

Analysis and Visualisation with NetworkX and Altair

Week 1: NetworkX

4 December 2020

Course Topics

Week 1: Network Analysis

Week 2: Data Visualisation

Assignment

Watch the videos in *Use Case 2: Discovering Collaboration*, in this LinkedIn Learning course:

<https://www.linkedin.com/learning/applied-ai-for-human-resources/organization-design?u=50251009>

Analyze the graph we created together in class, starting from the section *Metrics available in NetworkX* in this tutorial:

<https://programminghistorian.org/en/lessons/exploring-and-analyzing-network-data-with-python#fn:pipinstall>

How did it go?

EXAMPLE

http://www.sixdegreesoffrancisbacon.com/?ids=10000473&min_confidence=60&type=network

Networks

Social networks

Transportation networks

Nodes/actors/vertices

Edges/ties/relations

NetworkX

Nodes

Edges

Attributes

Centrality - Degree, Eigenvector, Betweenness

Triadic Closure and Transitivity

SHARE
BACK



DEMO

Quickly Visualising Networks

Palladio

<https://hdlab.stanford.edu/palladio/>

Gephi

<https://gephi.org/users/>

Considerations when working with data

Data are summaries.

Data reflect power distributions in society.

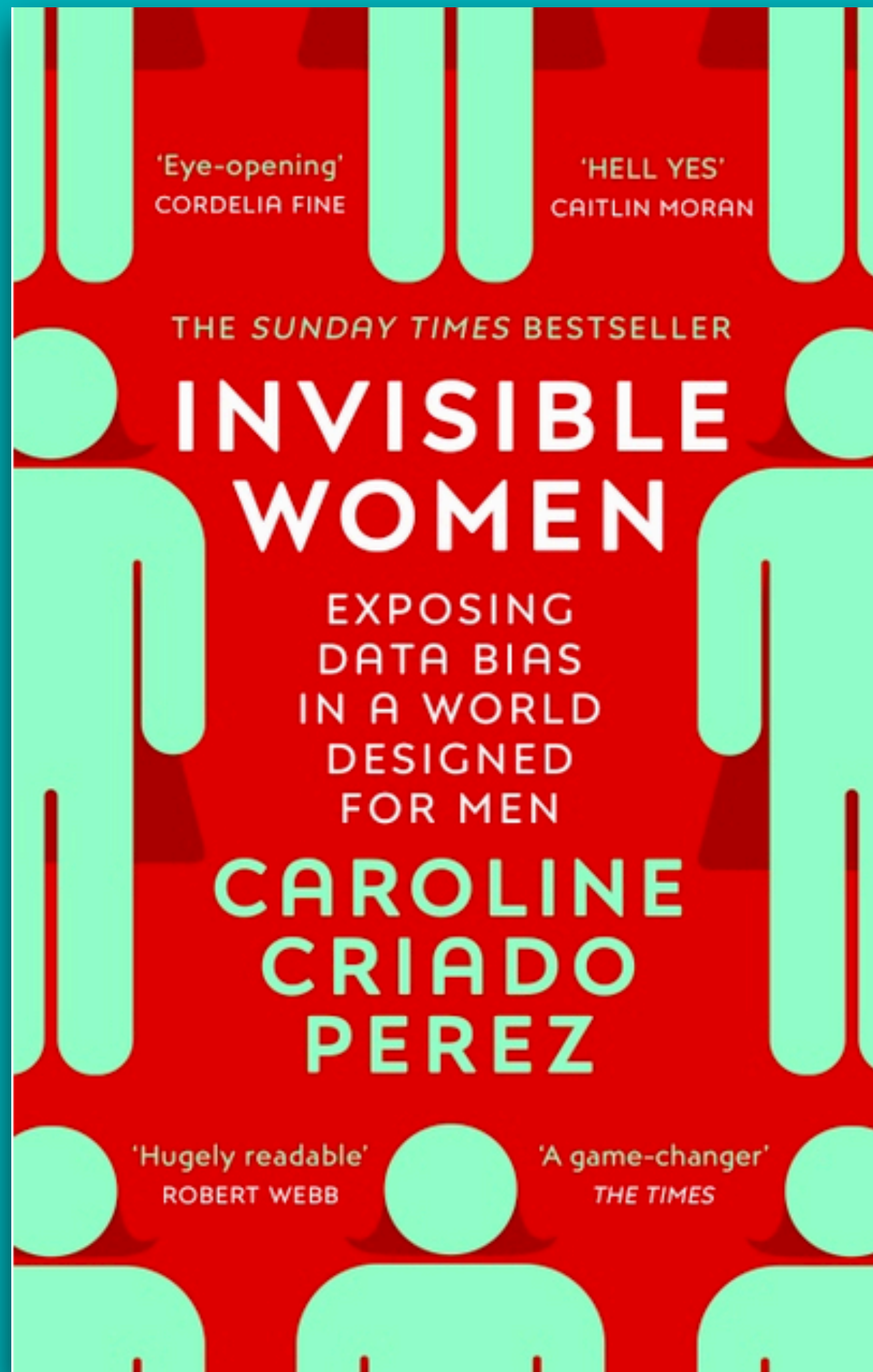
Data about people represent only a select characteristic or set of characteristics about people. A person cannot be fully known through their data.

