

Kick-off Meeting: Launching R-Ladies East Lansing

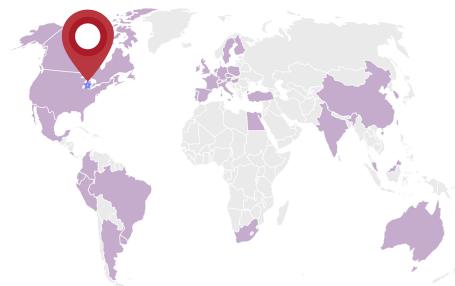
Janani Ravi | jananiravi@rladies.org

July 25, 2018

Welcome!

You are in the right place!

whether you are an R-novice or an R-expert!



Welcome to R-Ladies East Lansing!
a local chapter of R-Ladies Global

Let us know you!

- Please fill out our Getting Started survey: bit.ly/rlel-gettingstarted
- If you are here, please make sure you have RSVP'ed on Meetup!
- Join us: bit.ly/r ladies-eastlansing

Agenda

Intro

- to each other
 - pick a partner
- to R-Ladies

R

- Snapshot: R
- Snapshot: Fun with R
- Snapshot: Data Vis. w/ R

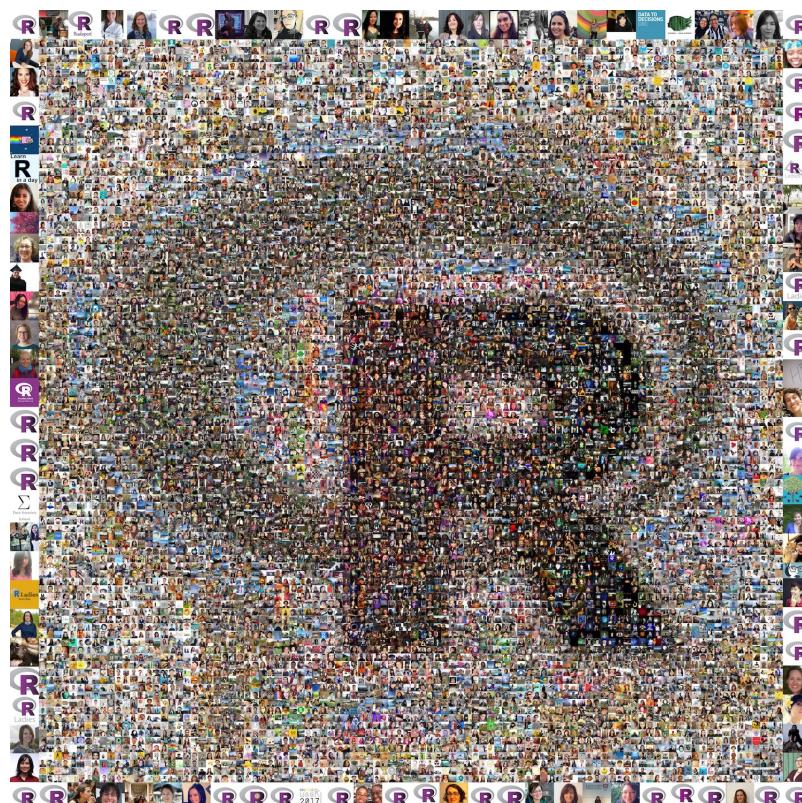
Activities

- Topics for future meetups!
 - Help us help you!
 - Find Camille/me
 - Pick up your stickies (big)
 - Vote on all topics
- Getting involved!
 - Help  :)
 - Pick up your stickies (small)
 - Find Camille/me
 - What would you like to do?

