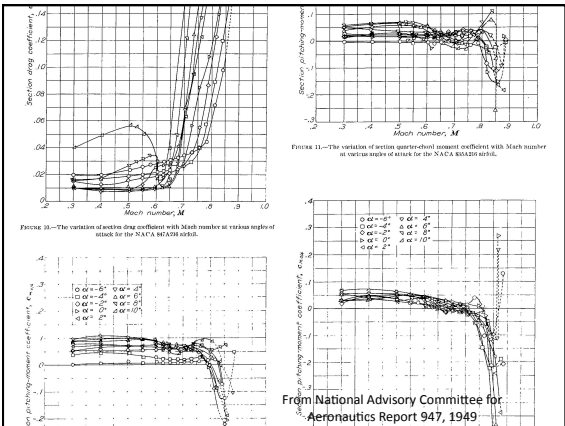
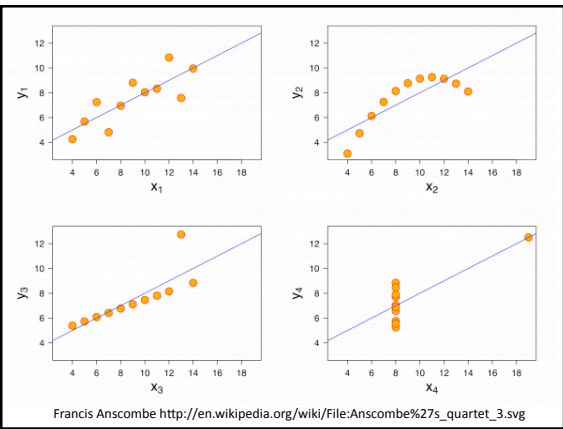
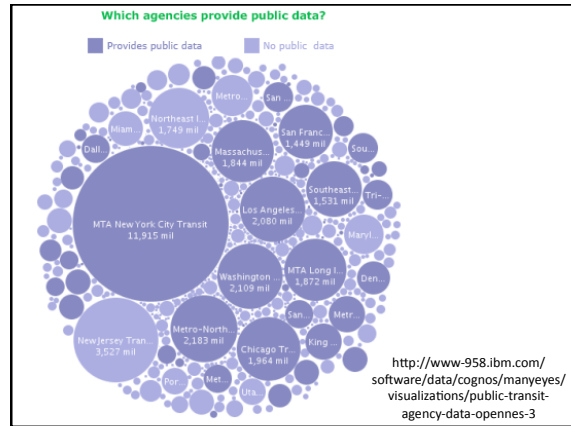
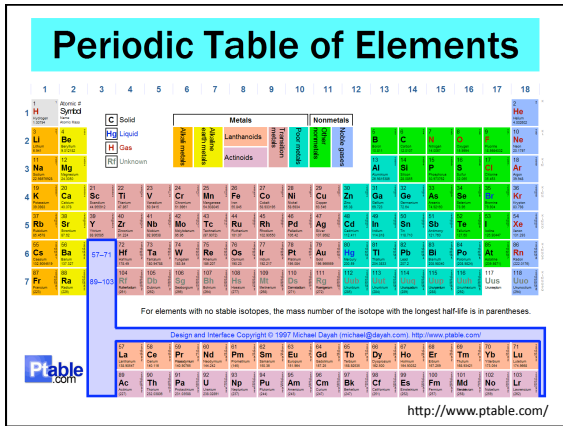


