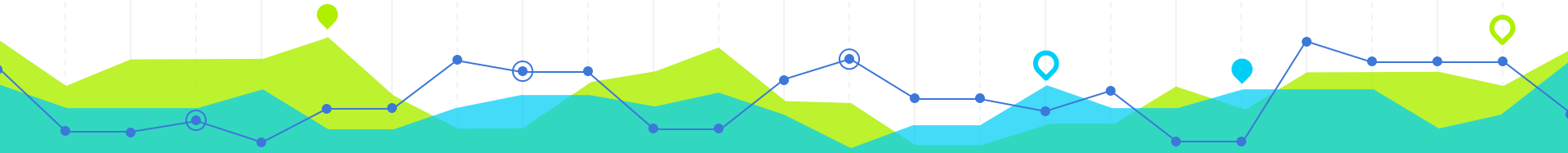
UNCG University Libraries
Assessment Workshop

February 4, 2020

Quantitative & Qualitative Data Visualization

TODAY'S PLAN

- When to use data viz
- Which type(s) to use
- Best practices & work through two common tools



When to use data viz

1

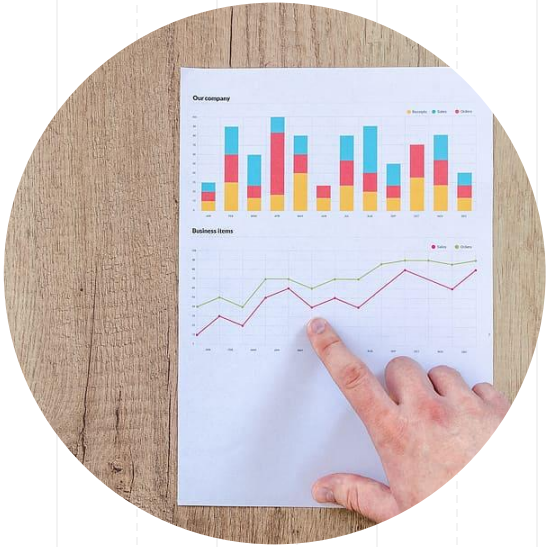
Data visualization is another form of visual art that grabs our interest and keeps our eyes on the message. When we see a chart, we quickly see trends and outliers. If we can see something, we internalize it quickly. It's storytelling with a purpose.

From Tableau's Data visualization beginner's guide

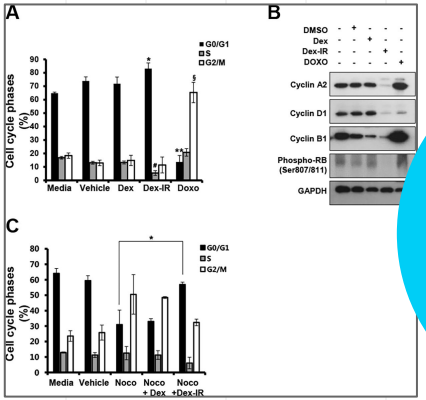
WHAT'S THE PURPOSE OF YOUR DATA?

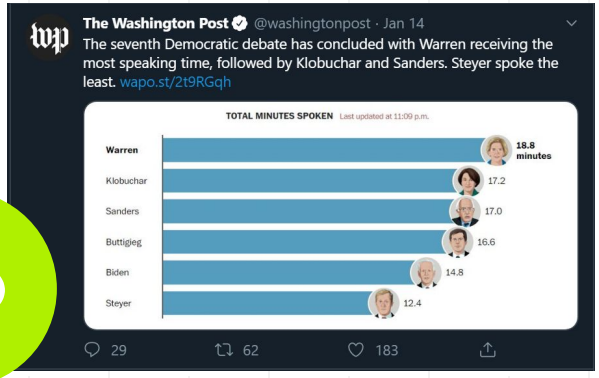
1. What's the purpose of the assessment/study?
   a. What is the research question?
   b. What is the audience?

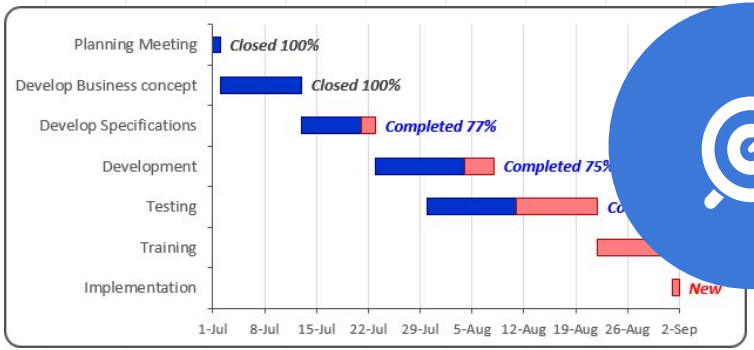
2. What information is needed to meet that purpose?

