

Storytelling in InfoVis



CS 7450 - Information Visualization
September 8, 2011
John Stasko

Purpose

Review



- Two main uses of infovis
 - Analysis – Understand your data better and act upon that understanding
 - Presentation – Communicate and inform others more effectively
- Today we look at that second one more

Telling Stories

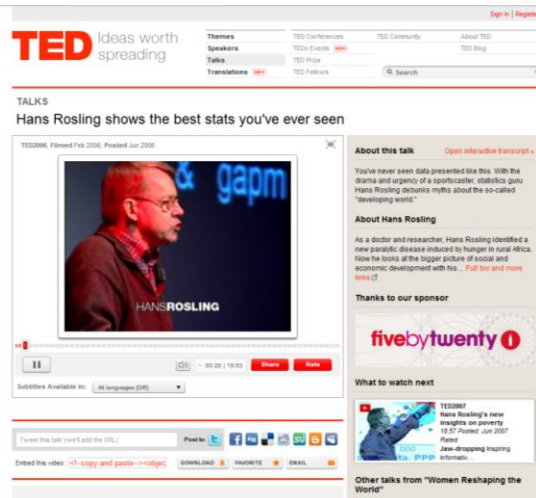


- Data visualization can help to communicate ideas, summarize, influence, unite, explain, persuade
- Visuals can serve as evidence or support

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A Famous Example



Hans Rosling
Gapminder

2006

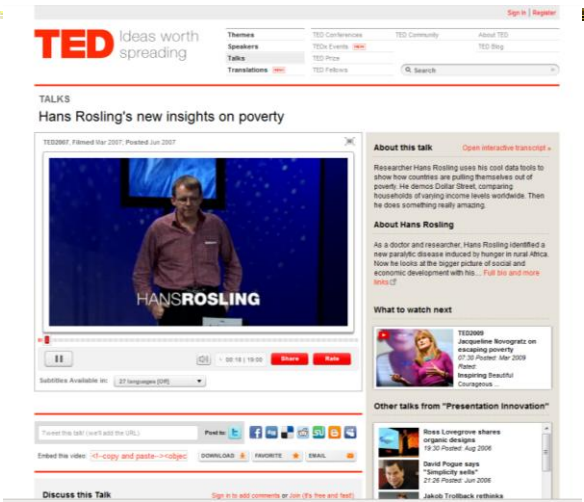
http://www.ted.com/index.php/talks/hans_rosling_shows_the_best_stats_you_ve_ever_seen.html

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They Had Him Back



The screenshot shows the TED website interface from 2007. The main content area features a video player for Hans Rosling's talk, "Hans Rosling's new insights on poverty". The video player includes a play button, a progress bar, and a timestamp of 00:18 / 10:00. To the right of the video player, there is a section titled "About this talk" with a link to "Open interactive transcript". Below this, there is a section titled "About Hans Rosling" with a brief biography. Further down, there is a section titled "What to watch next" with a list of recommended videos. The bottom of the page features a "Discuss this Talk" section with a link to "Sign in to add comments or join (it's free and fast)".

2007

http://www.ted.com/index.php/talks/hans_rosling_reveals_new_insights_on_poverty.html

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Discuss

- Why has this had such a big impact?

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Characterizing the Area



- Studied storytelling: Described topics as “Narrative Visualization”
 - How does this differ from traditional forms of storytelling
 - Reviews the design space
 - Characterizes genres
 - Describes a framework

Segel & Heer
TVCG (InfoVis) '10

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Thoughts?