Visualization Design Principles

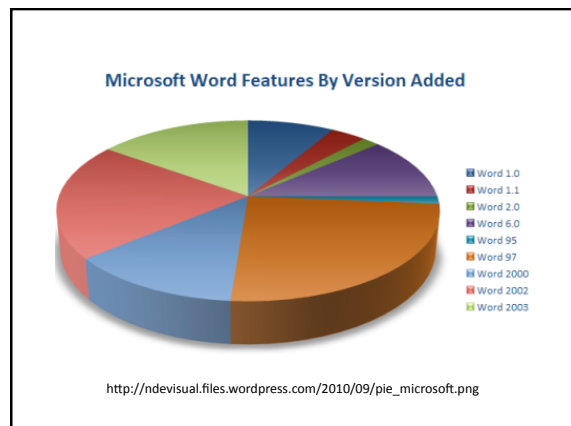
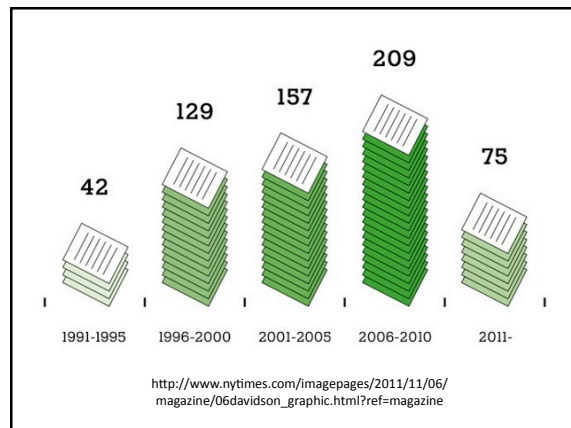
- ## Readings for This Week
- "Eenie, Meenie, Minie, Moe: Selecting the Right Graph for Your Message", Stephen Few, Intelligent Enterprise, 2004
 - "User Studies: Why, How, and When?" Christopher, Healy, Interrante, Laidlaw, and Ware, IEEE Computer Graphics and Applications, 2003
 - "Helping Engineers and Scientists Avoid PowerPoint Phluff", John Mignot, IEEE Aerospace Conference, 2005

- ## Visualization Design Principles
- Scientific Visualization vs. Information Visualization
 - Simple clean design vs. "Chart Junk"
 - Managing & leveraging huge amounts of data
 - Understanding your Audience
 - E.g., Visualization for Science, Communication, Education, Debugging, etc.
 - Importance of companion text (title, axis labels, legend, caption)
 - Targeting visualization design to human perception & low-level vision processing



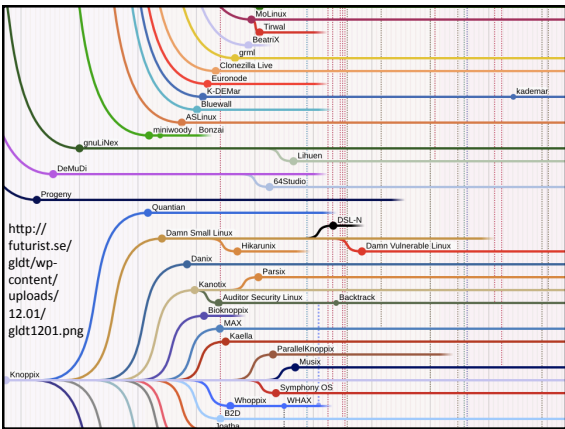
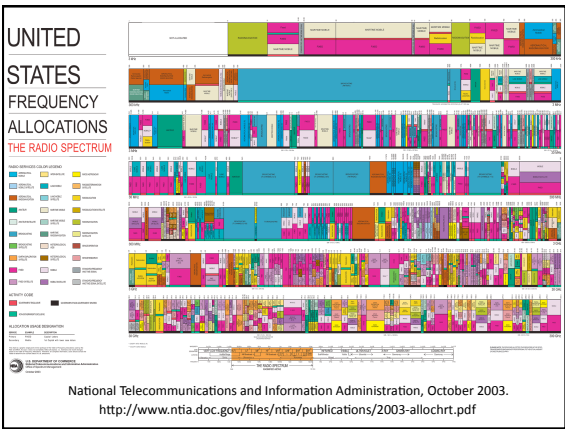
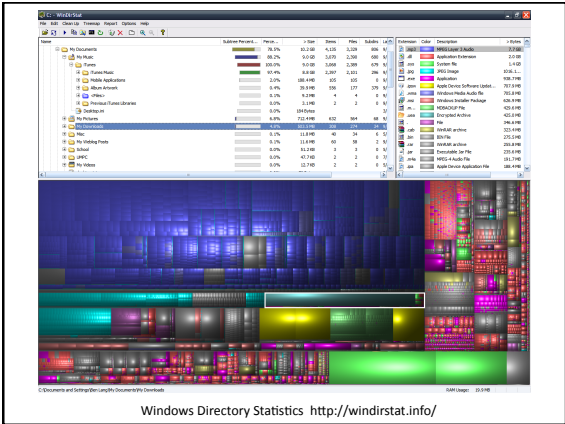


