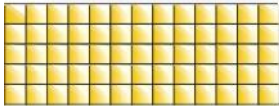
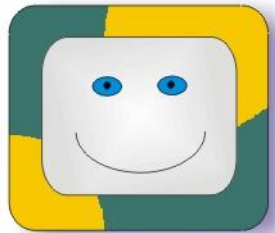


Visual design principles

dr. Kristina Lapin



Outline

- Attention and scrolling
- Gestalt laws and interface design
- Introduction to information design

How to draw attention to a specific area?



Sąmonė ir pažinimas

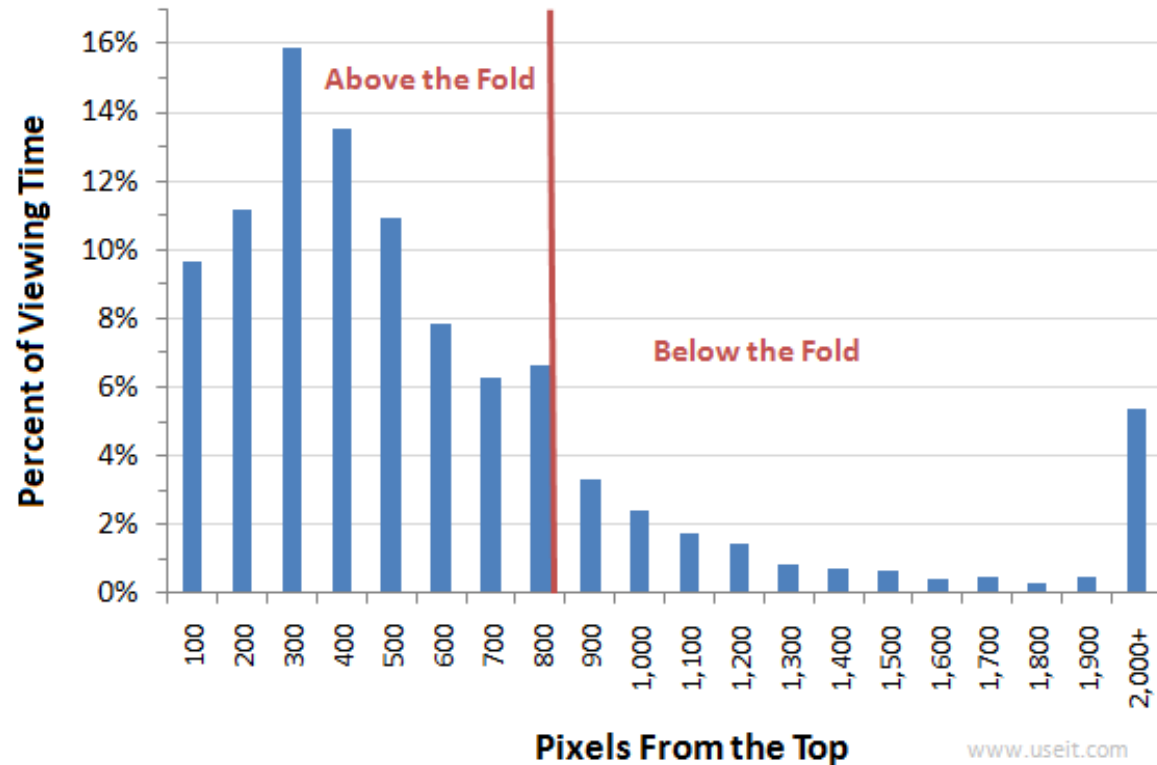
Atminties procesai

Attention and scrolling

