Storytelling in InfoVis

CS 7450 - Information Visualization
October 3, 2012
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

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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?

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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

Thoughts?

- Discuss

Case Studies
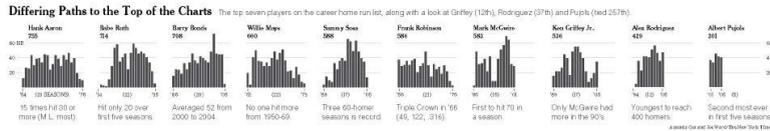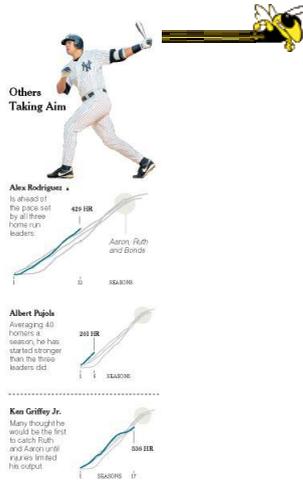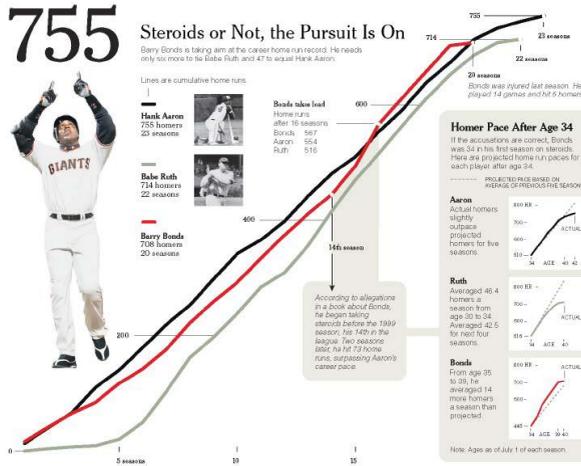
Design Space

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

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Genres

Seven Genres | Magazine Style | Annotated Chart | Partitioned Poster
Flow Chart | Comic Strip | Slide Show | Film/Video/Animation
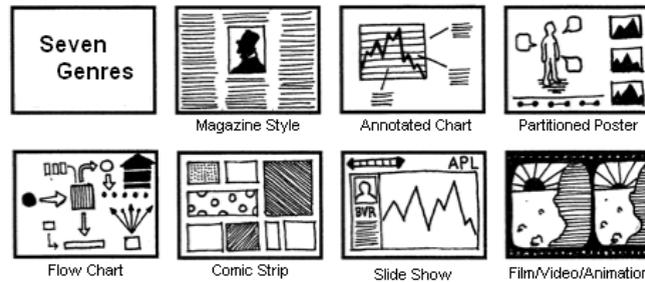
Observations

- 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/

Narratology

Interesting talk
at workshop

Jessica Hullman
Univ. Michigan

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Journalism Angle

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Data Journalism Handbook

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

Journalism in the Age of Data

http://datajournalism.stanford.edu/
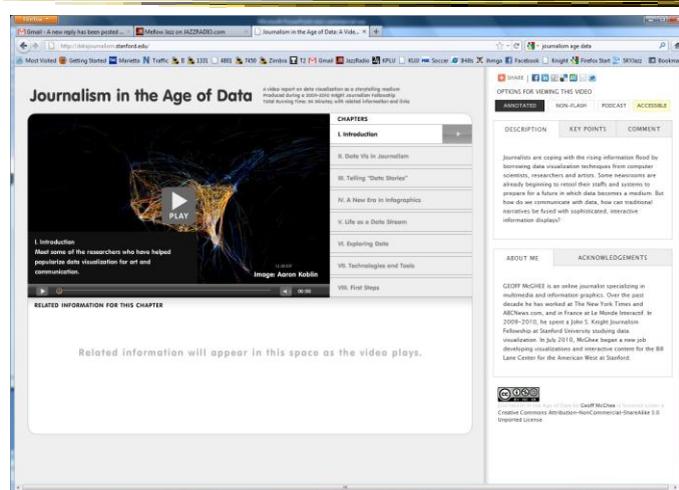
Some Examples

