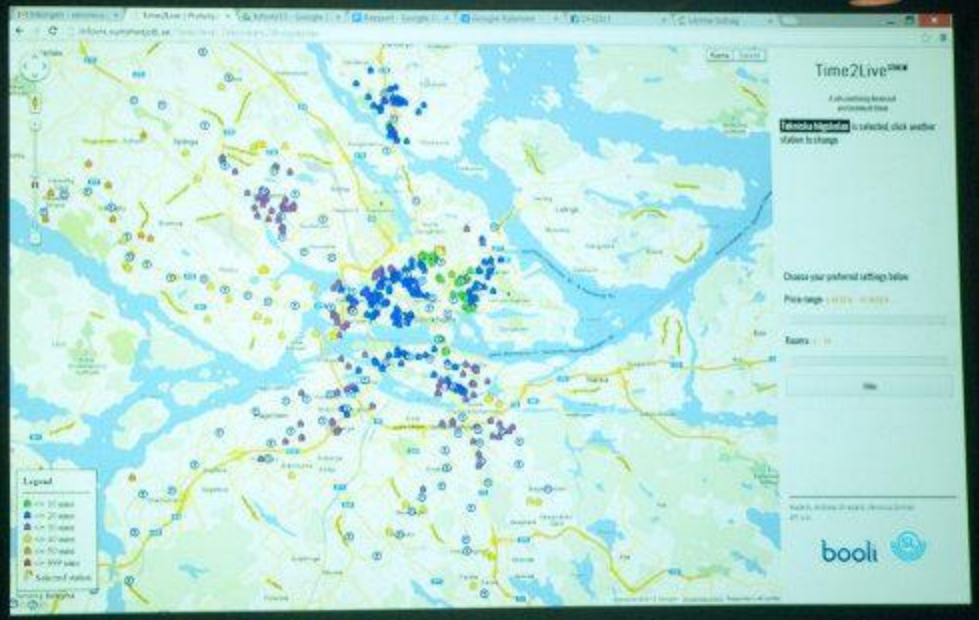
Mario Romero
2015/02/24

Information Visualization IVIS15 – Lecture 10

IVIS13 sudents presenting final demos – Time to Live

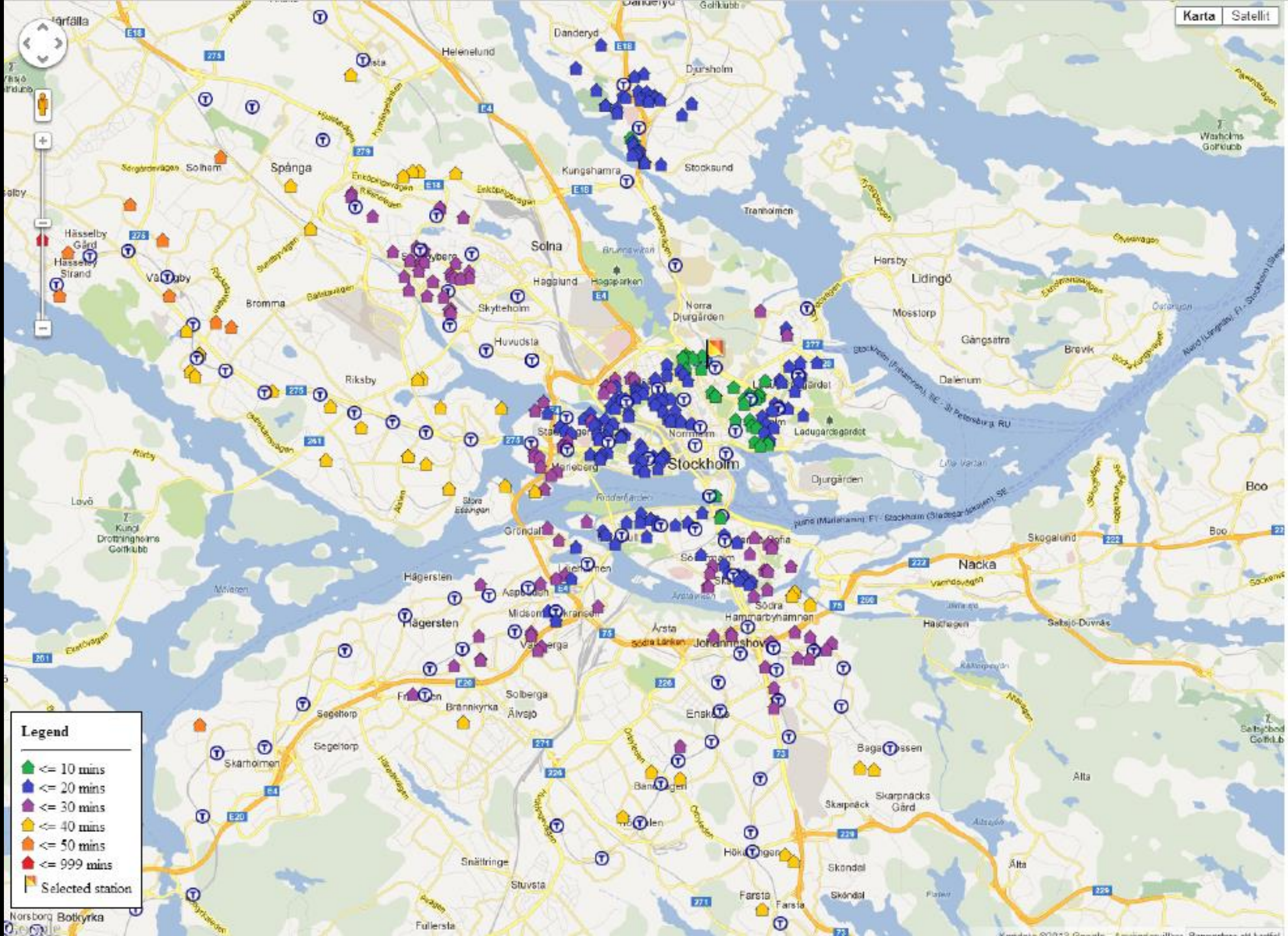
KTH VETENSKAP OCH KONST
VICSTHLM VISUALISATION INTERACTION COLLABORATION

TimeToLive



March 4, 2013

TimeToLive



Time2Live STHLM

A site combining home ads and commute times

Tekniska högskolan is selected, click another station to change

Choose your preferred settings below

Price range: 0 MSEK - 10 MSEK

Rooms: 0 - 10

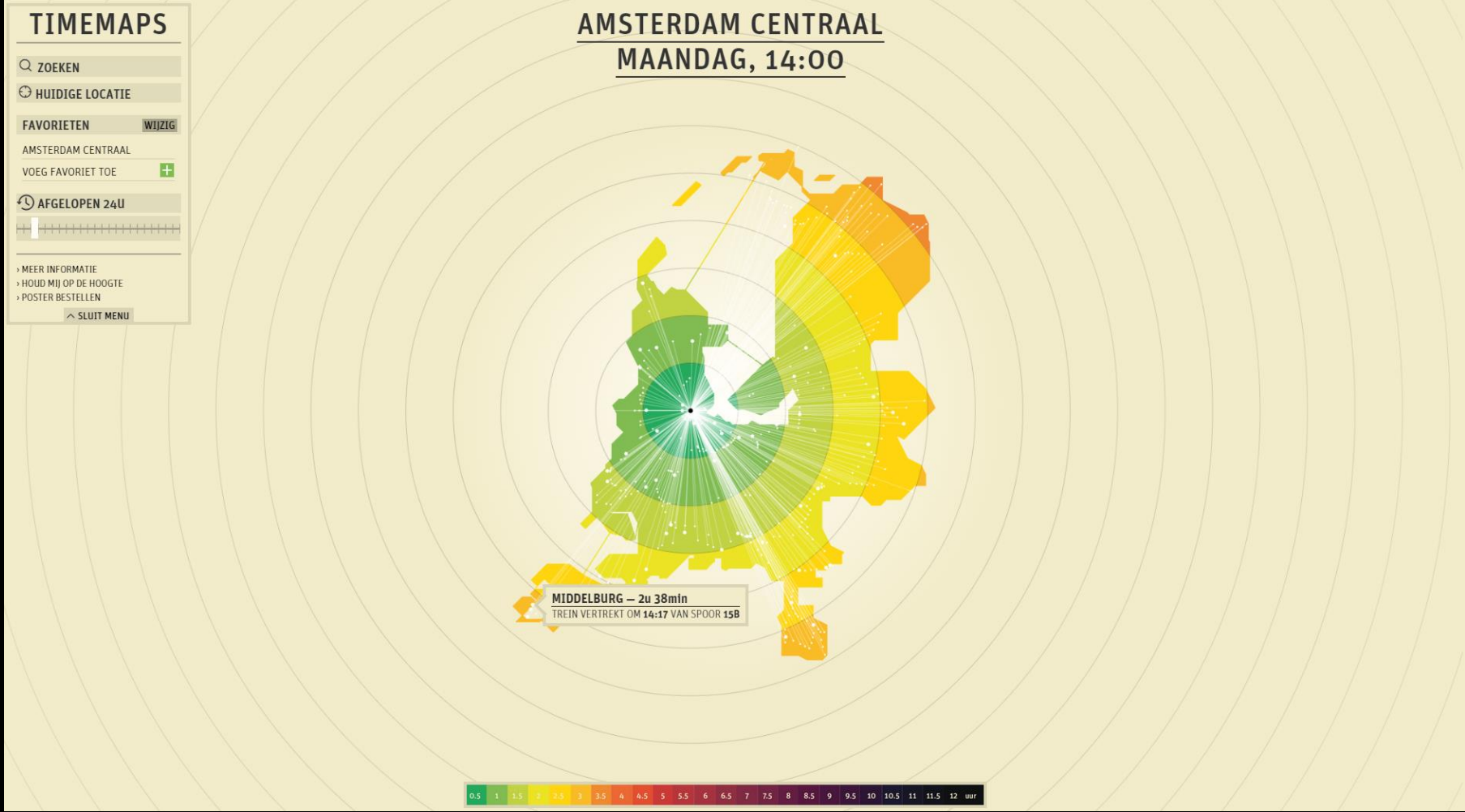
Filter

Made by Andreas Ulvesand, Veronica Ginman

API:s by

Prelude Videos

- Unfolding the City
- Live Singapore
  - Project


TIMEMAPS
ZOEKEN
HUIDIGE LOCATIE
FAVORIETEN
WIJZIG
AMSTERDAM CENTRAAL
VOEG FAVORIET TOE
AFGELOPEN 24U
› MEER INFORMATIE
› HOUD MIJ OP DE HOOGTE
› POSTER BESTELLEN
SLUIT MENU
AMSTERDAM CENTRAAL
MAANDAG, 14:00
MIDDELBURG – 2u 38min
