Topic Notes

Storytelling in InfoVis

CS 7450 - Information Visualization
September 30, 2013
John Stasko

Purpose

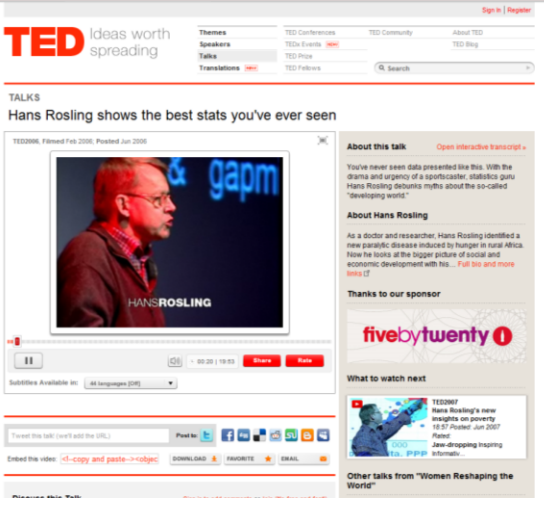
Review

- 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

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

They Had Him Back

2007

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

Discuss

- Why has this had such a big impact?

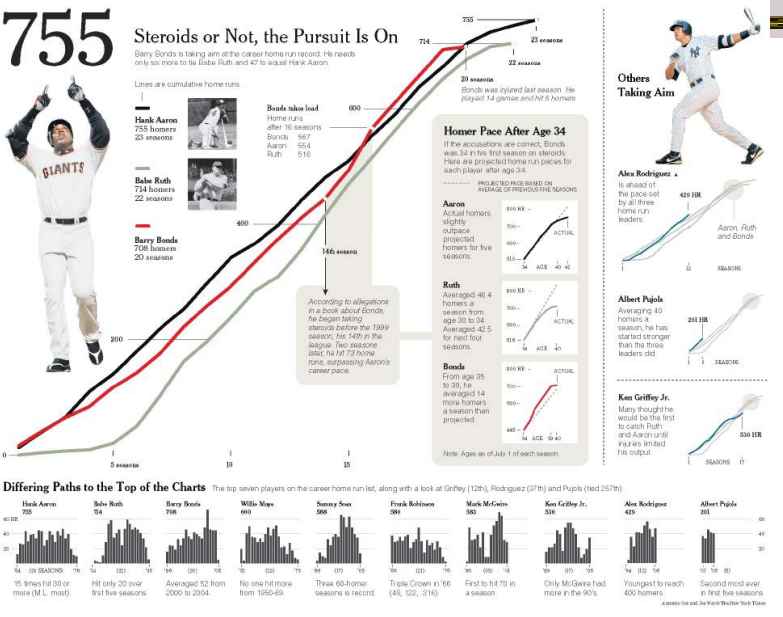
Characterizing the Area

- 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

Case Studies

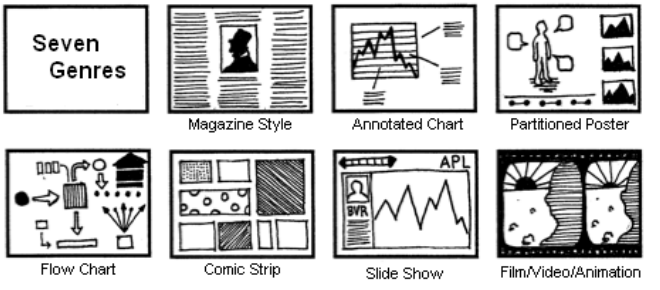
NY Times 2006



Design Space

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

Genres



Observations

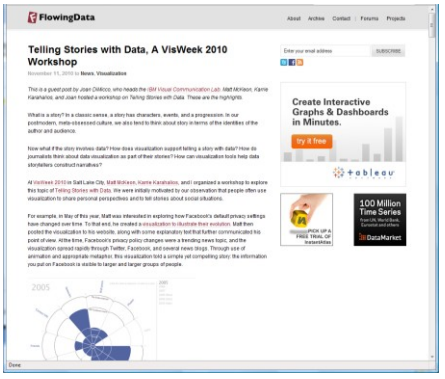
- Clusters of different ordering structures
- Consistency of interaction design
- Under-utilization of narrative messaging