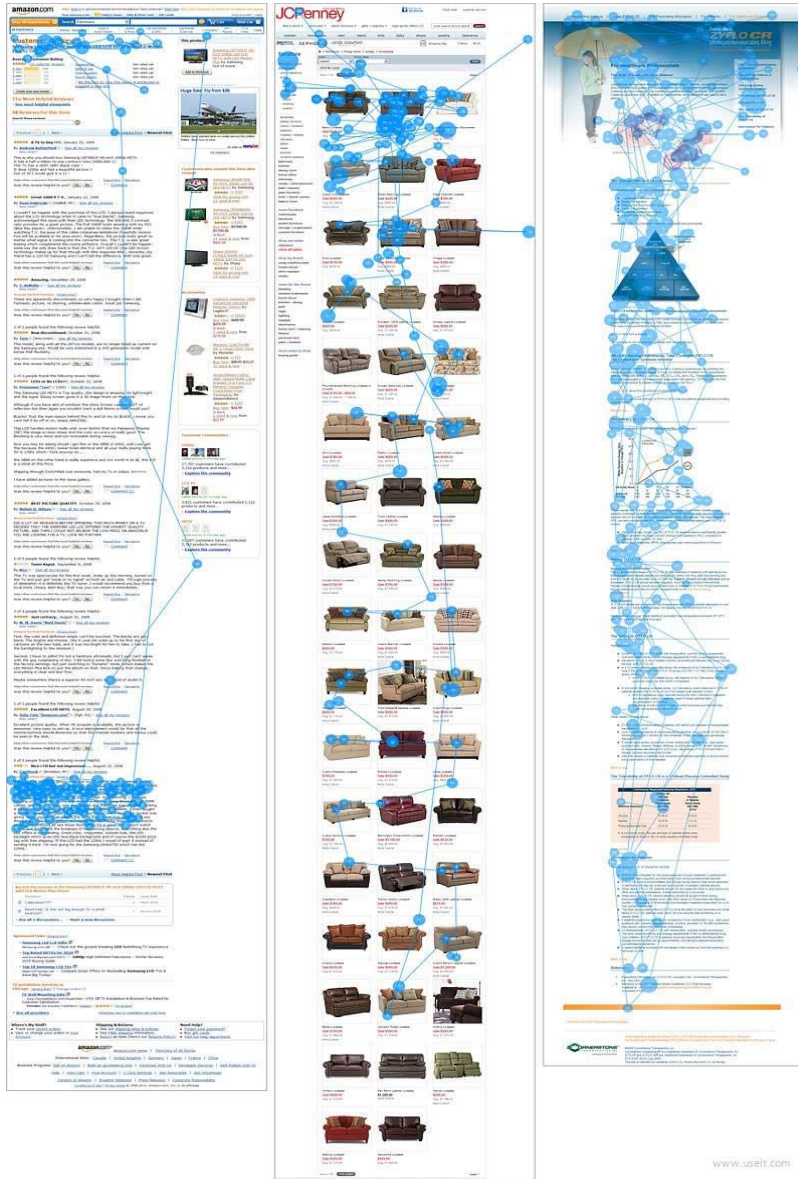
- The first Web systems (1994-1996)
 - Users did not scroll
 - Later users acclimated to scrolling
- Page fold
 - viewable information without scrolling
 - the important information should be visible

Attention focus at the top

- Eye tracking studies: number of gaze fixations
 - 80% above the fold
 - Max 300-400 pixel
 - Last element

