Refugee Crisis in 6 Minutes

http://9gag.com/tv/p/az2bNN/the-european-refugee-crisis-and-syria-explained

Fontys

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ADS ML – Week 4

Visualization design principles

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Goals: At the end of this lesson …

- You can make a proper choice for a chart type based on datatypes and design guidelines.
- You can point out design flaws in charts and improve them based on a set of guidelines and design rules.
- You can make plots that convey a message effectively without resorting to chart lies.

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Contribution to the learning objectives

- **create** a visualization from any data set that is not misleading and that clearly shows clustering, outliers and trends,
- **motivate** every design choice in a created visualization,
- **motivate** the next step in a data analysis based on a given visualization,
- **present** data analysis and visualizations as part of reproducible research,
- **apply** narrative techniques in visualizations,
- **create** engaging visualizations that allow for data exploration and story progression.

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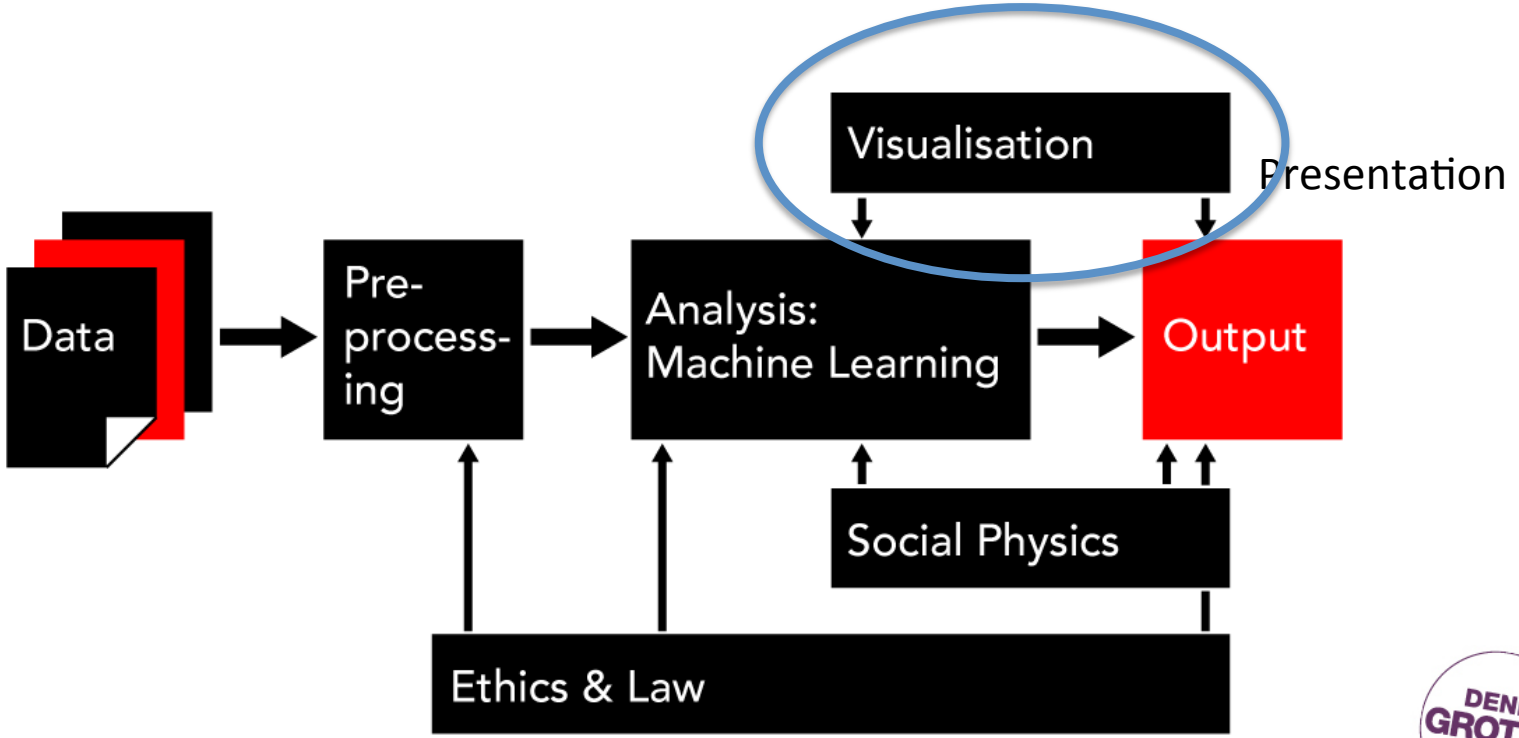
What are we doing?



