Conclusion

Week 15

AEM 2850: R for Business Analytics

Cornell Dyson

Spring 2022

Announcements

Lab-14 deadline extended to Wednesday (see canvas announcement)

Final project plan feedback on canvas

Final project details, rubric posted on course site

Extra office hours appointments available

Questions before we get started?

Plan for today

Course evaluations

Final project guidance

Parting thoughts

Course evaluations

Course objectives reminder

1. Develop basic proficiency in R programming
2. Understand data structures and manipulation
3. Describe effective techniques for data visualization and communication
4. Construct effective data visualizations
5. Utilize course concepts and tools for business applications

Where we've been (weeks 1-4)

1. **Develop basic proficiency in R programming**
2. **Understand data structures and manipulation**
3. Describe effective techniques for data visualization and communication
4. Construct effective data visualizations
5. Utilize course concepts and tools for business applications

Where we've been (weeks 5-10)

1. Develop basic proficiency in R programming
2. Understand data structures and manipulation
3. **Describe effective techniques for data visualization and communication**
4. **Construct effective data visualizations**
5. **Utilize course concepts and tools for business applications**

Where we've been (weeks 11-15)

1. **Develop basic proficiency in R programming**
2. **Understand data structures and manipulation**
3. **Describe effective techniques for data visualization and communication**
4. **Construct effective data visualizations**
5. **Utilize course concepts and tools for business applications**

Where we're going next (weeks 15+)

Last week we covered **web scraping** by popular demand

This week we'll wrap up the course

But you don't have to stop learning!

Please feel free to come see me in office hours if you want to discuss topics we didn't have time to cover this semester

Course evaluations

I take feedback seriously and will use it to improve this course!

Extra useful since this is the first offering of AEM 2850

Concrete suggestions are most helpful

I would appreciate your feedback through two channels:

1. Reflection - Week 15 - Course Feedback Survey
2. University course evaluations

Both will be anonymous

University course evaluations

Anonymous: we just get summary reports, after grades are submitted

I will give you time to complete them in class next Tuesday

I will award a bonus point on Reflection 15 for completing evaluations

Thank you in advance for your feedback!

I will give you time now to complete evaluations in class

Final project

Key steps and timeline

~~Step 1: Choose a group by Friday, April 29~~

~~Step 2: Choose data and make a plan by Thursday, May 5~~

Step 3: Execute your plan

Step 4: Submit your final project by Thursday, May 19 at 4:30pm

Expectations and grading

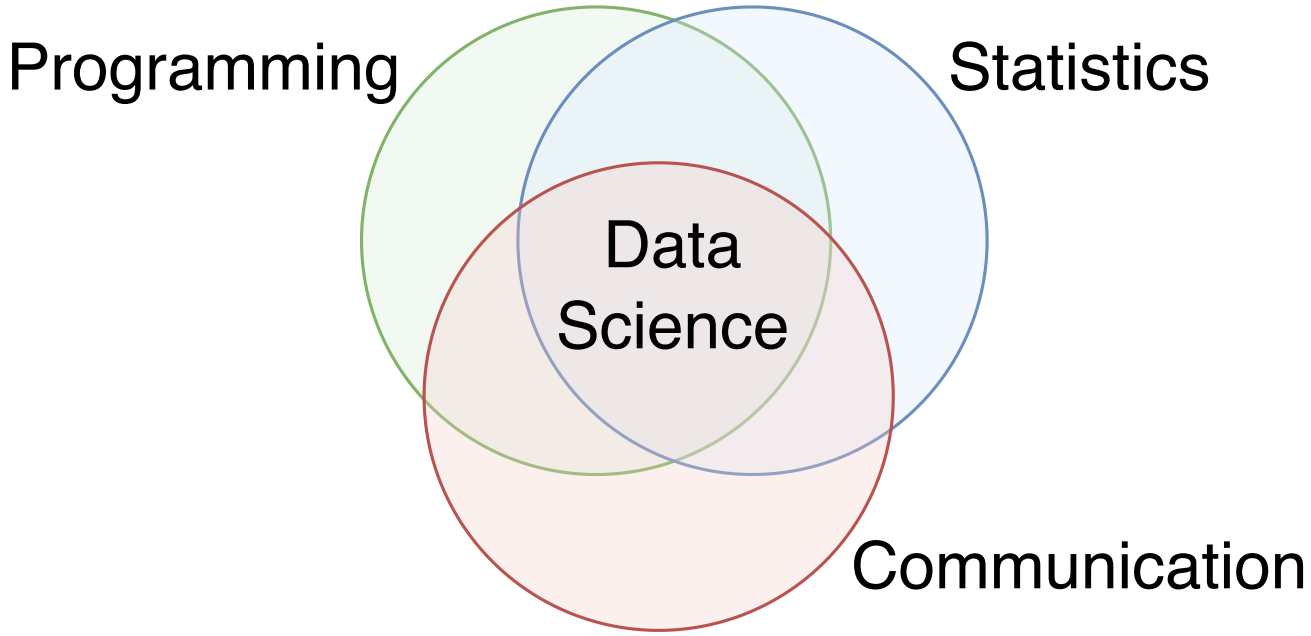
I posted more detailed instructions and a grading rubric on the course site

Let's go through them now

Any questions?

