

Week 1

Introduction to Data Science with R: Exploring Democracy and Autocracy Worldwide

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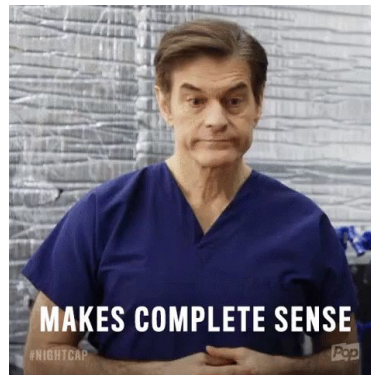


Hello from Dr. Oz

Nope, I am not the Oz from Wizard of Oz!



Not this Dr. Oz ⇒



Hello from Dr. Oz

- Lecturer at RDS and Political Science
- From Turkiye and got her PhD at GSU from PoliSci
- political parties and elections, opposition cooperation and coordination, democratic backsliding, and authoritarian regimes
- More information:
<https://ozlemtuncel.github.io/>



Ozlem Tuncel

(she/her) Ph.D., Political Science from GSU interested in autocratization, elections, political parties, and electoral autocracies.

**Tell me about
yourself:**

- Name/surname**
- Major**
- Why this course?**

Setting the expectations

Learning data analysis is hard, and this course is just scraping the surface.

To become a truly exceptional data analyst, I highly recommend focusing on three core pillars:



More Courses

Taking additional specialized courses is highly necessary for growth:

- Econometrics (basic stats)
- Linear regression & ML
- Data visualization



Daily Practice

Practice, practice, practice!

Programming languages act like real languages. If you do not practice constantly, you will quickly forget the syntax and logical dynamics.



Keep Up with AI

Embrace recent developments.

You may hate AI, but it is undeniably shaping how we visualize, analyze, and fundamentally think about data structure today.

Why this course?



The Intersection

Data Science (turning messy info into insights) meets **Comparative Politics** (understanding regime change).



No Experience

This course is built for absolute beginners. Programming is a muscle you build through hands-on practice.



The Goal

Analyze real political trends in R, culminating in a 3-minute elevator pitch. Bite-sized weekly to-dos ensure steady learning.

The Substantive Puzzle: Global Regime Trends



The Big Question

Is democracy under threat globally? How do we move past headlines and opinions to look at actual evidence?



Core Concepts

Democracy: Multi-party elections, clean voting, free expression, and institutional checks and balances.

Autocratization: The decline of democratic traits, often happening legally and gradually from within.



Our Cases

Throughout the semester, we will look at stable democracies (e.g., Nordic countries) alongside countries experiencing democratic backsliding (e.g., the US, Turkey, Hungary).

Logistics

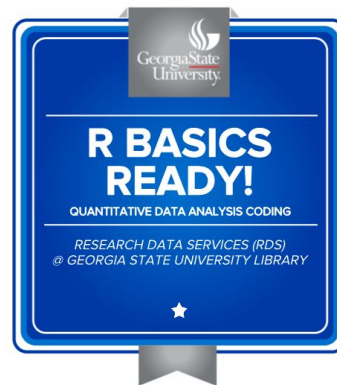
Table 1: Class assignment and important details

Assignment	Percentage	Date
Participation	8 %	Throughout the semester
Syllabus Quiz	2 %	Due Week 2
R Ready! Badge	25 %	Due Week 4
R Advanced Ready! Badge	25 %	Due Week 8
Written Reflection	5 %	Due Week 11
Elevator Pitch Presentation	35 %	In-class presentation

Micro-credential badges (due Weeks 4 and 8)

- <https://research.library.gsu.edu/rds/data-ready>
- Add to your CV
- Add to your LinkedIn
- Due Weeks 4 & 8

BUT -- I encourage you all to finish these two assignments ahead of time! It will help with your R skills and we can spend time on more advanced stuff during the class time.



Last minute change from Honors College!

- Mandatory assignment to all Honors College students
- Attending an event
- Writing reflection
- Dr. Oz will share details next week

This Year's Conversation: Rethinking Prisons

When: Thursday, October 22, 6:15-7:30 p.m.

Moderator: Douglas A. Blackmon, GSU/CMII faculty member and author of Pulitzer Prize-winning *Slavery by Another Name*

Format: A moderated panel discussion followed by extensive audience Q&A, with students and community members helping shape the conversation through their questions.

Office hours? What's that?

Send me an email and we can set-up an in-person or Zoom session

Usually ~ 20 mins per person

Taking advantage of the office hours is recommended for all first-year students: asking R questions, course materials, clarifications, etc.