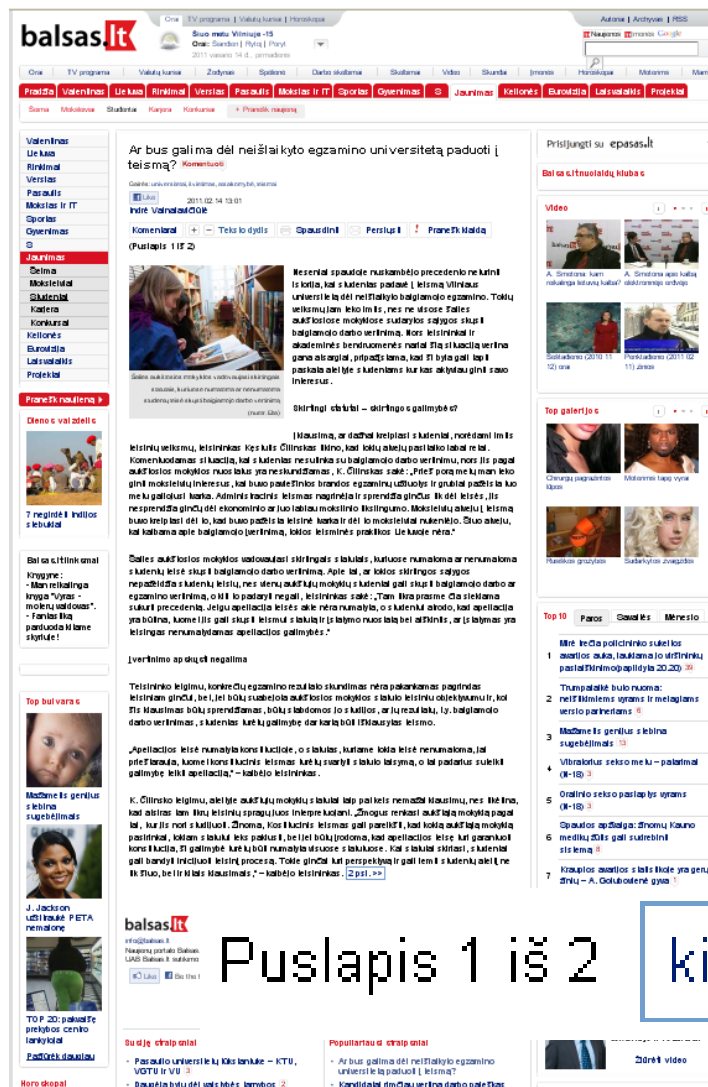


Scrolling behaviors



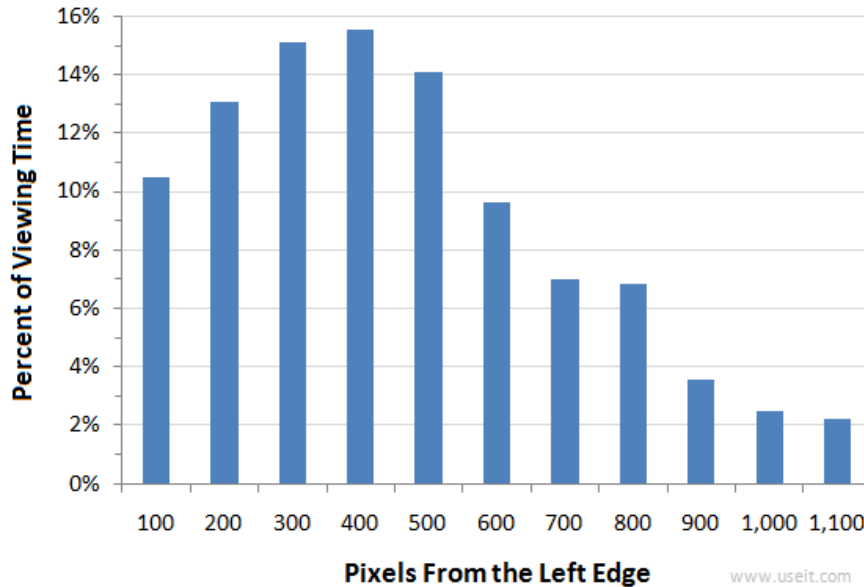
- Usually
 - Intense viewing on the top
 - Moderate in the middle
 - Superficial on the bottom
- Sometimes
 - Many fixation below the screen (first left picture)

Scrolling or paging?



Puslapis 1 iš 2 kitas >>

Horizontal scrolling



- **Maksimal attention**
 - 300-500 pixels
- **Two column layout**
 - Left part: 69%
 - Right: 30%
 - Behing: 1%

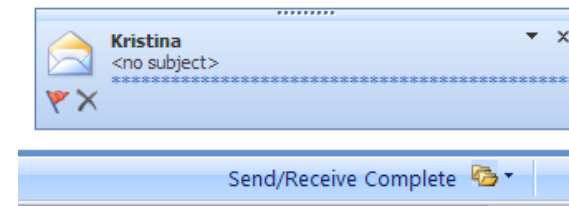
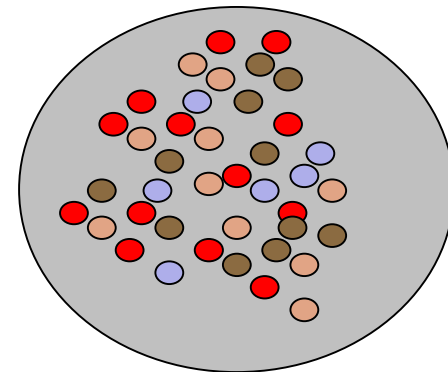
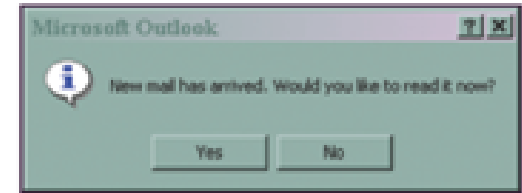
Drawing attention

