



25 GIUGNO 2020
#IWD BARI



INTERNATIONAL WOMEN DAY



TECNOLOGIA, DATI E STORYTELLING

Giovanna de Vincenzo

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InfoCamere

Co-founder
RLadies Bari

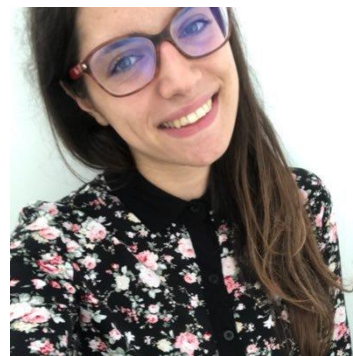
Data Viz Lover

Repo

GitHub
[giodev11/IWD-Bari-2020](https://github.com/giodev11/IWD-Bari-2020)

Tableau Public
[giovanna.de.vincenzo](https://public.tableau.com/v/#!/vizos/giovanna.de.vincenzo)

Here I am



Contact
giodevince@gmail.com



TALK AGENDA

15' min talk

5' min questions



During this talk we will
cover these topics

- An introduction to Data
Storytelling
- Data Visualization with
Tableau
- Data Visualization with
R
- R Shiny
- Focus: R-Ladies Bari

AN INTRODUCTION
TO DATA
STORYTELLING

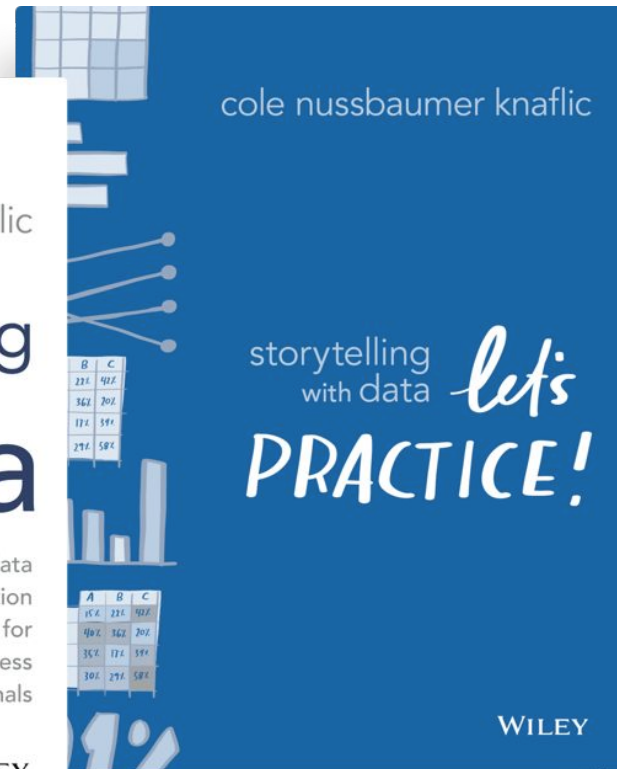
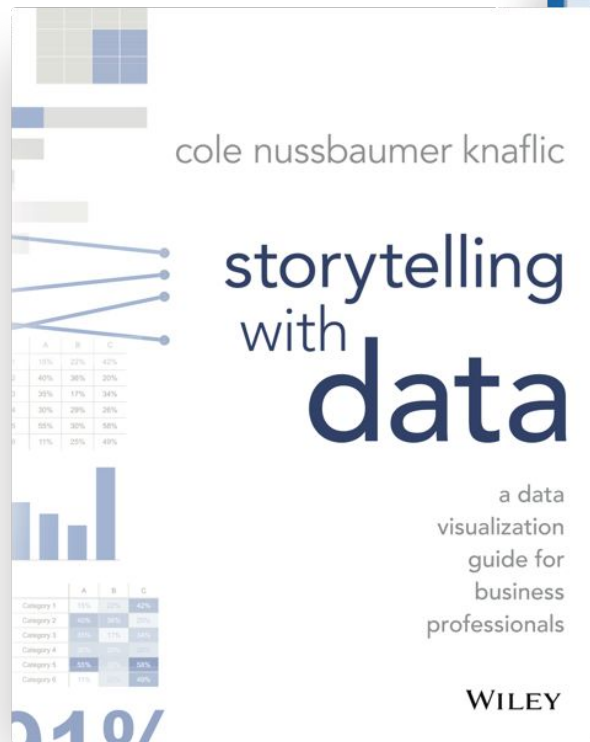
THE ART OF STORYTELLING