TREIN VERTREKT OM 14:17 VAN SPOOR 15B
0.5 1 1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7 7.5 8 8.5 9 9.5 10 10.5 11 11.5 12 uur

IVIS15 Schedule

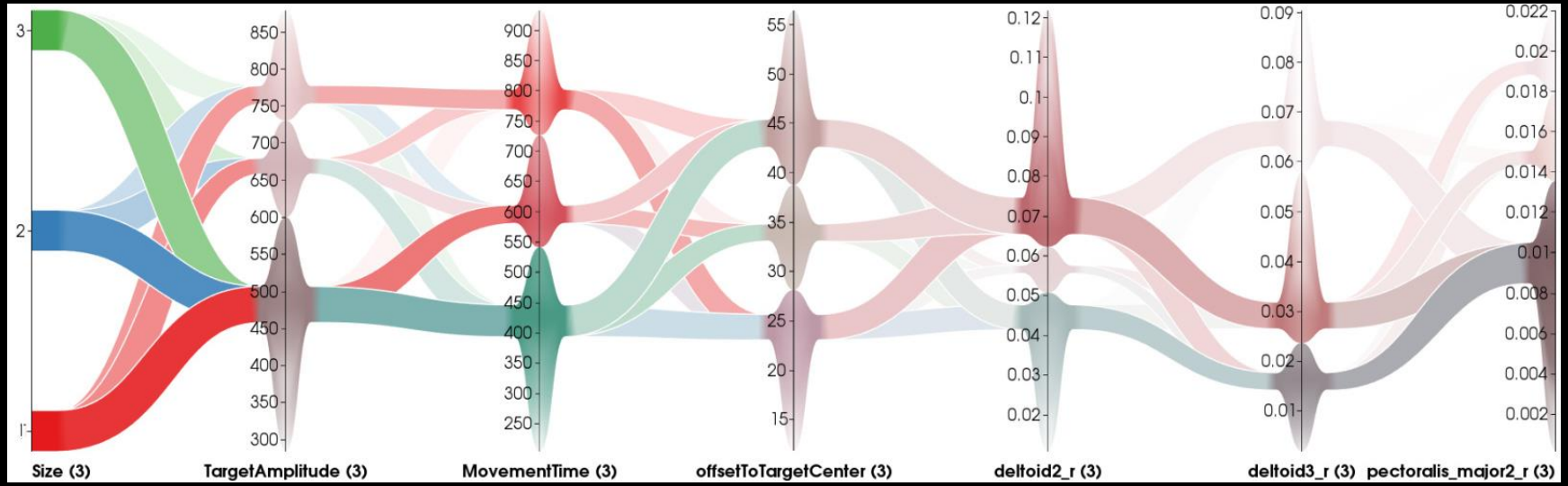
1.	Tuesday	20.1	13:15	Intro	DUE:
2.	Tuesday	27.1	13:15	Lecture 2 - Pipeline	Reading 1, Visualization Pipeline
3.	Friday	30.1	08:30	Lectures 3, 4 (labs)	Project 1, Form Group
4.	Tuesday	03.2	13:15	Lecture 5	Reading 2, Data
5.	Tuesday	10.2	13:15	Lecture 6	Reading 3, Data Trans., Par. Coord.
6.	Friday	13.2	08:30	Lectures 7, 8 (labs)	Project 4 proposals, Project 2 due
9.	Friday	20.2	10:15	Lecture 9	Reading 4, Visuals
10.	**Tuesday**	**24.2**	**13:15**	**Lecture 10**	**View transformations and tasks**
11.	Friday	27.2	08:30	Lectures 11, 12 (labs)	Project 4 Hello World! Reading 5.
13.	Tuesday	03.3	13:15	Lecture 13	Project 3 due, Reading 6
14.	Friday	06.3	08:30	Lecture 14	Reading 7
15.	Friday	13.3	08:30	Final Demo (exam)	Project 4 Final Demo
16.	TBA				C-Awards