Who we are

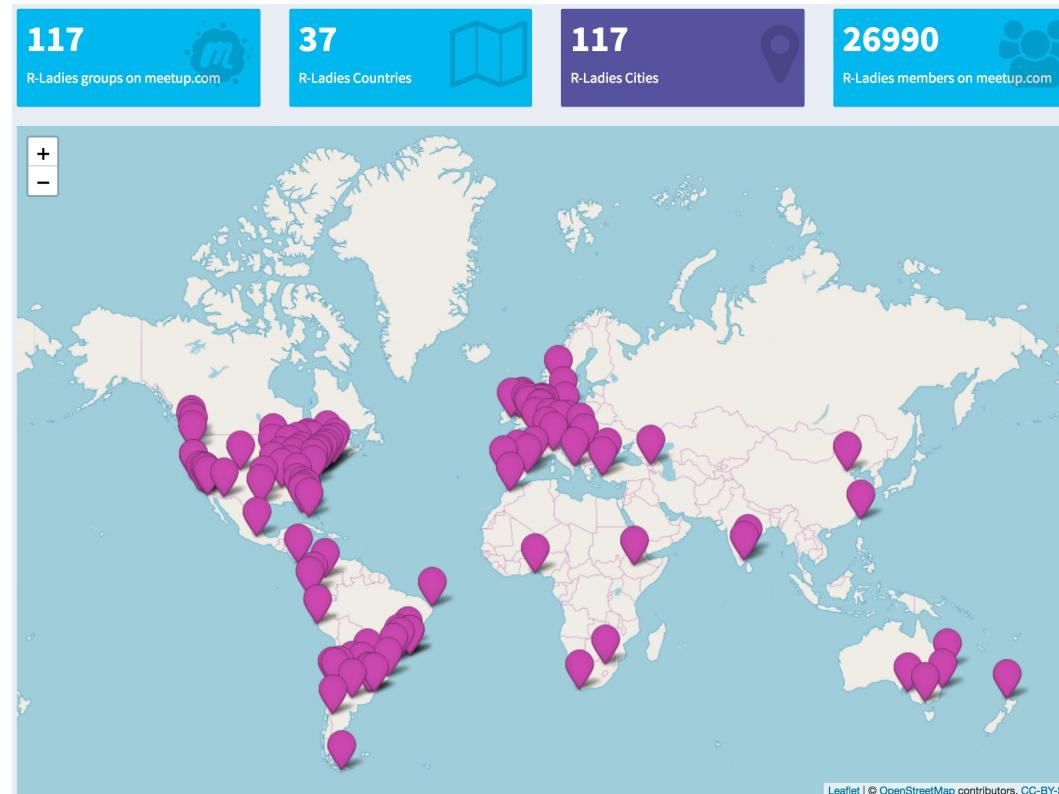


Worldwide organization that
promotes **gender diversity** in
the **#rstats** community via
meetups and mentorship in a
friendly and **safe** environment



Credits: Lucy D'Agostino McGowan | R-Ladies Nashville

Where we are: R-Ladies Worldwide



Credits: Gabriela de Queiroz | R-Ladies Founder + Leadership Team + R-Ladies SF |
<https://gqueiroz.shinyapps.io/rshinyLady/>