Approach

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

A Hot Topic

VisWeek 2010 Workshop
Reprised again this fall

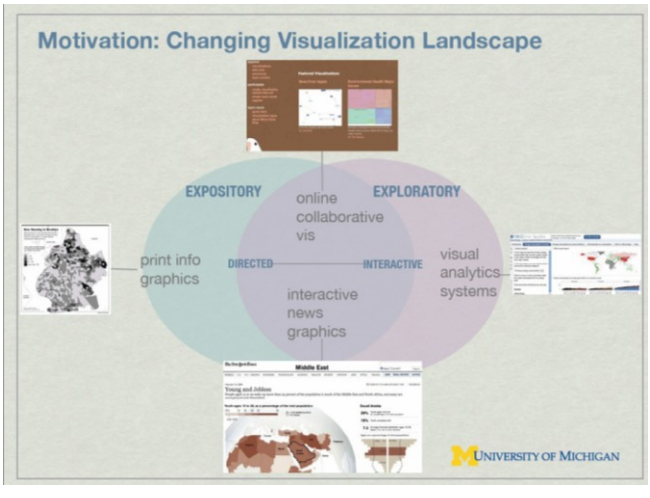


http://thevcl.com/storytelling/

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

http://thevcl.com/storytelling/docs/jessica_hullman.pdf

Narratology

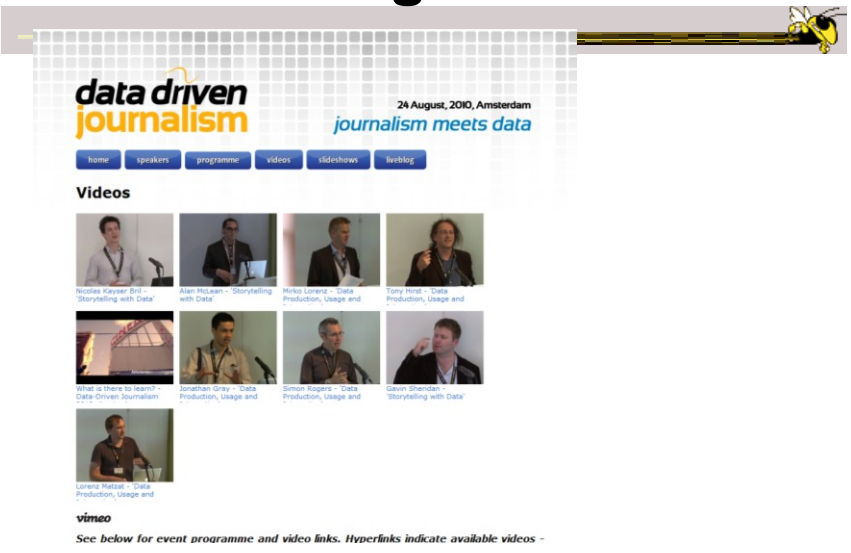


Interesting talk at workshop

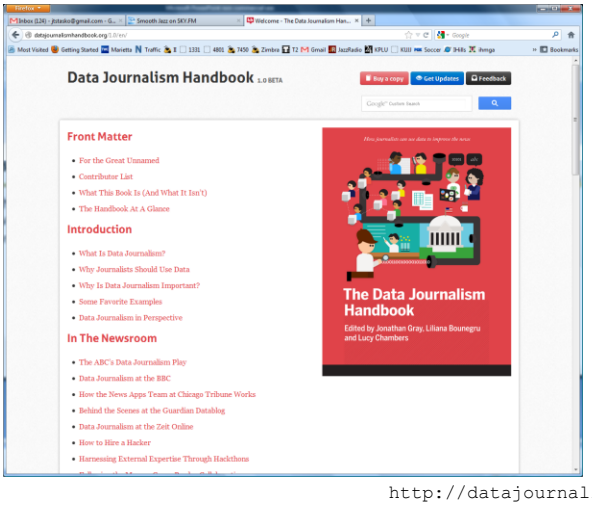
Jessica Hullman
Univ. Michigan

http://datadrivenjournalism.net

Journalism Angle

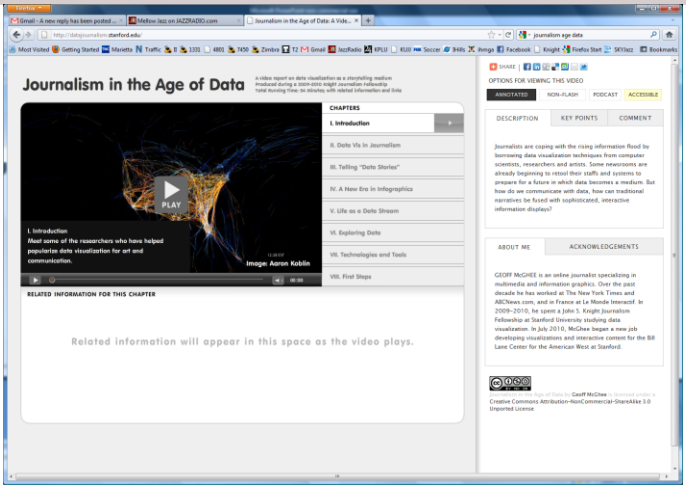


Data Journalism Handbook



http://datajournalismhandbook.org/1.0/en/

Journalism in the Age of Data



http://datajournalism.stanford.edu/

Some Examples

News Stories

