Lecture 5:
Rules of Thumb & Data Sketching

INFO 4602/5602: Information Visualization

Last Time

Visualization history

Lie factors

This Time

Visualization Platforms Overview

Data Sketching

Types of Visualization Tools

Manual Design Tools: Fully manual--you compute and draw each mark

WYSIWYG Tools: Fully automated--the system generates visualizations based on a specific set of input variables and constraints
(What You See Is What You Get)

Programming Tools: Allow you to programmatically craft visualizations

Physical Tools: Use actual, physical media to create representations

Tradeoffs?

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Common Trade-Offs

Expressivity: How much control do you have over the data representation?

Learnability: How easy is it for someone new to use the tool?

Scalability: How much data can you process?

Speed of Use: How long does it take to create?

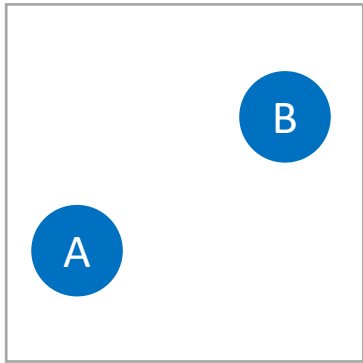**Interaction:** How much agency does the user have over the representation?

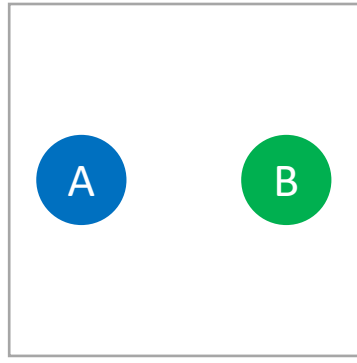*Check out the critical reflections paper on Canvas for more*

Manual approaches

Sketching

+ Generally great for prototyping or presentation graphics with small amounts of data

- Not very scalable

DIAGRAM OF THE CAUSES OF MORTALITY
IN THE ARMY IN THE EAST

2.
APRIL 1855 to MARCH 1856

1.
APRIL 1854 to MARCH 1855

The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex.

The blue wedges measured from the centre of the circle represent area for area the deaths from Preventible or Mitigable Zymotic Diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes.

The black line across the red triangle in Nov.r 1854 marks the boundary of the deaths from all other causes during the month.

In October 1854, & April 1855, the black area coincides with the red, in January & February 1856, the blue coincides with the black.

The entire areas may be compared by following the blue, the red & the black lines enclosing them.

SCALE 30 INCHES TO A MILE.

Carte figurative des pertes successives en hommes de l'Armée Française dans la campagne de Russie 1812–1813.

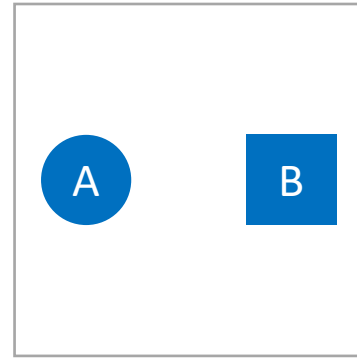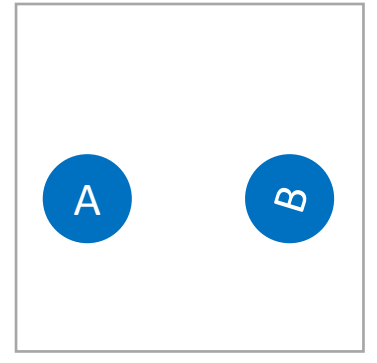TABLEAU GRAPHIQUE de la température en degrés du thermomètre de Réaumur au dessous de zéro.

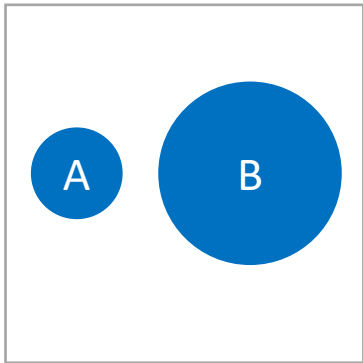# Visual Space (aka Marks)

Position
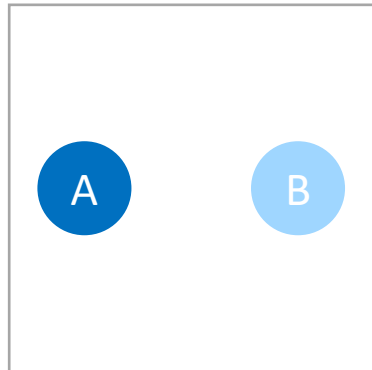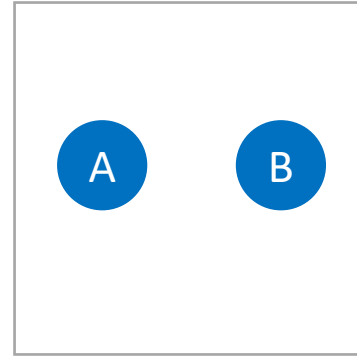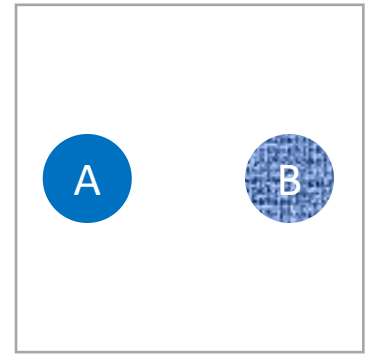

Color

Shape

Orientation

Size

Value/Lightness

Motion

Texture

Dear Data

In-Class Activity: Your Own Dear Data

First, some data! [How many colleges did you apply to](#)?

Now do your own "dear data" by sketching this dataset. Please be creative! You can use pen and paper, MS Paint, an iPad drawing program … whatever helps you sketch the data. Please don't use something like Excel. Think about how you can show yourself in context in your dataset? Think about how you can be creative (e.g. label your own point, and add a story?)

Show your work using the slide deck on Canvas, and turn in your slide to Canvas for in-class participation points