

# Welcome to a GCDI Workshop!

Introduction to R and RStudio

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GC Digital Initiatives

THE  
GRADUATE  
CENTER  
CITY UNIVERSITY  
OF NEW YORK

# What is GCDI?

GCDI offers different types of ***support for digital scholarship*** such as evening **workshops**, **one-on-one consultations** for faculty and students, **working groups** based around common tools or data sources, special **events** such as our annual Digital Showcase and Sound Series, and **online resources**.

Whether you have participated in our workshops before or your idea of the perfect software is a paperback edition, there is something for you! Our offerings are open to scholars at all levels of digital experience and at all stages of graduate research. Whether you are digitally driven, curious, or defiant, we are prepared to help.



GC Digital Initiatives

# OK, so how can I get involved with GCDI?

- Join the **GCDI Group** on the CUNY Academic Commons for updates on how to be involved. **[cuny.is/group-gcdi](https://cuny.academiccommons.org/group-gcdi)**
- Check the Event Calendar for upcoming **events** and **workshops**. **[cuny.is/workshops](https://cuny.is/workshops)**
- Request a **one-on-one consultation**. Faculty: **[cuny.is/gcdfconsults](https://cuny.is/gcdfconsults)**
- Join the **R Users Group (RUG)** at **[cuny.is/rug](https://cuny.is/rug)**
- Join the **GIS Working Group** at **[cuny.is/group-gis-working-group](https://cuny.is/group-gis-working-group)**
- Join the **Data Visualization Group** at : **[cuny.is/dvg](https://cuny.is/dvg)**
- Join the **Python Users Group (PUG)** at **[cuny.is/pug](https://cuny.is/pug)**

# How else can I keep in touch with GCDI?

- Follow GCDI on Twitter: **@cunygcdi**
- Follow the GC Digital Fellows on Twitter: **@digital\_fellows**
- Follow the **#digitalGC** hashtag on Twitter
- Follow the GC Digital Fellows blog, Tagging the Tower:  
**digitalfellows.commonsgc.cuny.edu**
- Contact the fellows at **digitalfellows.commonsgc.cuny.edu/contact-us/**
- Drop-in to the Digital Scholarship Lab **Open House** hosted once per semester, or attend PUG, Events, or Workshops!



