Communicating with Data – Storytelling

Dr. Ab Mosca (they/them)

Plan for Today

- Narrative structures
- Narrative structures in visualization
- Roles of the reader and the author

Storytelling with visualization



Discussion

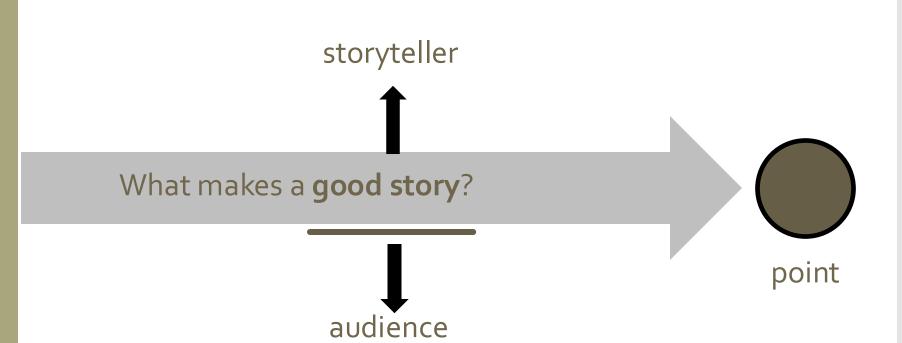


Story teller & Audience





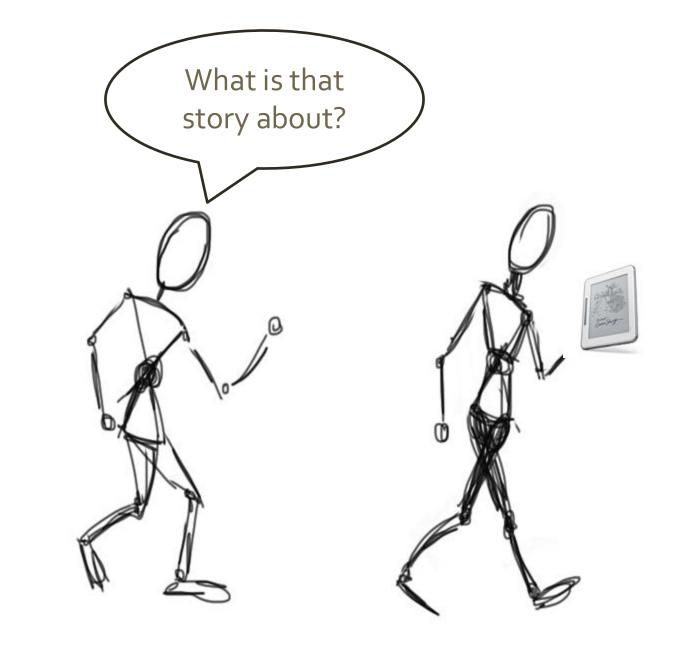
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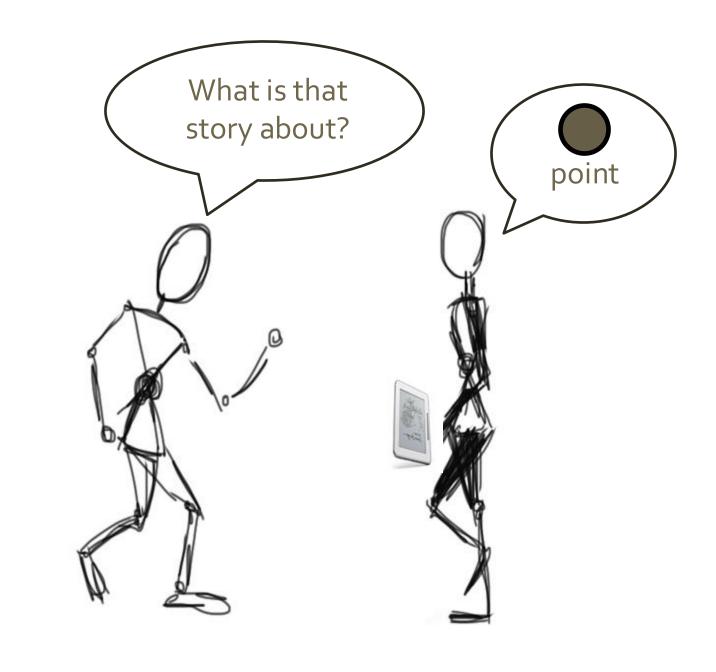