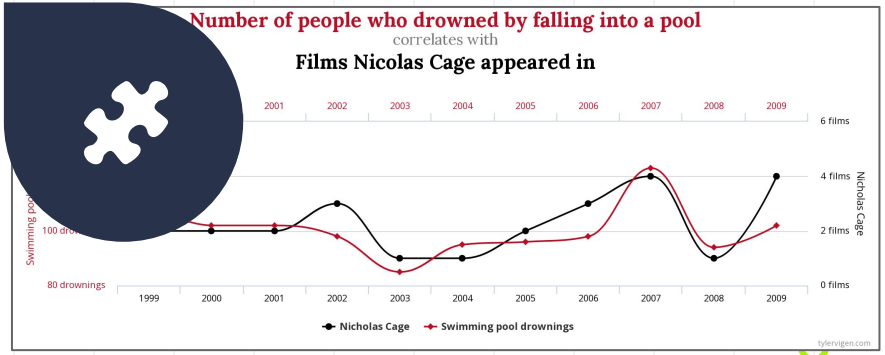


WHAT'S YOUR PURPOSE?

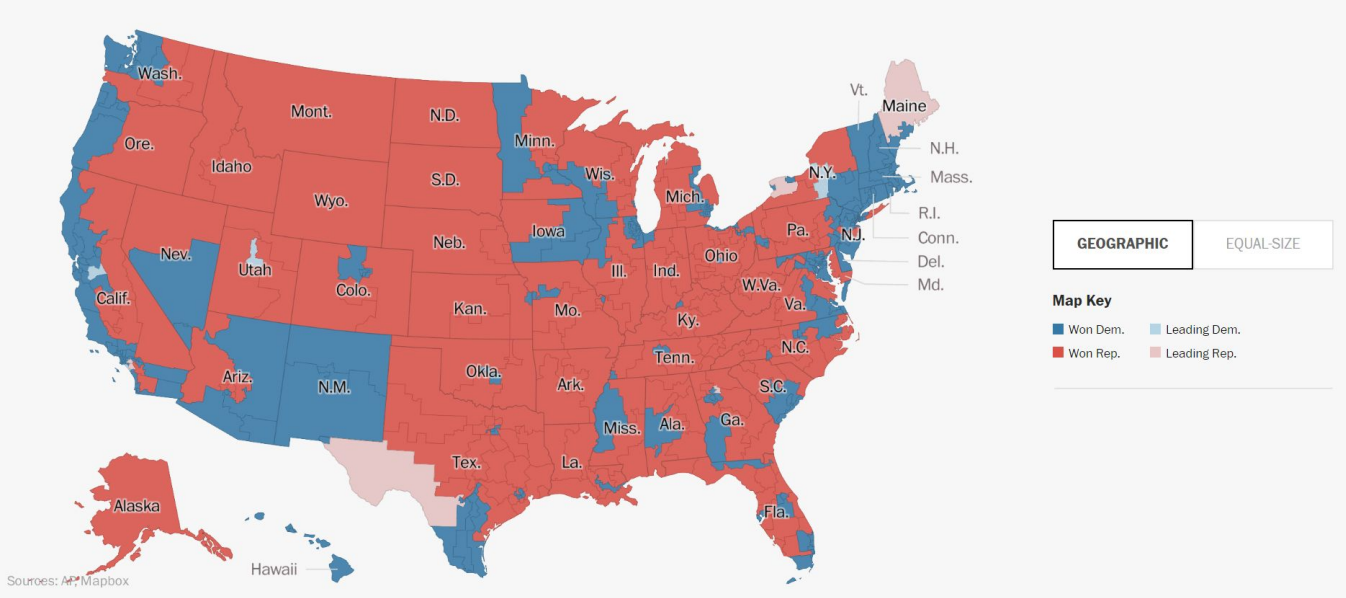






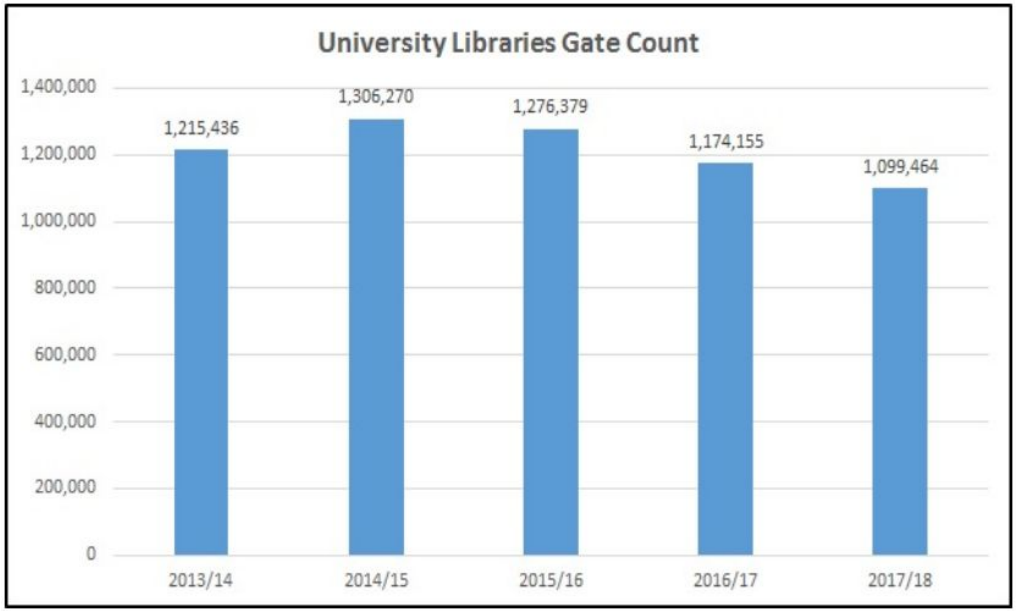


DATA VIZ WITH A PURPOSE?



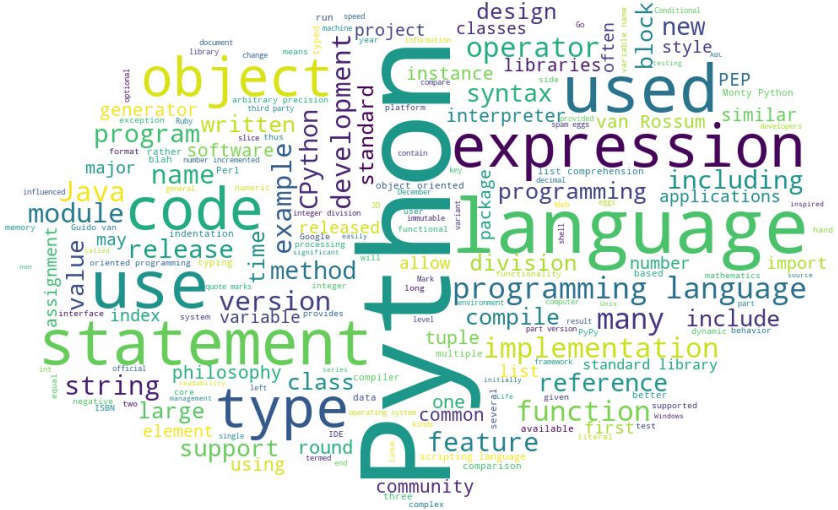
[The Washington Post's Election 2018 “Live midterm results: House races"]

DATA VIZ WITH A PURPOSE?

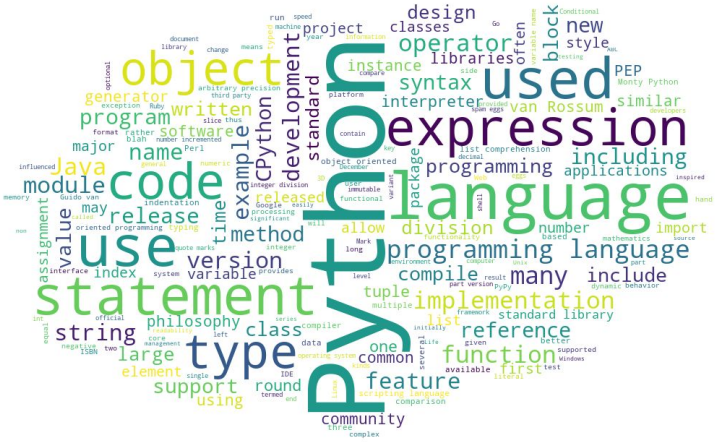


[UNCG University Libraries' Library Statistics Dashboard]

DATA VIZ WITH A PURPOSE?