Today's workshop

# Introduction to R and RStudio

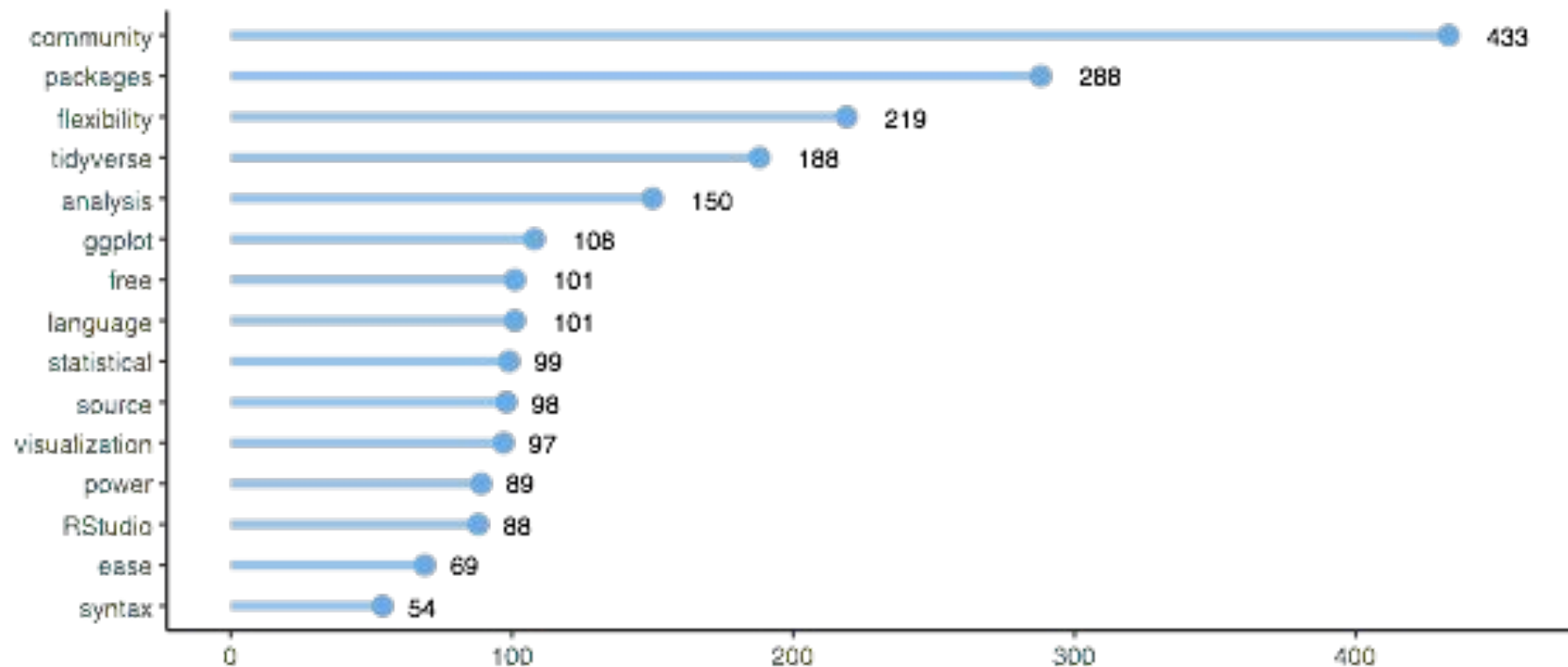


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# Why is R great?