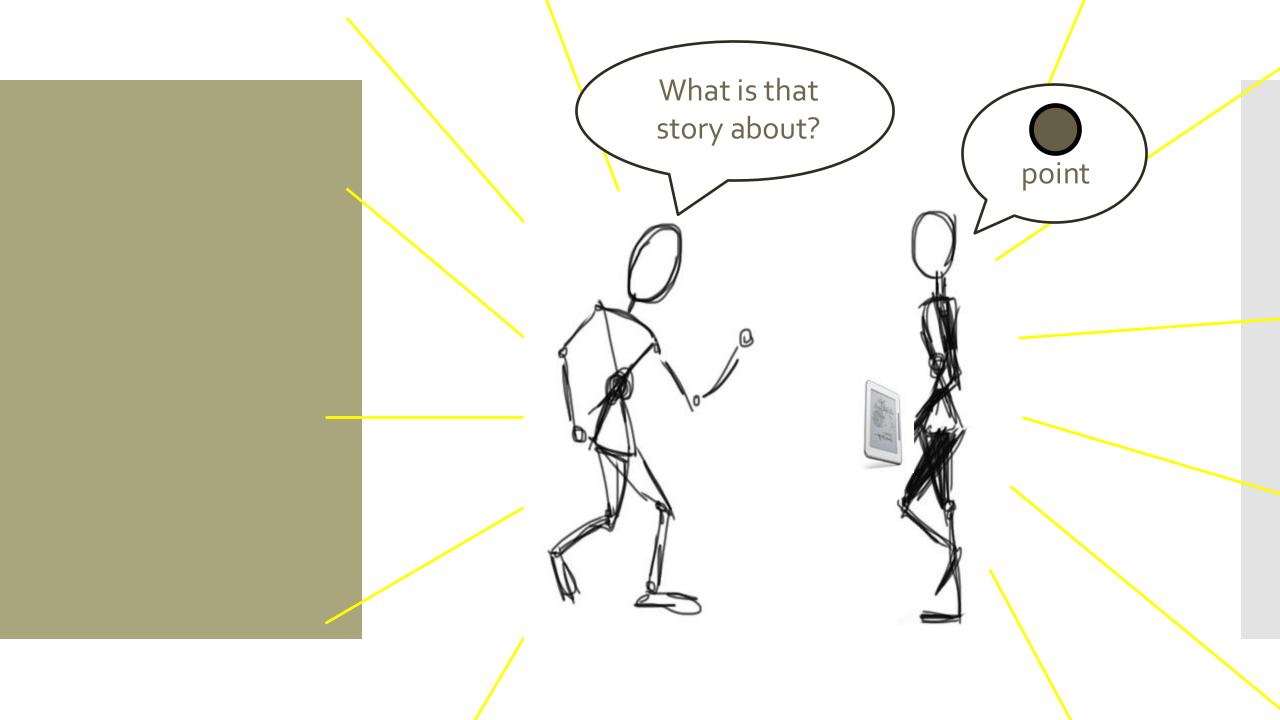




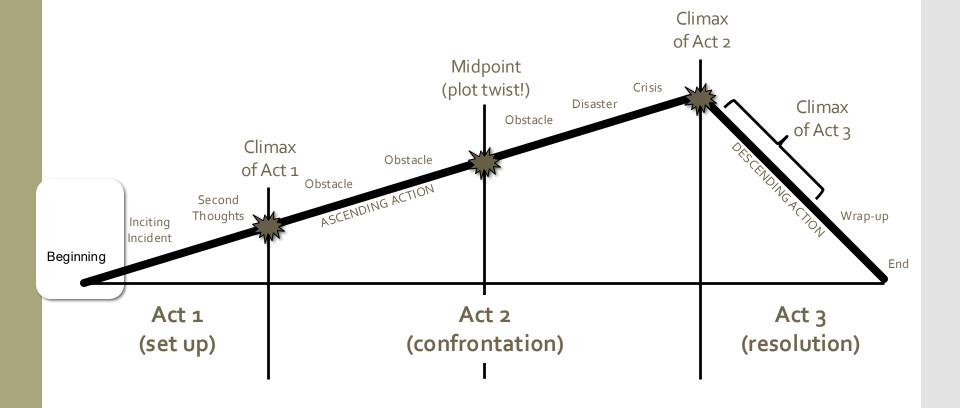






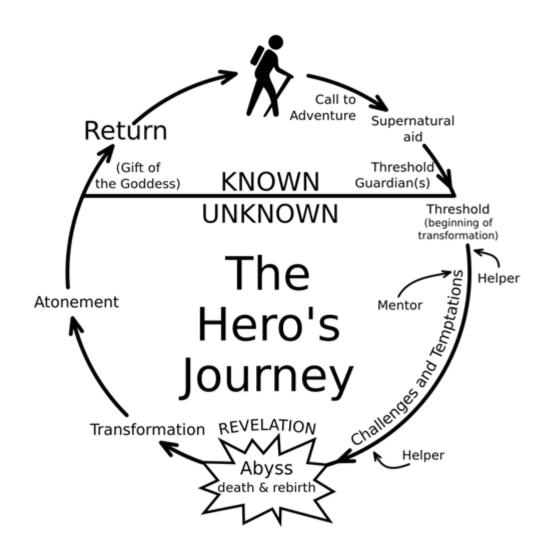


Ways to get to the point