Center vision

- Messages, colors

Side vision

- Changing big areas

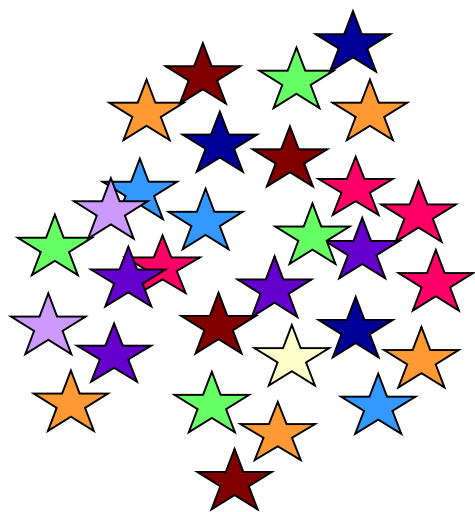


Sąmonė ir pažinimas

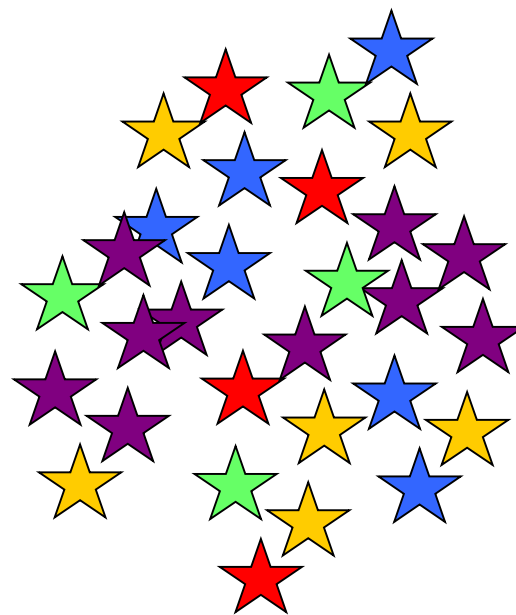
Atminties procesai

Distractions

- Visual clutter

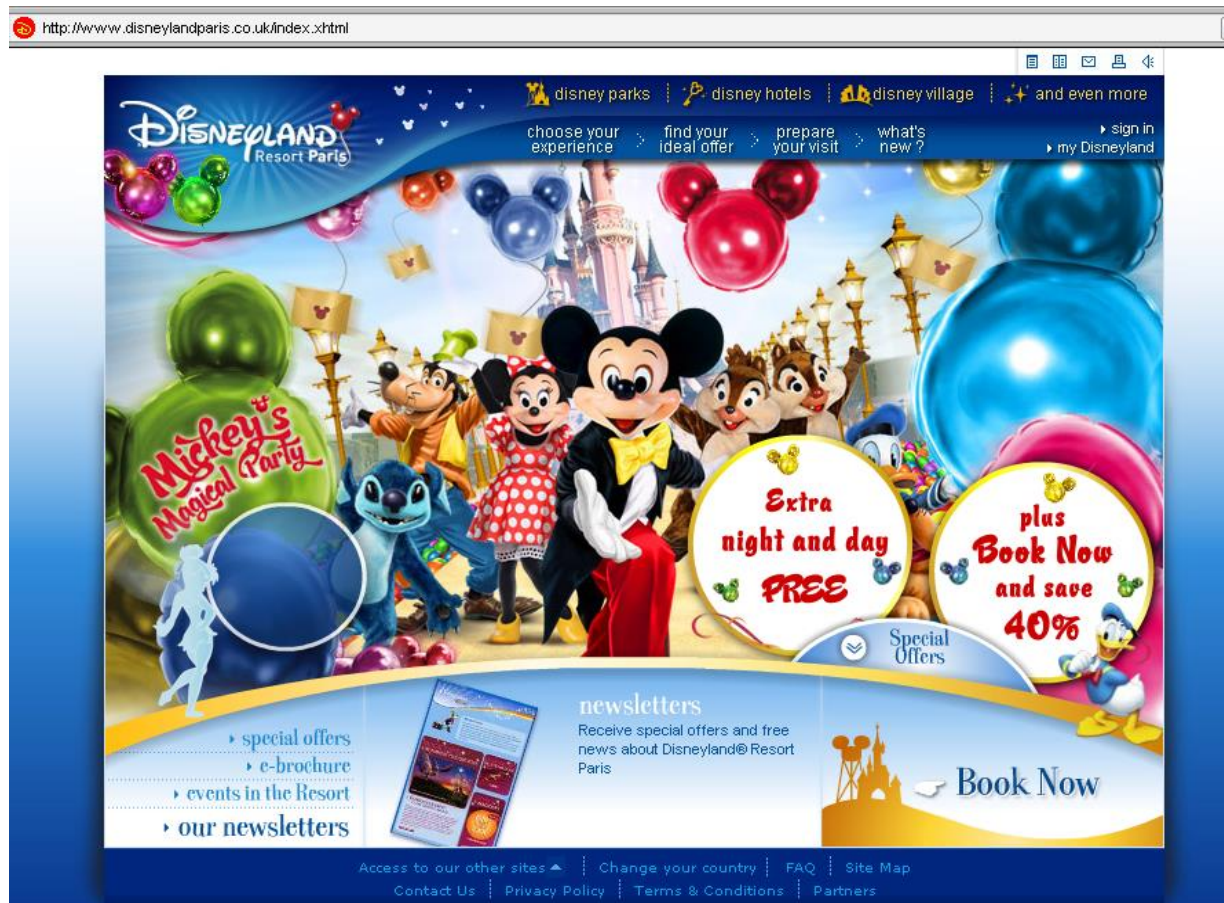


9 spalvos



5 spalvos

Visual clutter



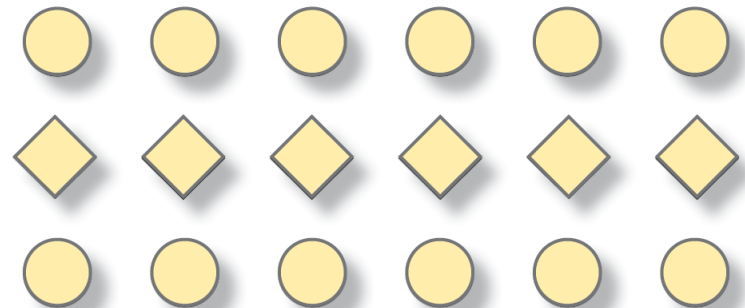
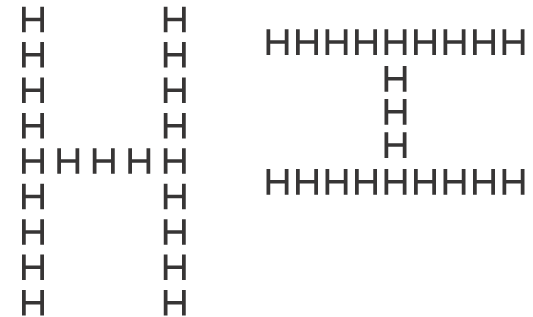
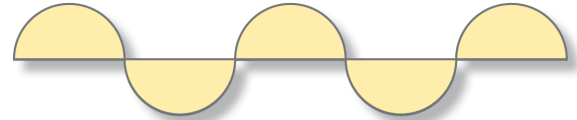
<http://www.disneylandparis.com/>

Gestalt principles

PSYCHOLOGICAL PRINCIPLES AND INTERFACE DESIGN

Intuitive perception guidelines: Gestalt laws

- Proximity
- Continuity
- Part-whole
- Similarity
- Closure
- Simplicity
- Symmetry
- Parallel



Gestalt laws

- Proximity



English 日本語

Įveskite paieškos užklausą...