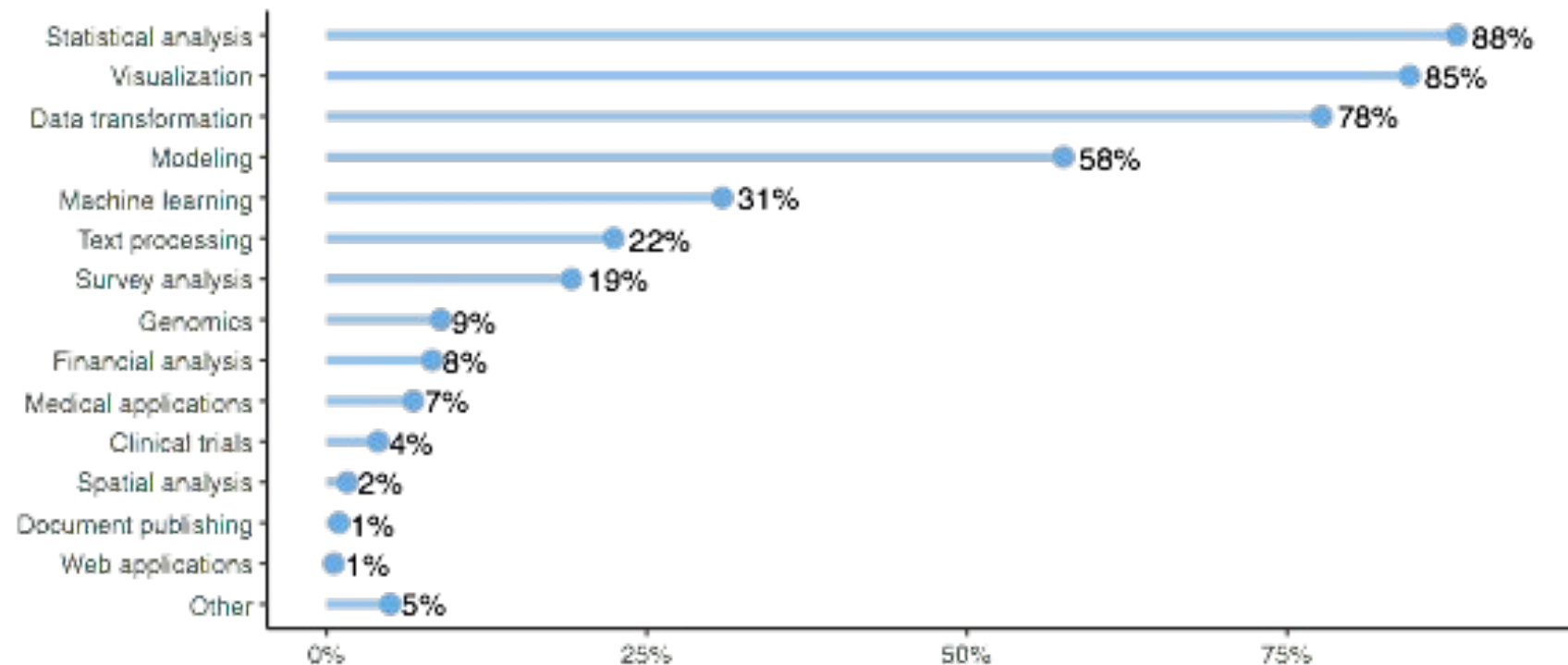
- Amazing, accessible community
- You can do (nearly) everything with it
- Optimized for performing data analysis and reports
- It's FREE