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Home work: cheat sheets!

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Homework?

- Did you make a summary of the different datatypes?
- Did you include visual cue order in visualizations?
- Did you include a list of design rules by Tufte or another authority?
- Did you include general tips and guidelines you found on the way?

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Choosing a Chart Type

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Exercise

- In how many ways can you visualize the dataset: 75, 37?

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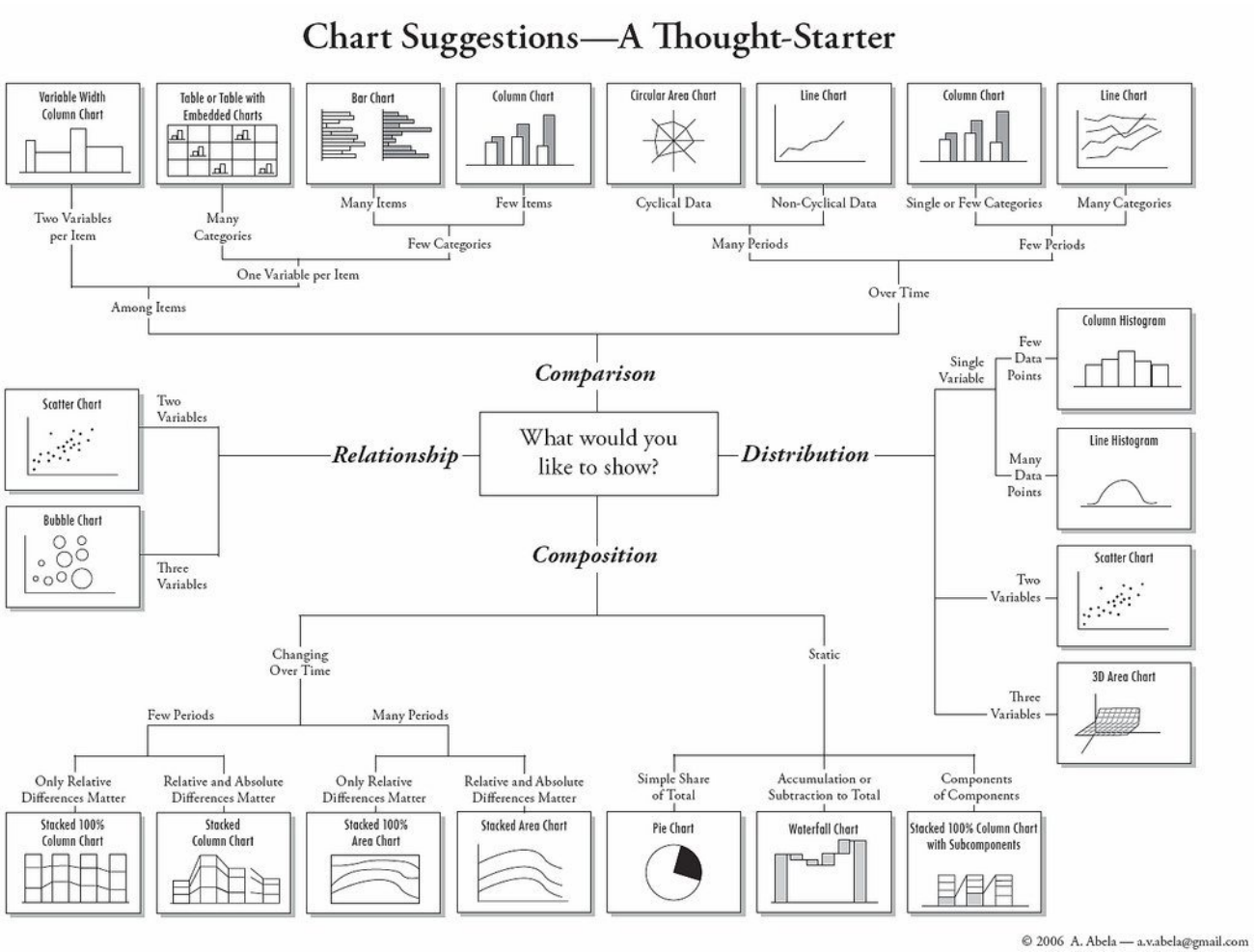
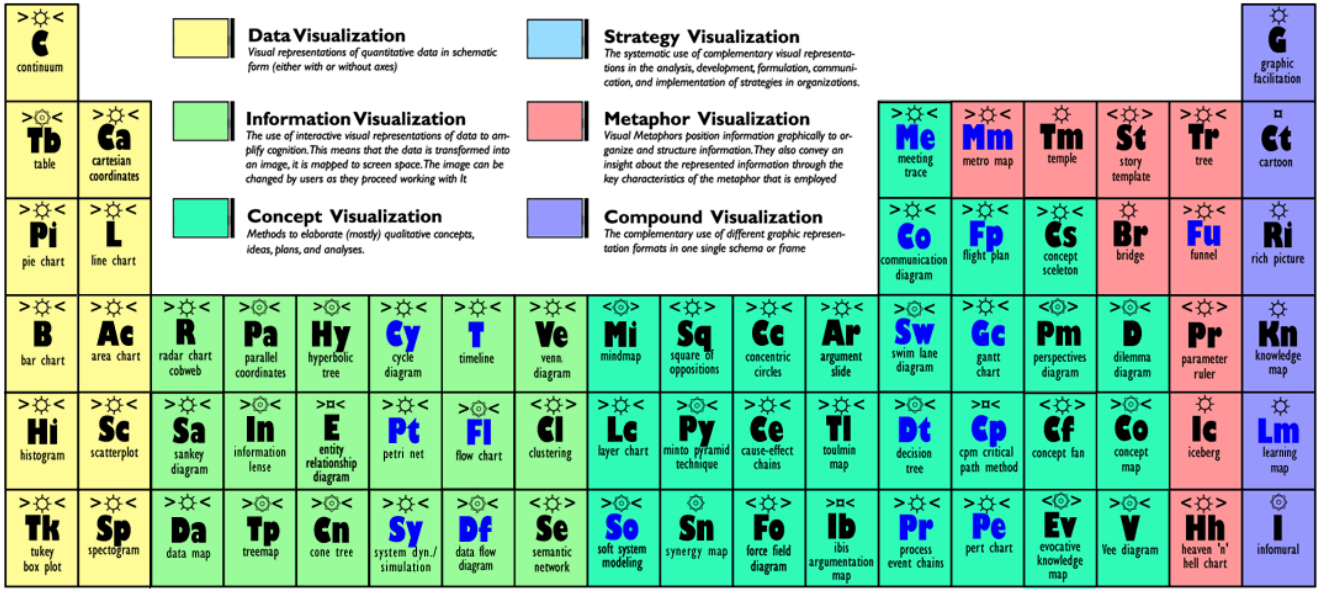


http://flowingdata.com/2009/01/15/flow-chart-shows-you-what-chart-to-use/

A PERIODIC TABLE OF VISUALIZATION METHODS



http://www.visual-literacy.org/periodic_table/periodic_table.html

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Data types, visual encoding & Design rules