News Stories

Tufte praises the work of
Megan Jaegerman at NY Times

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

An Inconvenient Truth
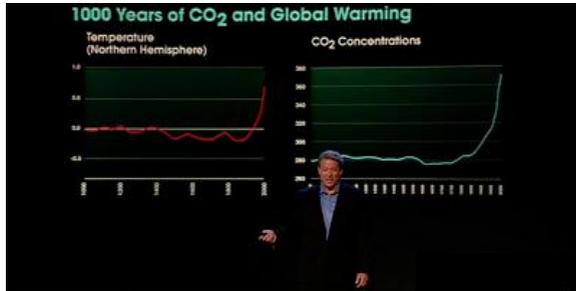
Gore made extensive use
of data graphics
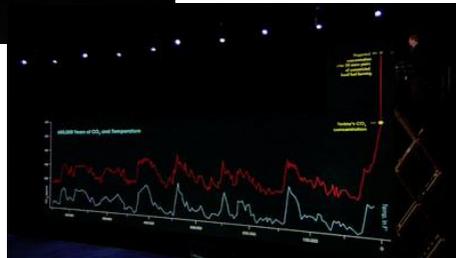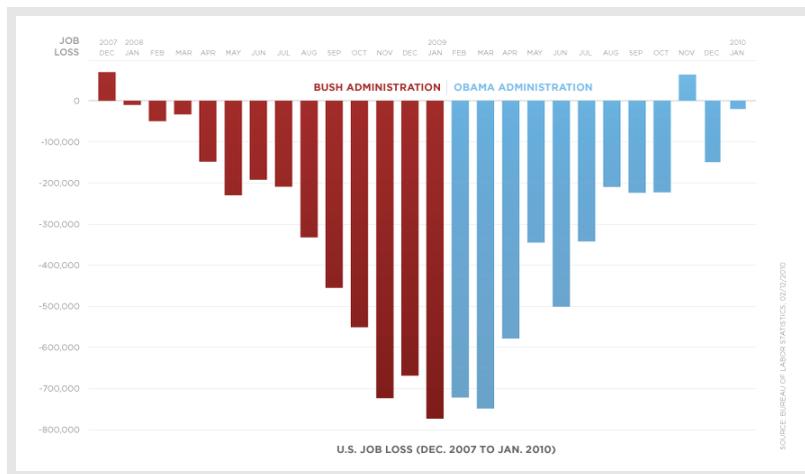
Job Losses

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

Mariano Rivera

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Casualties of War

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VisualEyes
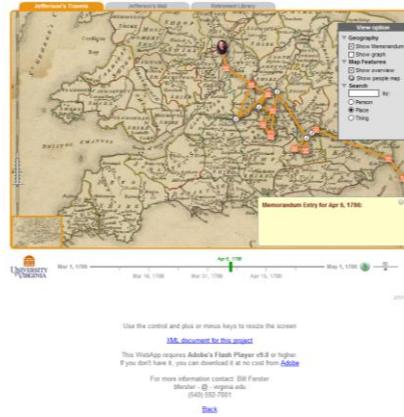
The President
Going Interactive