Tufte praises the work of Megan Jaegerman at NY Times

HOME BOOKS COURSES POSTERS AND GRAPH PAPER FINE ART SCULPTUR
ET WRITINGS, ARTWORKS, NEWS DOGS & OTHERS OF GRAPHICS PRESS POWERPO

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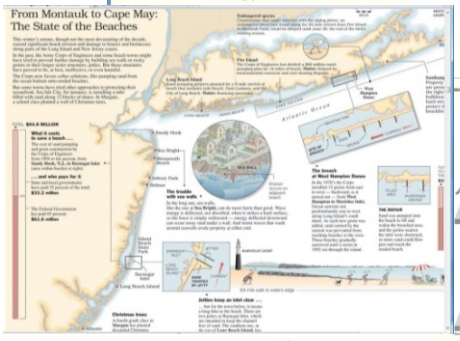
Megan Jaegerman's brilliant news graphics

Edward Tufte, July 2007

Megan Jaegerman produced some of the best news graphics ever while working at *The New York Times* from 1990 to 1998. Her work is smart, finely detailed, elegant, witty, inventive, informative. A fierce researcher and reporter, she writes gracefully and precisely. Megan has the soul of a news reporter, who happens to use graphs, tables, and illustrations—as well as words—to explain the news. Her best work is the best work in news graphics.