IDEACODE
UX research and design

Darbai

- [Dizaino darbai](#)
- [Patogumo naudotis darbai](#)

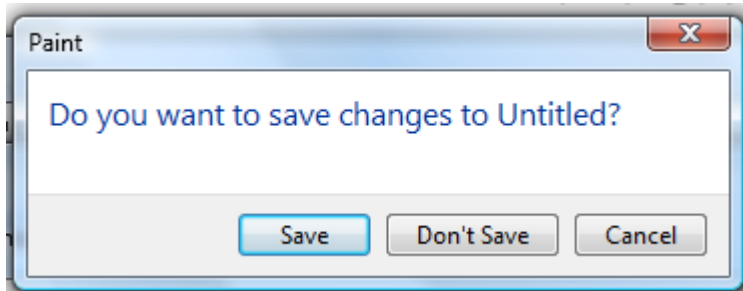
Paslaugos

- [Patogumo vertinimas](#)
- [Vartotojų testavimas](#)
- [Informacijos architektūra](#)
- [Vartotojų sąsajos dizainas](#)

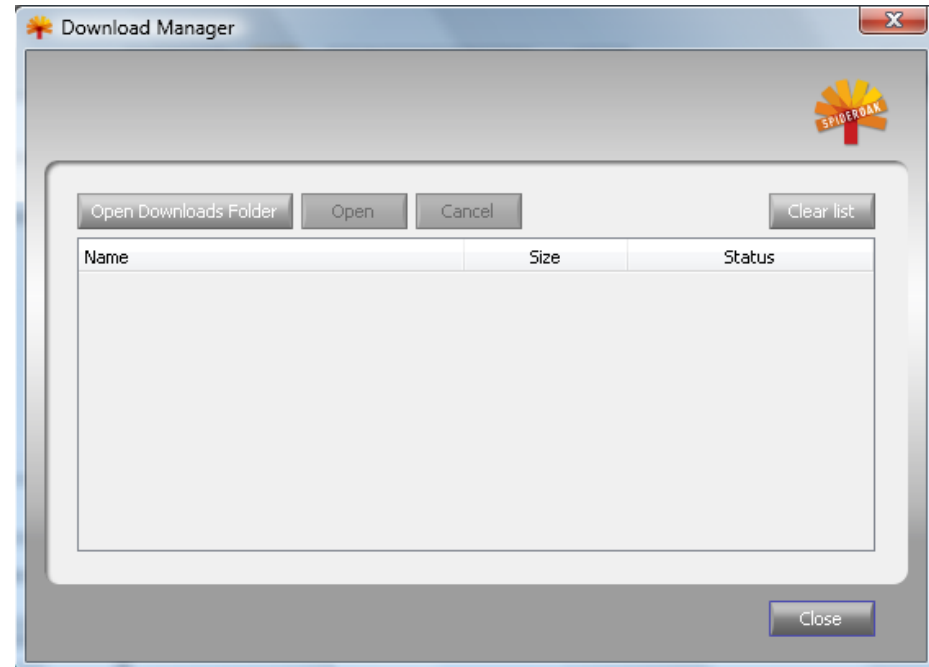
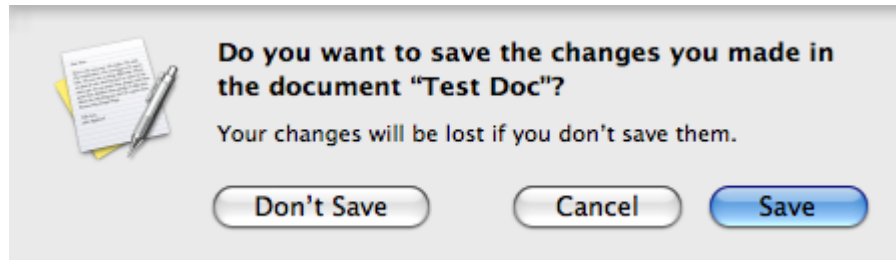
Kompanija