Parting thoughts

Why take R for Business Analytics?



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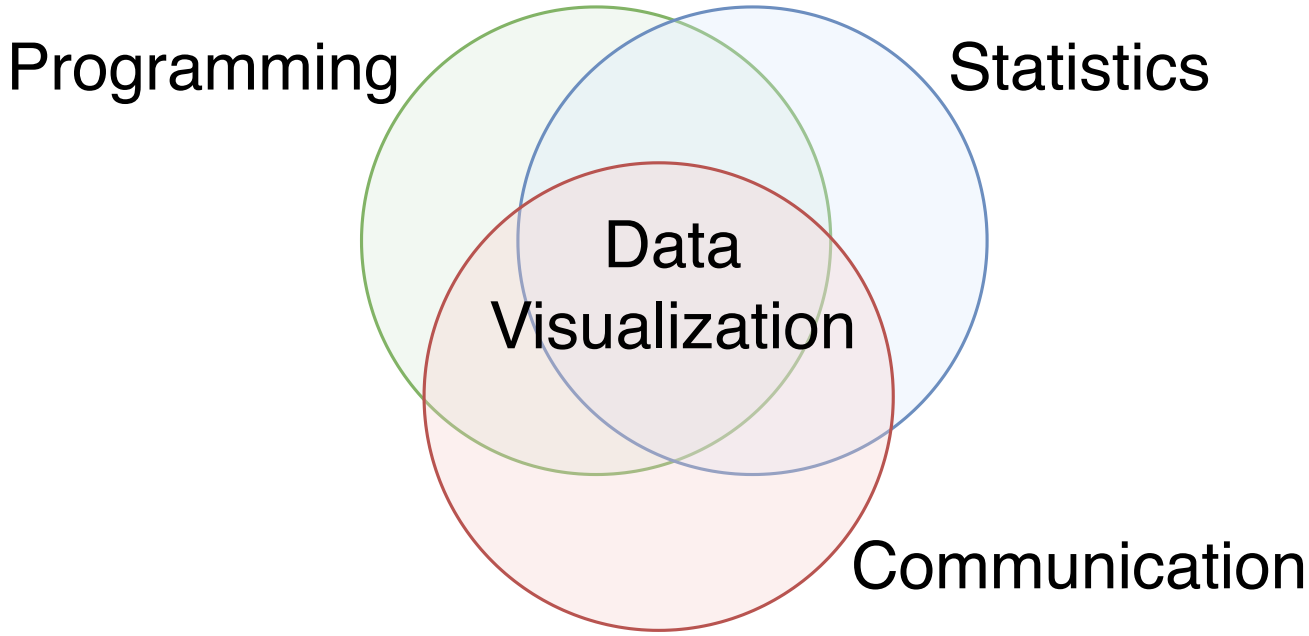
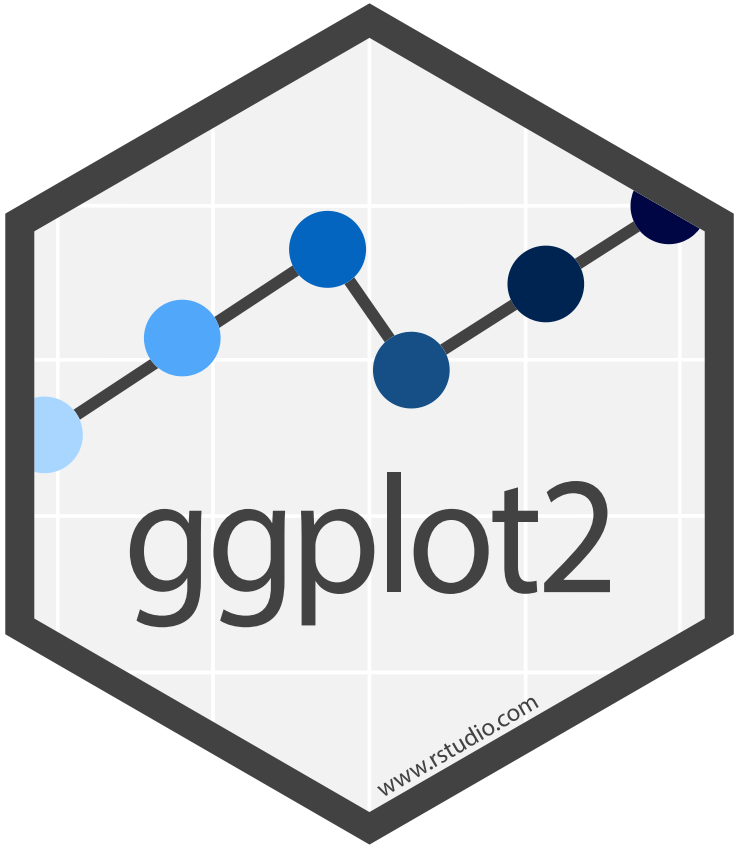
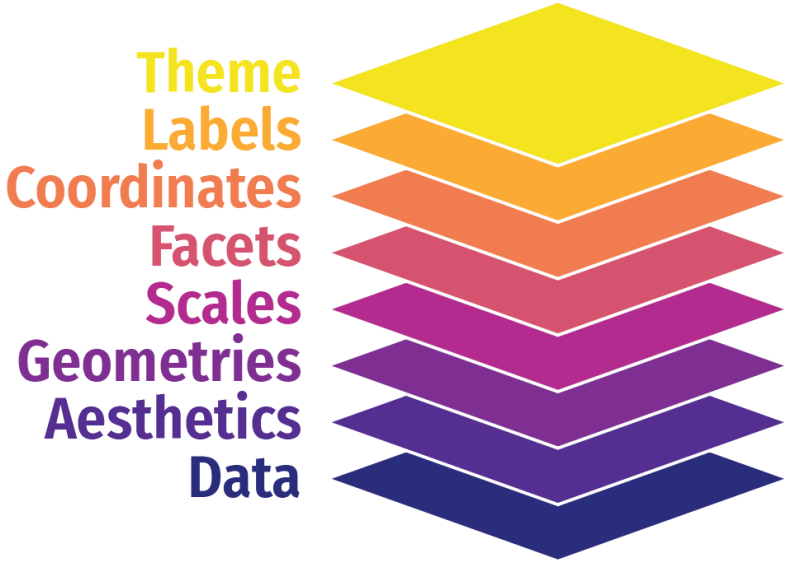


