

Storytelling in InfoVis



CS 7450 - Information Visualization
Feb. 10, 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



A screenshot of a TED talk page. The title is "Hans Rosling shows the best stats you've ever seen". The video player shows a man (Hans Rosling) speaking. The page includes navigation links like "Themes", "Speakers", and "Translations". There is also a "What to watch next" section with a thumbnail for another talk.

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. At the top, there's a navigation bar with the TED logo and the tagline "Ideas worth spreading". Below that, there's a search bar and a menu with options like "TED Conferences", "TED Events", "TED Fellows", "TED Community", and "About TED". The main content area features a video player for a talk by Hans Rosling. The video player has a play button and a progress bar. To the right of the video player, there's a section titled "About this talk" with a description of the talk and a link to "Open interactive transcript". Below that, there's a section titled "About Hans Rosling" with a short biography. At the bottom of the page, there's a section titled "Other talks from 'Presentation Innovation'" with a list of other talks.

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 '10

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Thoughts?



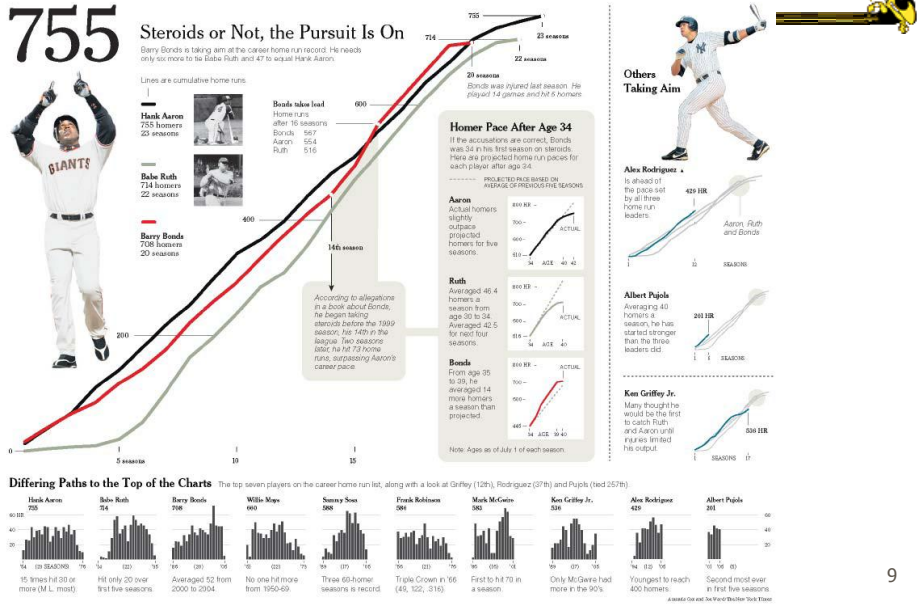
- Discuss

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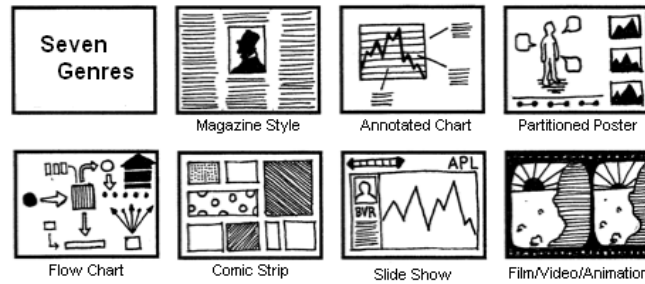
Case Studies



Design Space

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

Genres



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

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A Hot Topic

VisWeek 2010 Workshop



TELLING STORIES WITH DATA
Using visualization to create narratives and engage audiences
A VisWeek 2010 Workshop

While visualization is an excellent tool for discovery and analysis, it is also a powerful medium for communication. The best information graphics do more than just present numbers; they tell a story, engage and connect their readers, and help them make a personal connection to the data, and help them tell stories of their own.

This **VisWeek 2010** workshop examined the construction of narratives with visualization. We drew participants with interests in visualization, social media, journalism, and the humanities.

Time and Place
This workshop took place on **Tuesday, October 26th, 2010**, from 8:30AM to 6:00PM, at the **VisWeek 2010 conference** in Salt Lake City, Utah, USA.

