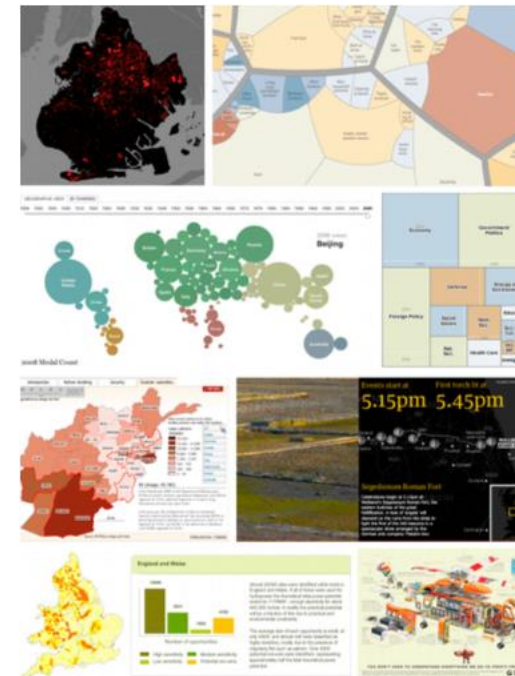


# VISUAL STORYTELLING

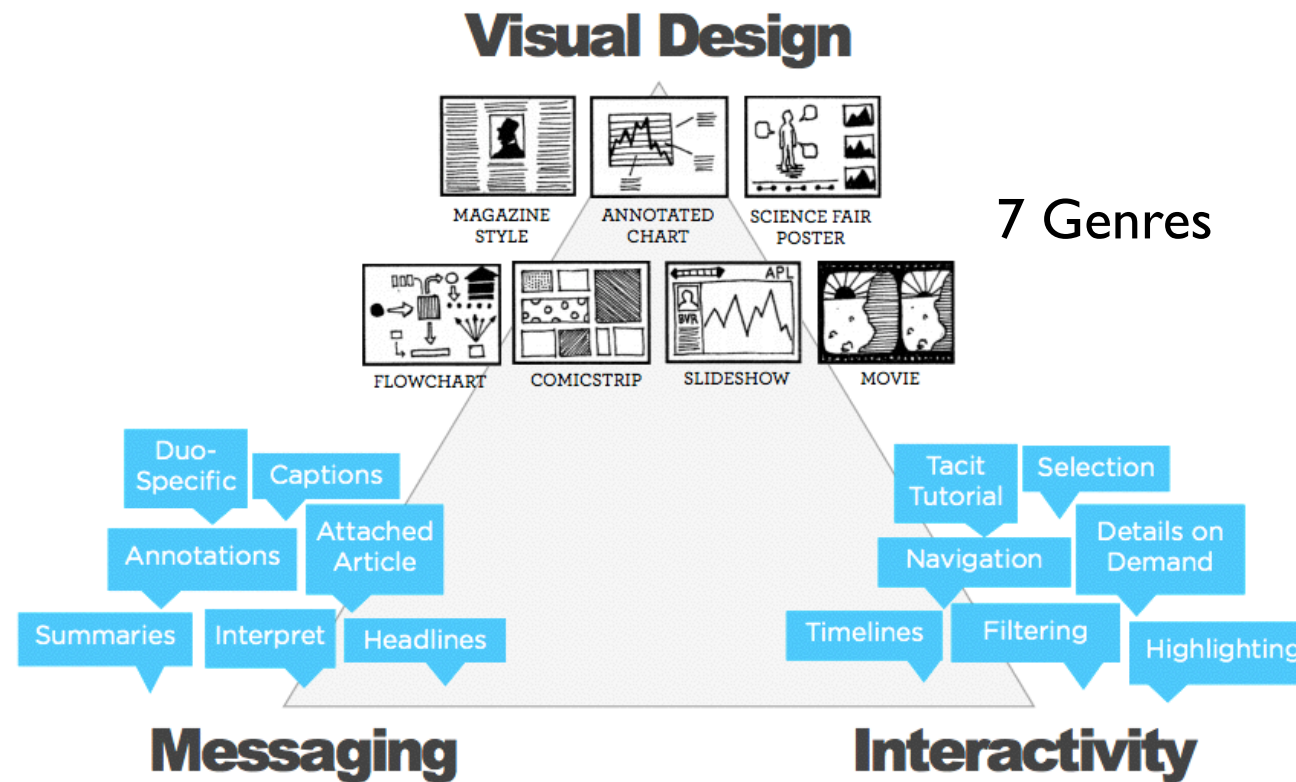
S. Rinzivillo – [rinzivillo@isti.cnr.it](mailto:rinzivillo@isti.cnr.it)