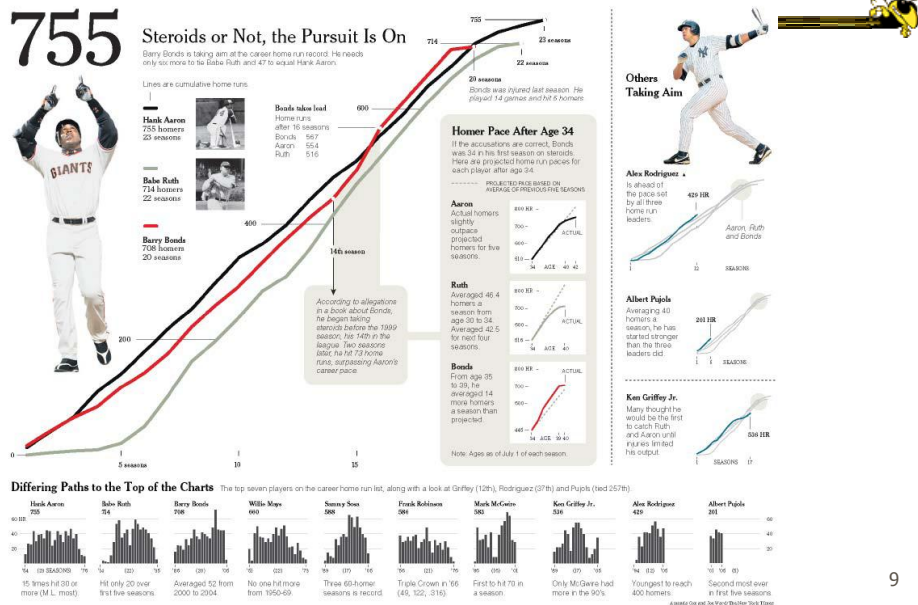
- Discuss

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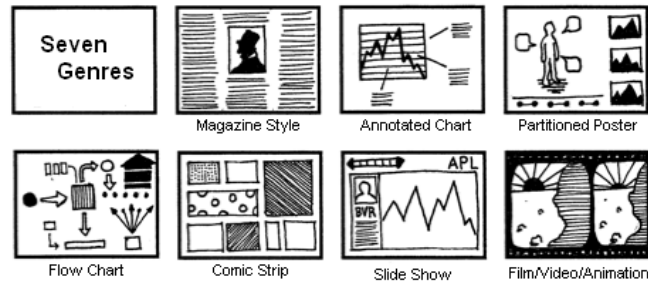
Case Studies



Design Space

- Genre
- Visual Narrative
 - Visual structuring
 - Highlighting
 - Transition Guidance
- Narrative Structure
 - Ordering
 - Interactivity
 - Messaging

Genres



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Observations



- Clusters of different ordering structures
- Consistency of interaction design
- Under-utilization of narrative messaging

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Approach



- Author-driven vs. reader-driven
- Common patterns
 - Martini glass
 - Interactive slideshow
 - Drill-down story

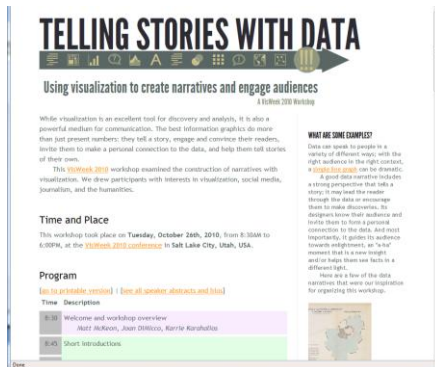
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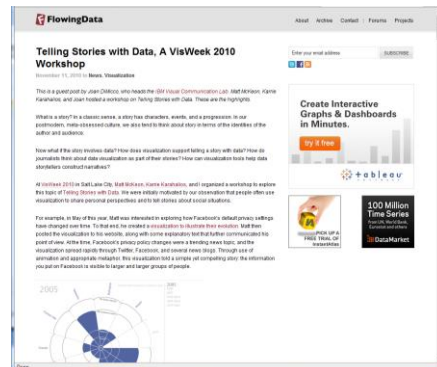
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A Hot Topic