Program
[Go to workshop agenda](#) | [List all available abstracts and titles](#)

Time	Description
8:30	Welcome and workshop overview Matt Jackson, Juan Delleo, Martin Karahalla
8:45	Short introductions

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

FlowingData
Telling Stories with Data, A VisWeek 2010 Workshop
November 11-12 in News, Visualization

This is a guest post by Juan Delleo, who heads the IBM Visual Communication Lab, Matt Jackson, Martin Karahalla, and Juan hosted a workshop on Telling Stories with Data. These are the highlights.

What is a story? In a classic sense, a story has characters, events, and a progression to our audience. With data visualization, we also benefit from about story in terms of the audience of the author and audience.

How can the story involve data? How does visualization support telling a story with data? How do you make the most data visualization to get the most impact? How can visualization help you tell your story? How can you tell your story?

At VisWeek 2010 in Salt Lake City, Matt Jackson, Juan Delleo, and I organized a workshop to explore the use of Telling Stories with Data. We were excited to have so many people attend and see visualization to share personal perspectives about tell stories about social situations.

For example, in the first year, Matt was interested in exploring how Facebook's default privacy settings have changed over time. To this end, we created a visualization to explore this scenario. Matt then explored the possibility to his website, along with some exploratory tool for communication to point of view. After time, Facebook's privacy policy changes were a leading issue topic, and the visualization opened up through Twitter, Facebook, and several news blogs. Through use of information and appropriate feedback, this visualization had a simple yet compelling story: the information presented on Facebook is accessible to large and larger group of people.

100 Million Time Series
DataMatic

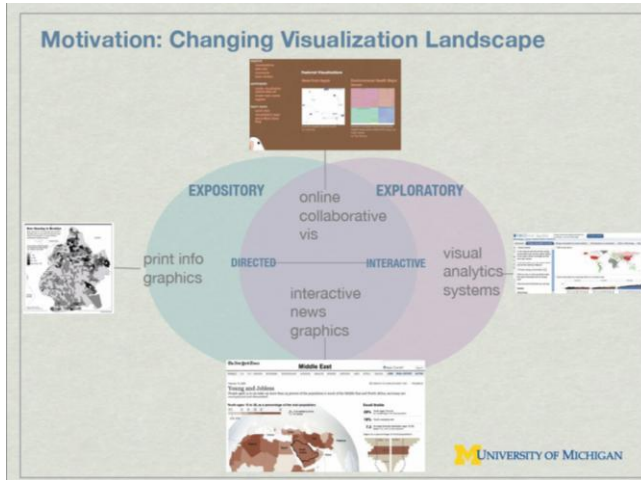
<http://flowingdata.com/2010/11/11/telling-stories-with-data-a-visweek-2010-workshop/>

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Narratology



Interesting talk at workshop

Jessica Hullman
Univ. Michigan

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Journalism Angle



data driven journalism

24 August, 2010, Amsterdam
journalism meets data

home speakers programme videos slideshows liveblog

Videos

Nicolas Kaiser - Ent - Storytelling with Data

Alan Rickman - Storytelling with Data

Peter Lorenz - Data Production, Usage and

Tony Hoag - Data Production, Usage and

What is there to learn Data-Driven Journalism

Josephine Gray - Data Production, Usage and

Simon Rogers - Data Production, Usage and

Gavin Stenhouse - Storytelling with Data

Lorraine Mason - Data Production, Usage and

vimeo

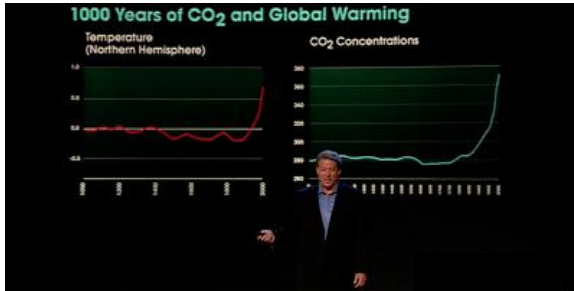
See below for event programme and video links. Hyperlinks indicate available videos -