R-Ladies giving back

LatinR | Argentina, Brazil, Uruguay, Chile

ConectaR | Costa Rica

Call of Data | R-Ladies Madrid

Contribution to PAWS | R-Ladies Philly

UseR | R-Ladies Global & individual chapters

R-consortium | policy change towards safe & inclusive events | R-Ladies Global

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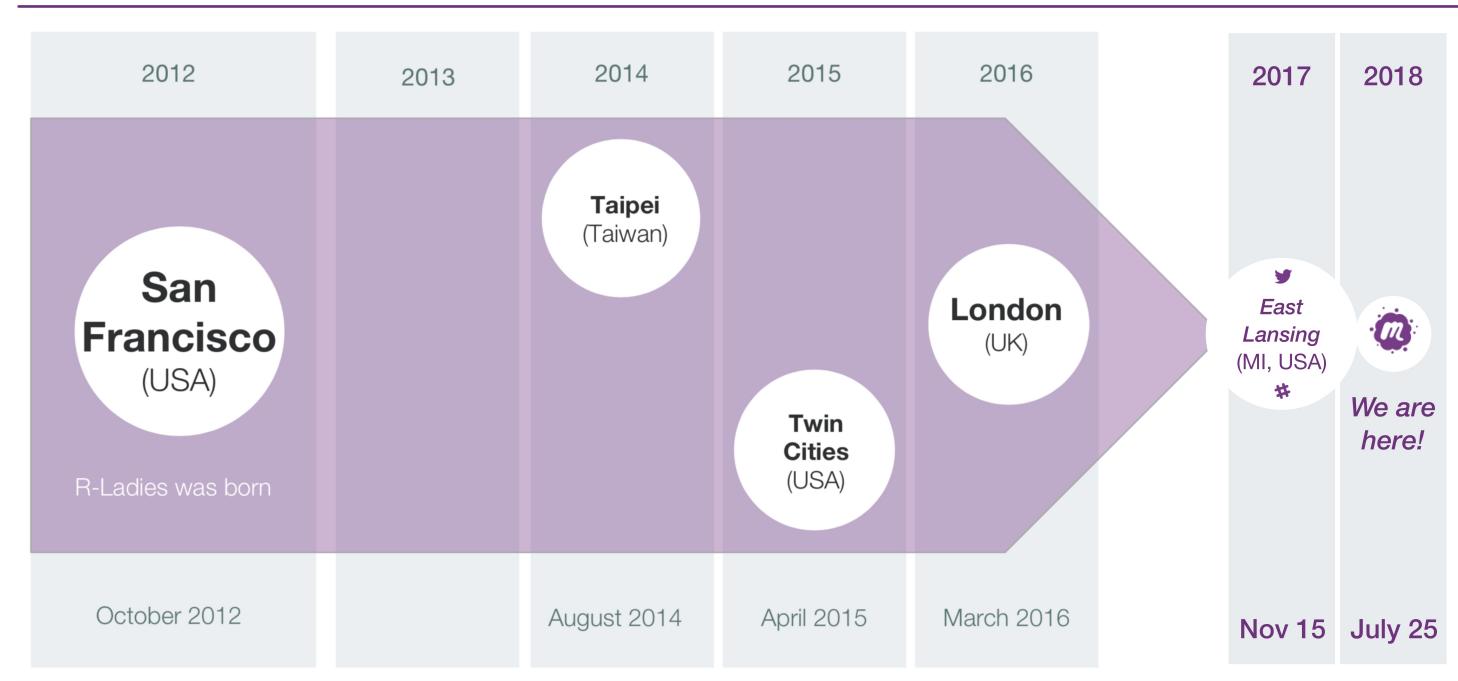
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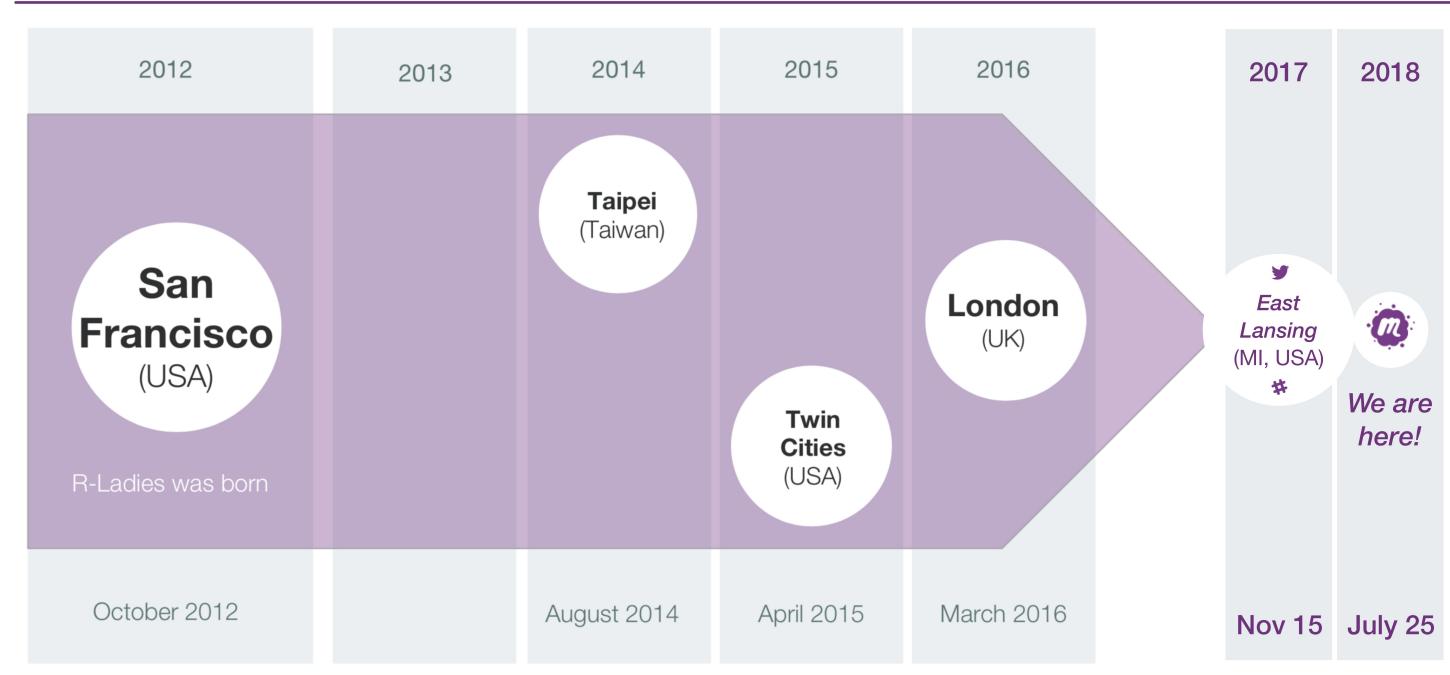
R-Ladies Taipei got together with [@pyladies](#) and [@GirlsinTech](#), to teach the Taiwanese president how to code!