VisWeek 2010 Workshop
Reprised again this fall



<http://thevcl.com/storytelling/>



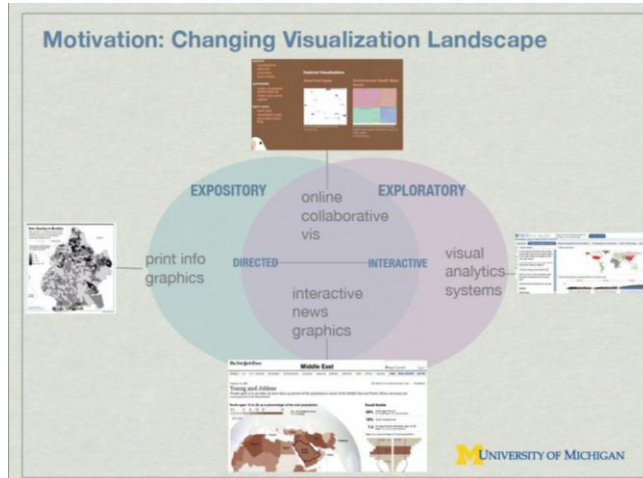
<http://flowingdata.com/2010/11/11/telling-stories-with-data-a-visweek-2010-workshop/>

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Narratology



Interesting talk
at workshop

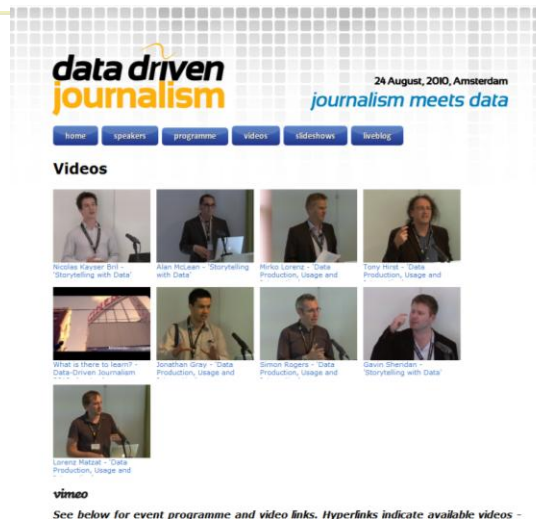
Jessica Hullman
Univ. Michigan

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Journalism Angle

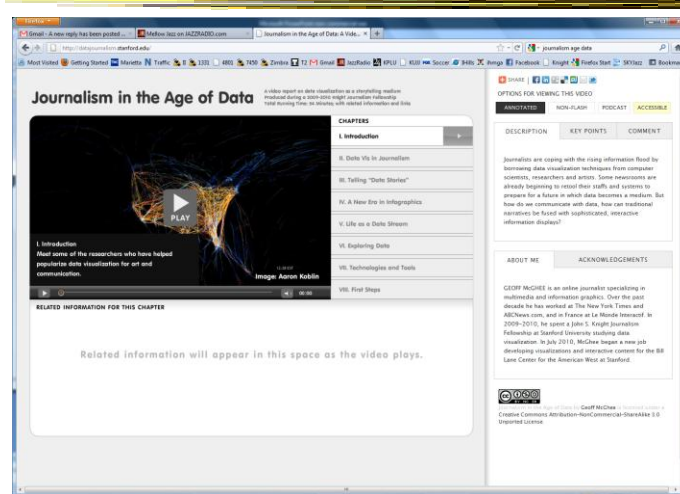


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Journalism in the Age of Data