Outline

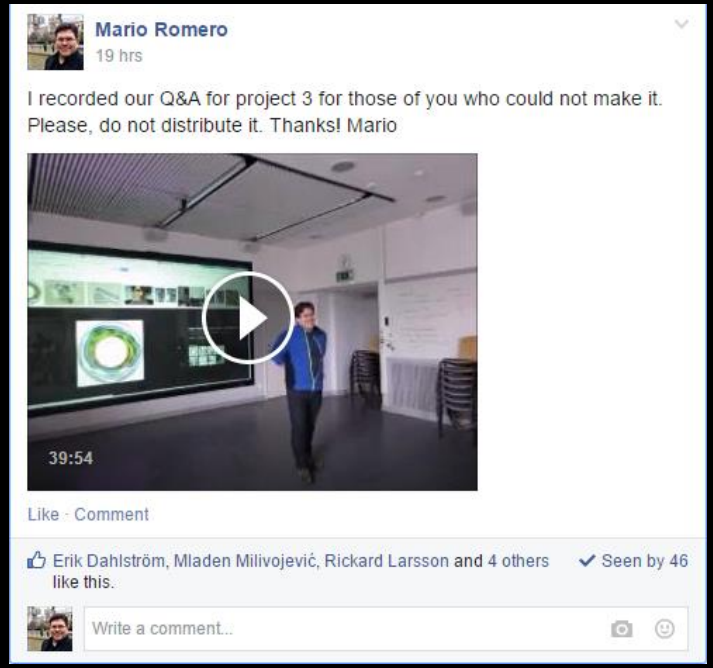
1. Announcements
    1. Talk
    2. P3 Q&A
2. Questions Project 3
3. Questions Project 4
    1. Hello World! Demos
4. View Transformations and Tasks

Announcements:

Talk Wednesday at 14:00 VIC Tino Weinkauf



Announcement: video P3 Q&A



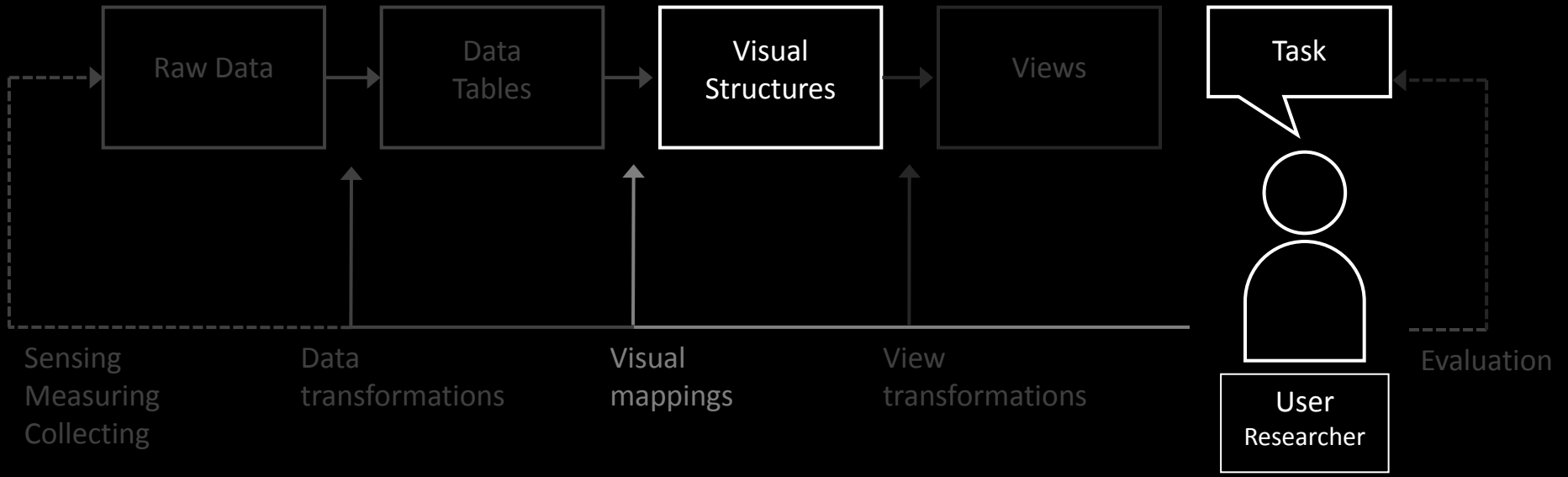
Questions about project 3

Two apartments

Viz tells diff story for each apt

Questions about project 4

Last time: Visual Structures



A PERIODIC TABLE OF VISUALIZATION METHODS

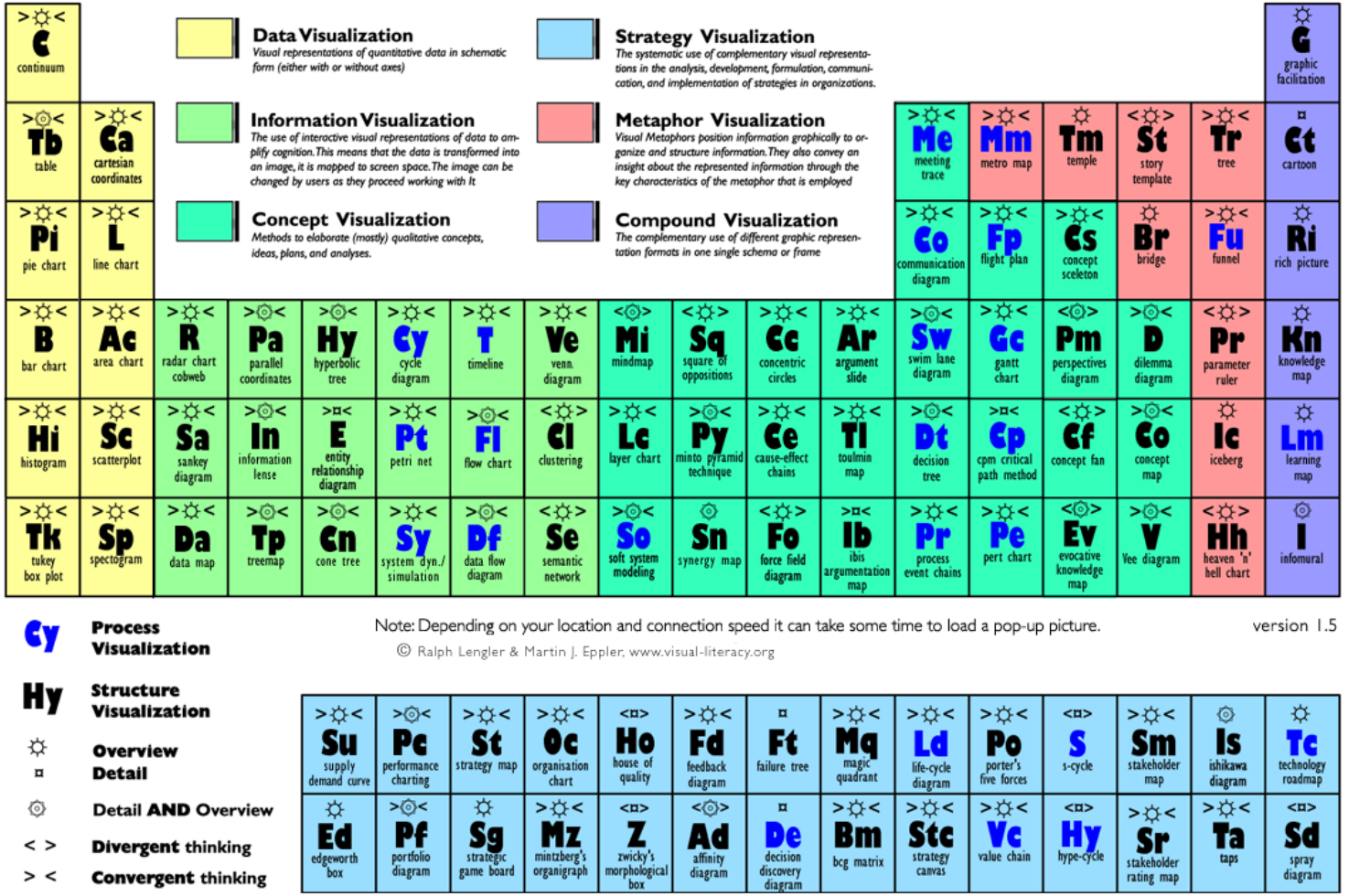
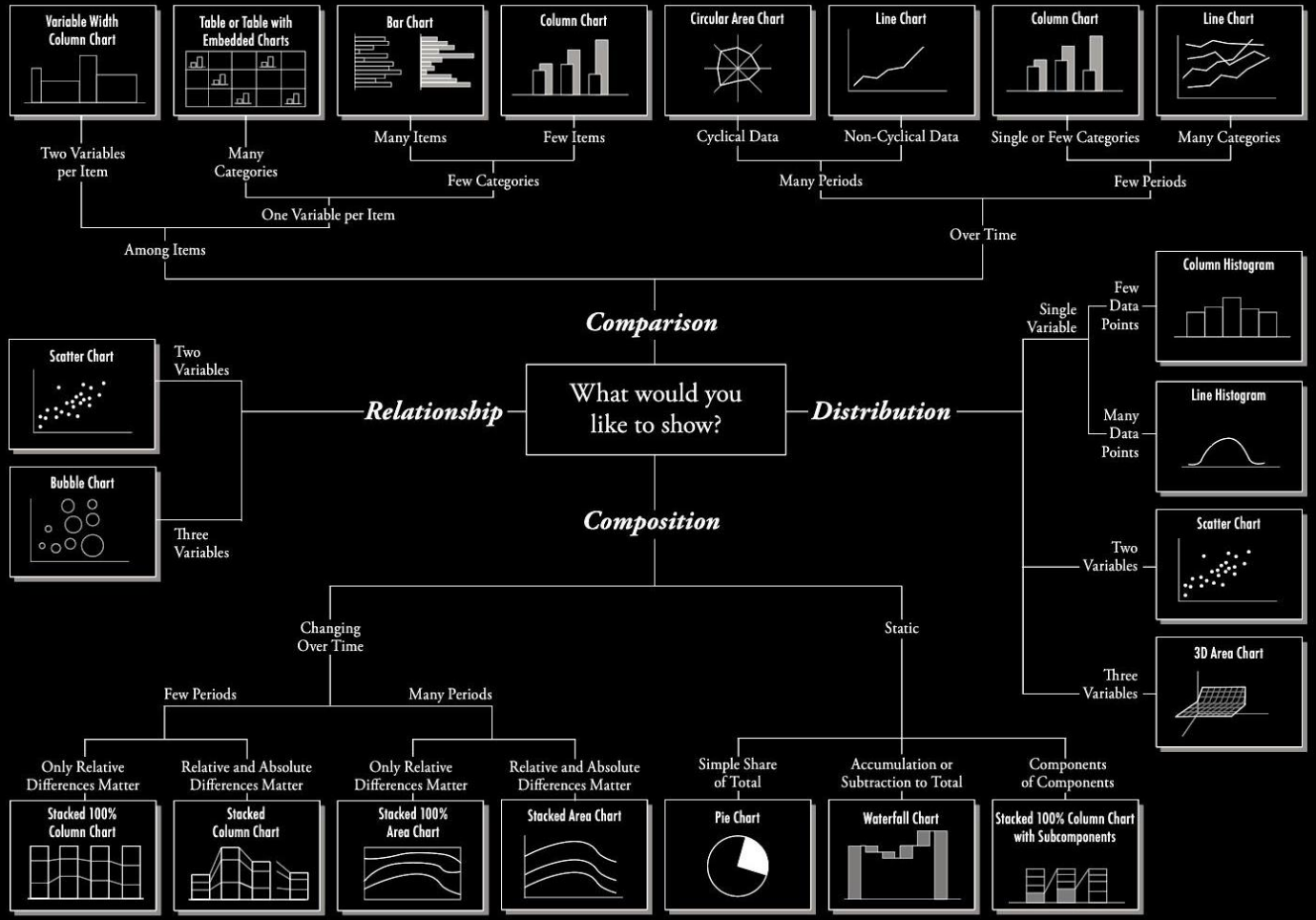
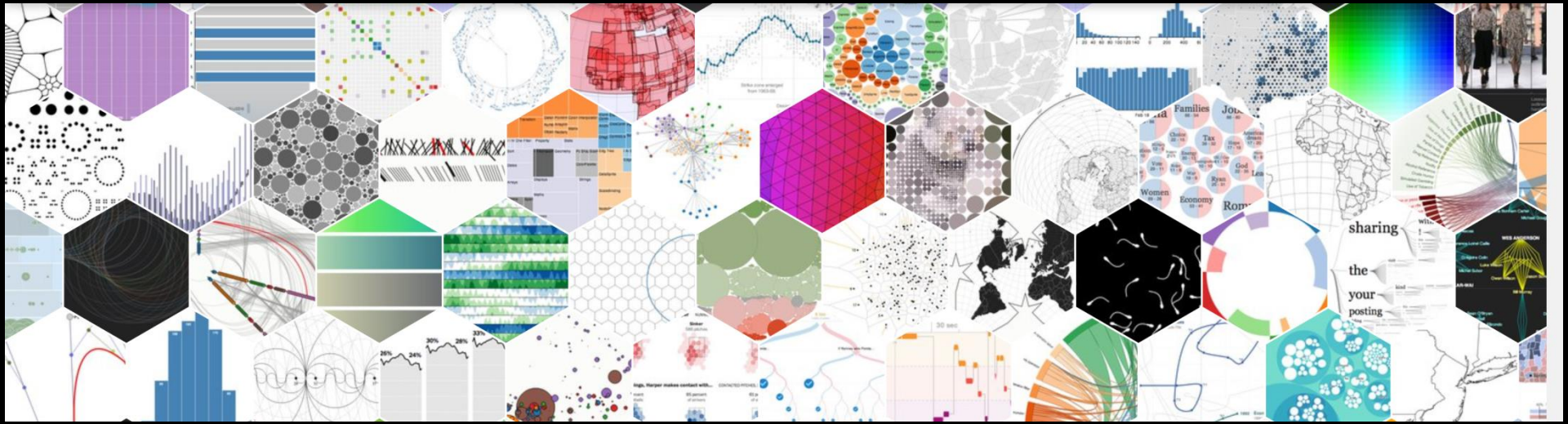
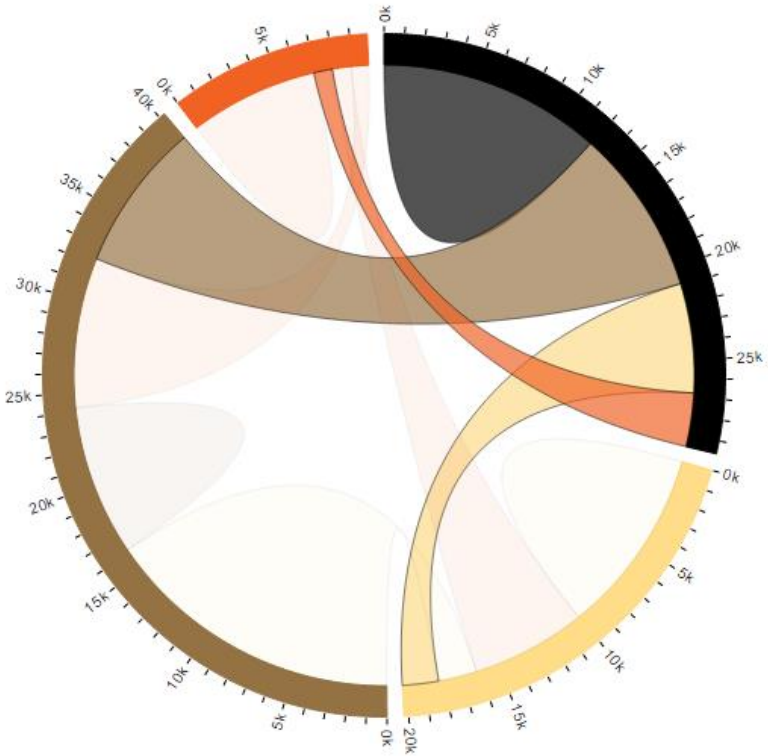


