

# Data Storytelling

Dr. Patrick Chester

Fall 2026

Week 01

# Welcome to Data Storytelling!

# About the Instructor

- **University of California, San Diego**
  - *Postdoctoral Fellow, China Data Lab, 2025*
- **New York University**
  - *PhD in Politics, 2022*
- **University of California, San Diego**
  - *MPIA, School of Global Policy and Strategy*
- **University of Minnesota, Morris**
  - *BA in Political Science*
- **Research Interests:**
  - Computational social science, authoritarian politics and propaganda, text analysis, China



**STEVENS INSTITUTE OF  
TECHNOLOGY**

*Assistant Professor, HASS*

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# Class Details

- Syllabus and readings available on Canvas
  - Subject to change with notice
- *Email*: pchester@stevens.edu
- *Class Time*: Mondays 3-5:30 PM
- *Office Hours*: Mondays 12-2 PM (Zoom by appointment or in-person)

# Objectives of Course

- Learn how to tell compelling stories with data
- Acquire practical data analysis and visualization skills using R
- Learn how to collaborate effectively in teams
- Develop research and writing skills through a final paper

# Course Books

- Llaudet, Elena, and Kosuke Imai. 2023. “Data Analysis for Social Science: A Friendly and Practical Introduction.”
- Knafllic, Cole Nussbaumer. 2015. “Storytelling with Data: A Data Visualization Guide for Business Professionals.” Wiley.

# Overview of Graded Content

Percentage	Component
10%	Attendance and Participation
30%	Homework
10%	Project Proposal
10%	Final Presentation
20%	Final Paper

# Class Participation

- If you do not attend class, you will receive a zero for attendance and participation that day
- If do not participate, you will not receive credit for participation
- When you read, take down notes with comments, questions, and ideas that can contribute to the class discussion.

# Homework

- There will be 3 homework assignments throughout the semester
- Assignments will involve data analysis and visualization using R
- Assignments will be due one week after they are assigned
- Late assignments will be penalized 10% per day late, unless prior arrangements are made

# Project Proposal

- You will collaborate in teams of 2-3 to develop a research and presentation project related to data storytelling
- Expected to identify a research question, gather and analyze data, and present findings
- Topic should relate to social science or current events (think of yourself as a social scientist or a data journalist)

# Final Presentations

- Your group will present your project to the class during the last week of the semester
- Showcase your analytical and data visualization skills
- Presentations will be 15-20 minutes long, followed by a Q&A session

# Final Essay

- Final essay will be 12-15 pages long (double spaced, 12 pt font)
- Final paper will be due at the end of the semester (during finals week)

# Software

- We will be using R and RStudio for data analysis and visualization
  - R and RStudio are free and open-source software
  - R is designed with data visualization and statistical analysis in mind
- Compatible with Windows, MacOS, and Linux
- Install R from <https://cran.r-project.org/>
- Install RStudio from <https://posit.co/download/rstudio-desktop/>

# Writing in the Era of AI

Are essays still relevant in the era of generative AI?

Yes! They:

- Exercise your ability to apply theory to real world cases
- Incentivize the development of expertise
- Develop habits of information consumption and knowledge production

# Dos and Don'ts of AI Use

- **Do**

- Use spelling and grammar checkers to improve the quality of your writing
- As a tool for extracting and summarizing information (though always verify)

- **Don't**

- Pass off AI-generated content as your own
- Take AI-generated analysis at face value
- LLMs are prone to both censorship and hallucination
- Have limited context given their training data