<http://datajournalism.stanford.edu/>

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Some Examples



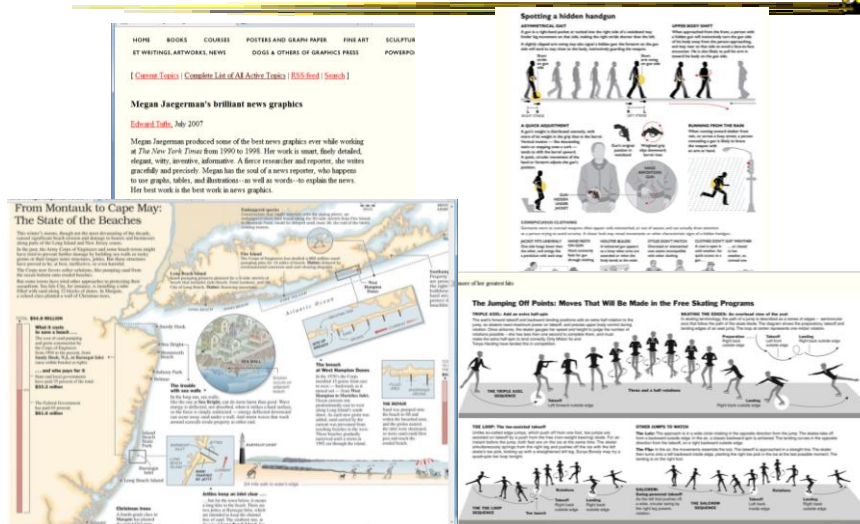
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News Stories

Tufte praises the work of Megan Jaegerman at NY Times



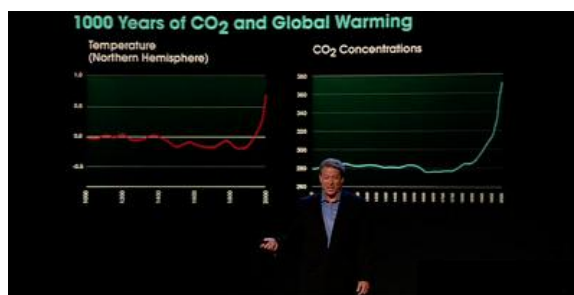
http://www.edwardtufte.com/bboard/q-and-a-fetch-msg?msg_id=0002w4

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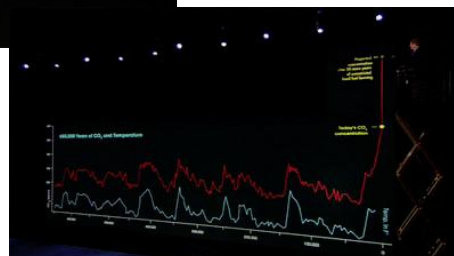
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An Inconvenient Truth



Gore made extensive use of data graphics

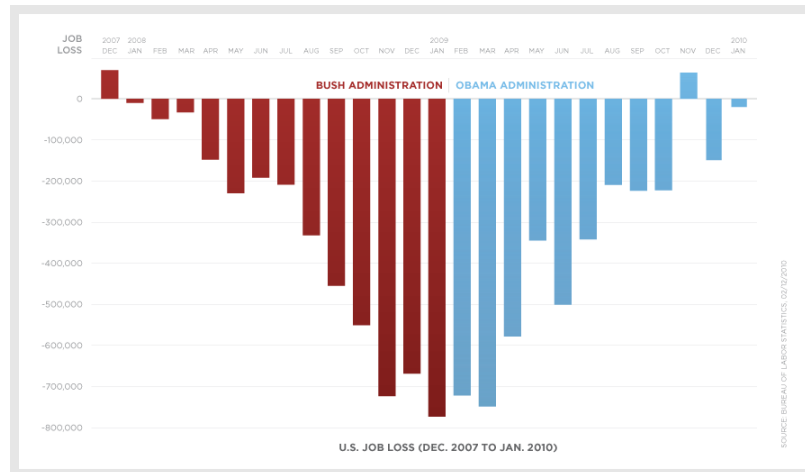


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Job Losses



Controversial, see <http://soquelbythecreek.blogspot.com/2010/02/what-does-obama-job-chart-really-mean.html>

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<http://www.nytimes.com/interactive/2010/06/29/magazine/rivera-pitches.html?ref=multimedia>