"What do you like best about using R?" (Number of mentions shown, R users only)



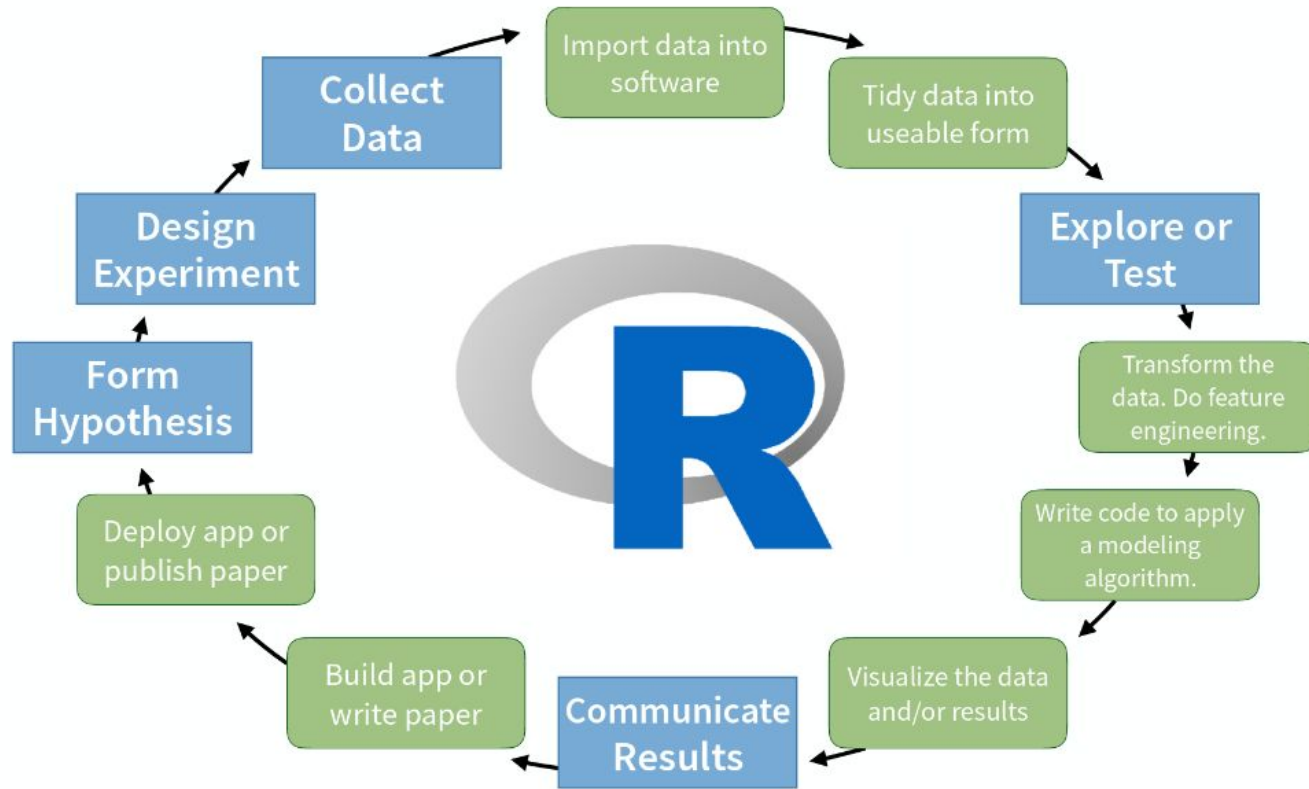
2018 RStudio Learning R Survey, Total Mentions = 9432