DATA STORYTELLING

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MATERIALE

Data
Storytelling:
Best Practices
and Visualization
Tips To Create
Remarkable
Reports ([link](#))



DATA VISUALIZATION WITH TABLEAU



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NONCODING DATA VISUALIZATION



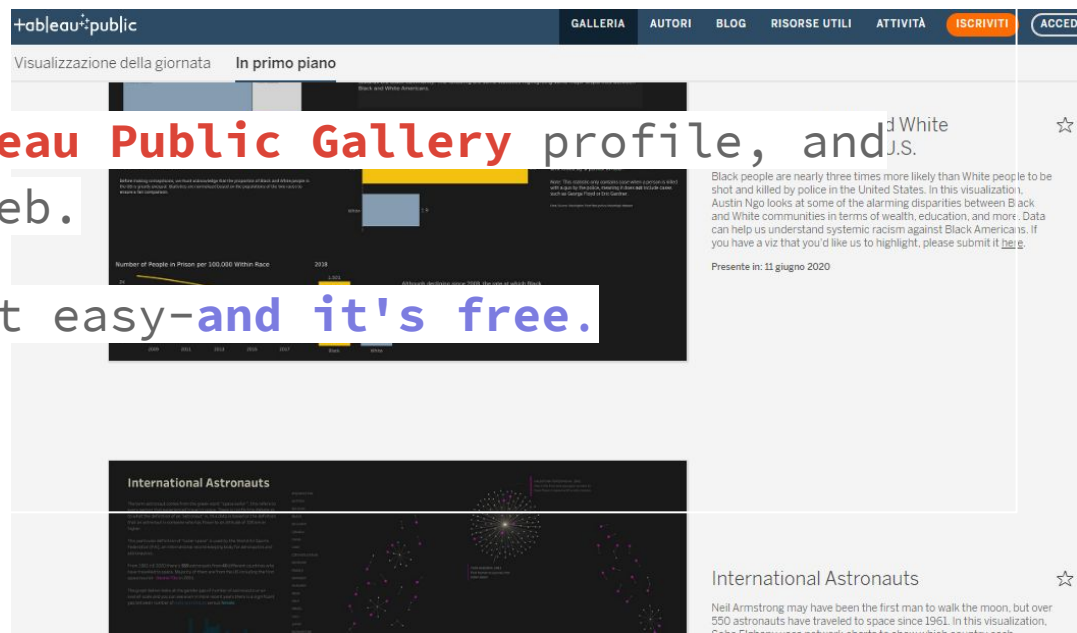
Tableau Public and Tableau Gallery

Create interactive graphs, stunning maps, and live dashboards in minutes.

Save your viz to your **Tableau Public Gallery** profile, and share it anywhere on the web.

Anyone can do it, it's that easy—and it's free.

Download [here](#)



Connetti

A un file

Microsoft Excel

File di testo

File JSON

Microsoft Access

File PDF

File spaziale

File statistico

A un Server

Altro...