Mariano Rivera



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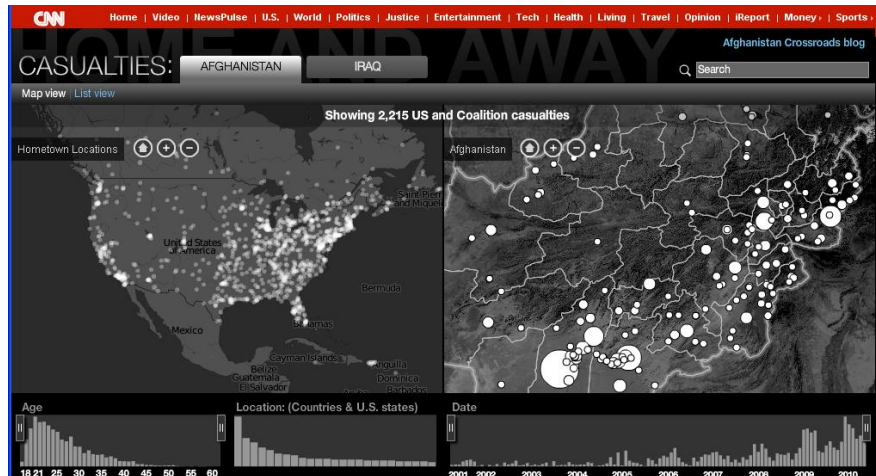
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<http://www.cnn.com/homeandaway>

Casualties of War



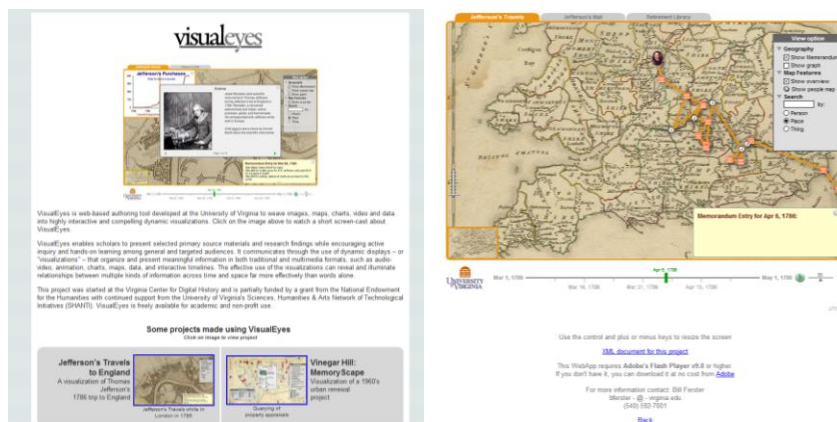
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VisualEyes

<http://www.viseyes.org>



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The President Going Interactive