Considerations when working with data

Heather Krause's **Data Biography**

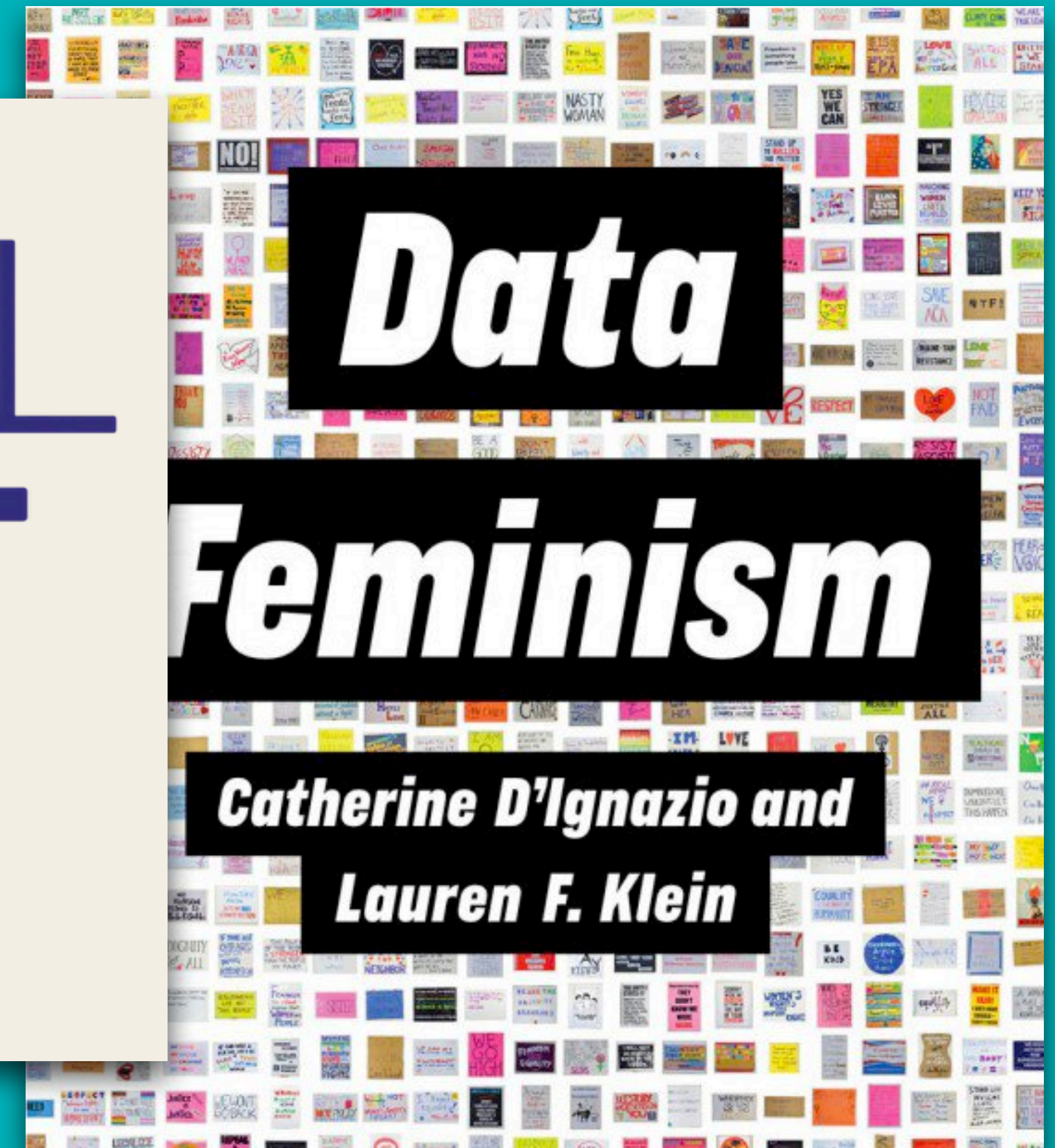
- Who is the data collector? The data owner?
- Why was the data collected?
- How was the data collected?
- What was the design and process for collection?
- Where was the data collected? Stored?
- When did the data collection happen?