R-Ladies East Lansing



Credits: Adapted from UseR 2017!

R-Ladies East Lansing



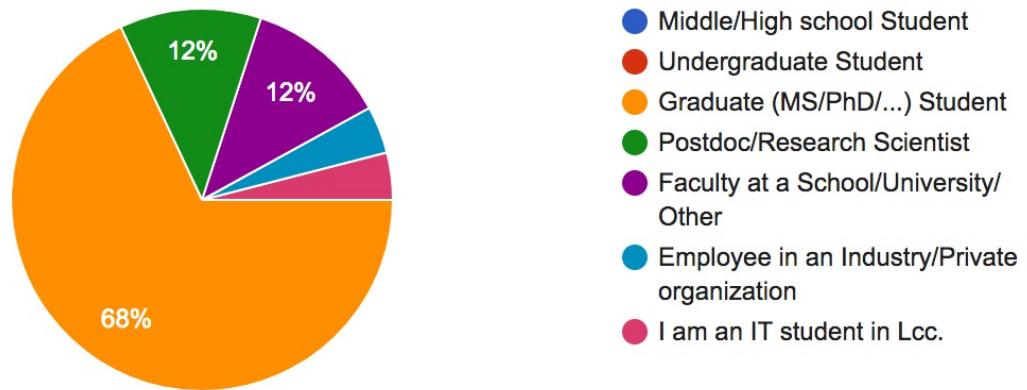
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Meetup tips? East Lansing meets Chicago | July 06, 2018!

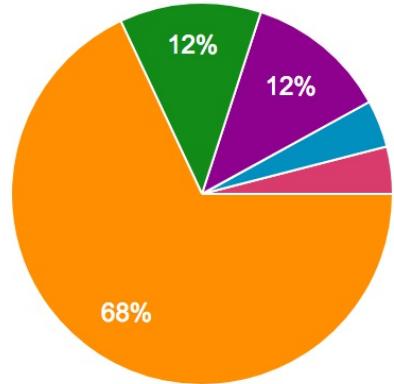
R-Ladies East Lansing

User Level



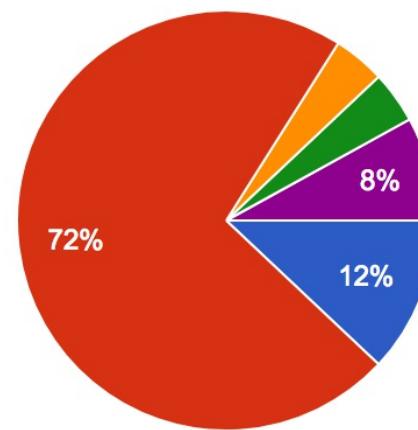
R-Ladies East Lansing

User Level



- Middle/High school Student
- Undergraduate Student
- Graduate (MS/PhD/...) Student
- Postdoc/Research Scientist
- Faculty at a School/University/Other
- Employee in an Industry/Private organization
- I am an IT student in Lcc.