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An Inconvenient Truth



Gore made extensive use of data graphics

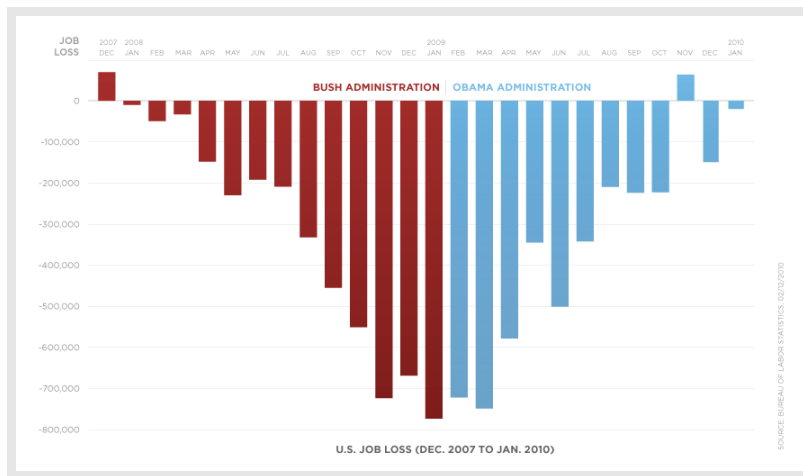


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Job Losses



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

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Mariano Rivera



The screenshot shows the 'Magazine' section of The New York Times website. The main article is titled 'How Mariano Rivera Dominates Hitters' with a sub-headline 'The closer has confounded hitters with mostly one pitch: his signature cutter.' It features a video player showing Rivera in a Yankees uniform throwing a ball. To the right, there are advertisements for Audi and a sign-up for 'Times Delivers E-Mail'. Below the article, there is a 'MOST POPULAR - MAGAZINE' list.

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Casualties of War



The screenshot shows the 'Casualties of War' interactive map on CNN. It features a map of the United States and Afghanistan with casualty locations marked by white dots of varying sizes. Below the map are three bar charts: 'Age' (18-60), 'Location: (Countries & U.S. states)', and 'Date' (2001-2010). The interface includes navigation tabs for 'AFGHANISTAN' and 'IRAQ', a search bar, and a 'Map view / List view' toggle.

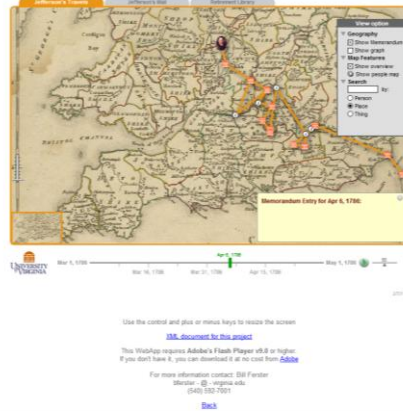
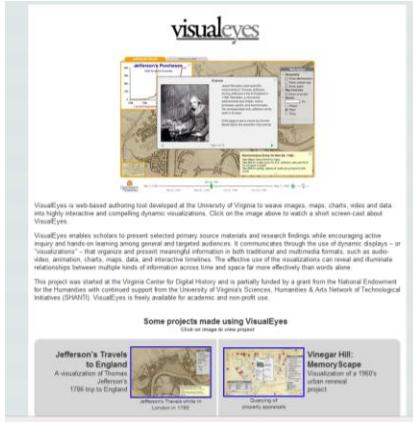
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VisualEyes

http://www.viseyes.org



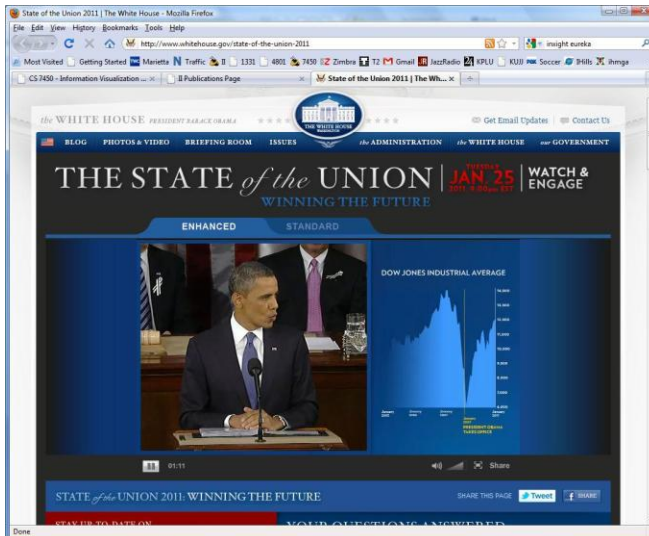
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The President Going Interactive