2011 State of Union Address

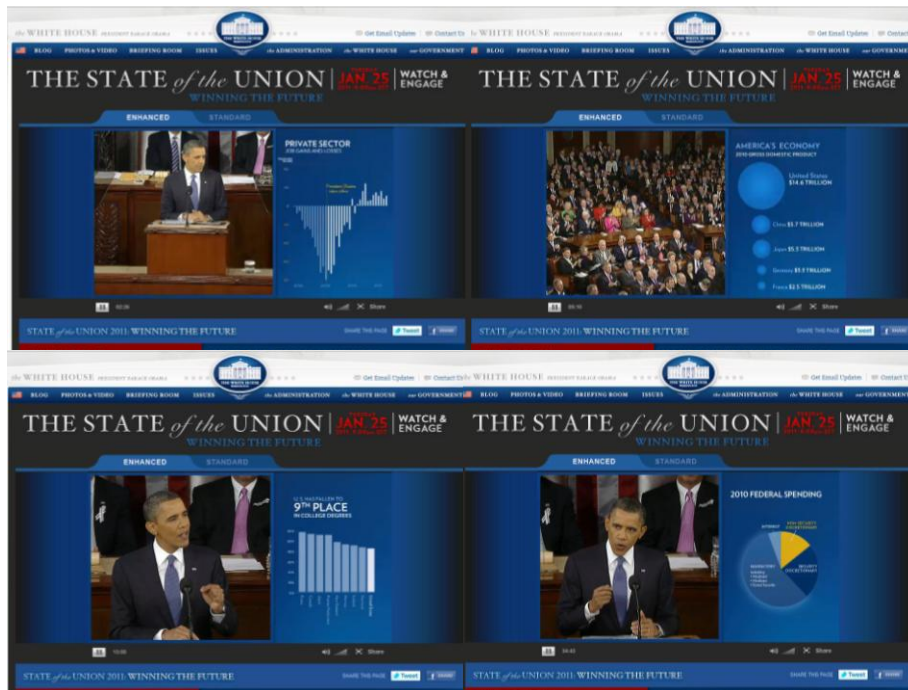


Side channel
data visualizations
accompanied speech

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Data Matters



David
McCandless

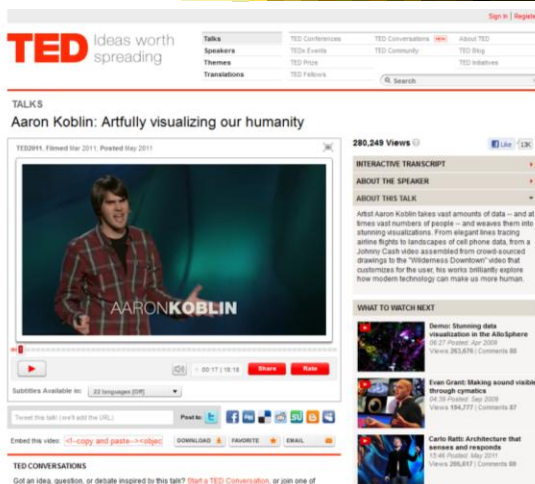
http://www.ted.com/talks/david_mccandless_the_beauty_of_data_visualization.html

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More Visualization Stories



Aaron
Koblin

http://www.ted.com/talks/aaron_koblin.html

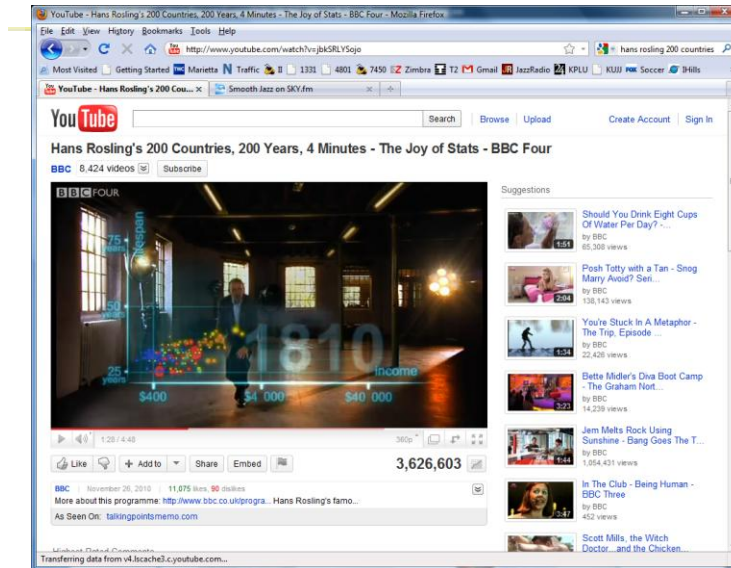
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<http://www.youtube.com/watch?v=jbkSRLYSojo>

Back to Where We Started



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Questions

- How do these types of visualizations differ from "traditional" infovis?

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Questions



- Would you characterize these as information visualizations?
 - Consider some of the different examples

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HW 3



- Analysis and Visual Design
 - Three datasets, choose one
 - Construct three analytic queries
 - Design visualization (sketch)
- Due Tues Sep 20

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Project



- Team & topic due next Thursday
- Some topic ideas...

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Upcoming



- Multivariate Visual Representations 1
 - Reading:
Inselberg '97
- Multivariate Visual Representations 2
 - Reading:
Keim et al '02

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