Adapted from “Narrative Visualization: Telling Stories with Data”  
E. Segel and J Heer (DOI:10.1109/TVCG.2010.179)

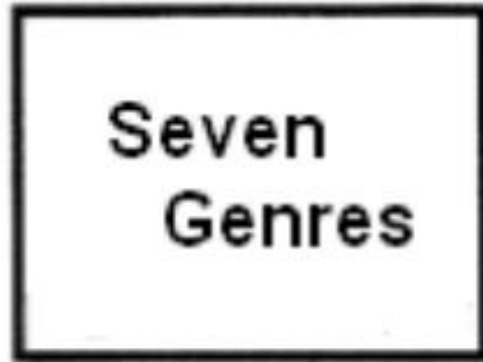
- 58 Case Studies
  - 70% Journalism
  - 20% Business
  - 10% Research



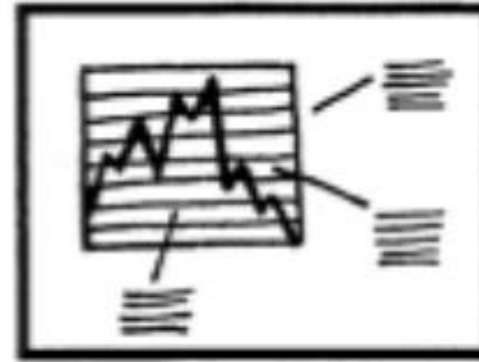
# DESIGN SPACE



# GENRES



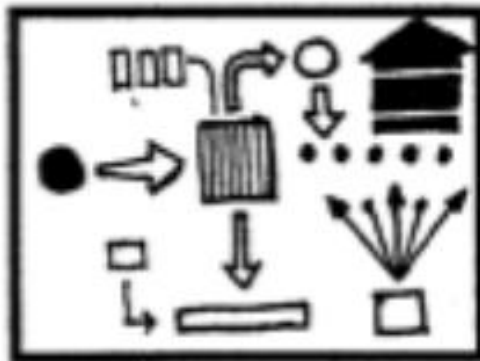
Magazine Style



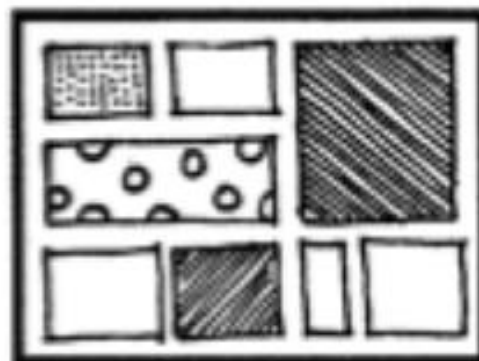
Annotated Chart



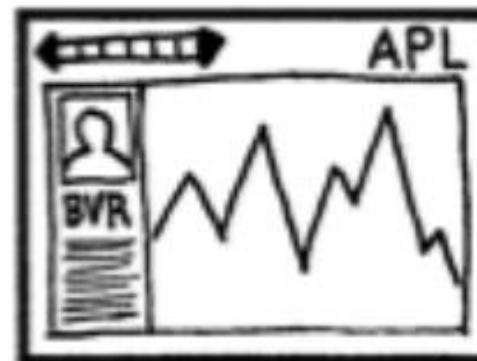
Partitioned Poster



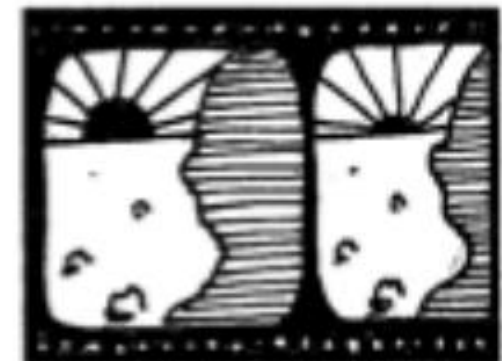
Flow Chart



Comic Strip



Slide Show



Film/Video/Animation

