Housekeeping

asking questions on Slack!

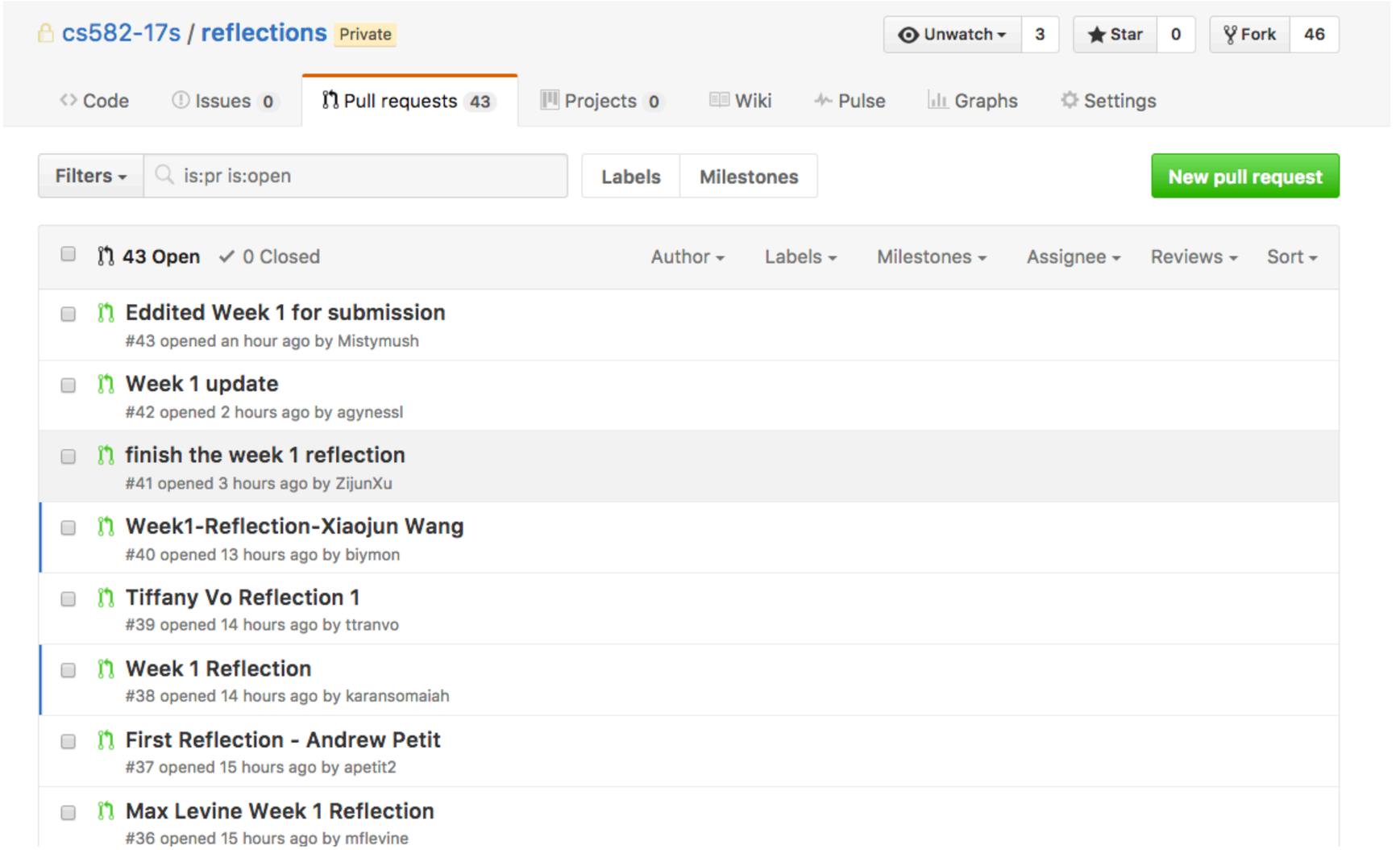
(timely feedback/help is a scale problem)

Housekeeping

block 11am (Tuesdays/Fridays) now!

several *excellent* visualization/hci researchers interviewing at WPI in Feb/March

Reflections, week 1



discussion

Step 1:

In pairs of rows, take turns discussing with your neighbors what you read and what you found interesting about it.