Chart Suggestions—A Thought-Starter



D3JS Data-Driven Documents

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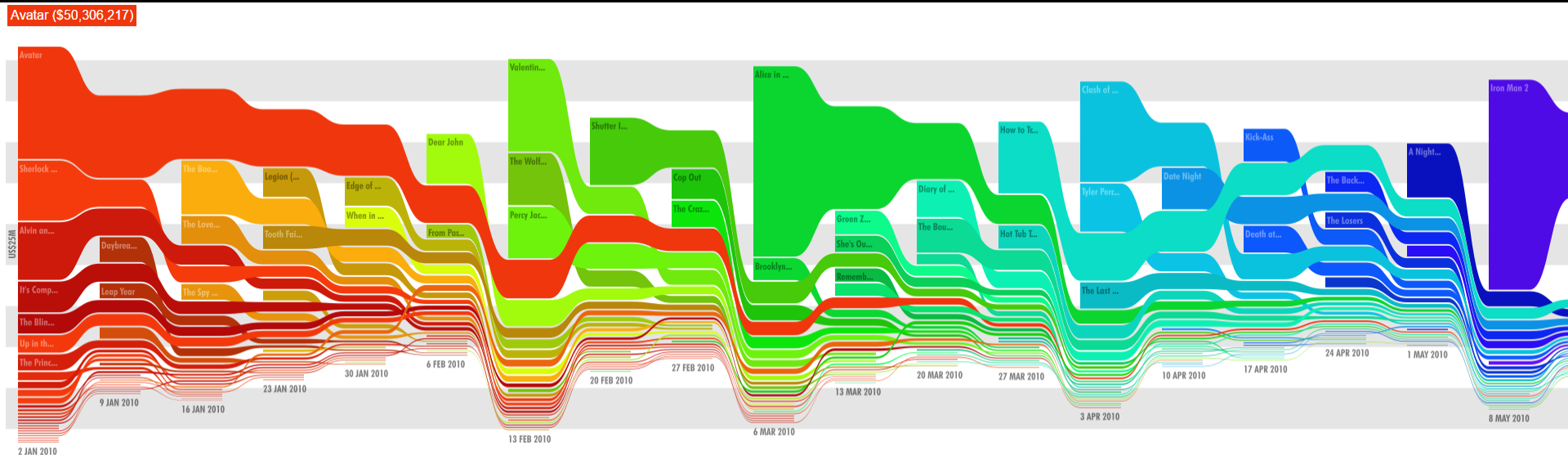
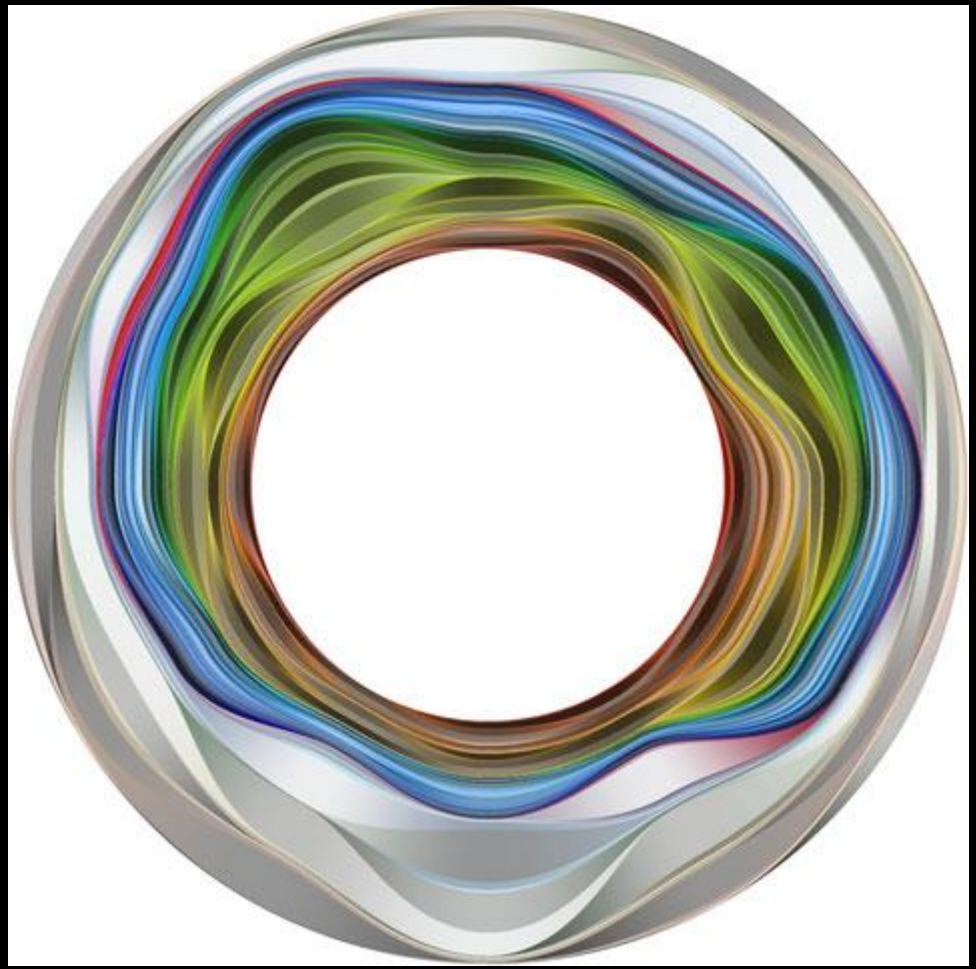
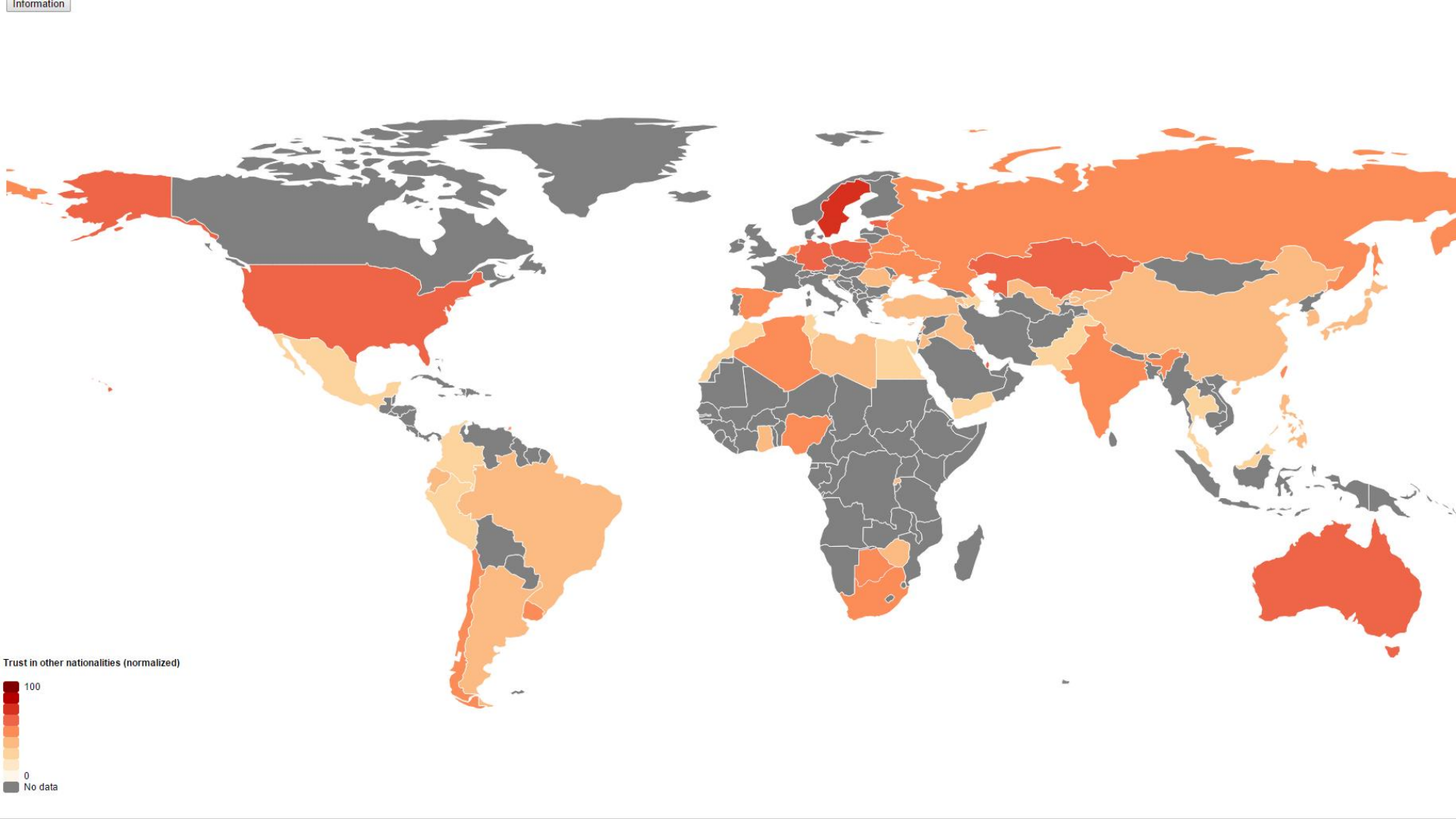