"What applications do you use R for most? (check all that apply)" (R users only)



2018 RStudio Learning R Survey, n = 3278





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**R: Engine**



**RStudio: Dashboard**

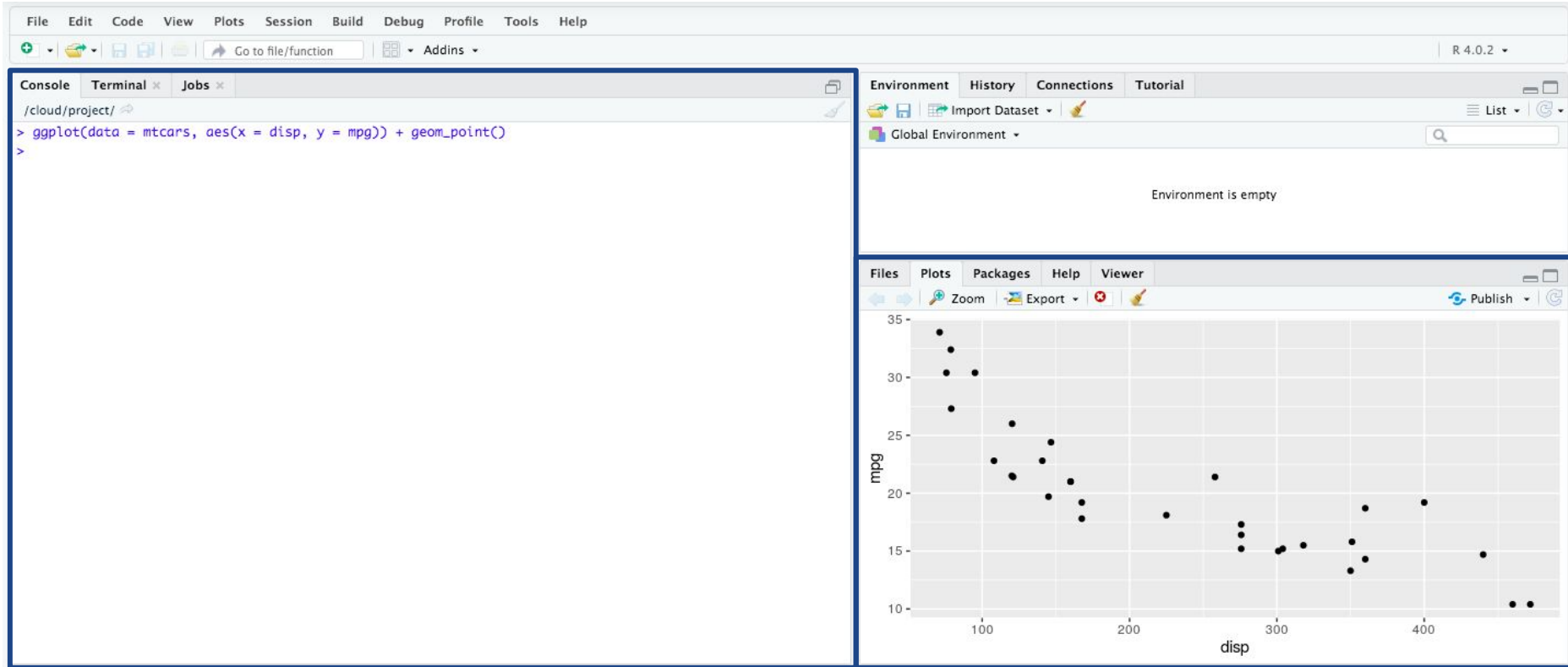


# What we're covering

- R/RStudio basics
- Loading data
- Data visualization
- Data wrangling

# This is a chance to get your feet wet

- Don't worry if you don't understand everything right now
- All programming languages take time to understand
- I'll give you plenty of resources to have a successful journey!



Coding console

Output

## R: A new phone



## R Packages: Apps you can download



Time to get familiar with  
RStudio!

# Connect with the R community!



[cuny.is/rug](https://cuny.is/rug)



[cuny.is/dvg](https://cuny.is/dvg)

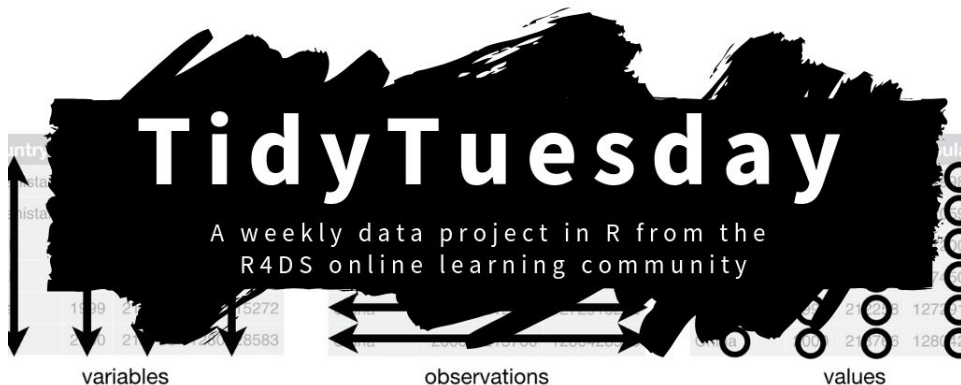


#rstats

#tidyverse

#r4ds

#rspatial



<https://github.com/rfordatascience/tidytuesday>



<https://rladies.org/>



<https://www.rfordatasci.com/>



# Learn more!

## R Studio Primers

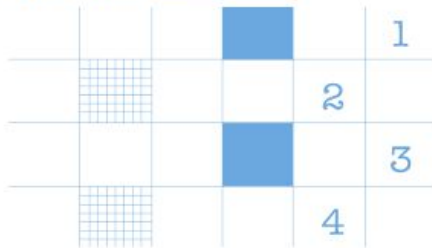
Learn data science basics with the interactive tutorials below.

### The Basics



Start here to learn the skills that you will rely on in every analysis (and every primer that follows): how to inspect, visualize, subset, and transform your data, as well as how to run code.

### Work with Data



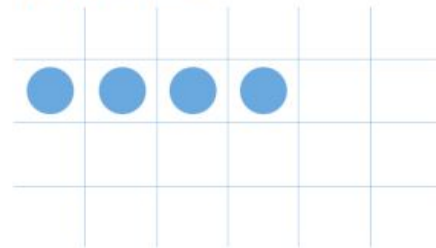
Learn the most important data handling skills in R: how to extract values from a table, subset tables, calculate summary statistics, and derive new variables.

