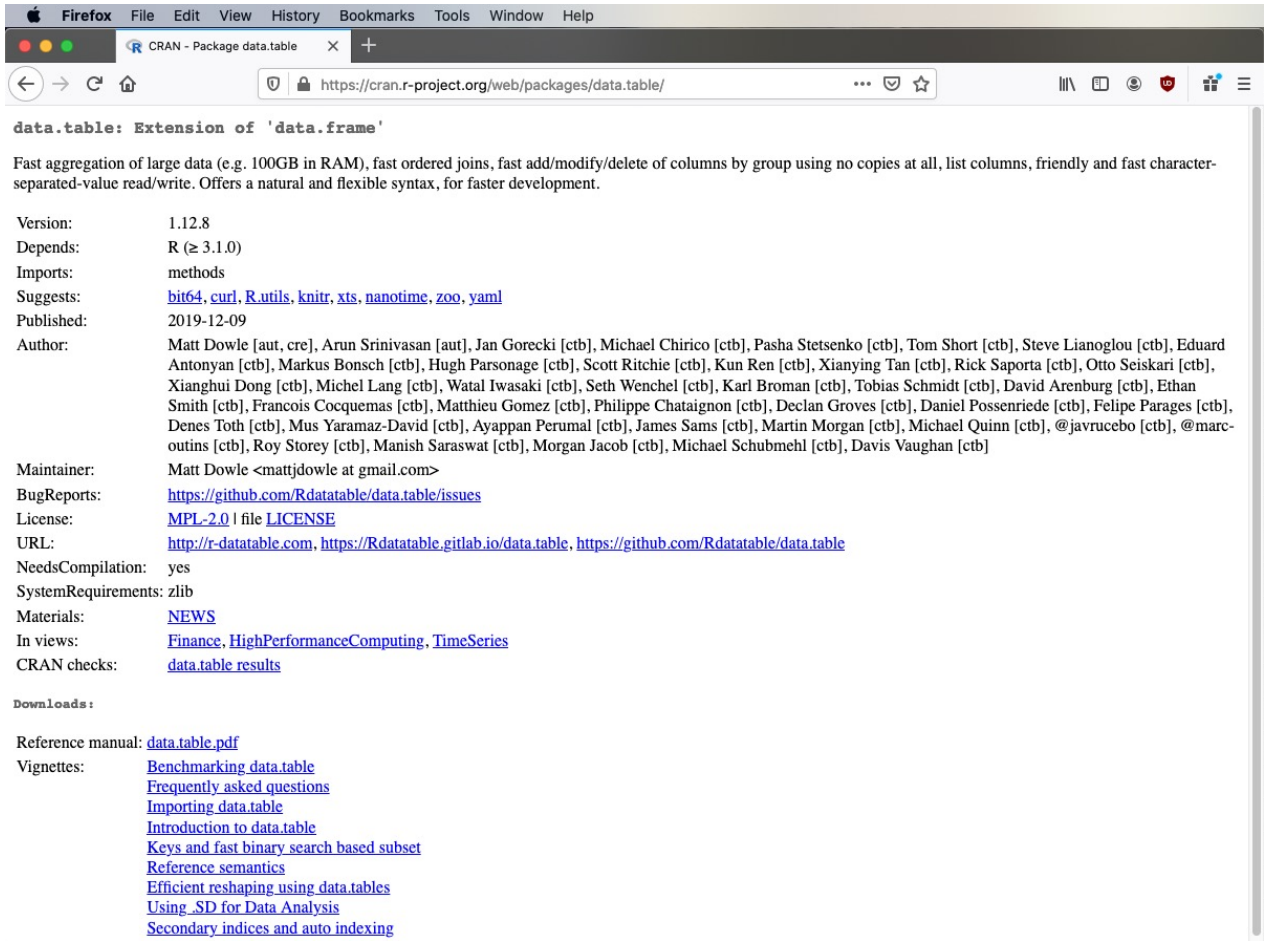
The R Core Team collected the most prominent and repetitive questions in the R-help mailing list early on.