- 10 minutes

* show and tell (with your computer) is encouraged

discussion

Step 2:

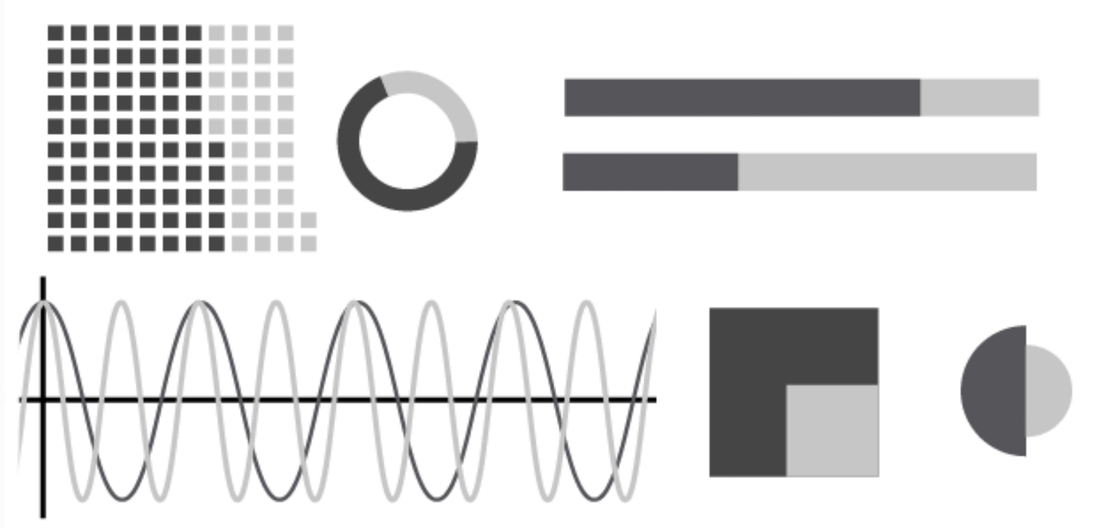
For your team's selection:
Create an entry on Slack #general. Work to describe what the link was, and what was so great about it.

hint: use shift-enter to get a newline
hint: you can edit/delete posts if you make a mistake