Ricerca

Fogli Google

Connettore

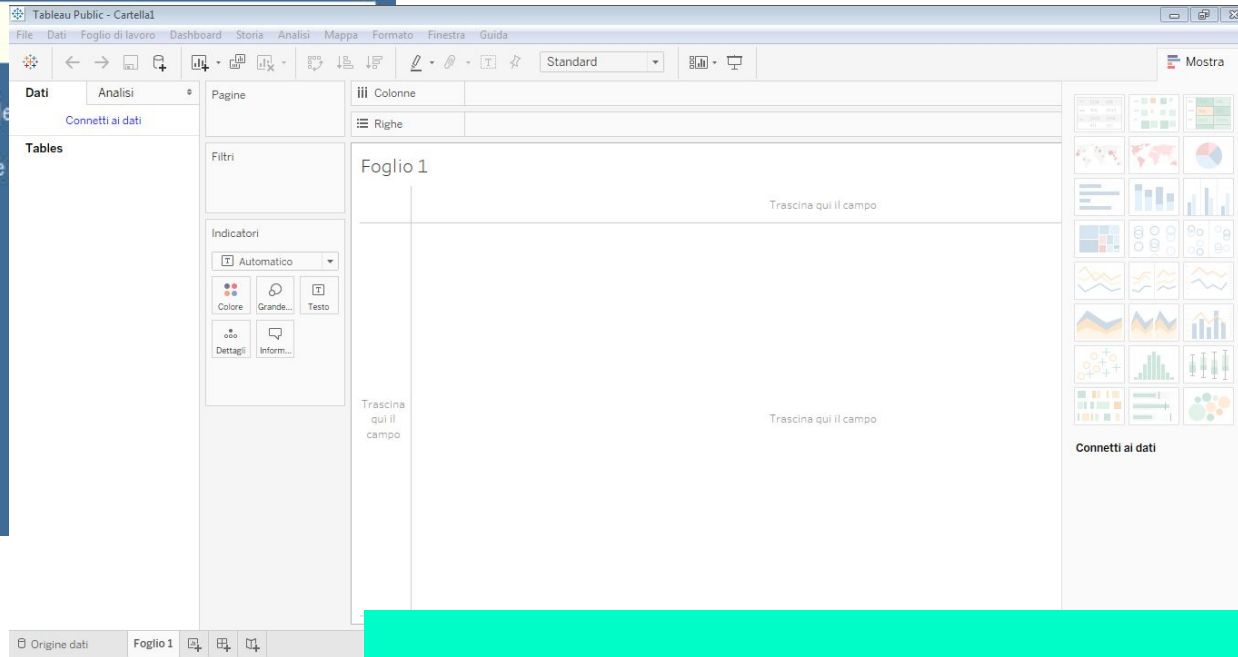


TABLEAU:

DRAG & DROP SYSTEM

MULTIPLE CONNECTORS

CREATE CALCULATION (SQL LANGUAGE)

ANALYTICS

BUG FIXING & VERSIONING

DOWNLOAD WORKBOOK FROM TABLEAU GALLERY

COMMUNITY

YOUTUBE VIDEOS FOR FREE

EASY-TO-USE, EASY-TO-LEARN

CORSO INTRODUTTIVO SU
TABLEAU

TERZO TRIMESTRE 2020

UDEMY

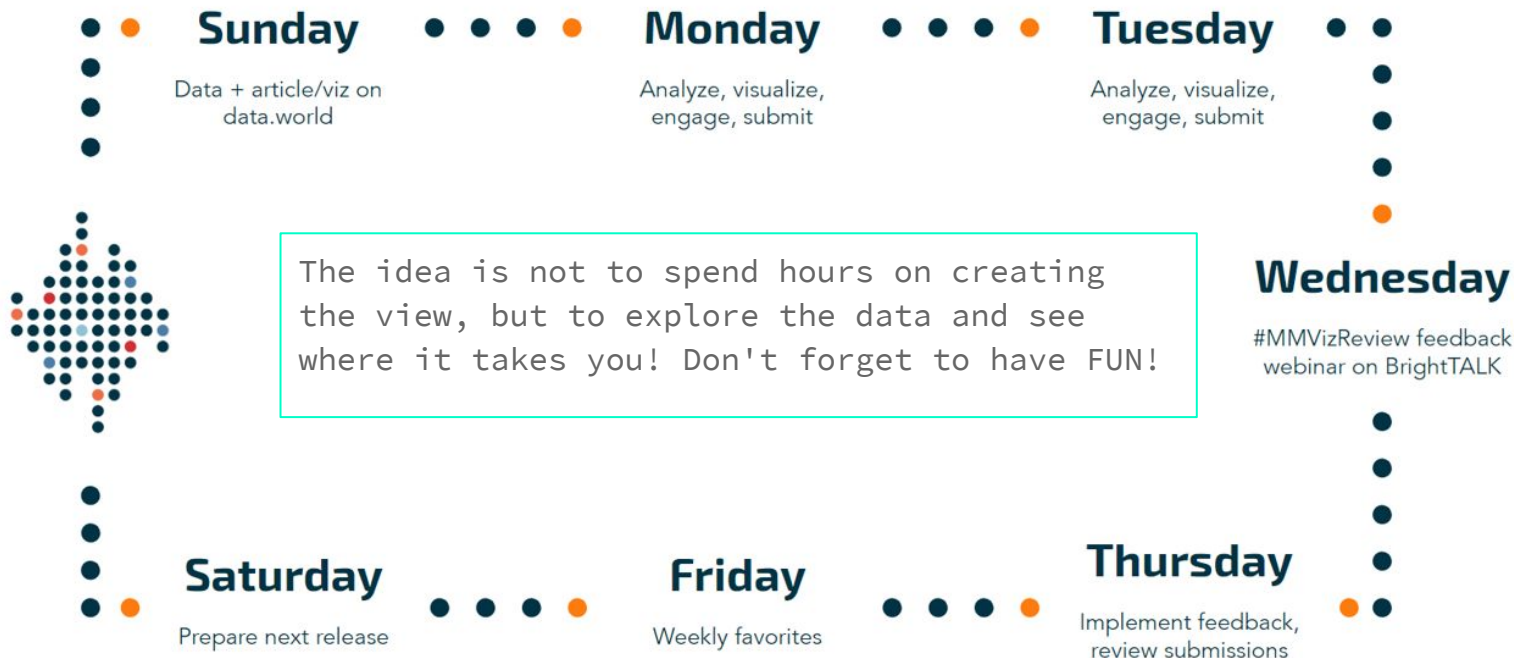
GRATUITO

yey.