Learn more about coding, research, academia, etc. -- aka. welcome to the darkside



To-Do for Next Week: Syllabus Quiz

Due: Next week Monday 12 pm

Grade part: %8 percent

Make sure you have

R and R Studio for next week's class!



Why both download R and R Studio?

- R is like a car's engine
- RStudio is like a car's dashboard

R: Engine



RStudio: Dashboard



Any questions?

- Logistics**
- Laptops**
- R & R Studio**

**What is Data
Science, and
How Do We
Measure
Democracy?**

In-class exercise:

Let's decide who is democratic (and who is not)!

- Go to slido.com or use this QR code
- Enter this code: **3414749**
- Give yourself a nickname



Joining as a participant?

3414749



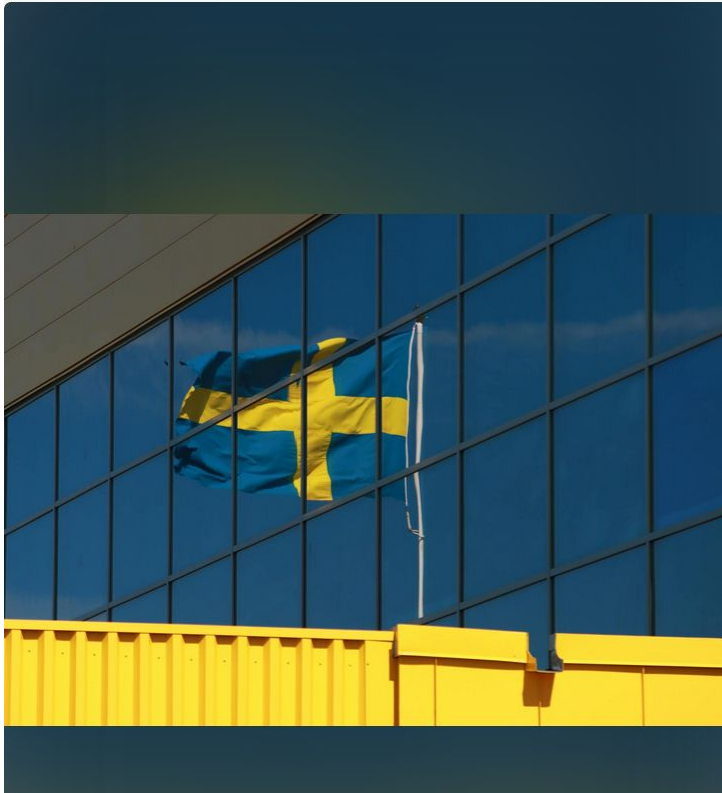
Question 1



Do you think North Korea is a democratic country?

- Yes
- No
- I am not sure

Question 2



Do you think Sweden is a democratic country?

- Yes
- No
- I am not sure

Question 3



Do you think USA is a democratic country?

- Yes
- No
- I am not sure

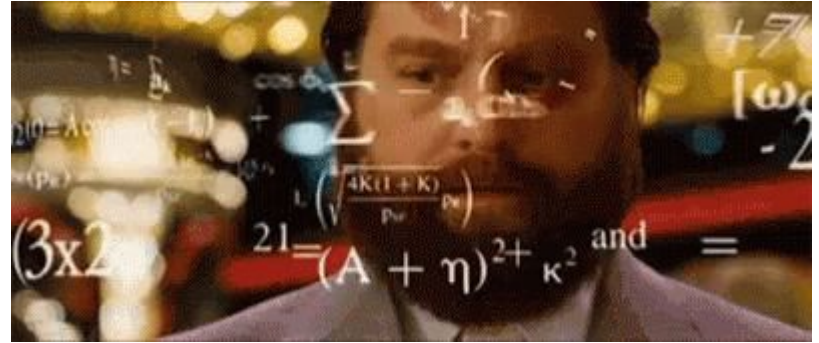
Question 4

What is one word that comes to mind when you think of "democracy"?

Question 5

What is one word that comes to mind when you think of "autocracy"?

**How many
different ways
we can define
and measure
democracy?**



Dr. Oz knows at least 82! (yes!)

But, which one is correct?

How are we going to pick one?



What is the V-Dem Dataset?



Varieties of Democracy (V-Dem)

One of the largest and most trusted social science data projects in the world.



The Strategy

Instead of just calling a country "free" or "not free," V-Dem uses expert surveys to score hundreds of specific indicators (e.g., freedom of the press, academic freedom, court independence).



The Tools

We will use R to map these scores and watch history unfold through data.



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