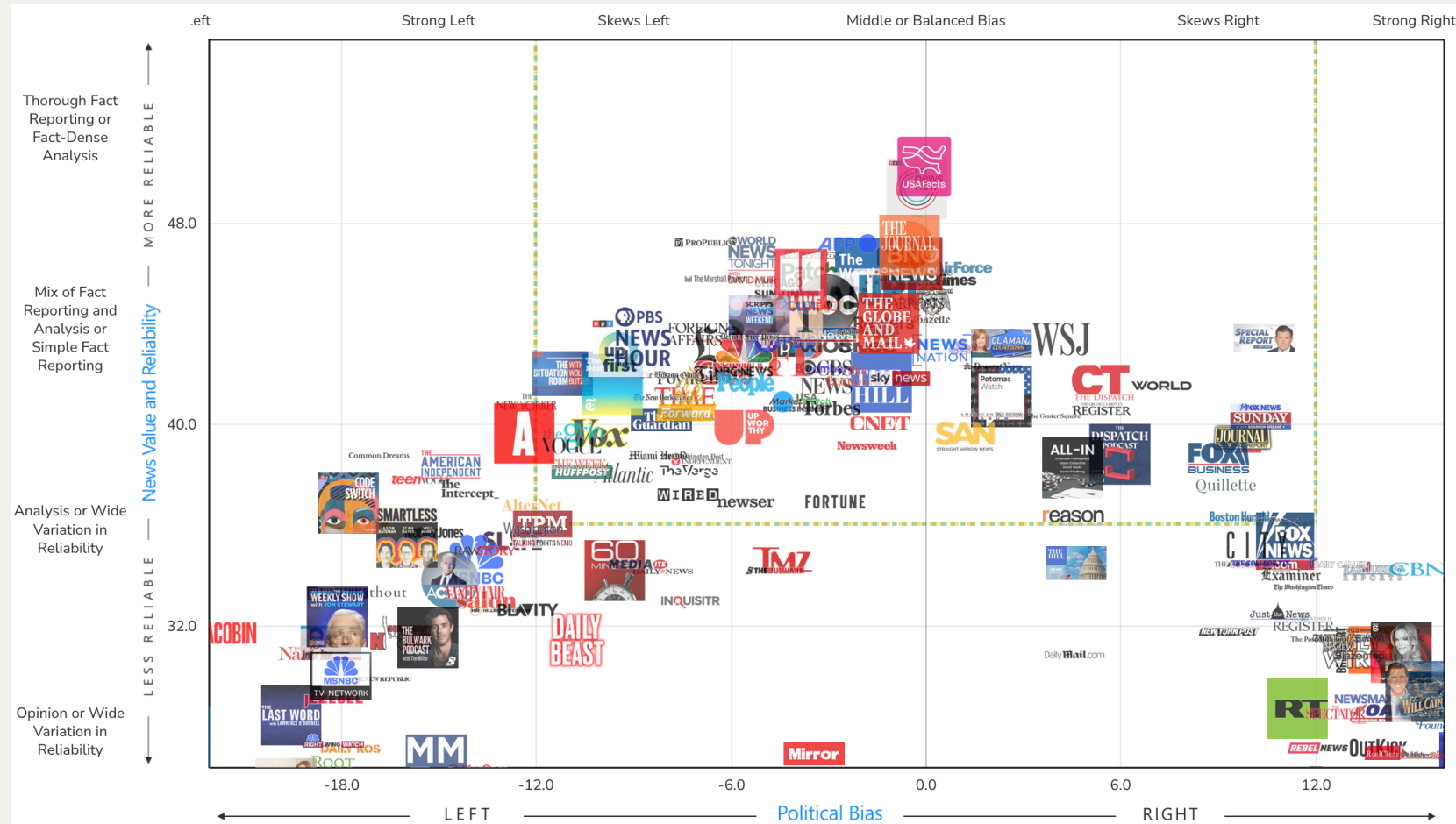
# Classroom Norms

- Read the assigned readings before class, come with questions and be prepared to discuss them
- Class time will largely consist of a brief review of content, followed by application of material
- Be kind and respectful to everyone. Listen. Critique ideas but don't attack people
- If you have a preferred set of pronouns let me know after class or via email and I will do my best to use them

# Importance of being informed

- Being an informed consumer of news will be essential to success in this class and your future
  - Think of information as like food for your brain
    - *High quality information* will lead to a better understanding of the world, which will lead you to make better decisions
    - *Low quality information* will lead to confusion, misunderstanding, and poor decisions
- Identify credible sources of journalism and keep abreast of current events
- Examples of quality journalism of international affairs:
  - The Economist
  - Reuters
  - The Diplomat
  - NYT/WSJ news sections
- Consuming quality journalism will help you become a better data storyteller

# News Diet



- Good news diets balance different types of information, with minimal bias, and high quality

# Getting to know you

Tell me about yourself:

1. What year are you?
2. What is your major?
3. What interested you in this class?