MakeoverMonday

CHALLENGE



Feel free to tag me on **Twitter** or **LinkedIn** and don't forget to submit your viz with the **#makeovermonday** hashtag.



DATA VISUALIZATION

WITH




WHY R

- ## Data Import :: CHEAT SHEET

Read Tabular Data

Read Tabular Data - These functions share the common

```
read_* (file, col_names = TRUE, col_types = NULL, locale = default_locale,
        quoted_na = TRUE, comment = "", trim_ws = TRUE, skip = 0, n_max = Inf,
        n_max, progress = interactive())
```

 **Comma Delimited Files**
`read_csv("file.csv")`
To make file.csv run:

Semi-colon Delimited Files
`read_csv2("file2.csv")`
`write_file(x = "a;b;c\n1;2;3\n4;5;NA", p)`

Files with Any Delimiter
`read_delim("file.txt", delim = "\t")`
`write_file(x = "a|b|c\n1|2|3\n4|5|NA", p)`

USEFUL ARGUMENTS

123	write_file("a,b,c\n1,2,3\n4,5,NA","file.csv")	4 5 NA
4,5,NA	f <- "file.csv"	
A B C	No header	A B C
1 2 3	read_csv(f, col_names = FALSE)	1 2 3
4 5 NA		
x y z	Provide header	A B C
A B C	read_csv(f, col_names = c("x", "y", "z"))	1 2 3

Read Non-Tabular Data

Read a file into a single string

```
read_file(file, locale = default_locale())
```

Read each line into its own string

Read a file into a single string

```
read_file_ra
```

Read each line

Read Apache style log files

```
read_log(file, col_names = FALSE, col_types = NULL, skip = 0, n_max = 1000000)
```

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RStudio IDF :: CHEAT SHEET

Write Code

6 "P0030001"
7 "P0030002"
8 "P0030003"
9 "P0030004"
10
11
12 get_digit = function() {
13 ("run" %>% 10 %>% n())
14 %>% 10 %>% (n - 1)
15 }
16
17

The screenshot shows a code editor with the following code:

```

19 // func (callback)
20 // func (callback)
21 // Jump to function in file
22 //
23 // The code is

```

Below the code, the 'Console' tab is active, displaying a stack trace for a function call:

```

> (10) func()
[1] 1
  func()
  func()
  func()
  func()

```

Launch debugger mode from origin of error

contin...

```

x, y, nudge_x = 1,
y = TRUE) x, y, label,
ntface, hjust,
width = 2)
size
, color, fill, shape,

```

`geom_bar()`

```
df <- data.frame(x = 1:10, y = 1:10)
j <- ggplot(df, aes(x, y))
```

group, linestyle,

ly', stacked =
il, group

a'), x, y, alpha, color,
ght

.....
man

```
state =  
map <-  
k <- 625
```

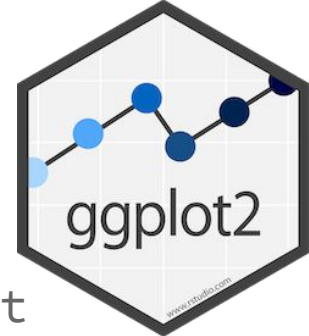


A screenshot of the RStudio application window. The menu bar at the top shows 'File > New File > R Presentation'. The main editor pane displays a code snippet: `getwd()` followed by a comment `# location of the working directory`. The environment pane on the right shows a single object, `getwd()`, with its value `\"C:/Users/...\"`. Annotations with arrows point to specific features: 'Hands to copy' points to the top-left corner; 'Delete all saved objects' points to the trash icon in the environment pane; 'Search inside environment' points to the search icon in the environment pane; 'Download from' points to the download icon in the environment pane; and 'Download objects' points to the download icon in the environment pane.