- 5 minutes

Task Abstraction

The design space

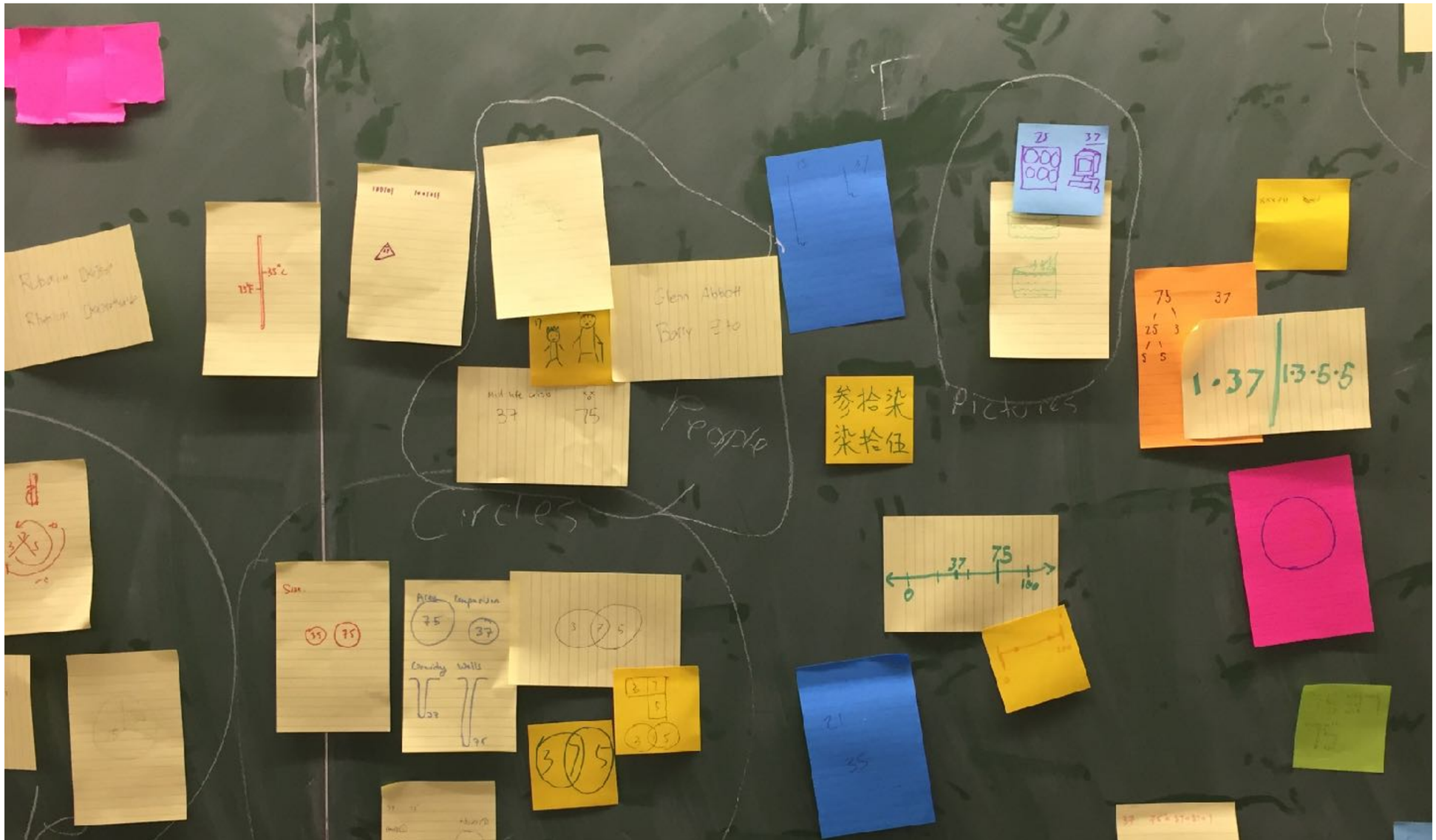


45 Ways to Communicate Two Quantities

Santiago Ortiz | July 27th, 2012

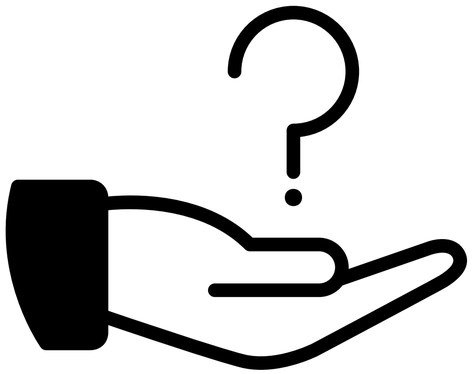
Back in 2010, I was giving a workshop on interactive data visualization in Lima, Perú, discussing whether a dataset has a unique or at least an ideal way to be visualized. For a simple data structure — a list of some