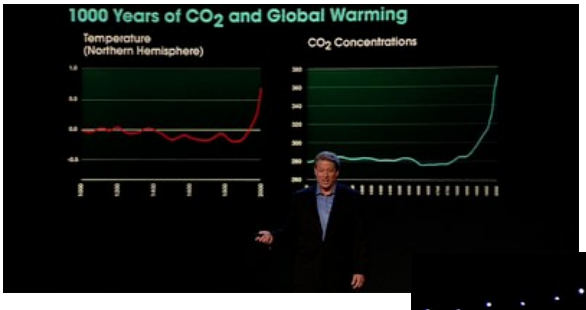
Spotting a hidden handgun


From Montauk to Cape May: The State of the Beaches

The Jumping Off Points: Moves That Will Be Made in the Free Skating Programs

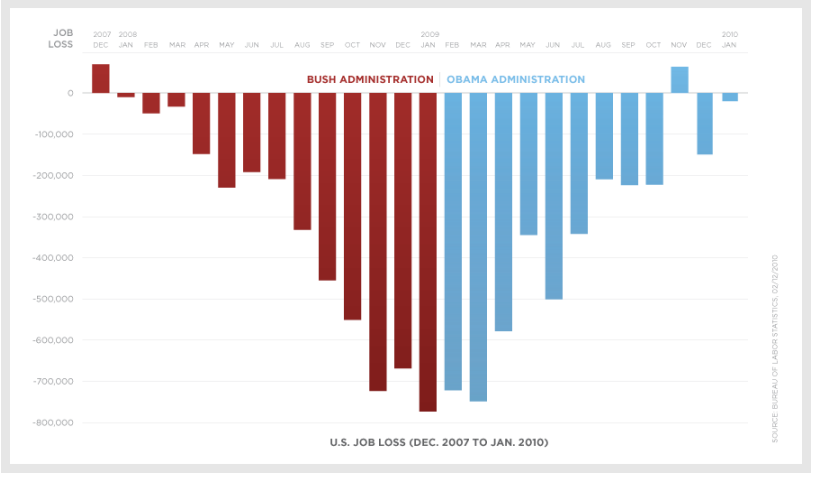
http://www.edwardtufte.com/bboard/q-and-a-fetch-msg?msg_id=0002w4

An Inconvenient Truth



Gore made extensive use of data graphics

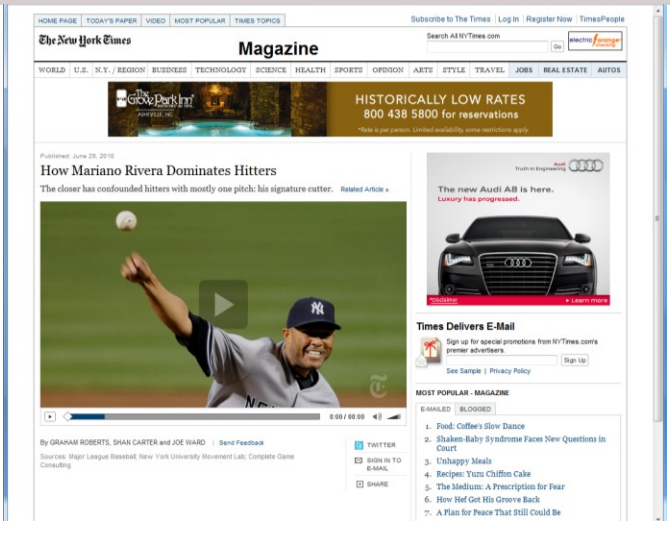
Job Losses



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

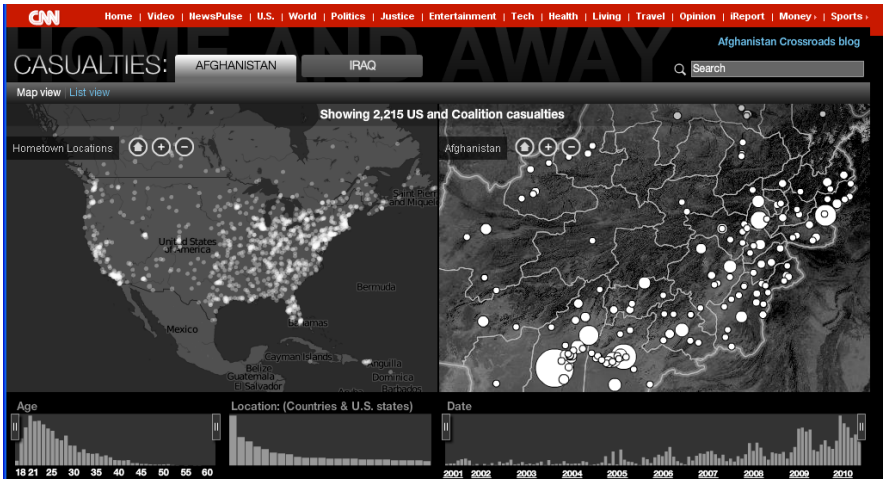
http://www.nytimes.com/interactive/2010/06/29/magazine/rivera-pitches.html?ref=multimedia