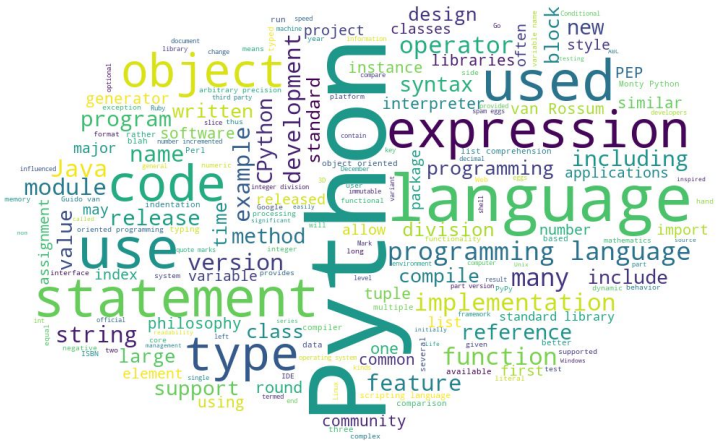


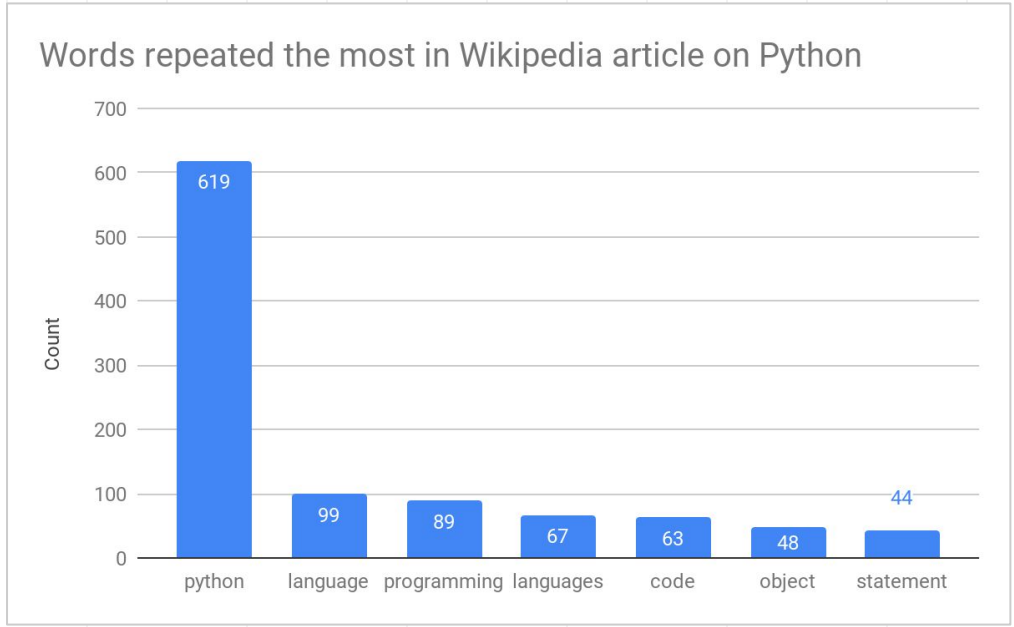
CONTEXT

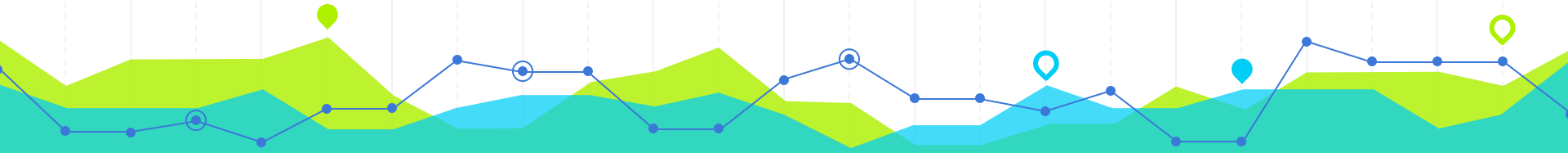


Example wordcloud generated to summarize the Wikipedia article on Python, to illustrate a Python script used to generate wordclouds. [Description, source code, and image source on GitHub].

RESEARCH QUESTION: “IS THE WORD ‘LANGUAGE’ REPEATED MORE THAN THE WORD ‘STATEMENT’?