2011 State of Union Address

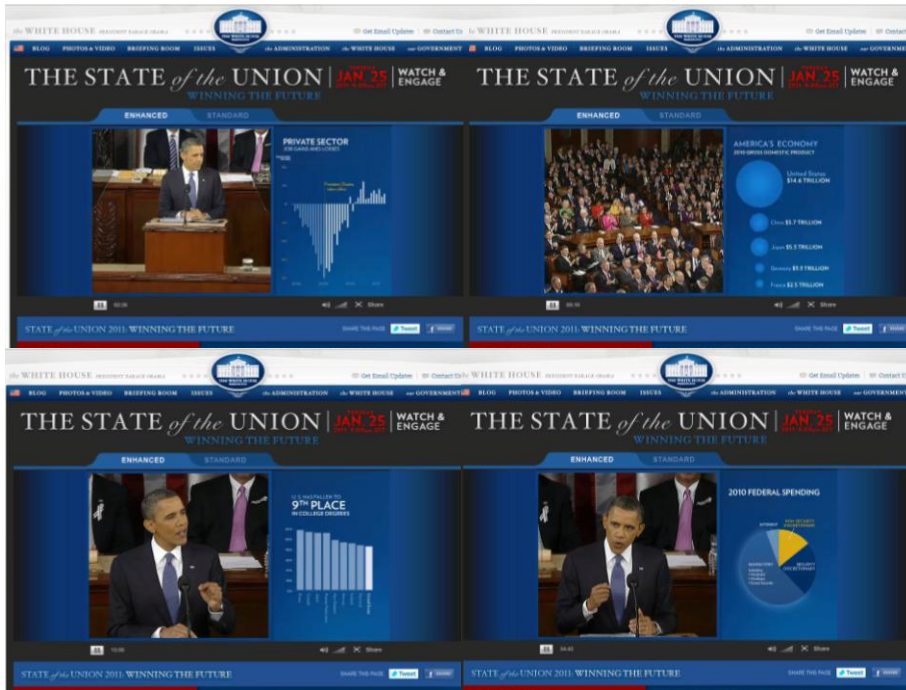


Side channel data visualizations accompanied speech

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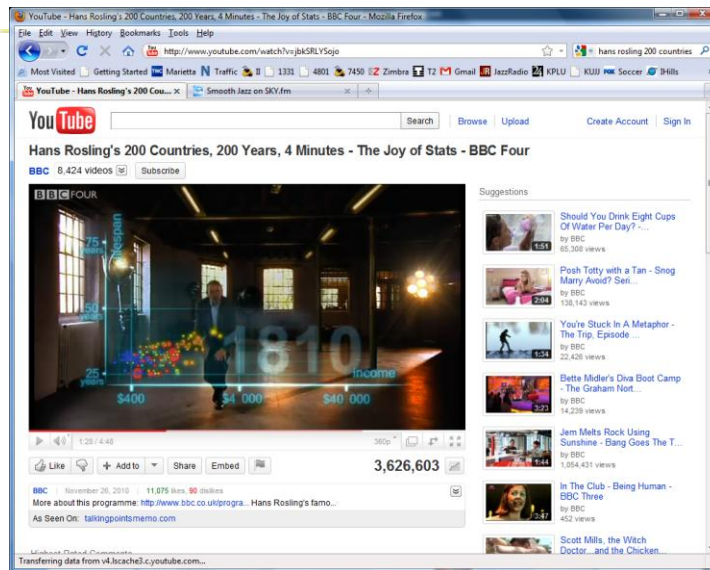
Data Matters



David McCandless

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

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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Administratia



- HW 4 due Tuesday
 - Answers with pictures plus short critique of Many Eyes

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Upcoming



- InfoVis Systems & Toolkits
 - Reading:
 - Ward chapter 14
 - Viegas et al paper
- Commercial InfoVis Systems
 - Reading:
 - Spenske paper