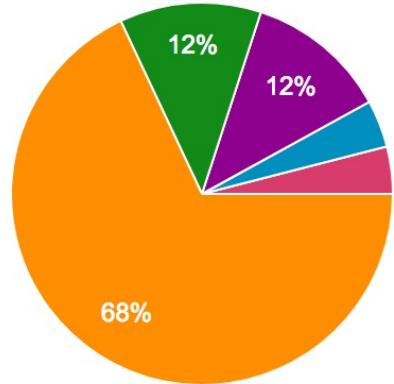
Using R for



- Coursework (school/university/online)
- Work (academia)
- Work (industry)
- Fun! (hobby)
- Well, I don't use R much but I'm a data science enthusiast!

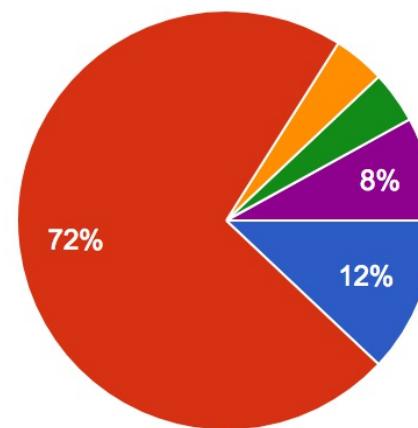
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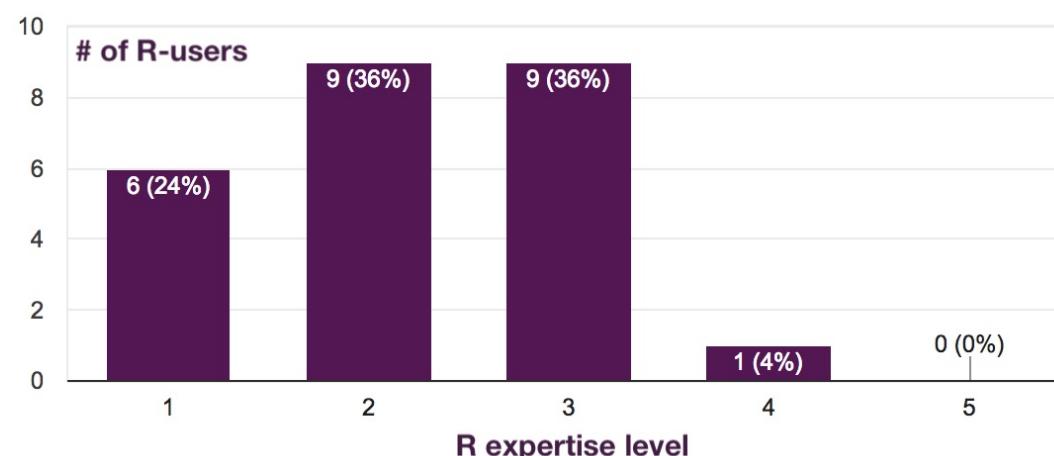
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R-user Level



R-Ladies East Lansing

What we could do

- ❑ Find Camille/me
- ❑ Pick your large stickies (Learn/Teach/Help)
 - pencil Write your names
 - ✓ Vote on the potential topics
- ✚ Add new ones (if you have specific ideas, add under broader topic sheets)

Get involved

Support

Local Chapters :

- FREE venue
- Sponsorship for food and drink

Advocate

- R-Ladies directory
- Opportunities e.g. conferences, jobs etc

Inspire

Raise your voice

- Join R-Ladies
- Code Share
- Inspire and support others
- Teach
- Blog
- Tweet

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Learn 

Present/Teach/Lead discussions

Be an R helper: Technical >_

Social :   

Website & Blogs: 

Content management:   G Drive

Get involved

Learn 

Present/Teach/Lead discussions

Be an R helper: Technical >_

Social :   

Website & Blogs: 

Content management:   Drive

How often should we meet? When? 

 Find Camille/me

 Pick your small stickies

 Write your names

✓ Stick up 1-3 of these against each topic

How-to-R



Jesse Maegan
@kierisi

Following



My #rstats learning path:

1. Install R
2. Install RStudio
3. Google "How do I [THING I WANT TO DO] in R?"

Repeat step 3 ad infinitum.

9:19 AM - 18 Aug 2017

86 739 2.6K

How-to-R

 **Jesse Maegan**
@kierisi

Following



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   2.6K 

 **Hannah A. Brazeau**
@moitymouse

Following



Impost-R syndrome: when you're convinced everyone but you learns R effortlessly.