Task abstraction & the design space



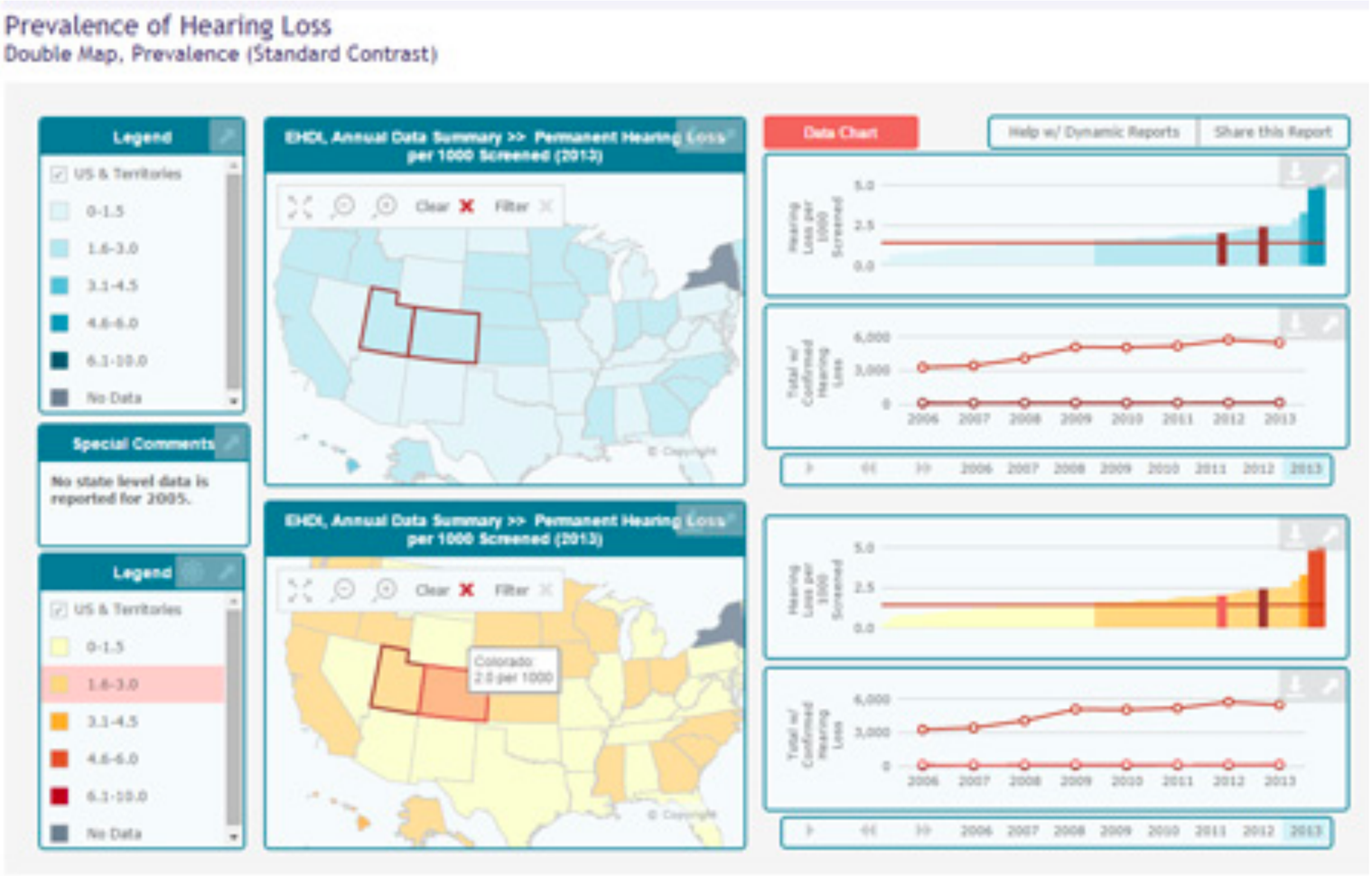
Task abstraction: ask “why”

Any given visualization can be built for a variety of purposes.