Mariano Rivera



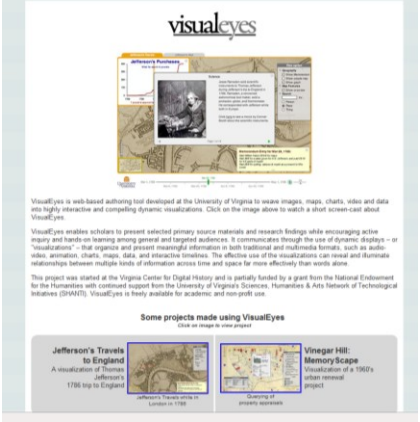
http://www.cnn.com/homeandaway

Casualties of War



VisualEyes

http://www.viseyes.org



The President Going Interactive

2011 State of Union Address

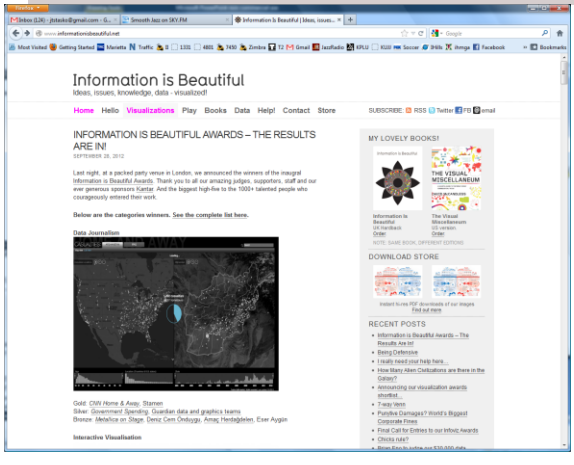
Side channel data visualizations accompanied speech

Data Matters

David McCandless

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

McCandless Website



http://www.informationisbeautiful.net/

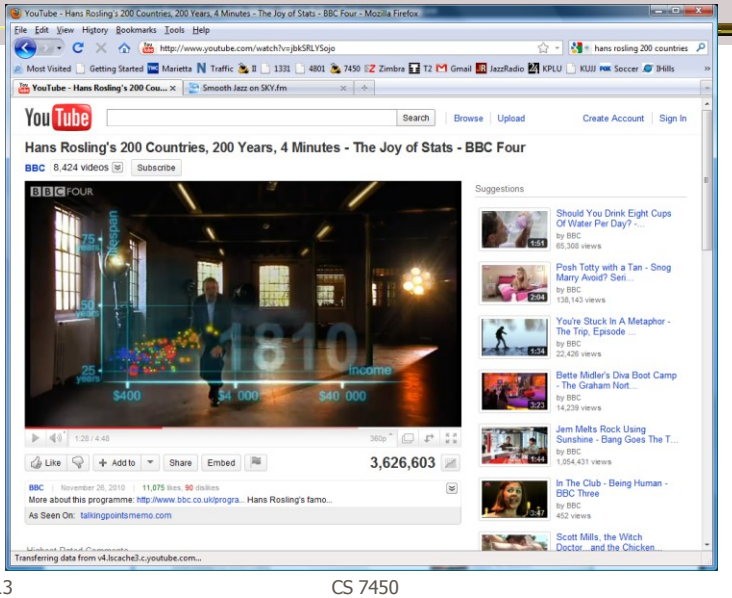
More Visualization Stories

Aaron Koblin

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

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

Back to Where We Started



Questions

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

Questions

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

HW 5

- Commercial systems review
  - Any questions?
- Due next Weds Oct 9

Upcoming

- Tufte's design principles
- Poster session