3:28 PM - 17 Feb 2017

23 506 1.2K

   1.2K 

How-to-R



Jesse Maegan
@kierisi

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86



739



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Hannah A. Brazeau
@moietymouse

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Impost-R syndrome: when you're convinced everyone but you learns R effortlessly.

3:28 PM - 17 Feb 2017

23 506 1.2K



23



506



1.2K



Mattias P Johansson ✅
@mpjme

Following

New programmers, take note: When people say "simple", "intuitive" or "easy" they very frequently mean "familiar to me"

2:54 PM - 2 May 2018

88 1.7K 5.3K



88



1.7K



5.3K



Twitter Credits: @kierisi | @moietymouse | @mpjme

How-to-R

Cooking or coding?



Sonja Eisenbeiss
@SonjaEisenbeiss

Following



Steps in **#Rstats** are like steps in **#cooking**.
My memory aid for students and teaching

Get into the kitchen	Change working directory
Get specialist tools into your kitchen	Install packages
Plug-in and switch on your tools	Load packages
Bring in your ingredients	Import data and store as data frames
Check your ingredients	Inspect your data for missing/implausible values
Chop, mix/separate things up	Split and filter data
Cook using general & specialist tools	Carry out further analysis
Check/taste things along the way	Plot intermediate and final results
Plate and serve the meal	Present reproducibly using R Notebooks

🐦 Credits: @SonyaEisenbeiss , @comppbiologist

How-to-R

R ecosystem

R

The
statistical
programming
language

RStudio

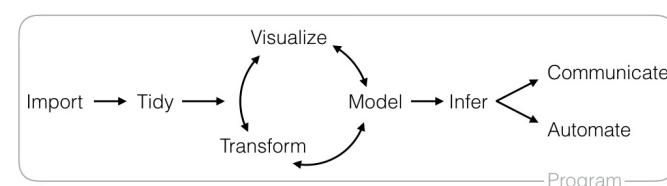
The graphical software
we're using to
write/execute R code,
look at files, plots, etc.

R Notebook

The interactive/dynamic notebook
written using R Markdown that can
contain richly-formatted text, chunks
of R code & their outputs (incl. plots)

R Packages

External open software packages
implementing a variety of data
analysis & visualization
functionalities.



 Credits: @comptbiologist

How-to-R



Video tutorials



No shame!

Catching errors is most arbitrary management decisions

Copying and Pasting from Stack Overflow

The Practical Developer @ThePracticalDev

OREILLY

StackOverflow Importer

Do you ever feel like all you're doing is copy/pasting from Stack Overflow?

Let's take it one step further.

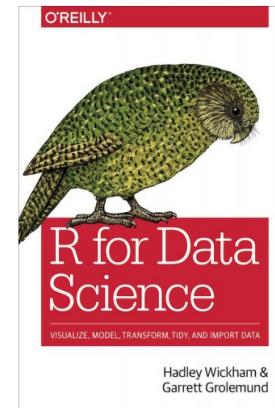
from stackoverflow import quick_sort will go through the search results of [python] quick sort looking for the largest code block that doesn't syntax error in the highest voted answer from the highest voted question and return it as a module. If that answer doesn't have any valid python code, it checks the next highest voted answer for code blocks.

```
>>> from stackoverflow import quick_sort, split_into_chunks
>>> print(quick_sort.sort([1, 3, 2, 5, 4]))
[1, 2, 3, 4, 5]

>>> print(list(split_into_chunks.chunk("very good chunk func")))
['very ', 'good ', 'chunk', ' func']

>>> print("I wonder who made split_into_chunks", split_into_chunks.__author__)
I wonder who made split_into_chunks https://stackoverflow.com/a/35107113

>>> print("but what's the license? Can I really use this?", quick_sort.__license__)
but what's the license? Can I really use this? CC BY-SA 3.0
>>> assert("nice, attribution!")
```



R Programming
for Data Science



Used extensively in this workshop

<https://www.rstudio.com/resources/cheatsheets/>



DynamicWebPaige @ \$HOME 🌎
@DynamicWebPaige

Following

The #rstats community is obsessed with:

- straightforward documentation
- effective communication
- data visualization+storytelling
- intuitive, developer-centric tooling
- inclusivity
- reproducible research
- code peer reviews

If any of that resonates:

ropensci.org/blog/2018/02/0 ...