# GENRES + INTERACTIVITY + MESSAGING

| STORYTELLING | Author Driven         | Reader Driven      | ASK QUESTIONS |
|--------------|-----------------------|--------------------|---------------|
| CLARITY      | strong ordering       | weak ordering      | EXPLORE       |
| SPEED        | heavy messaging       | light messaging    | FIND          |
|              | limited interactivity | free interactivity |               |



martini  
glass



interactive  
slideshow

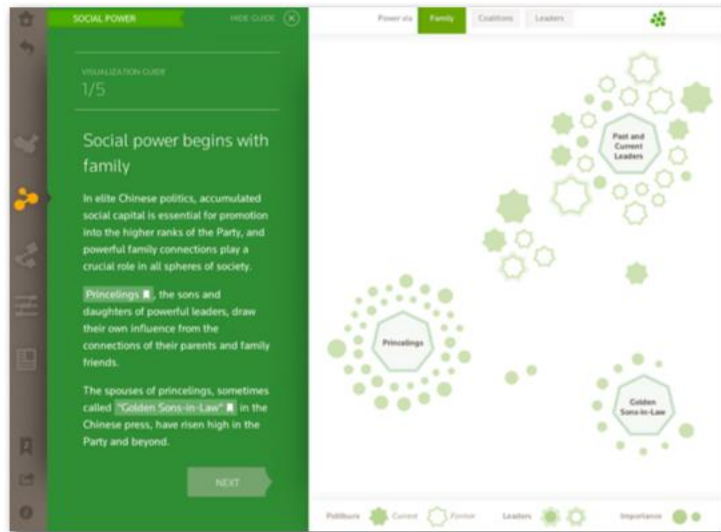


drill-down  
story

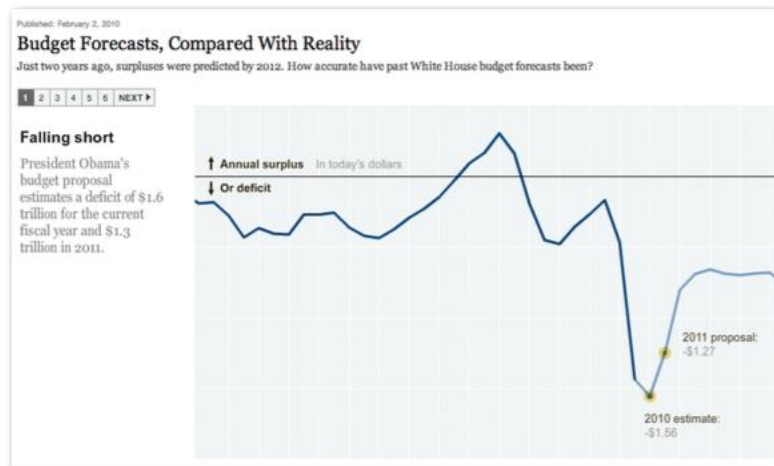
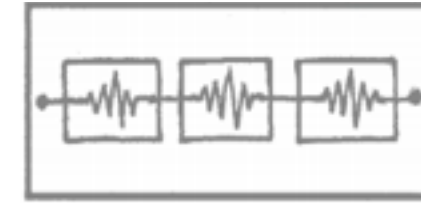
# MARTINI GLASS APPROACH