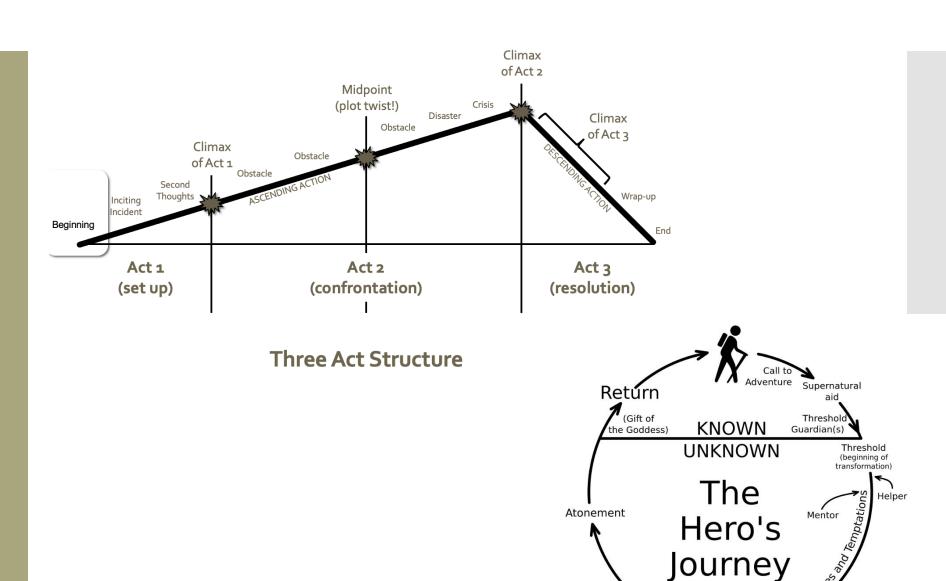


Three Act Structure

Ways to get to the point



What movies use what arc?



Transformation

death & rebirth

And a bunch of other stuff, too...