2011 State of Union Address

Side channel
data visualizations
accompanied speech
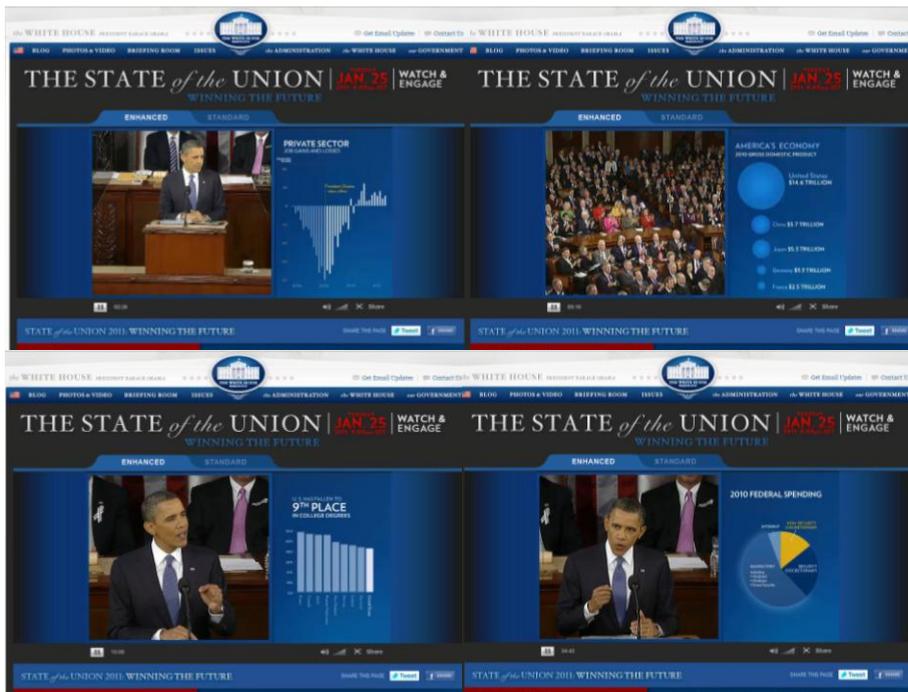
Data Matters

David
McCandless

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

McCandless Website

http://www.informationisbeautiful.net/
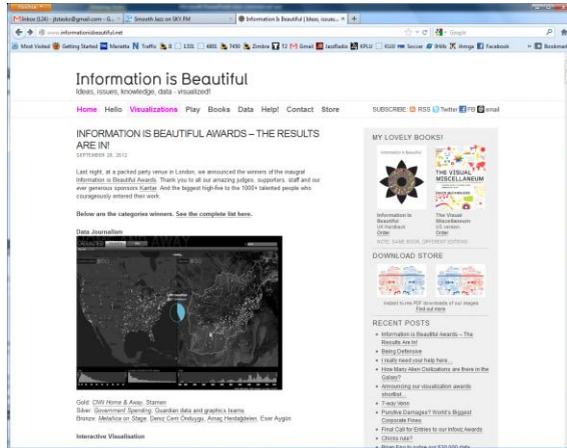
More Visualization Stories

Aaron
Koblin

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

Back to Where We Started
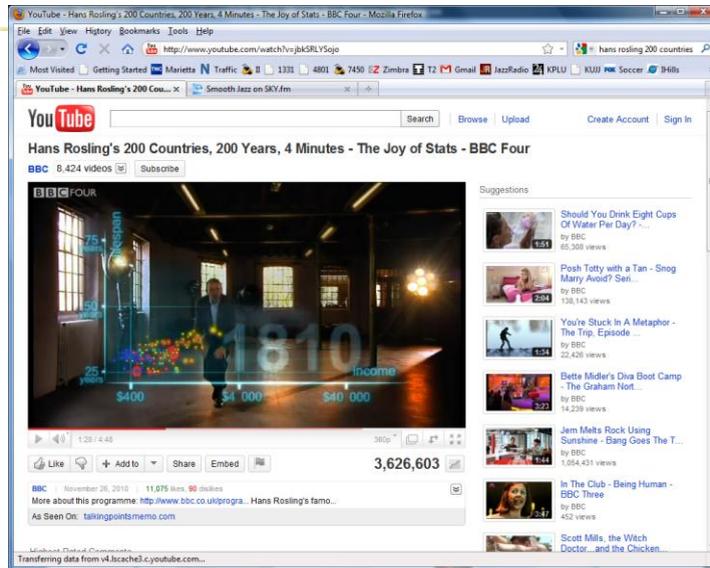
Questions

- 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

HW 5

- Commercial systems review
  - Any questions?
- Due next Weds Oct 10

Upcoming

- Guest speakers

- Overview and Detail
  - Reading:
    Bederson et al '04