- Review
- Data storytelling

"Data feminism asserts that data are not neutral or objective. They are the products of unequal social relations, and this context is essential for conducting accurate, ethical analysis"

"When it comes to information graphics, it should always be data and information first, and then you design around that. For that to happen, you have to learn more about data — how to work with it, where it comes from, and what it represents in the real world."

Visualizing your data helps you tell a story and construct a narrative that guides your audience in understanding your interpretation of a collected, cleaned, and analyzed dataset.

- From trying to understand how a chart work to *understanding* what the data is saying
- Can you suggest some common assumptions we make in visualizing data?

# Life expectancy data by country



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#### LIFE EXPECTANCY AT BIRTH, 2000-2015



- Ask the data questions
  - What is the mean, median, mode? What are the summary statistics?
  - What is the outlier representing?
    - Data entry error or interesting observation?
- Start with visualization basics
- Focus
  - Don't overwhelm with texts, labels, details

#### • Bar chart baseline must start at zero



#### Nathan Yau, *Real Chart Rules to Follow.* 10



• Limitations of pie slices





• Adding up to a whole





• Show the data





• Show encoding (e.g. labels, units of measurements)







Graphics from The Numbers Don't Speak for Themselves, Data Feminism

# Telling a story

In the following data visualizations, compare between the left and right visualization:

- What narrative are we telling with the visualization on the left v. the right,
- What information is missing,
- What might be misleading, and
- How would you change them?

#### Chart A





#### Chart B



Data from Planned Parenthood 23

#### Chart C





# Exploring data storytelling

- Jackie Mansky: <u>W.E.B. Du Bois' visionary infographics come</u> together for the first time in full color
- Ben Schmidt: <u>Gendered language in teacher reviews; FAQ</u>
- Hannah Anderson and Matt Daniels: <u>Film dialogue from 2,000</u> <u>screenplays</u>, broken down by gender and age

# Deciphering data storytelling

- Brief summary of the digital project
- What are the objectives of the authors/researchers/scholars?
  - Is there sufficient context provided for the visualization?
  - What strategies in visualization do they use to facilitate their objectives?
- Which was the most effective visualization?
- Which visualization would you make changes on?