Exhaustive answers are published on CRAN:

https://cran.r-project.org/doc/FAQ/R-FAQ.html

R Packages

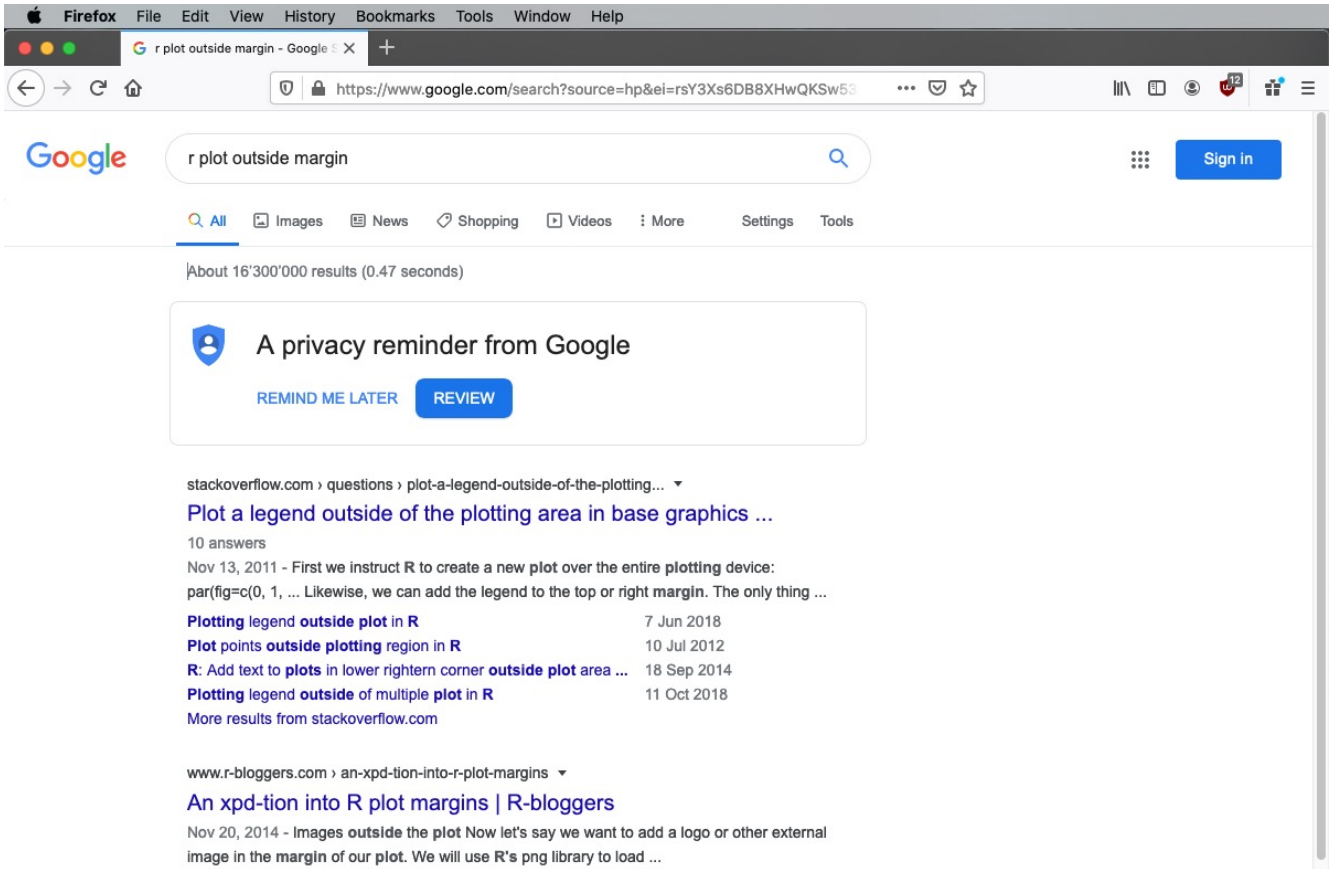
CRAN (Comprehensive R Archive Network): https://cran.r-project.org/web/packages/index.html



