Information Visualization
Aggregation

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https://www.students.cs.ubc.ca/~cs-436v/21Jan/
Project Resources
Data repositories

• many data repos
  http://www.cs.ubc.ca/group/infovis/resources.shtml#data-repos

• 1000+ quirky / interesting datasets, hand curated
  http://tinyletter.com/data-is-plural/archive (browseable pages)
  – https://docs.google.com/spreadsheets/d/1wZhPLMCHKjvwOkP4jucIhjFgqlY8fQFMemwKL2c64vk/edit#gid=0 (full dataset)
Aggregation & Filtering
How to handle complexity: 3 previous strategies + 1 more

Derive

- derive new data to show within view
- change view over time
- facet across multiple views
- reduce items/attributes within single view

Manipulate

- Change
- Select
- Navigate

Facet

- Juxtapose
- Partition
- Superimpose

Reduce

- Filter
- Aggregate
- Embed
Breakouts (Same idea as last week)

• Four rounds
  – Work together on each question
    • Use googledoc for your group as working space
  – Reportbacks to discuss and compare
  – Designate different spokesperson for each round
  – I'll call on different groups
    • I'll screenshare
    • Spokesperson talks us through w/ audio on (video optional)
Exercise: Cars, Part 1

- Cars dataset: 4 attributes
  - MPG          quantitative
  - Cylinders    ordinal
  - Horsepower   quantitative
  - Weight       quantitative

- Number of items: 100

- In breakouts
  - discuss visualization design alternatives
  - decide on one that is suitable
  - create sketch to illustrate
  - briefly document discussion/choices
  - poll: true when done
Exercise: Cars, Part 2

• Cars dataset: 7 attributes
  – MPG quantitative
  – Cylinders ordinal
  – Horsepower quantitative
  – Weight quantitative
  – Acceleration quantitative
  – Model Year ordinal
  – Origin categorical

• Number of items: 100

• In breakouts (same thing)
  – discuss visualization design alternatives
  – decide on one that is suitable
  – create sketch to illustrate
  – briefly document discussion/choices
  – poll: true when done
Exercise: Cars, Part 3

• Cars dataset: 7 attributes
  – MPG quantitative
  – Cylinders ordinal
  – Horsepower quantitative
  – Weight quantitative
  – Acceleration quantitative
  – Model Year ordinal
  – Origin categorical

• Number of items: 100,000

• In breakouts (same thing)
  – discuss visualization design alternatives
  – decide on one that is suitable
  – create sketch to illustrate
  – briefly document discussion/choices
  – poll: true when done
Exercise: Cars, Part 4

• Cars dataset: 7 attributes
  – MPGe quantitative
  – Cylinders ordinal
  – Horsepower quantitative
  – Weight quantitative
  – Acceleration quantitative
  – Model Year ordinal
  – Origin categorical

• Number of items: 1000

• In breakouts
  – discuss pros and cons of
    • parallel coordinates (PC)
    • scatterplot matrix (SPLOM)
  – briefly document discussion
  – poll: true when done
Credits

• Visualization Analysis and Design (Ch 13, 14)