Doesn't default to an easy solution

Goes beyond the five senses

Inner struggle

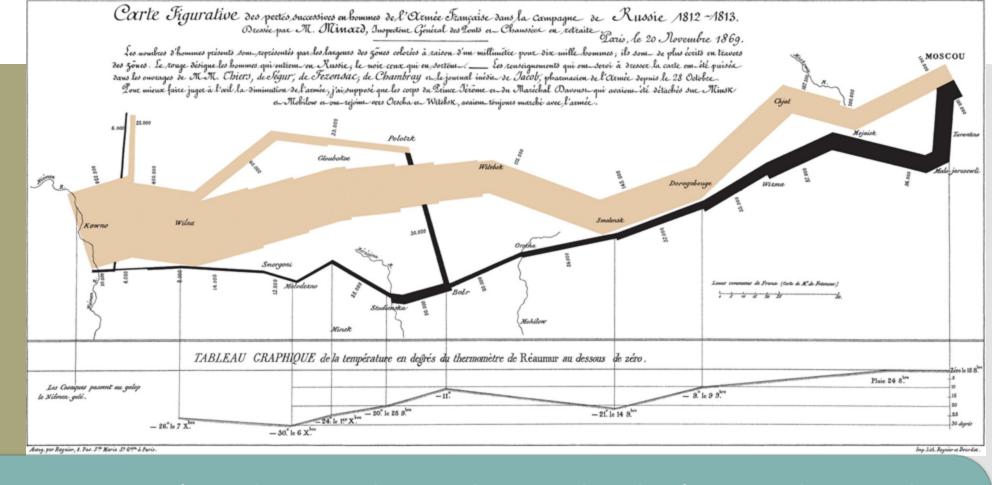
Storytelling with visualization



Discussion

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Napoleon's March

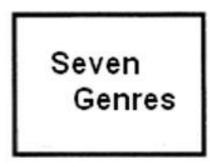


"Probably the best statistical graphic ever drawn, this map by Charles Joseph Minard portrays the losses suffered by Napoleon's army in the Russian campaign of 1812. Beginning at the Polish-Russian border, the thick band shows the size of the army at each position. The path of Napoleon's retreat from Moscow in the bitterly cold winter is depicted by the dark lower band, which is tied to temperature and time scales." - Edward Tufte

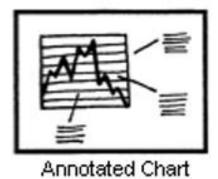
Design Space of Narrative Visualization

- 1. Genre
- 2. Visual Narrative Tactics
- 3. Narrative Structure

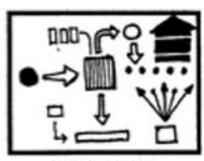
Genre

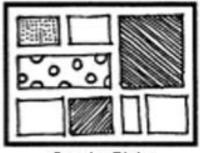


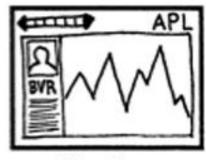














Flow Chart

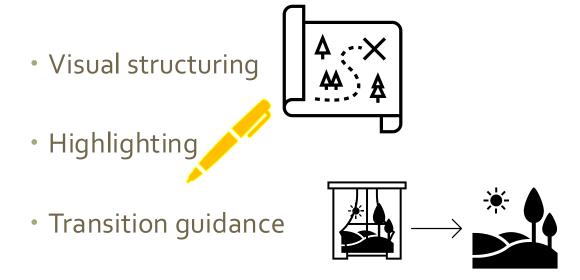
Comic Strip

Slide Show

Film/Video/Animation

Visual Narrative Tactics

Visual devices that assist and facilitate the narrative



Narrative Structure

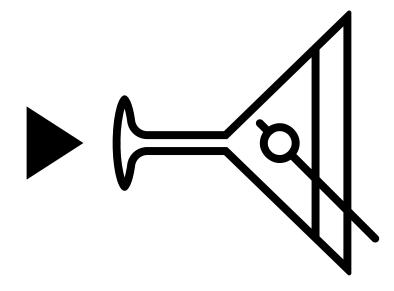
Author Driven

Reader Driven

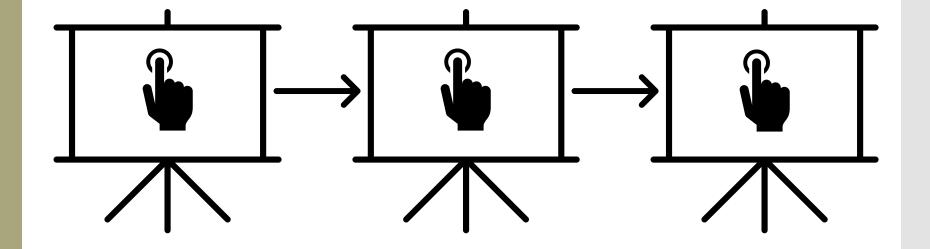
- Linear ordering of scenes
- Heavy messaging
- No interactivity