Recall:
exploratory and expository vis

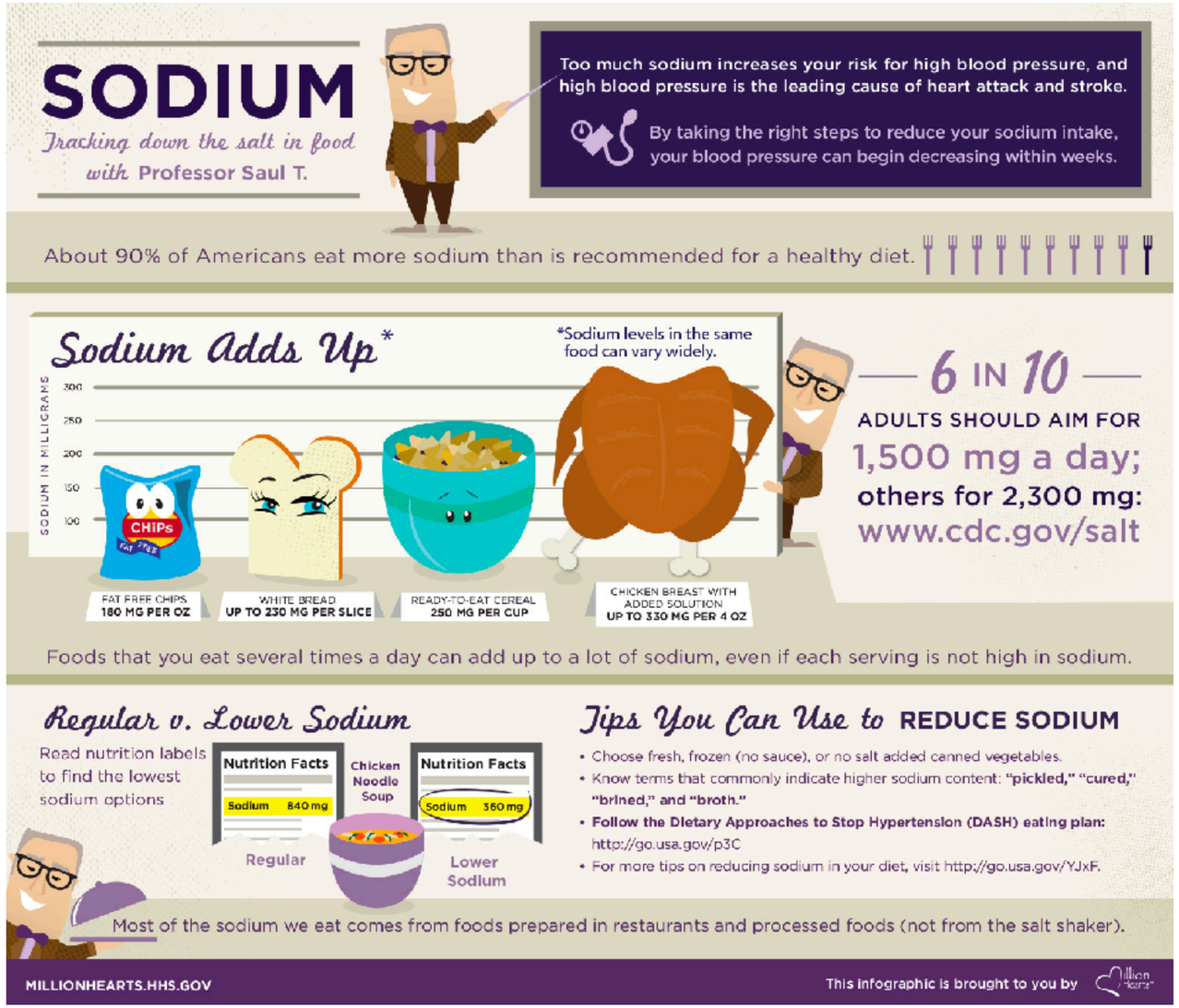
Case: the CDC



Exploratory:
- multiple linked views
- interactivity
- complex views

Goals/tasks:
- Discover trends, outliers, features
- Compare (top and bottom)

Case: the CDC



Expository:
- few, unlinked views
- use of icons, color
- static, headlines annotated