4:38 PM - 11 Feb 2018



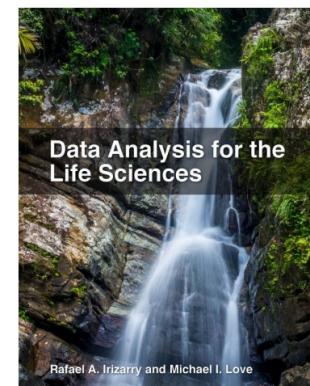
2



84



286



How to be a
modern
SCIENTIST



@jtleek



Credits: @DynamicWebPaige | @comppbiologist

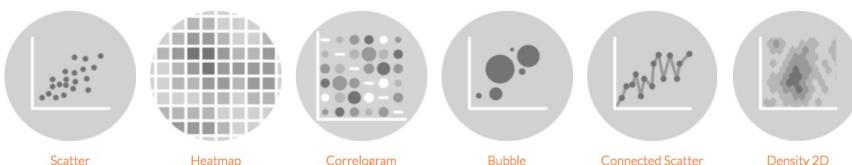
R for DataViz



Distribution



Correlation



Rankings



Part of a whole



Evolution



from Data to Viz



from Data
to Viz

'From Data to Viz' is a classification of chart types based on the type of data they show. It helps you find the perfect chart in three simple steps:

- ① Identify what type of data you have.
- ② Go to the corresponding decision tree and follow it down to a set of possible charts.
- ③ Choose the chart from the set that will suit your data and your needs best.

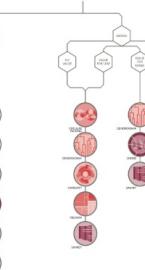
data-to-viz.com

Dataviz is a world with endless possibilities and this project does not claim to be exhaustive. However it provides a good starting point for your search. For an interactive version and much more, visit:

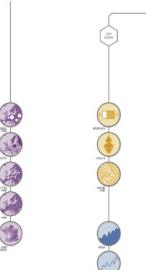
data-to-viz.com

CATEGORIC

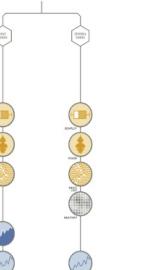
RELATIONAL



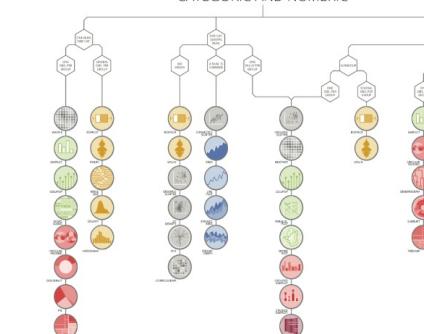
MAP



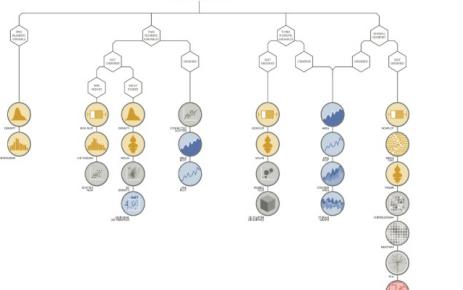
TIME SERIES



CATEGORIC AND NUMERIC



NUMERIC



© 2014 by Ben Heidorn & Daniel Lüdtke for www.dataviz.to-viz.com

R for DataViz

VIOLIN PLOT

[definition](#) - [mistake](#) - [related](#) - [code](#)