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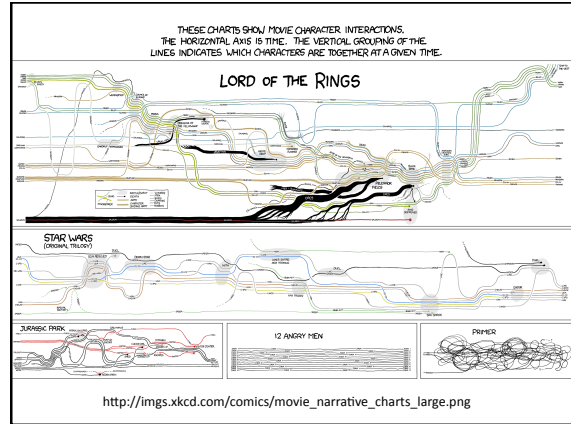
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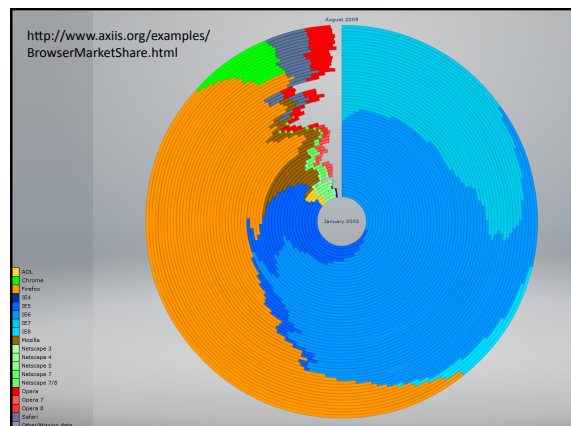
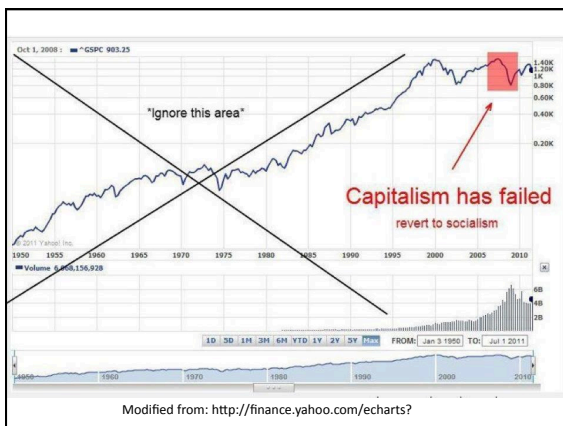
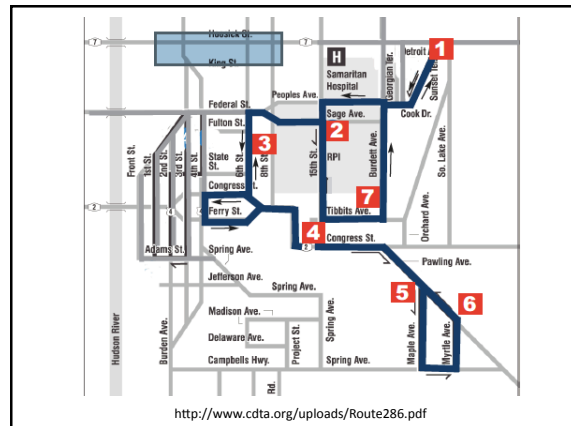