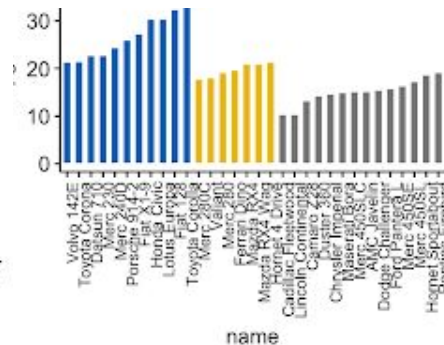
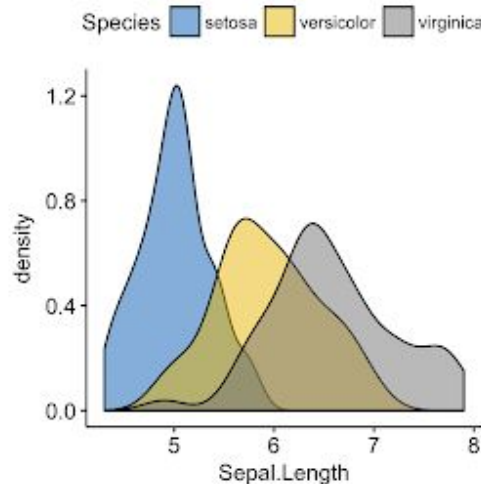
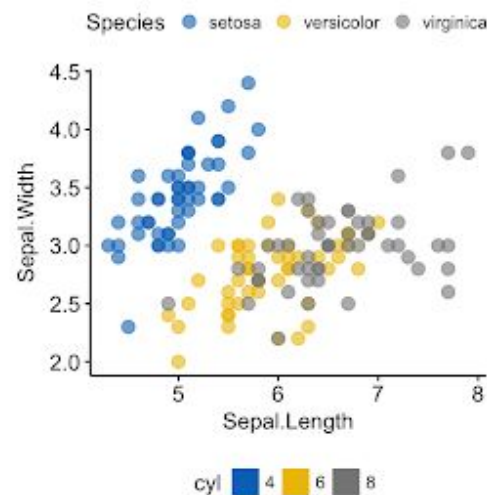
[illegible]

DOWNLOAD R
DOWNLOAD R-STUDIO

CODING DATA VISUALIZATION



ggplot2 implements the grammar of graphics, a coherent system for describing and building graphs. With **ggplot2**, you can do more faster by learning one system and applying it in many places.



Species	length	mean	sd
setosa	50	5.01	0.352
versicolor	50	5.94	0.516
virginica	50	6.59	0.636

iris data set gives the measurements in cm of the variables sepal length and width and petal length and width, respectively, for 50 flowers from each of 3 species of iris. The species are *Iris setosa*, *versicolor*, and *virginica*.

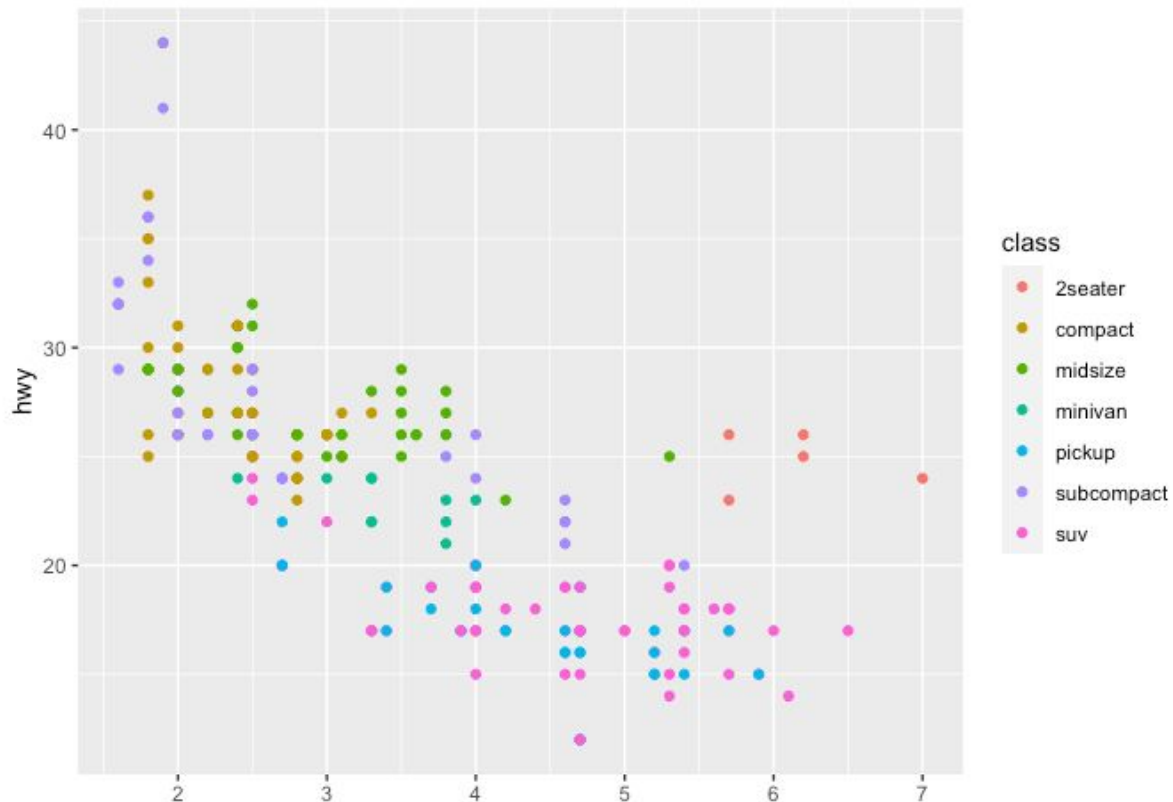
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GGPLOT2