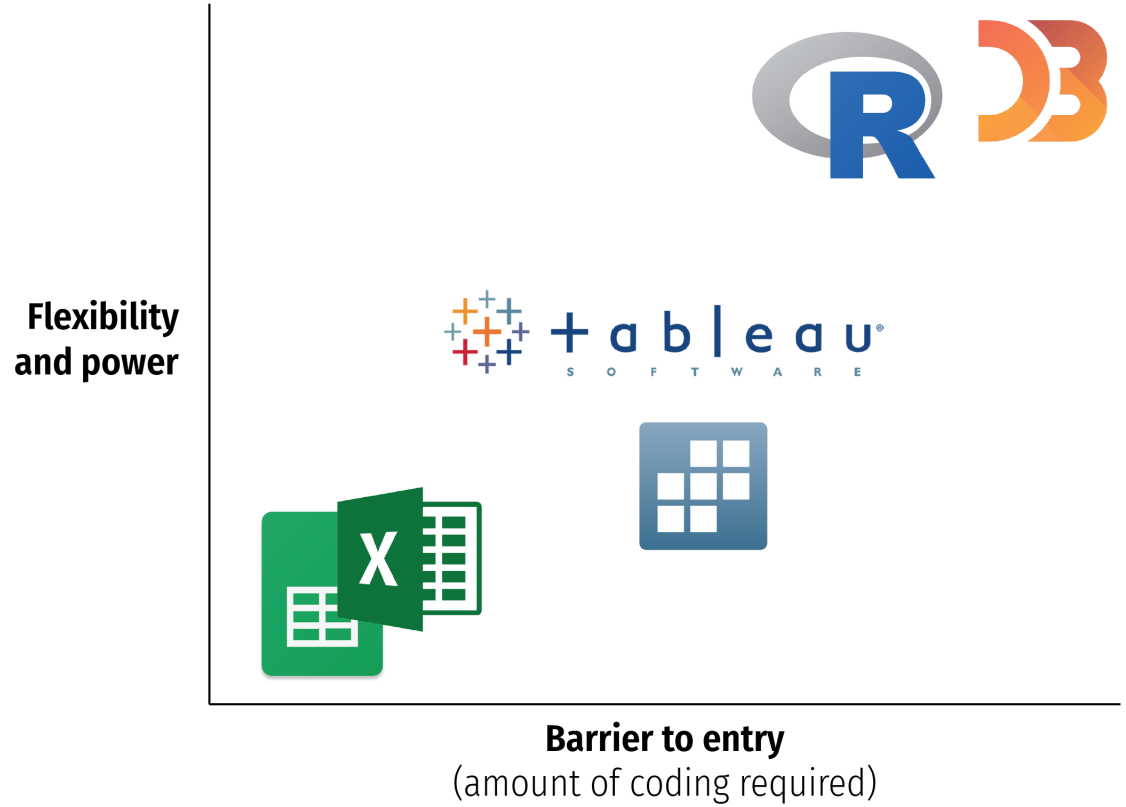
Why R for Business Analytics?