- Strongly Author-driven
  - First author narrative
  - Then reader may explore
- Different levels
  - Authoring
  - Short or long stem
  - Wide or narrow reader exploration



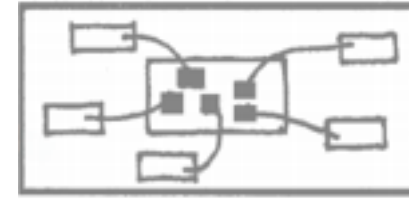
# INTERACTIVE SLIDESHOW



- Slideshow with mid-narrative interactions confined in each slide
- A single slide may be organized as a Martini Glass style
- Efficient for complex data and narrative
  - Complex data: author may guide reader to different dimensions of data
  - Complex narrative: author may draw discrete boundaries

[http://www.nytimes.com/interactive/2010/02/02/us/politics/20100201-budget-porcupine-graphic.html?\\_r=0](http://www.nytimes.com/interactive/2010/02/02/us/politics/20100201-budget-porcupine-graphic.html?_r=0)

# DRILL DOWN STORY



- Presents a general theme and allows to explore particular instances
- More emphasis to the reader
- Author should select which interactions are possible and which explorations are feasible

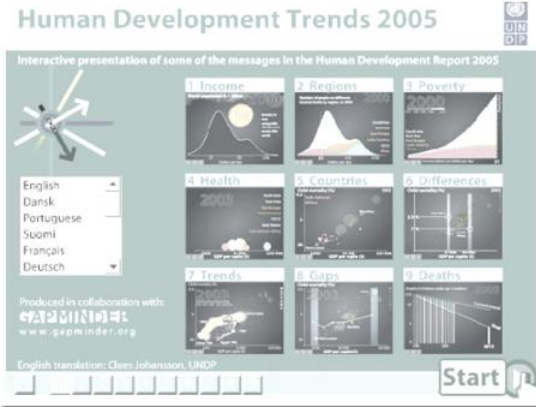


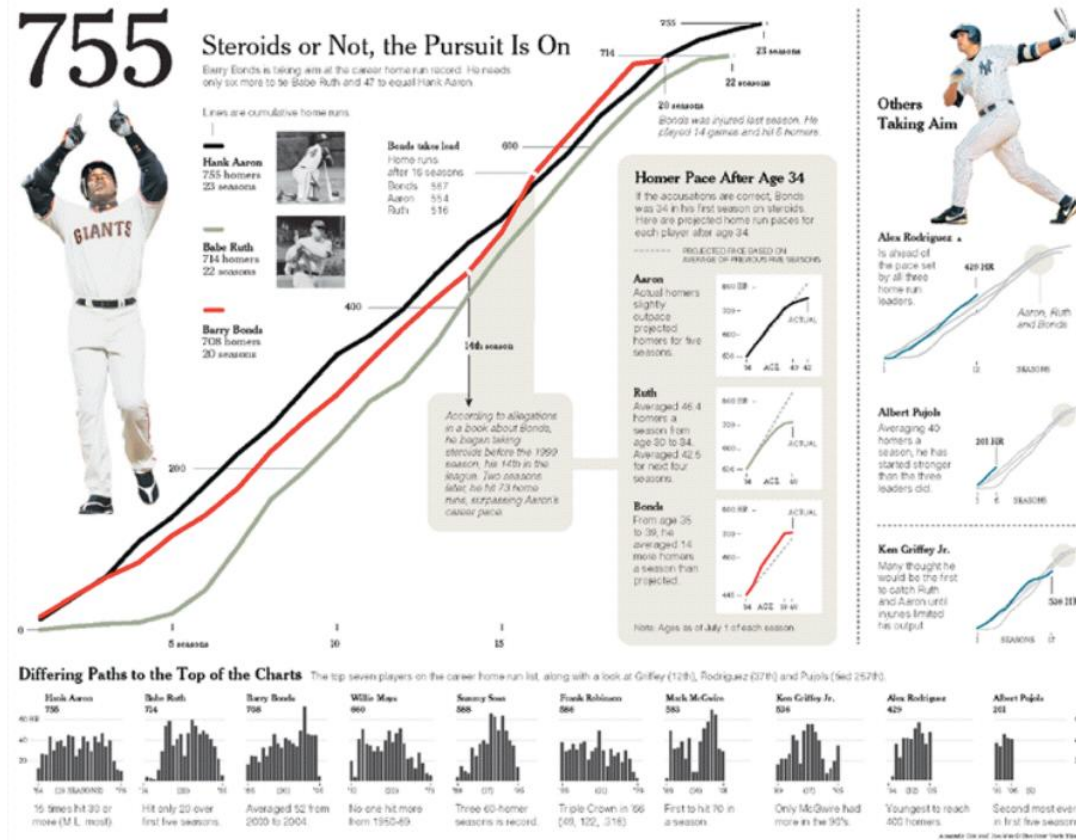
# VISUAL DESIGN

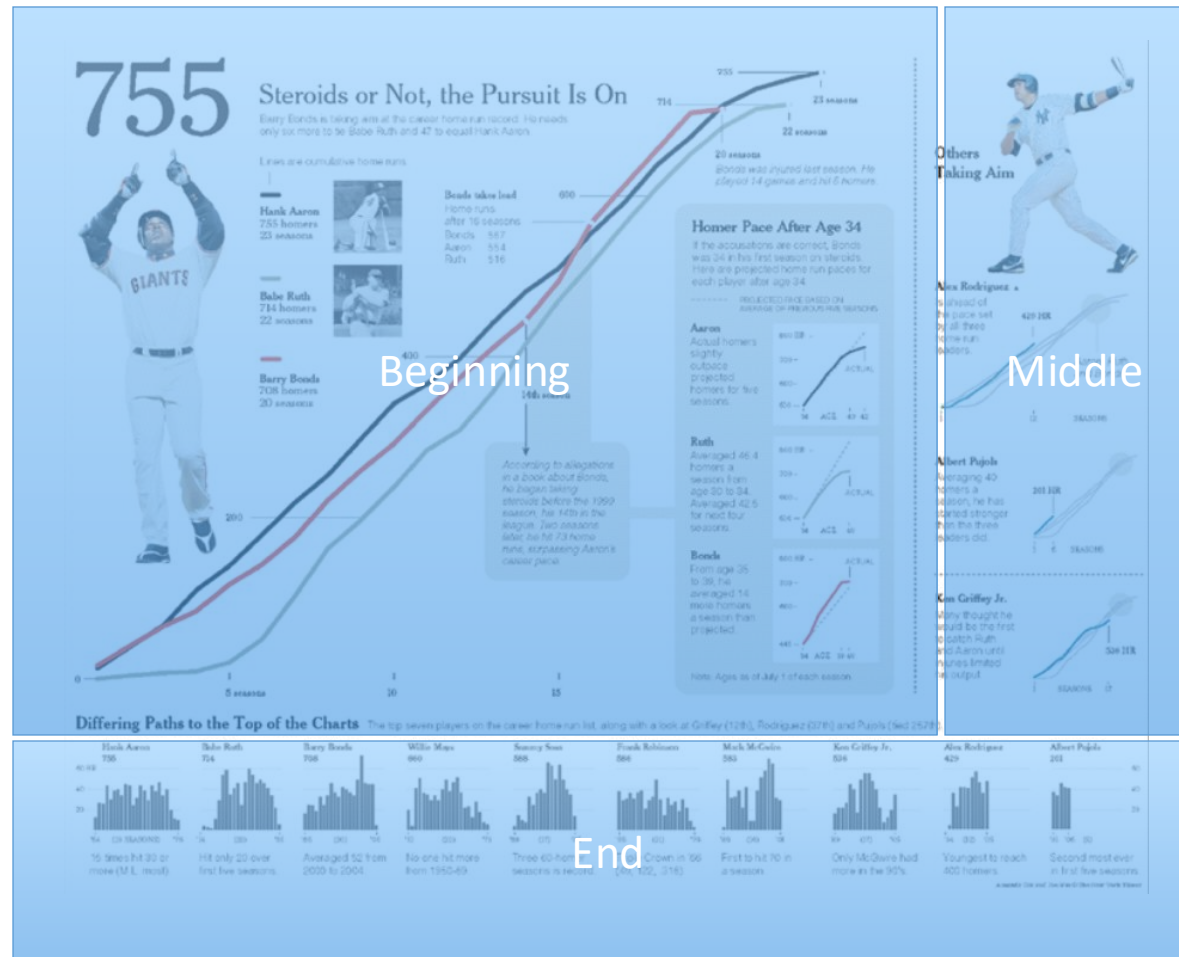
Make it clear where to start.  
Don't let readers defect.



