

# Introducción a la ciencia reproducible con R

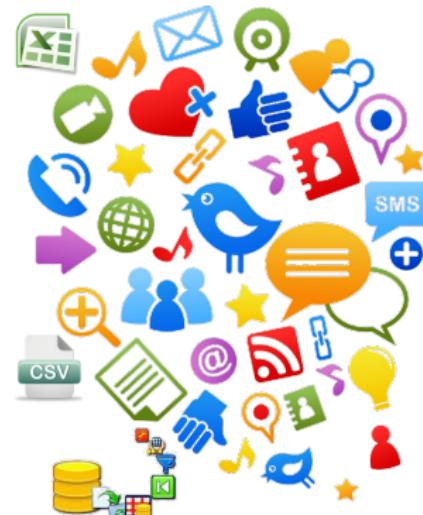
Document Freedom Day - OSLUGR

Francisco Charte

25 marzo 2015

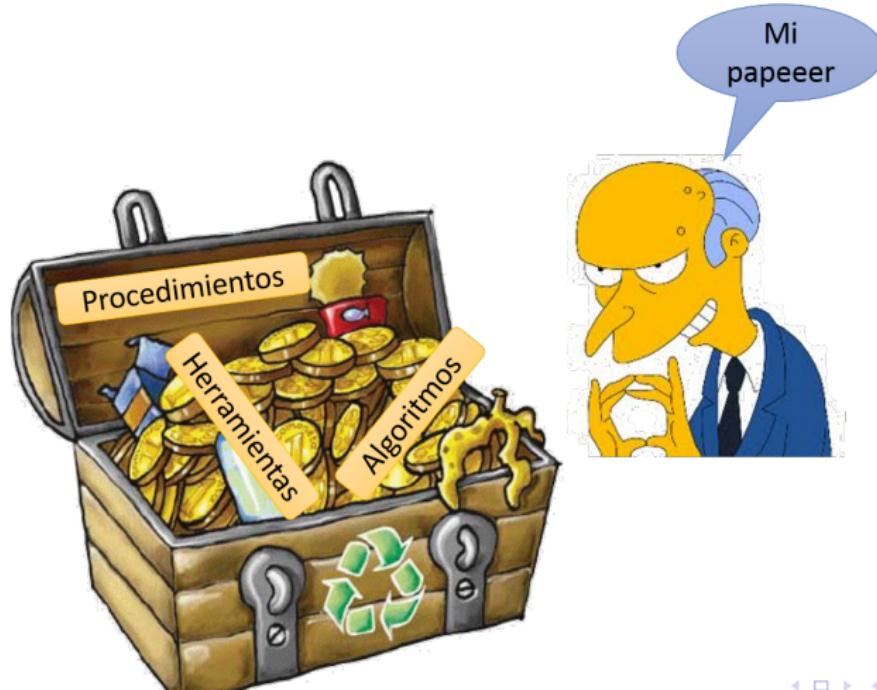
# En qué consiste la ciencia reproducible

## Datos disponibles y accesibles



# En qué consiste la ciencia reproducible

Procedimientos, algoritmos y herramientas disponibles y accesibles



## En qué consiste la ciencia reproducible

Las acciones manuales no son fácilmente reproducibles

Nothing can stop automation



# Introducción a R

The screenshot shows the RStudio interface with the following components:

- File Browser:** Shows files like RBenchmarkings.R, graphics.R, CRANDownloads.R, and CienciaReproducible.Rmd.
- Code Editor:** Displays R code for a presentation template and a plot of CRAN downloads.
- Console:** Shows R commands and their output, including the creation of a data frame from a URL and plotting it.
- Environment:** Shows the current project's status (Staged, History, Build, Git, Presentation).
- Plots:** A line graph titled "CRAN downloads for package mldr" showing the number of downloads over time.

```
1+ ---  
2 title: "Introducción a la ciencia reproducible con R"  
3 subtitle: "Document Freedom Day - OSLUGR"  
4 author: "Francisco Charte"  
5 date: "25 marzo 2015"  
6 output: beamer_presentation  
7 theme: dresden  
8 colortheme: dolphin  
9  
10 ---  
11  
12 ## En qué consiste la ciencia reproducible  
13 Datos disponibles y accesibles  
14  
15   
16  
17 ## En qué consiste la ciencia reproducible  
18 Procedimientos, algoritmos y herramientas disponibles y accesibles  
29:1  (Top Level)  R Markdown
```

```
> data <- url("http://www.rstudio.com/wp-content/uploads/2014/07/CRANDownloads.csv")  
> plot(data$downloads, type = "b", lwd = 3, lty = 1, pch = 7,  
+       main = "CRAN downloads for package mldr", xlab = "Date", sub = paste(  
"sum = ", sum(data$downloads), ", mean = ", mean(data$downloads)),  
+       ylab = "Number of downloads", xaxt = "n")  
> axis(1, at = 1:length(data$downloads), labels = data$day, cex.axis = 0.5,  
las = 2)  
> |
```

Number of downloads

Date

sum = 294 , mean = 8.166666666666667

# Importación de datos

# Publicación de datos