# Visualizing and Analyzing Networks with
# Python or R (and Javascript)

Clinton Brownley

https://github.com/cbrownley/ODSC-West-2021-Network-Analysis-and-Modeling
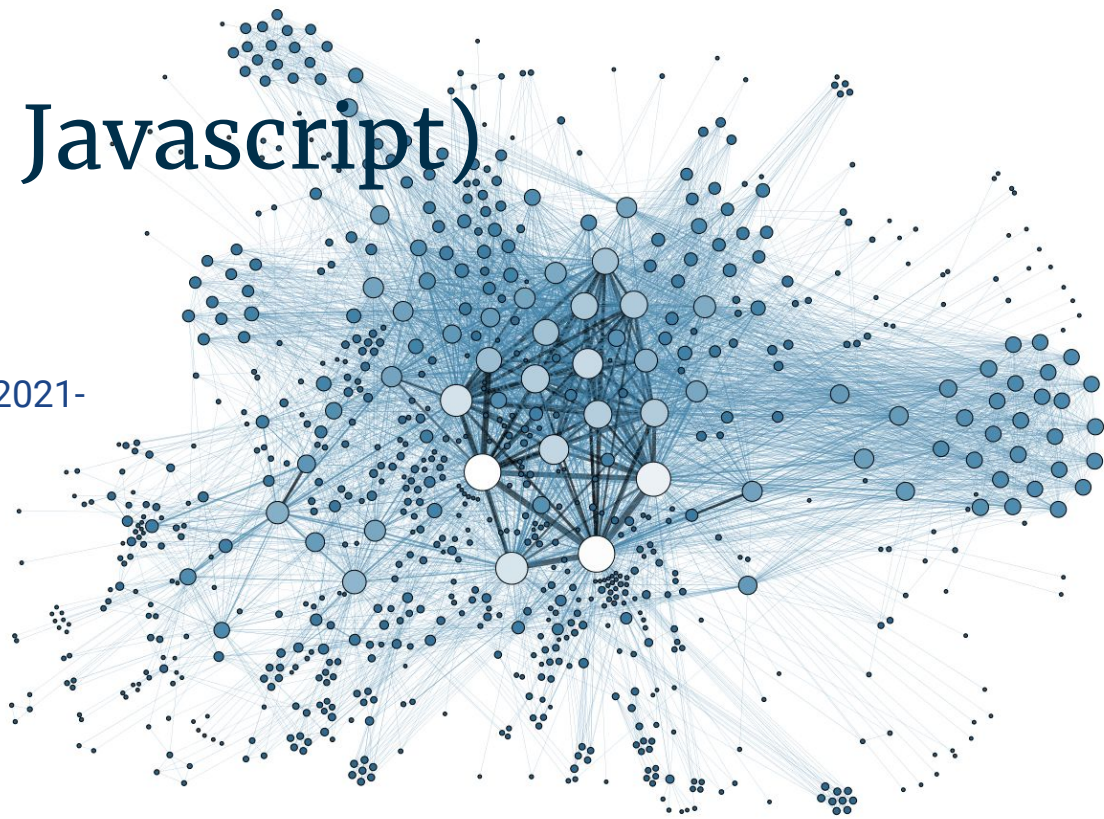
# Session Outline

### Lesson 1: Network Elements and Characteristics

Familiarize yourself with network elements and characteristics and the Python or R syntax necessary to compute these statistics. At the end of this lesson, you will be able to describe different network types and generate some key network statistics in Python or R.

### Lesson 2: Visualizing Networks

Familiarize yourself with common network visualizations and how to generate interactive versions of them in Javascript. At the end of this lesson, you will be able to describe the strengths and weaknesses of different network visualizations and generate interactive network visualizations in Javascript.

### Lesson 3: Modeling Network Characteristics and Outcomes

Let's answer some intriguing business questions by using our network data! We'll put our modeling skills to the test to analyze the relationship between our network characteristics and outcomes of interest. At the end of this lesson, you will be able to generate statistical models that incorporate network data to predict outcomes.

# Session Outline

Lesson 1: Network Elements and Characteristics
**Python**: ODSC West 2021: Network Analysis.ipynb
**R**: ODSC West 2021: Network Analysis.Rmd

Lesson 2: Visualizing Networks
**Javascript**: ODSC West 2021: Network Visualization

Lesson 3: Modeling Network Characteristics and Outcomes
**Python**: ODSC West 2021: Network Modeling.ipynb
**R**: ODSC West 2021: Network Modeling.Rmd