Why R for Data Visualization?



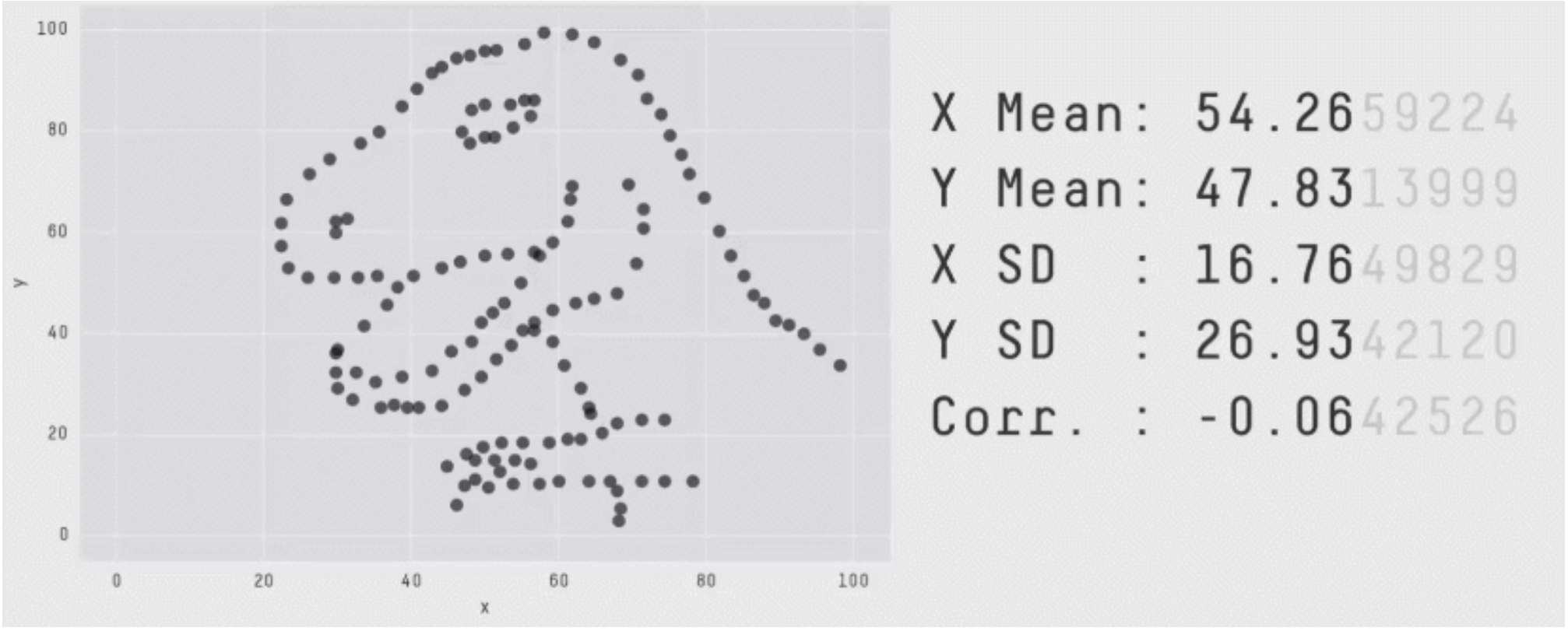


Why R for Data Visualization?



Broader lessons

Just show me the data?



The Datasaurus Dozen

Raw data is not enough!

This semester we developed tools and practices for:

- Data cleaning
- Data visualizing
- Data analysis

Many of the lessons we learned are independent of software choice!

I hope they help you when working in Excel, python, R, Tableau, etc.

What makes a great visualization?

Truthful

Functional

Beautiful

Insightful

Enlightening

Alberto Cairo, *The Truthful Art*

What makes a great visualization?

> "Graphical excellence is the **well-designed presentation of interesting data**—a matter of substance, of statistics, and of design … [It] consists of complex ideas communicated with clarity, precision, and efficiency. … [It] is that which **gives to the viewer the greatest number of ideas in the shortest time with the least ink in the smallest space** … [It] is nearly always multivariate … And graphical excellence requires **telling the truth about the data**."

Edward Tufte, *The Visual Display of Quantitative Information*, p. 51

What makes a great visualization?

Good aesthetics

No substantive issues

No perceptual issues

Honesty + good judgment

Kieran Healy, *Data Visualization: A Practical Introduction*

Thank you!