where?



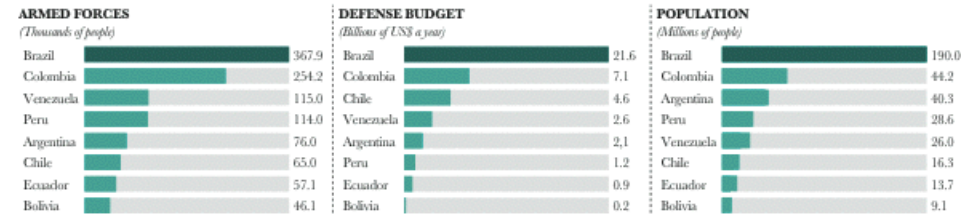




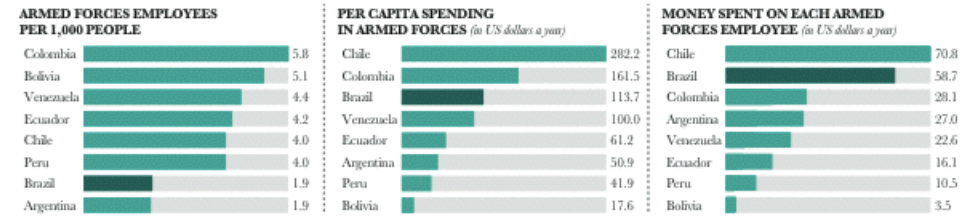
## THE DEFENSE OF THE NEIGHBORS

An overview of the armed forces of countries around Brazil

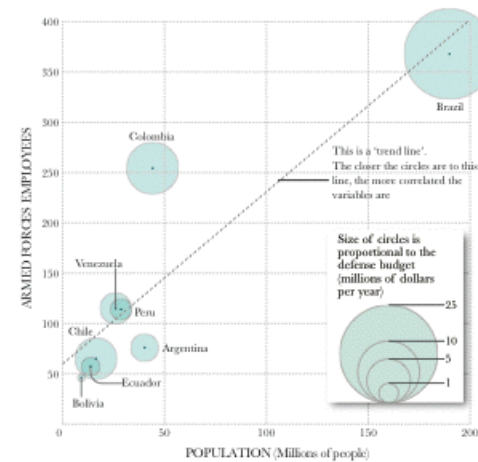
**Brazil has the strongest armed forces in South America in absolute terms—**