based on *The Grammar of Graphics*

```
library(ggplot2)
```

```
ggplot(mpg, aes(displ, hwy, colour = class)) +  
  geom_point()
```



THE R GRAPH GALLERY

It's a collection of charts
made with the R programming
language

R Graph Gallery

([link](#))

DATA TO VIZ

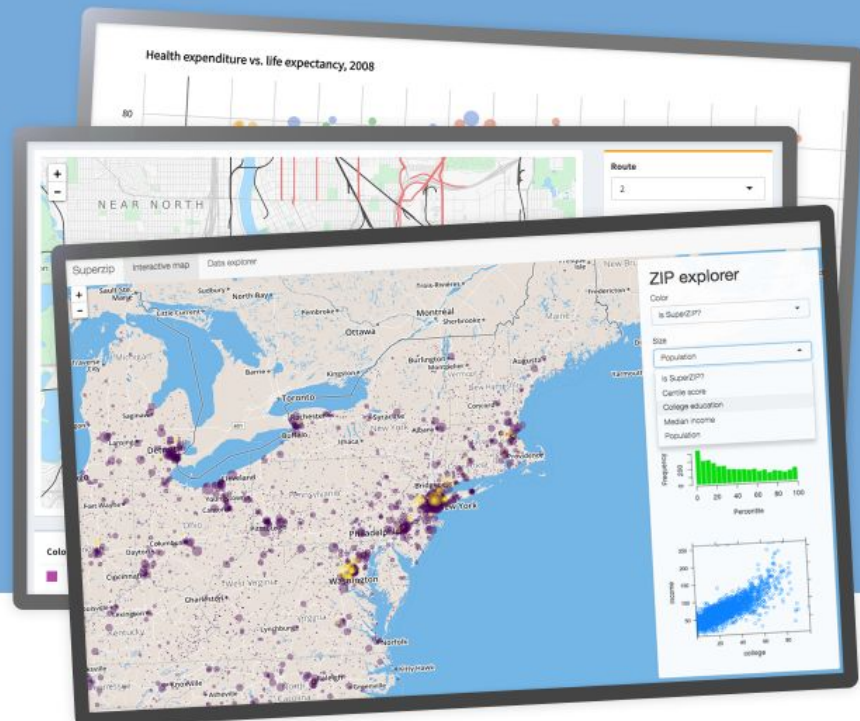
EASY WAY TO
STORYTELL

From **Data to Viz** leads you to the most appropriate graph for your data. It links to the code to build it and lists common caveats you should avoid.

([link](#))

R SHINY

R SHINY



Interact. Analyze. Communicate.

Take a fresh, interactive approach to telling your data story with Shiny. Let users interact with your data and your analysis. And do it all with R.

FOCUS: R LADIES
COMMUNITY

#IWD BARI 2020

R-LADIES IS A WORLDWIDE ORGANIZATION WHOSE MISSION IS TO PROMOTE GENDER DIVERSITY IN THE R COMMUNITY

As a diversity initiative, the mission of R-Ladies is to achieve proportionate representation by encouraging, inspiring, and empowering people of genders currently underrepresented in the R community.

R SHINY APP





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HAPPY VISUALIZATION!

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