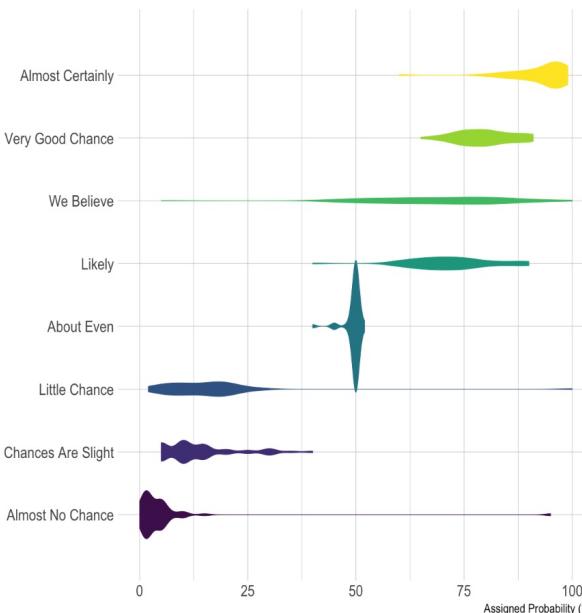


Definition

Violin plot allows to visualize the distribution of a numeric variable for one or several groups. Each ‘violin’ represents a group or a variable. The shape represents the density estimate of the variable: the more data points in a specific range, the larger the violin is for that range. It is really close to a [boxplot](#), but allows a deeper understanding of the distribution.

Here is an example showing how people [perceive probability](#). On the [/r/samplesize](#) thread of reddit, questions like *What probability would you assign to the phrase “Highly likely”* were asked. Answers between 0 and 100 were recorded, and here is the distribution for each question:

[CODE](#)



Fun with R!

Want to add GIFs to your RMarkdown presentation?



Credits: haozhu233/giphyr

Fun with R

Want to add emojis to your RMarkdown presentation?

⌚ Credits: hadley/emo

Fun with R

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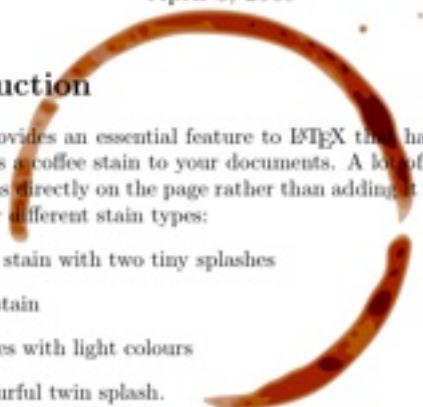
⌚ Credits: hadley/emo

Want coffee stains on your documents instead?

LaTeX Coffee Stains

Hanno Rein
<http://hanno-rein.de>
Cambridge University

April 3, 2009



1 Introduction

This package provides an essential feature to L^AT_EX that has been missing for too long. It adds a coffee stain to your documents. A lot of time can be saved by printing stains directly on the page rather than adding it manually. You can choose from four different stain types:

1. 270° circle stain with two tiny splashes
2. 60° circle stain
3. two splashes with light colours
4. and a colourful twin splash.

☕ Credits: Hanno Rein | hanno-rein.de

Acknowledgements

People

- Camille Archer  ICER, MSU
- Arjun Krishnan  CMSE, MSU
- Nate Davis  MSU Data Science
- Nichole Nadkarni  Red Fish Viral
- Katherine Simeon & Amy Wang 
- Jen Richmond  Sydney
- Jennifer Thompson  Nashville
- Melina Vidoni  Argentina

Packages & communities

- Xaringan theme |  yihui/xaringan
- R-Ladies Xaringan theme |  alison.rbind.io/
- KnitR, R Markdown, remark.js
- MeetupR for RLadies-stats | Gabriela de Queiroz  rshinylady
- R-Ladies Global community |  



All you folks for being here for our Kick-off meeting!

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Today's Sponsor!



Find us Online!

R-Ladies

East Lansing

-  eastlansing@rladies.org
-  [@RLadiesELansing](https://twitter.com/RLadiesELansing)
-  [rladies-east-lansing](#)
-  [@rladies-eastlansing](#)
-  [rladies-eastlansing.slack.com](#)
-  ICER, Michigan State University

Global

-  rladies.org
-  [@RLadiesGlobal](https://twitter.com/RLadiesGlobal)

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-  [ICER, Michigan State University](#)

Global

-  rladies.org
-  [@RLadiesGlobal](#)

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-  [jananiravi.github.io](#)

Camille Archer

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-  [camille.archer.1](#)

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- Ⓜ️ [rladies-east-lansing](https://rladies-east-lansing.slack.com)
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- # rladies-eastlansing.slack.com
- 📍 ICER, Michigan State University

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- 🐙 [@archerc5](https://github.com/archerc5)
- 🐦 [@camillearcher5](https://twitter.com/camillearcher5)
- ƒ [camille.archer.1](https://www.facebook.com/camille.archer.1)