**—but not in relative terms**



**A different look at the data**



**Future investments**



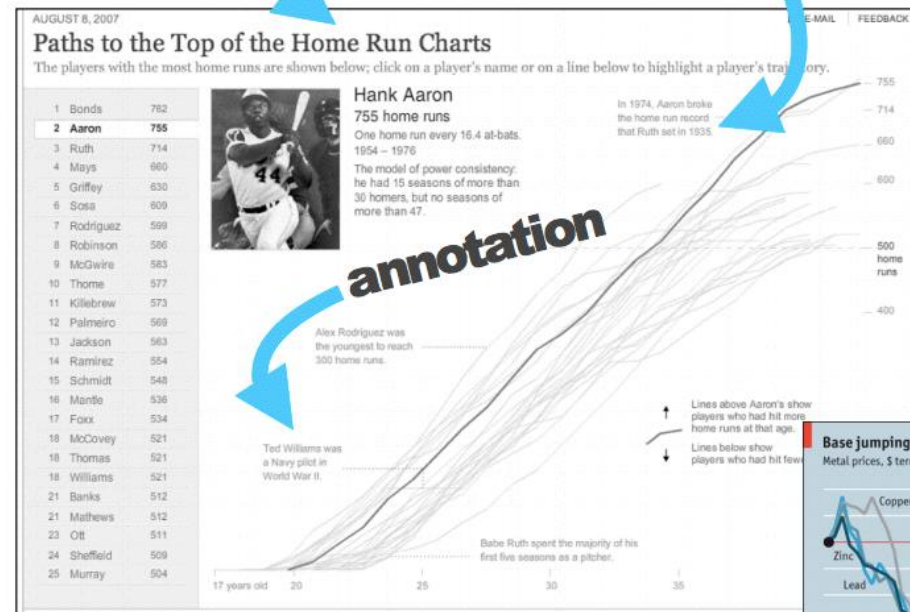
SOURCES: FOLHA DE SÃO PAULO, BRAZILIAN CENTER FOR STRATEGIC STUDIES

# MESSAGING

headline

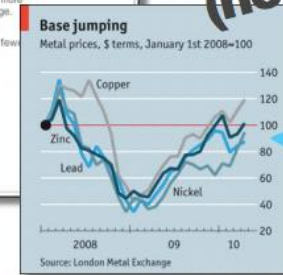
caption

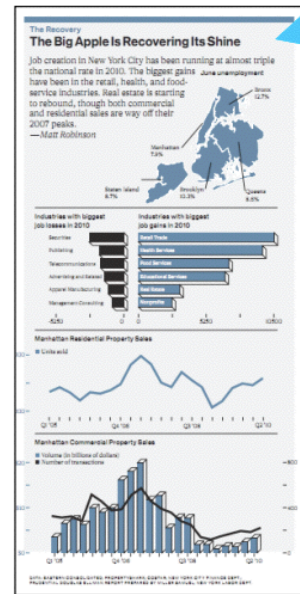
Use headlines,  
captions, &  
annotations.  
Quickly draw  
attention to  
what's  
important.



annotation

(nothing)





June 20, 2011

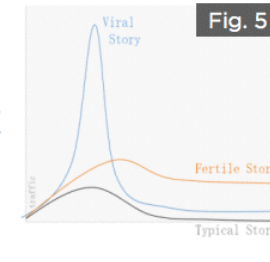
isolated

Weave text into the graphic—not just at the beginning.  
 Text and graphics work better together than apart.

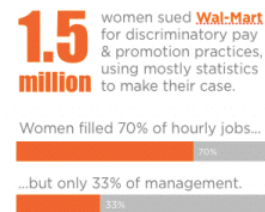
Connect the text to the relevant graphics.  
 See Fig. 5

quite significantly... To make this... economic, visualizations... to stories that are either *persistent* or *viral* in order... ue-generating traffic. *Persistent* stories cover... matic themes" that maintain relevance over time... crisis, food, economics, the housing market).

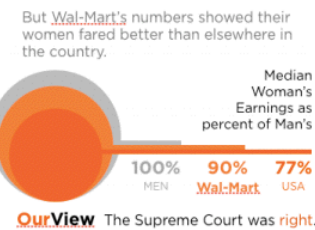
fattens and elongates" ready fatter and longer... these visualizations... several months and... heavy traffic... y. These stories tend... ology, personalities, or sensational news. To get the... : buck, produce visualizations for editorial content... istent or viral



integrated



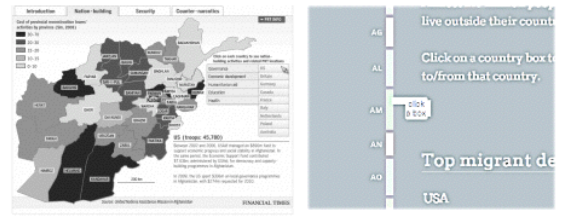
Women were paid less than men in every region, even when they had higher ratings and seniority.