View more charts



A sample of P2

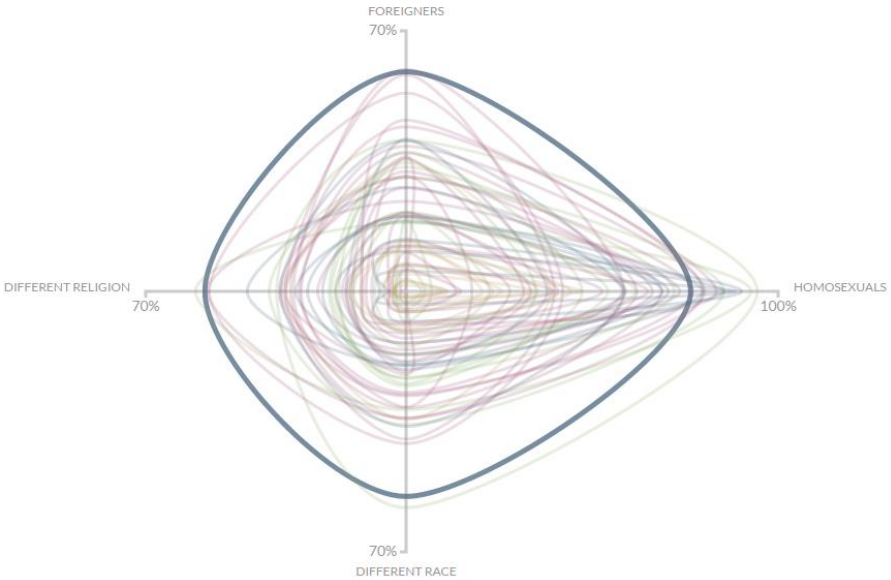
Information



BAD NEIGHBORS

Which minorities would you rather not be neighbors with?

The World Values Survey asked citizens from different countries to pick which groups of people they would rather not have as neighbors. The following chart shows answers for 4 groups of unwanted neighbors: (1) foreigners, (2) homosexuals, (3) people of a different race and (4) people from a different religion. Each line represents a country and connects the 4 axes, representing the 4 groups. You may hover the lines to find more information, or filter using the controls on the left. Read more about it and download the source code



See: All countries | Americas | Europe | Asia | Africa | Small multiples

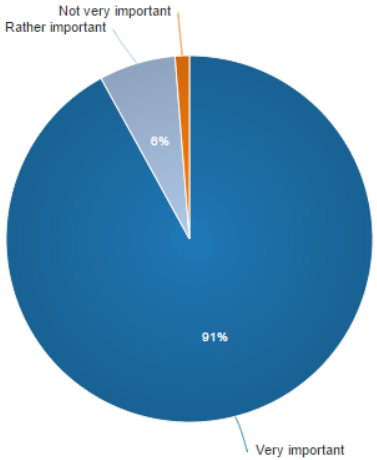
WVS Survey - Women's values in Sweden and Japan 2010-2011

Select Variable: Important in life: Family

For each of the following, indicate how important it is in your life. Would you say it is: Family