Most Important Website:

`https://stackoverflow.com/`

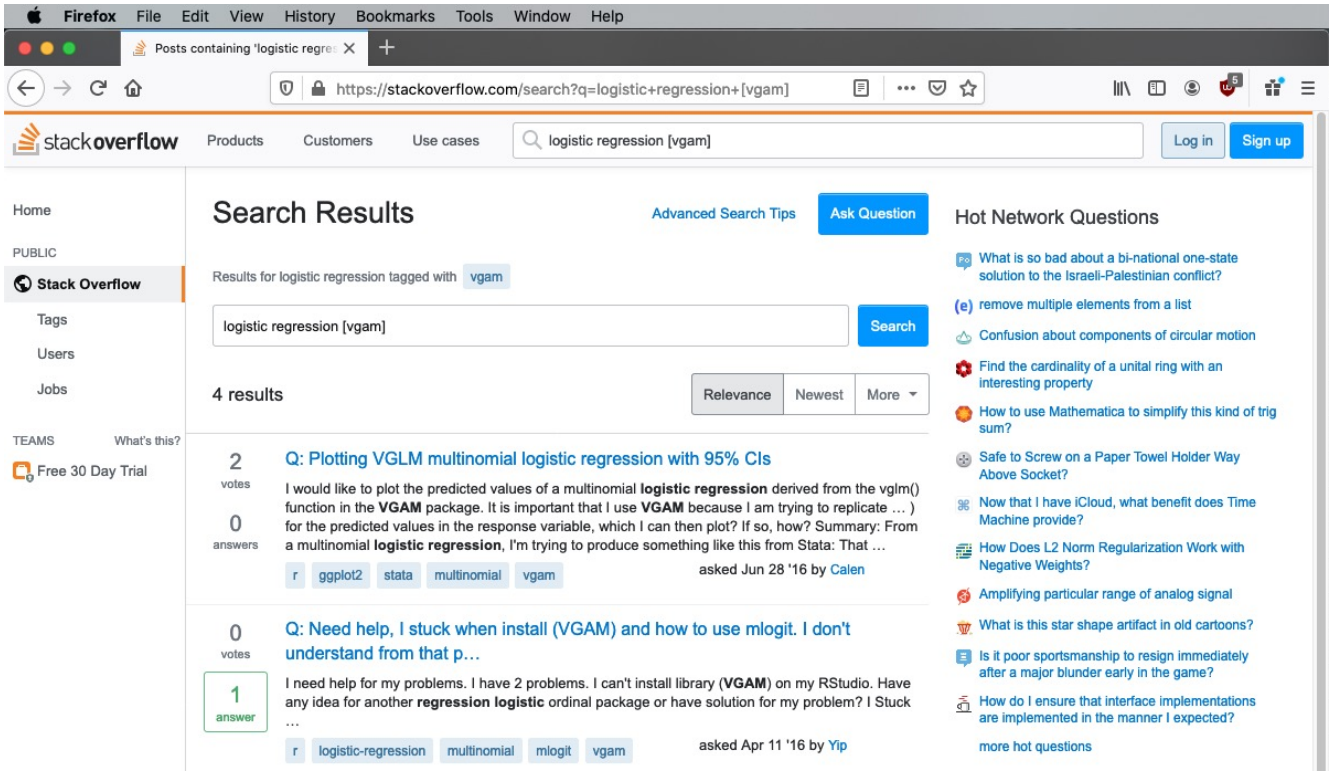
That's where you usually end up when using Google.



Internet

www.stackoverflow.com

- Most questions/answers are tagged
- Available in search query: [*tag1*] [*tag2*] ...



R Mailing Lists: https://www.r-project.org/mail.html