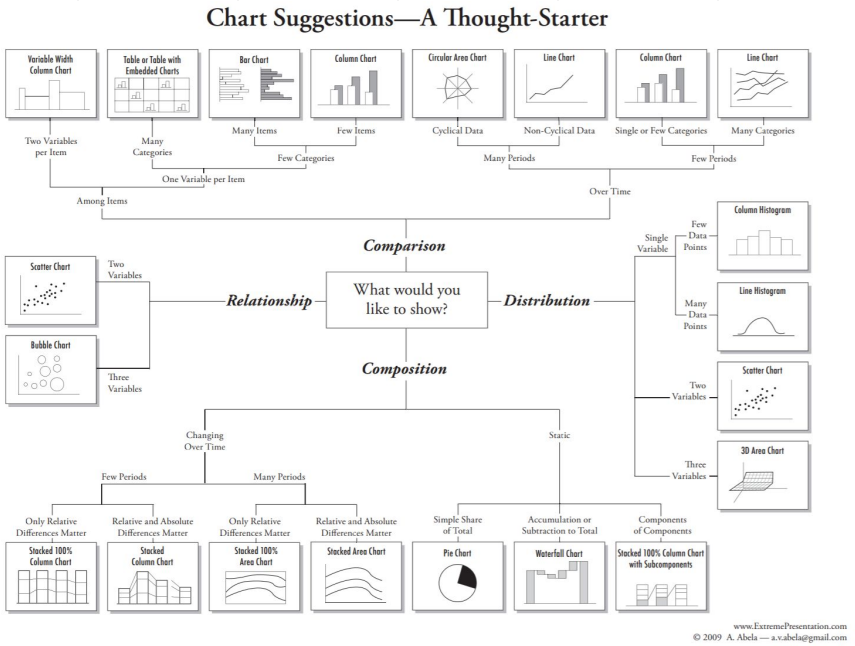




What data viz to use

2

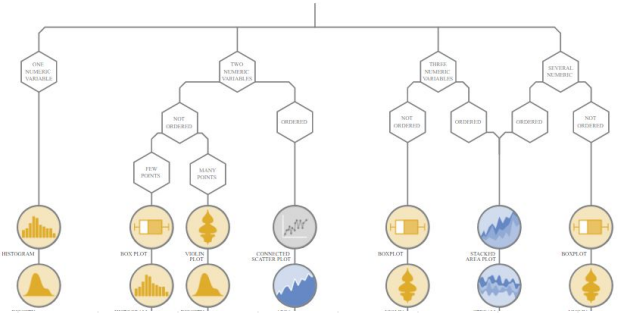
WHICH CHART DO I CHOOSE?



[from Data to Viz decision tree]

What kind of data do you have? Pick the main type using the buttons below. Then let the decision tree guide you toward your graphic possibilities.

Numeric | Categoric | Num & Cat | Maps | Network | Time series

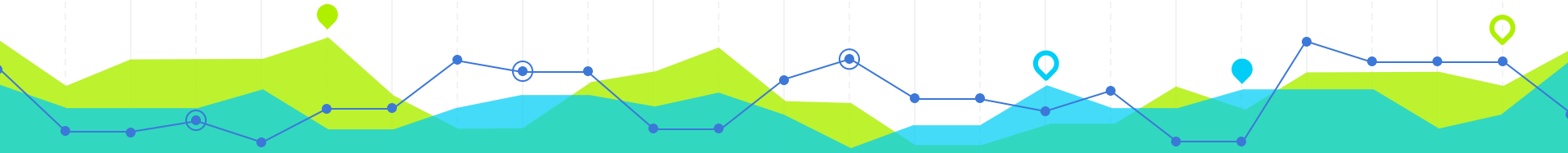


GET TO KNOW YOUR DATA

1. Is the data numeric or categorical? Discrete or continuous?

2. Is there spatial and/or temporal information?

3. Are you showing relationship, comparison, distribution, or composition?



Best practices

3

Example

https://www.mojotech.com/blog/data-visualization-google-sheets/

https://docs.google.com/spreadsheets/d/1CAS5xUvERJ3lvichWABGkKsVFKjXednDgX4mz3rFQOI/edit#gid=1353220750

https://docs.google.com/spreadsheets/d/1CAS5xUvERJ3lvichWABGkKsVFKjXednDgX4mz3rFQOI/edit#gid=1353220750

THANKS!

Any questions?

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