Sweden

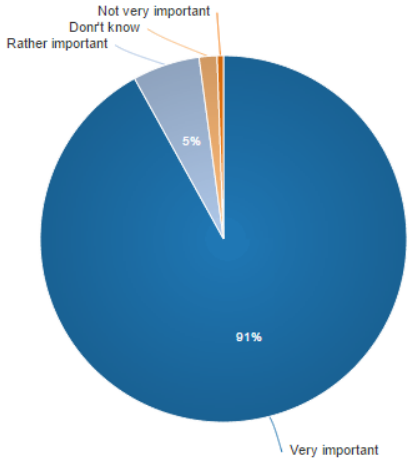
Important in life: Family



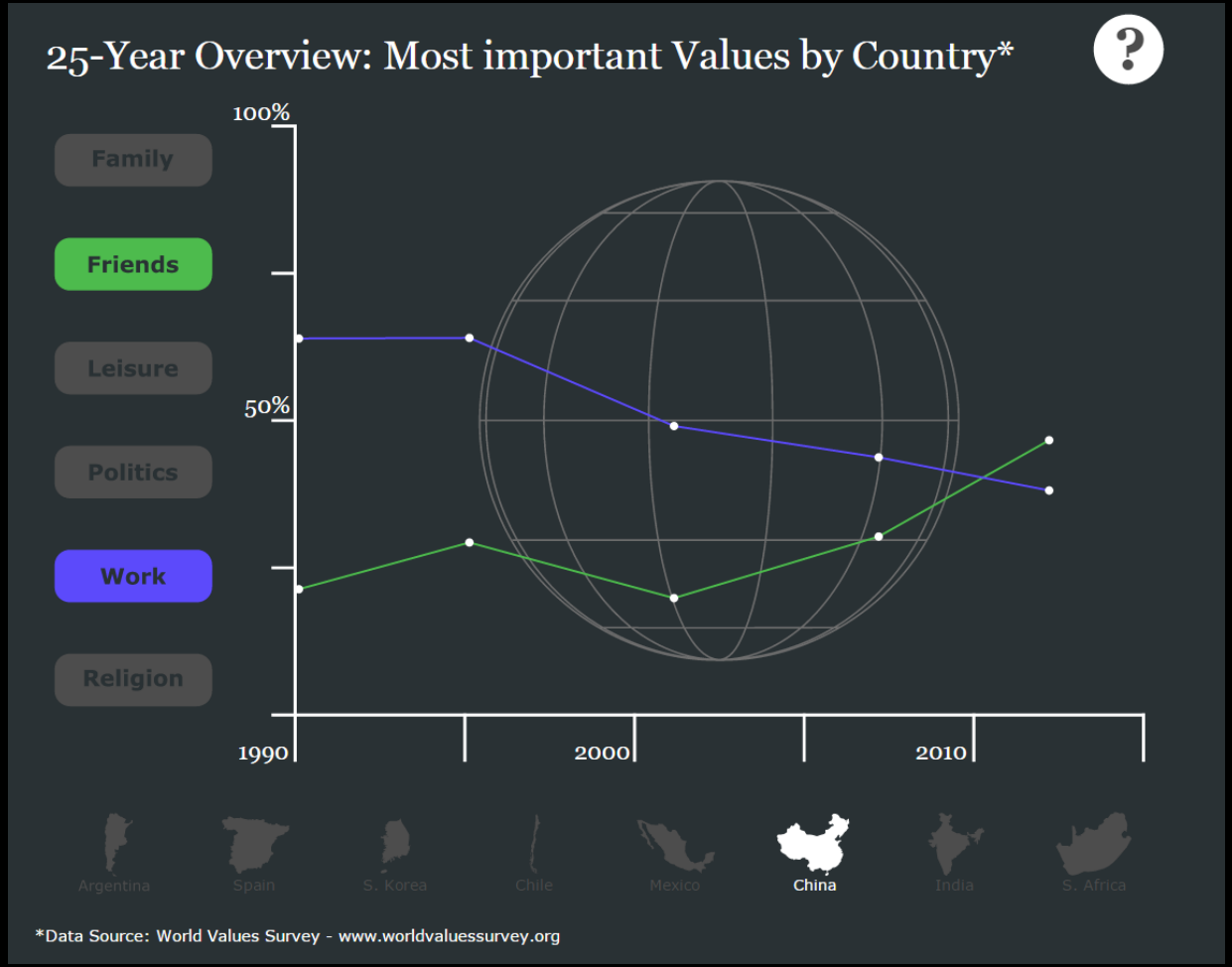
Total Answers: 637. This is approximately about: 0.013076% of the female population of Sweden

Japan

Important in life: Family

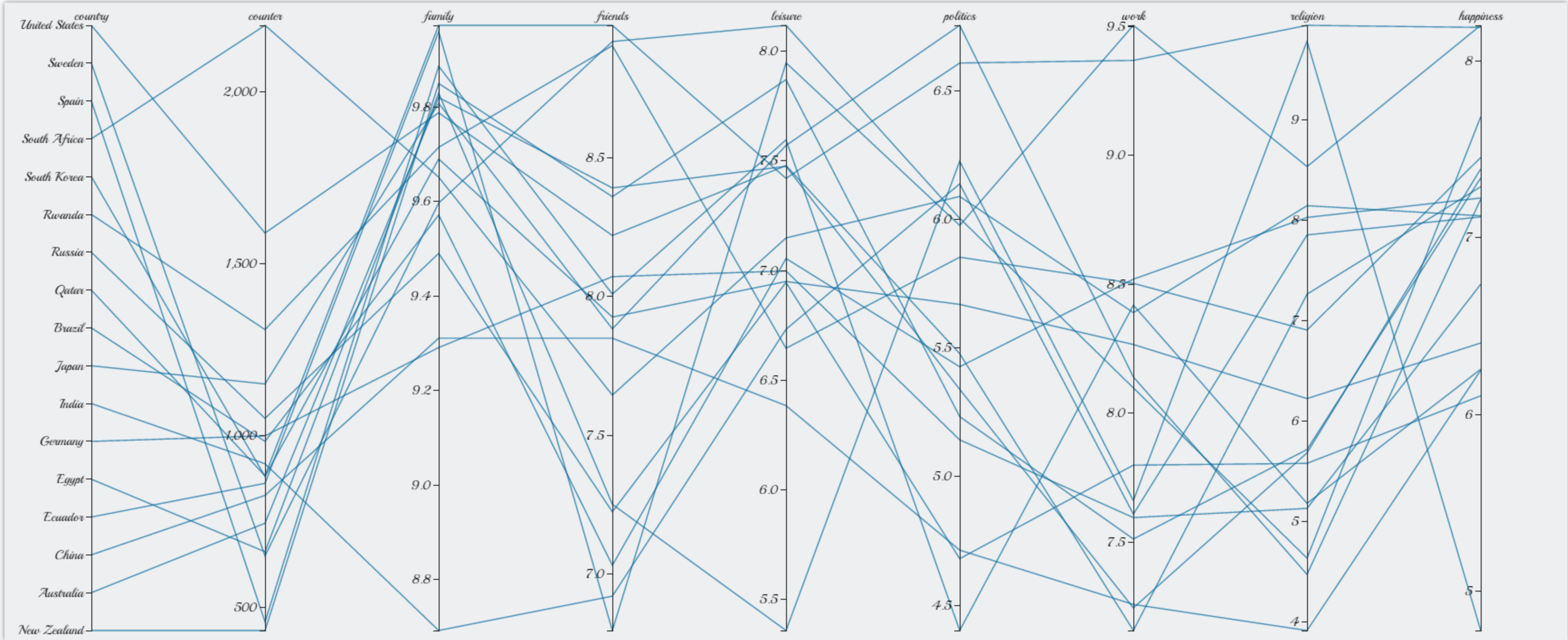


Total Answers: 1266. This is approximately about: 0.002003% of the female population of Japan


25-Year Overview: Most important Values by Country*
?
100%
50%
Family
Friends
Leisure
Politics
Work
Religion
1990
2000
2010
Argentina
Spain
S. Korea
Chile
Mexico
China
India
S. Africa
*Data Source: World Values Survey - www.worldvaluessurvey.org

Happy Factor

Using d3.parcoords to explore the influence of various factors on the feeling of happiness between 2010 and 2014



Restrict the happiness brush filter to a quarter of its height

Get a feeling of the correlation by staring at each dimension (vertical axis) while moving the brush filter up and down the happiness axis

The results are somewhat unclear and the number of countries lacking, but *unexpectingly the importance of politics seems to have the clearest positive influence on happiness*, as well as the importance of leisure time.

This d3.parcoords display allowed me to go through the painful process of dealing with massive data, cleaning data, transforming data to keep only relevant fields (i.e. plotted dimensions), mapping ordinal data to numerical data, and trying to play the Multidimensional Detective.

The derived values for each country are simple averages (sum+normalization), some more complex stats functions could have been used for more relevant result. The scaling could be improved, and the extremal values removed.

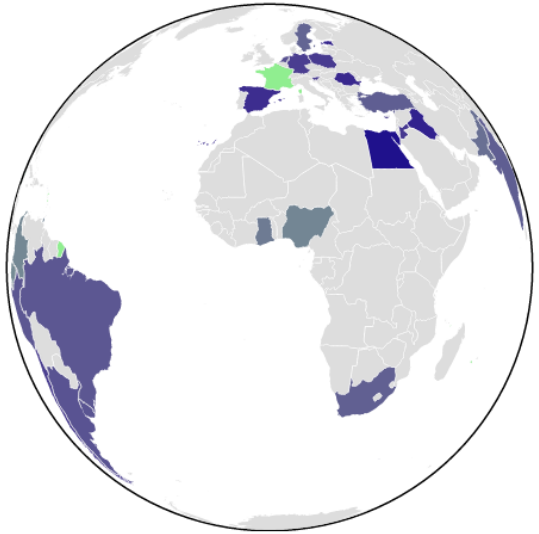
My browser couldn't process it, but we could probably sharpen the insight with more countries loaded.