### Visualize Data



Learn how to use ggplot2 to make any type of plot with your data. Then learn the best ways to visualize patterns within values and relationships between variables.

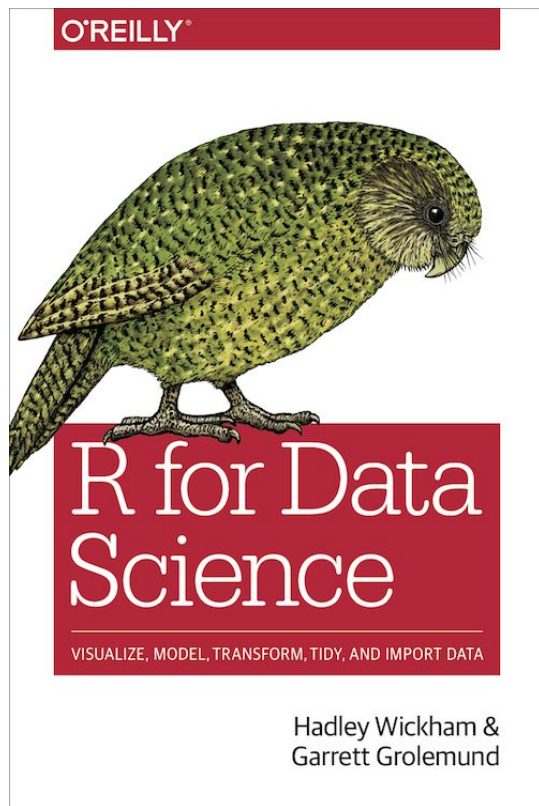
### Tidy Your Data



Unlock the tidyverse by learning how to make and use tidy data, the data format designed for R.

<https://rstudio.cloud/learn/primers>

Learn more!



<https://r4ds.had.co.nz/>

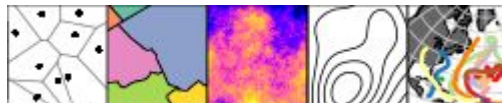


<http://cuny.is/gcdi>



<https://community.rstudio.com/>

r-spatial



<https://www.r-spatial.org/>



<https://stackoverflow.com/>

# Learn more!

## Intro to RQDA (R Qualitative Data Analysis)

In this workshop, we will learn the basic of RQDA, a package in R that does qualitative data analysis. It is designed for beginners.

### About this Event

R is a powerful tool to analyze statistical data. In recent years R has gained popularity because the software is open source and powerful in data analysis and machine learning. However, evaluators and researchers do not exclusively use quantitative data. It is possible to perform qualitative analysis in R. This workshop provides users a basic tutorial on how to perform a qualitative analysis and data visualization using R. This workshop employs a hybrid format of a recorded video and an online Zoom Q&A session. The recorded video and Zoom link will be sent out within two days before the workshop.



Yuxiao Luo

### Date And Time

Wed, October 7, 2020  
4:00 PM – 6:00 PM EDT

[Add to Calendar](#)

### Location

Online Event

Link:

<https://www.eventbrite.com/e/intro-to-rqda-r-qualitative-data-analysis-tickets-119330547881>

# What next?

Before you leave, **please fill out a workshop evaluation** so we can improve our programming! **[cuny.is/gcdievals2020](https://cuny.is/gcdievals2020)**

- Need more support about what you just learned? Request follow-up individual consultations at **[cuny.is/gcdfconsults](https://cuny.is/gcdfconsults)** (students) or **[cuny.is/gcfacultyconsults](https://cuny.is/gcfacultyconsults)** (faculty)
- Join the GCDI Group on the CUNY Academic Commons for all GCDI-related updates!  
**[cuny.is/group-gcdi](https://cuny.is/group-gcdi)**

**Thank you for attending and being involved! The *#DigitalGC* is you!**