Previous Week	Week of Jan 23, 2012 (279 of 105)					Next Week	
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
10am		MATH 4030-01 98241 Class 10:00 am-11:50 am SAGE 3705	CSCI 4973-01 98293 Class 10:00 am-11:50 am CARNEG 112		MATH 4030-01 98241 Class 10:00 am-11:50 am SAGE 3705		
11am							
12pm							
1pm							
2pm	PSYC 2100-01 95480 Class 2:00 pm-3:50 pm RHS CARNEG 208				PSYC 2100-01 95480 Class 2:00 pm-3:50 pm RHS CARNEG 208		
3pm							

<http://sis.rpi.edu>

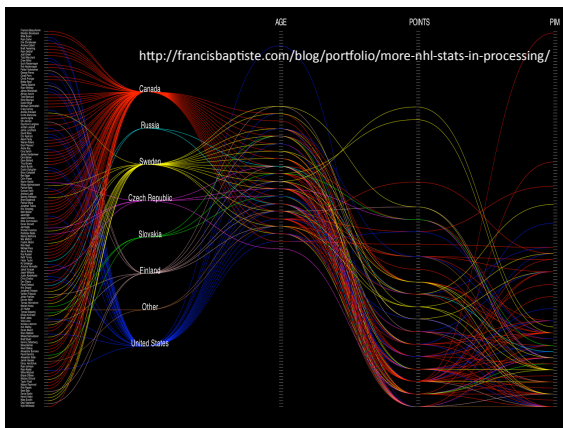
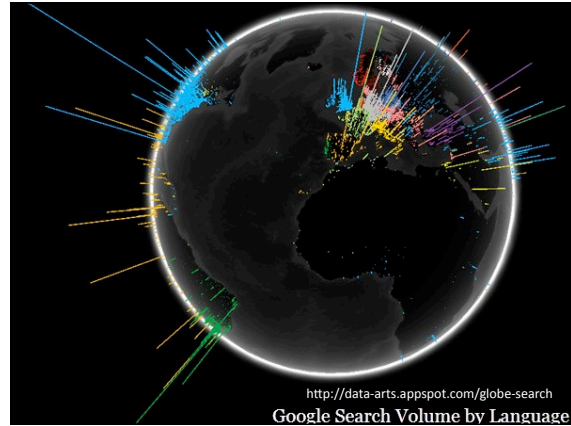


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Stages of the Visualization Process

- Motivation & Problem Definition
- Visualization Design
- Data Collection
- Visualization Execution
- Analysis & Validation
- Visualization Revision
- Presentation

Today's In Class Exercise

- Teams of 2
- Given: Country & Topic
 - Spend a few minutes on that country's Wikipedia page (no additional searching or clicking)
 - Prepare a visualization of data relevant to that country & topic
 - Use art supplies... no computers!
 - Experiment, Post, Discuss, Revise, Repeat
- Focus: Visualization Design & Visualization Revision

Homework Assignment 2: due Tuesday @ 11:59pm Using a (new to you) Visualization Tool

- Select a tool (some ideas on webpage)
- Learn the tool
- Find a (very!) simple dataset
- Create 2 or more visualizations of the same/similar data with the tool
- Write a review of the tool
- Focus: Visualization Execution

Readings for Next Week

- "A Short Note on the History of Graph Drawing" Kruja, Marks, Blair, and Waters, Graph Drawing 2001
- "Graph Drawing", Tamassia, 1997, Lecture Notes in Computer Science
- "Lombardi drawings of graphs", Duncan, Eppstein, Goodrich, Kobourov, Nollenberg, Graph Drawing 2010
- Everyone must post a *non-trivial* comment or question on their chosen reading to the LMS discussion **by Monday @ 11:59pm**