Another sample of P2

Select the year you want to plot : 2010-2014

Watch the Data!

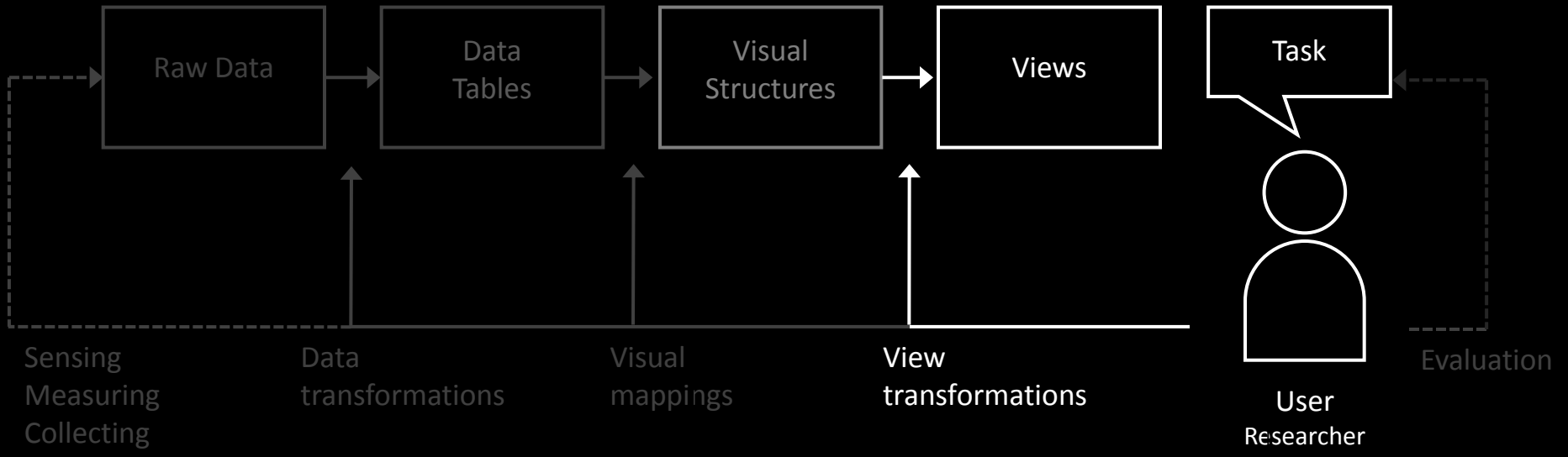
Happy



P2 samples

http://icosacid.com/infoviz/happyfactor/
http://ixpro.github.io/iviz/
http://wbock.freeiz.com/
http://www.csc.kth.se/~b…/ivis15/project2/visualization.html
http://www.csc.kth.se/~acvds/info_vis/project2/
https://people.kth.se/~nerics/project2/
http://people.kth.se/~edahls/Project2/index.html
http://37.123.179.238:3000/
http://perso.telecom-paristech.fr/…/Char…/worldMapColor.html
http://tomas.gatial.sk/DH2321_2/index.html
http://giacomogiudice.github.io/neighbours/
http://ishavanbaar.github.io/…/parallel-justifiability-1.ht…
http://ntexa.altervista.org/InfoVis/P2/C/index.html#
http://n-inh.com/ivis15/project2/
http://www.csc.kth.se/~stralf/
http://statecs.com/DH2321/project2/
http://www.csc.kth.se/~fabsch/ivis/vis/
http://asierra.freeiz.com/project_2/project_2_2.html

View Transformations and Tasks



Task: 40 minutes

- Split into groups of 4
- Interact with visualizations from P2:
  - 20 minutes
- Make a list of all the view transformations you perform
- List the tasks that the view transformations support
- Compare the list to Shneiderman's and Stasko's
- If you need more references, check Ed Chi's
- Google View transformations
- Create a taxonomy – a structured description of view transformations and tasks
- We re-group and make a taxonomy together

View Transformations and Tasks

Zoom
- Filter
- Scaling

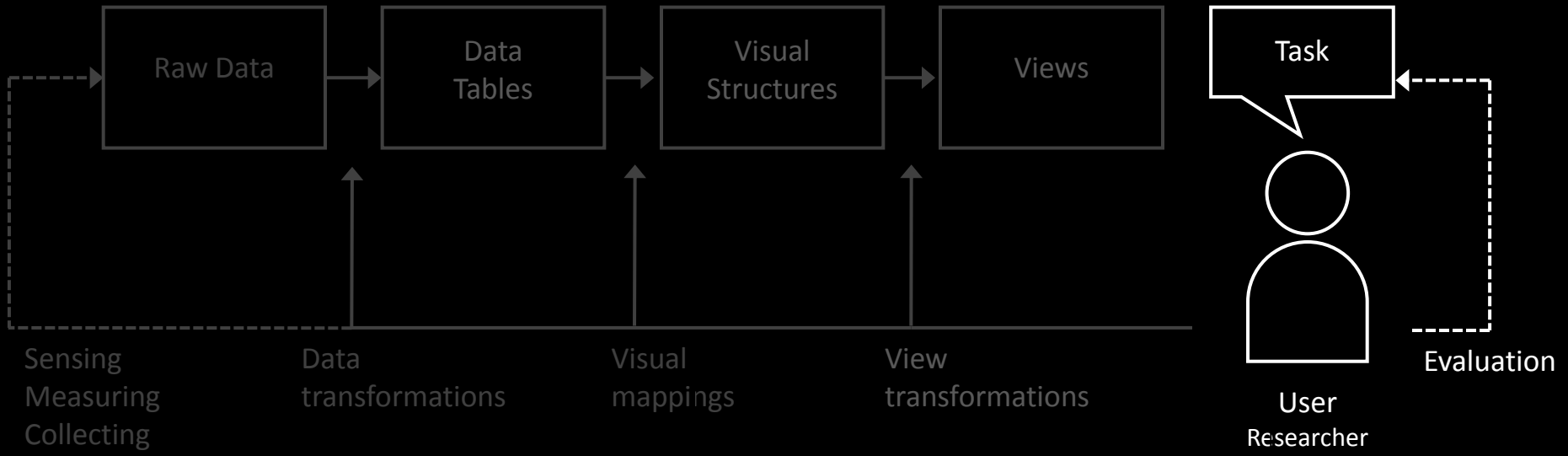
Extract
Translate
Details on demand
Overview
Rotate
Scroll
Sort
Pan

Drag and drop
Grouping
Focus and context
Magic lens
Semantic zooming
Brushing
Drilling
Scrubbing
Flipping
Shaving
Chopping

Washing
Combining
History
Comparing
Rearranging

My point: you have to make up your own mind about this.

Next: Evaluation



Reading 5 due next Friday Feb 27

- Skog, Tobias, Sara Ljungblad, and Lars Erik Holmquist. "Between aesthetics and utility: designing ambient information visualizations." *Information Visualization, 2003. INFOVIS 2003. IEEE Symposium on*. IEEE, 2003. LINK
- Pousman, Zachary, John T. Stasko, and Michael Mateas. "Casual information visualization: Depictions of data in everyday life." *Visualization and Computer Graphics, IEEE Transactions on* 13.6 (2007): 1145-1152. LINK
- Broms, Loove, et al. "Coffee maker patterns and the design of energy feedback artefacts." *Proceedings of the 8th ACM Conference on Designing Interactive Systems*. ACM, 2010. LINK

Thank you!

marior@kth.se