- No prescribed ordering
 - No messaging
 - Free interactivity

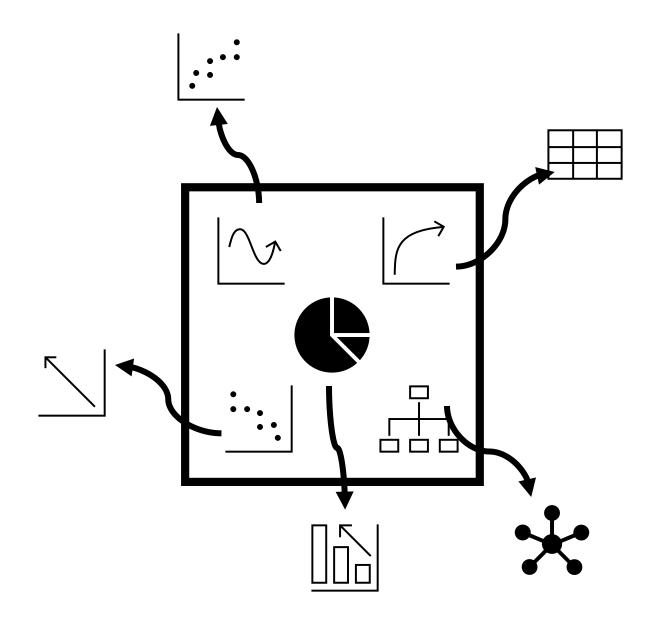
Narrative Structure: Martini Glass



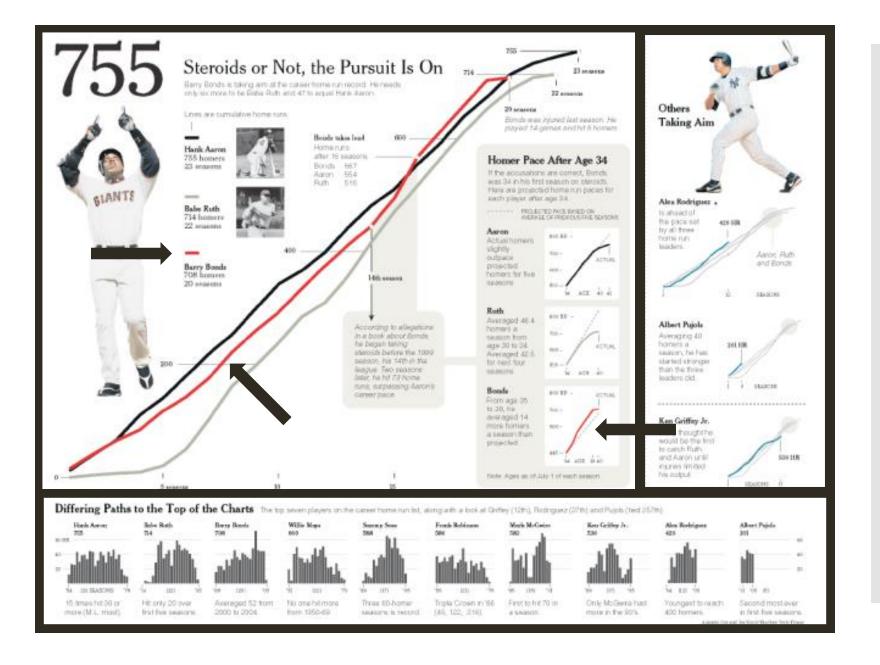
Narrative Structure: Interactive Slide Show



Narrative Structure: Drill-Down Story



Example: Baseball (static)



Example:
Wealth
inequality in
the US
(animated)



https://youtu.be/QPKKQnijnsM?si=j_hPOOslxFGkNgHM

Example:
Wealth
inequality in
the US
(interactive)



https://www.npr.org/sections/money/2015/02/11/384988128/the-fall-and-rise-of-u-s-inequality-in-2-graphs

Practice

- Work in small groups or pairs
- Pick a topic of interest to you
- Sketch 3 possible narrative visualizations for your topic
 - One should be primary author-driven
 - One should be primarily reader-driven
 - And the last should be somewhere between