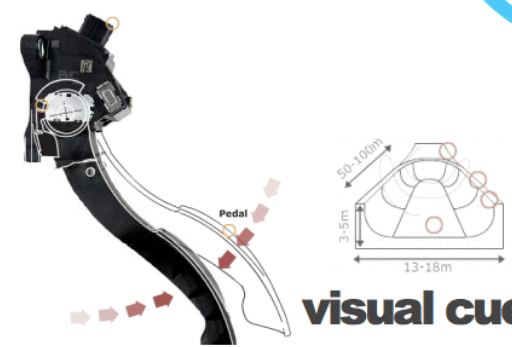
# INTERACTIVITY

Interactive features should scream interactivity. Avoid a click-and-seek experience.

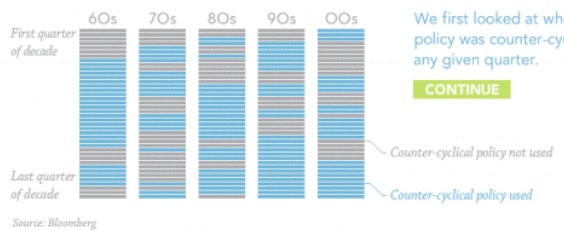
**Be explicit.**



**suggested actions**

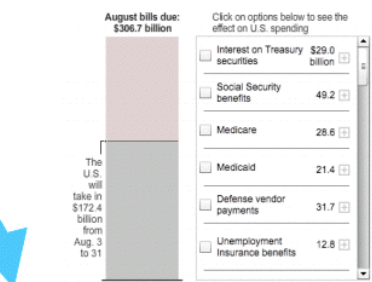
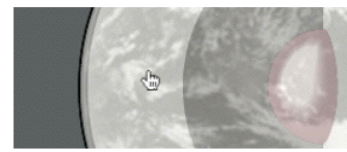


**visual cues**



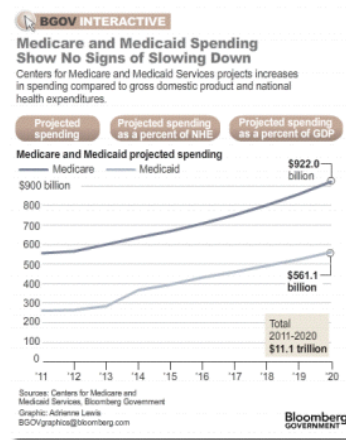
We first looked at whether policy was counter-cyclical in any given quarter.

**CONTINUE**

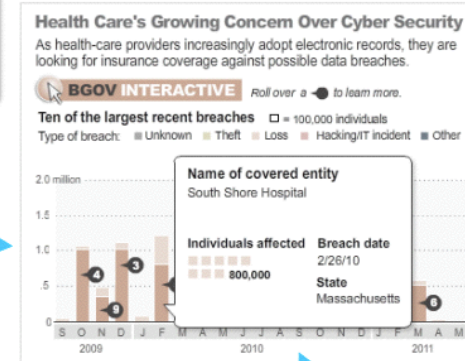


**familiar widgets**

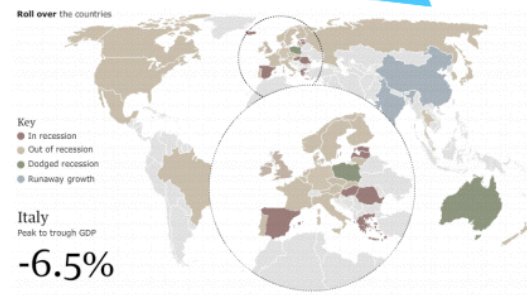
# LINKED DISPLAYS - BRUSHING



Interactive features should react to the user.  
Depress buttons, highlight items, animate widgets.



Don't obscure data.  
Avoid letting pop-ups obscure data.



# EXAMPLE - CROSSFILTER.JS