MOOC lesson 1a, 2a

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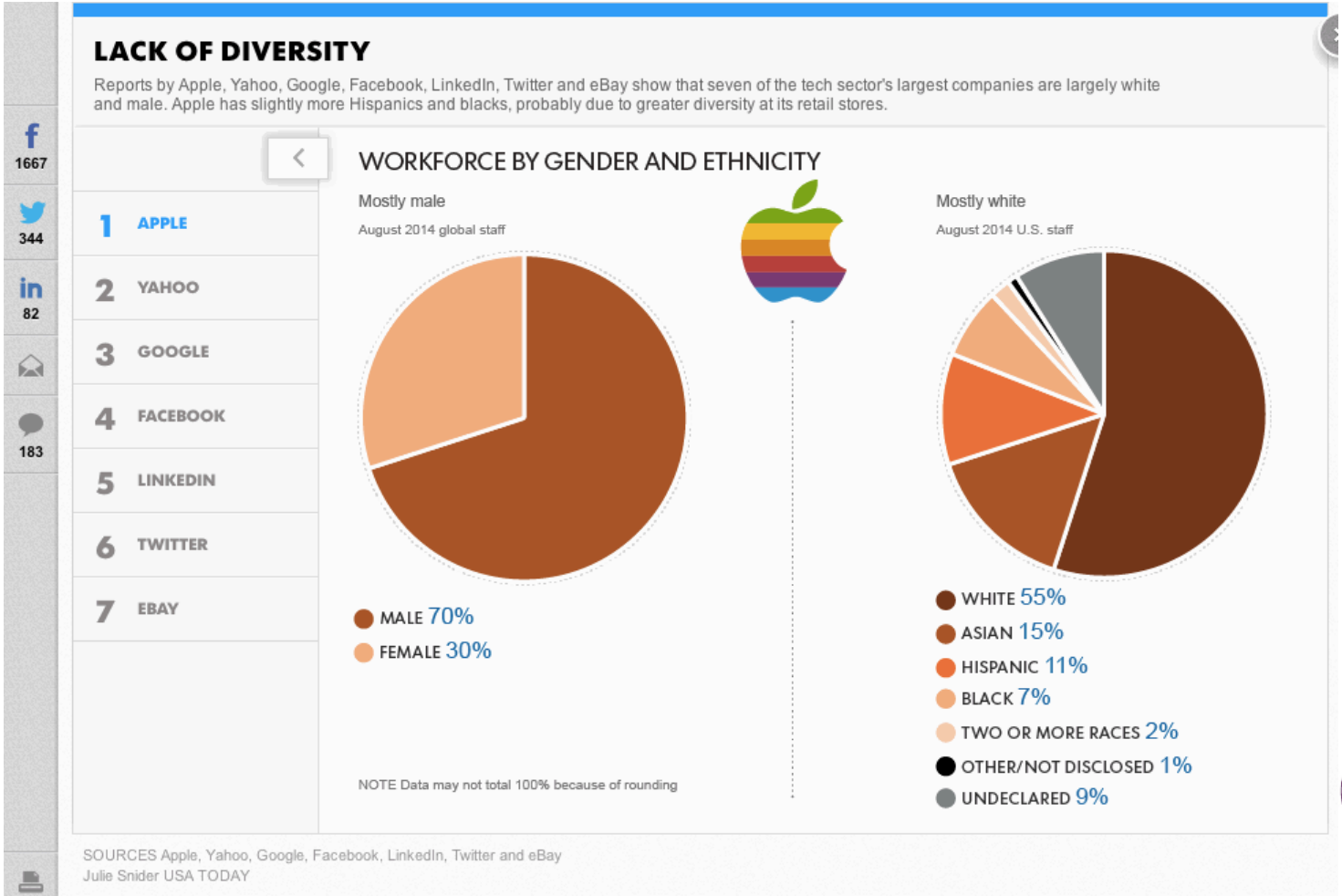
Exercise – improve in steps



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Exercise – improve in steps

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Resources & Tips

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Nice places for tips, help and examples.

- Modern book with theory: https://infoactive.co/data-design/
- Tips & examples: http://www.storytellingwithdata.com/
- Free feedback: http://helpmeviz.com/ (active contributions are bonus ++)
- More examples: http://chartporn.org/

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Assignments 1 - 2

- Create charts / simple infographics for an article.
- Redesign a bad chart.

Before week 6:

Watch lectures **1b** en **2b** of the Udacity MOOC **Data Visualization and D3.js** about D3 building blocks and dimple.js.

Before week 7:

Watch lecture 3 about narrative structures.

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