Goals/tasks:
- Engagement, reflection, persuasion

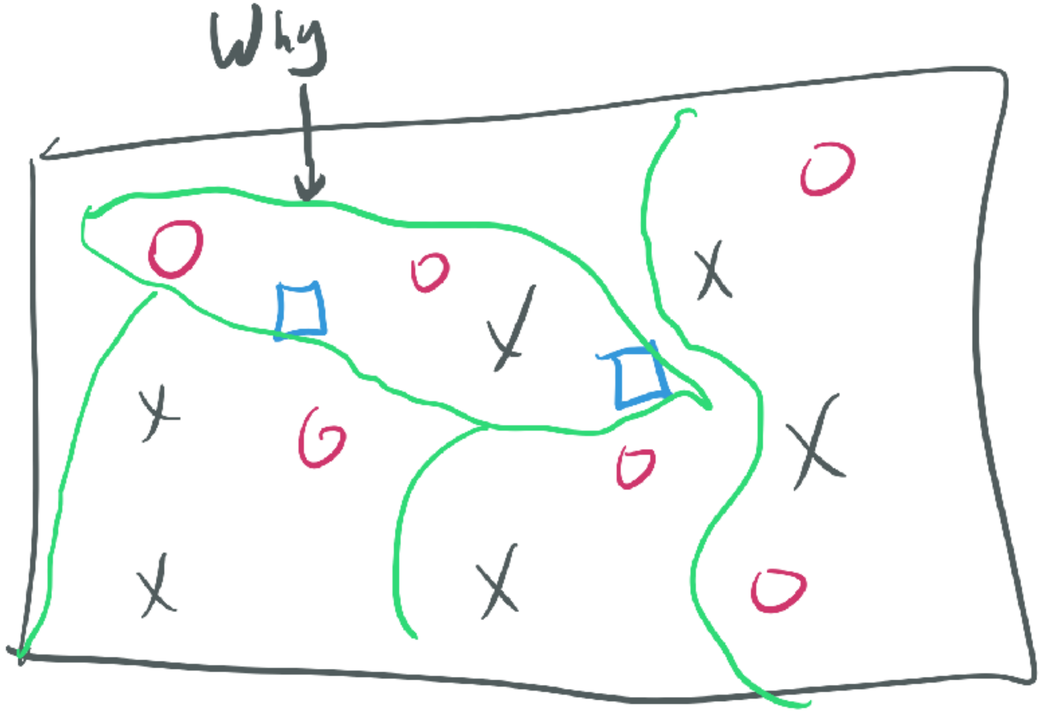
Goals goals goals

Goals/tasks:
- Engagement, reflection, persuasion

Goals/tasks:
- Discover trends, outliers, features

Browse, annotate, explore, summarize, correlate, filter,
… … … … and so on

“Why” trims the design space



Actions

Analyze

Consume

- *Discover*

- *Present*

- *Enjoy*

Produce

- *Annotate*

- *Record*

- *Derive*

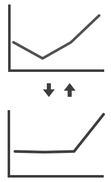
Search

	Target known	Target unknown
Location known	*Lookup*	*Browse*
Location unknown	*Locate*	*Explore*

Query

- Identify

- Compare



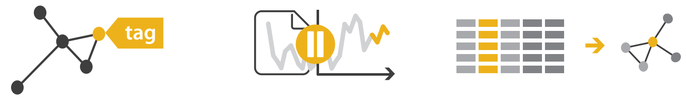
- Summarize

Actions

Analyze

- Consume
  - *Discover*
  - *Present*
  - *Enjoy*

- Produce
  - *Annotate*
  - *Record*
  - *Derive*



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Query

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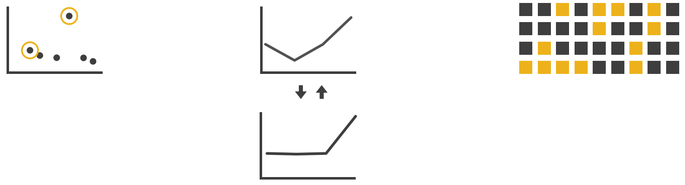

Consuming analysis vs. Producing analysis

Actions

Analyze

- Consume
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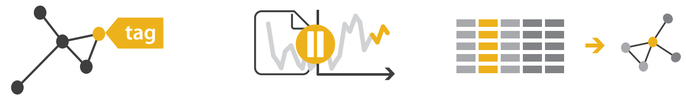
  - *Present*
  - *Enjoy*

- Produce
  - *Annotate*
  - *Record*
  - *Derive*



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Query

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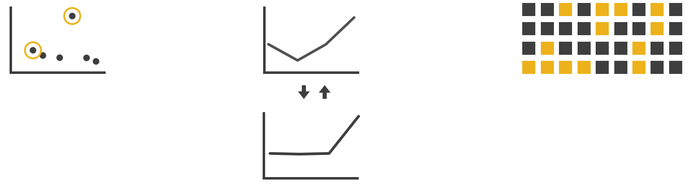


Search: goal-directed vs non-specific goals**

Actions

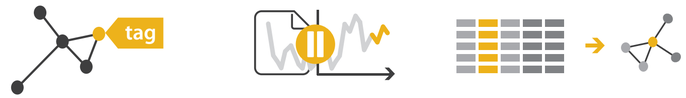
Analyze

Consume

- *Discover*
- *Present*
- *Enjoy*

Produce

- *Annotate*
- *Record*
- *Derive*



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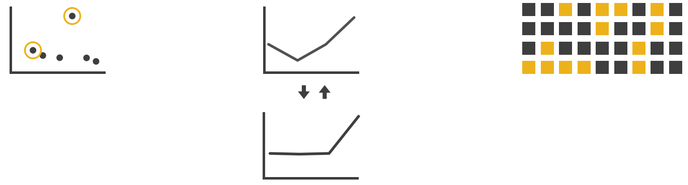