Reference: <https://weallcount.com/2019/01/21/an-introduction-to-the-data-biography/>



WE ALL COUNT

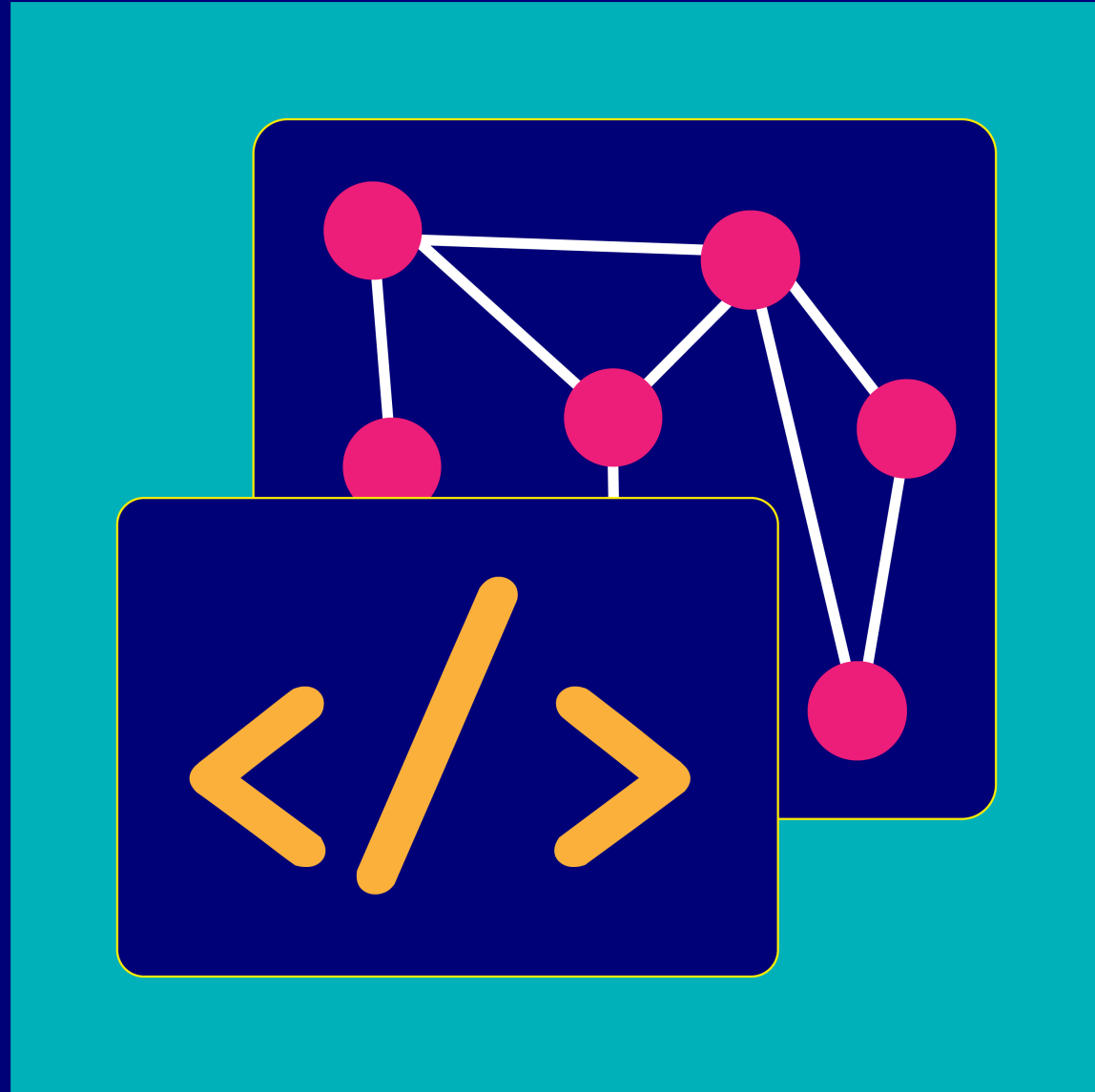
project for equity
in data science



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Thanks everyone!

Next course meeting: Monday, 10:00-11:00 AM GMT

Office hours available on Wednesday (30 minutes)

To schedule, please message me on Teams!