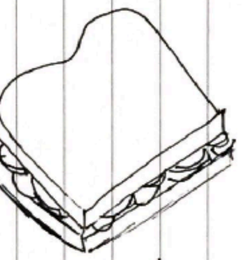
Query: lowest level 1, 2, 2+ item operations

deep dive:
measuring aesthetic appeal in vis,
a study

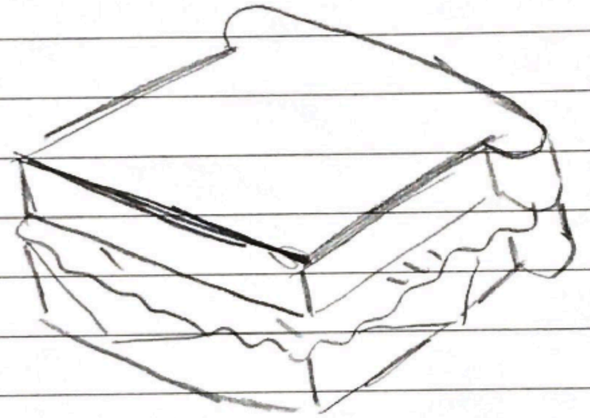
deep dive:
using “produce”-type data to drive exploration

deep dive:
using exploration data to drive machine learning

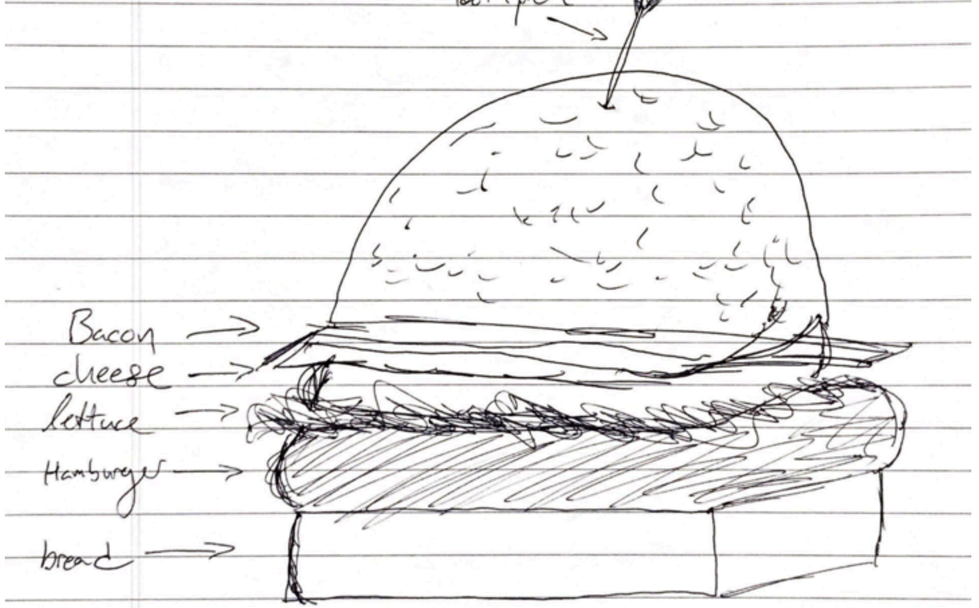
exploring sandwich similarity

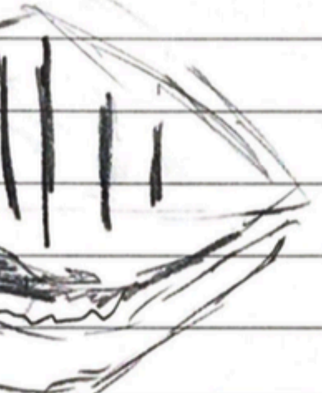


- Cucumber - 6 slices
- cream cheese - 4 tbs
- Salami - 6 pieces
- pepper - 1 tsp



lettuce
bread
ham
mustard





Panini Sandwich
- cheese (cheddar)
- tomatoes
- Basil Spreading
- Walnuts (crushed)