- [Kontaktai](#)
- [Bendradarbiavimas](#)

Proximity to organize buttons

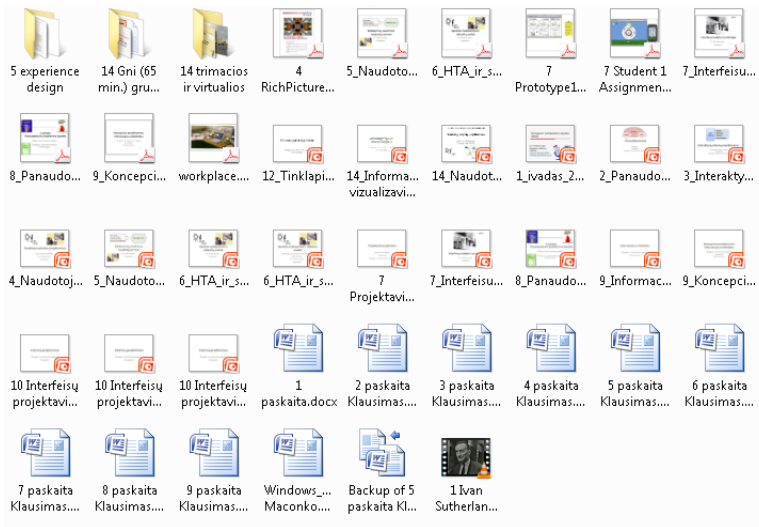


Equal distances in Windows Vista

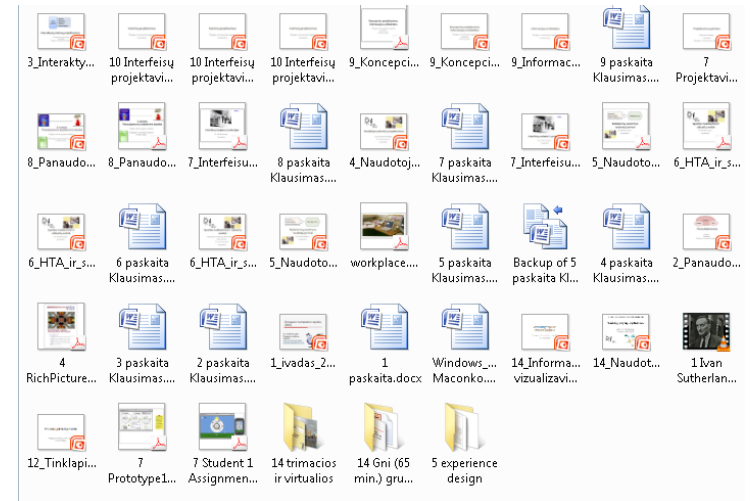


Buttons in OS X or SpiderOak cloud

Similarity

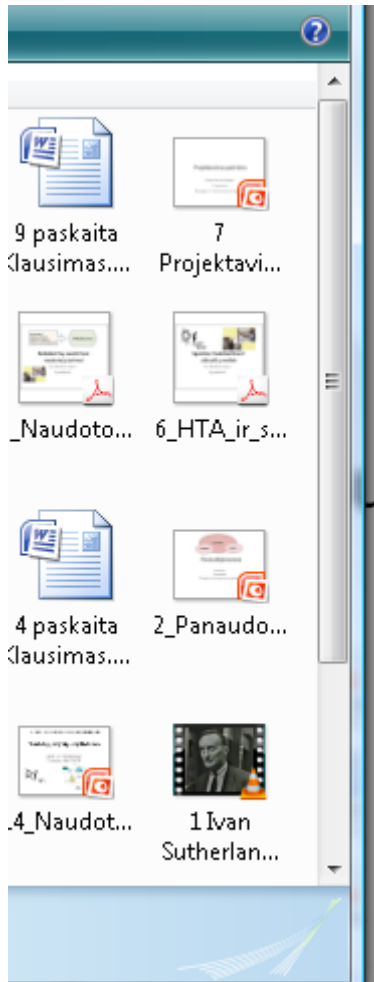


Similar type file as blocks



Unordered files – difficult to understand

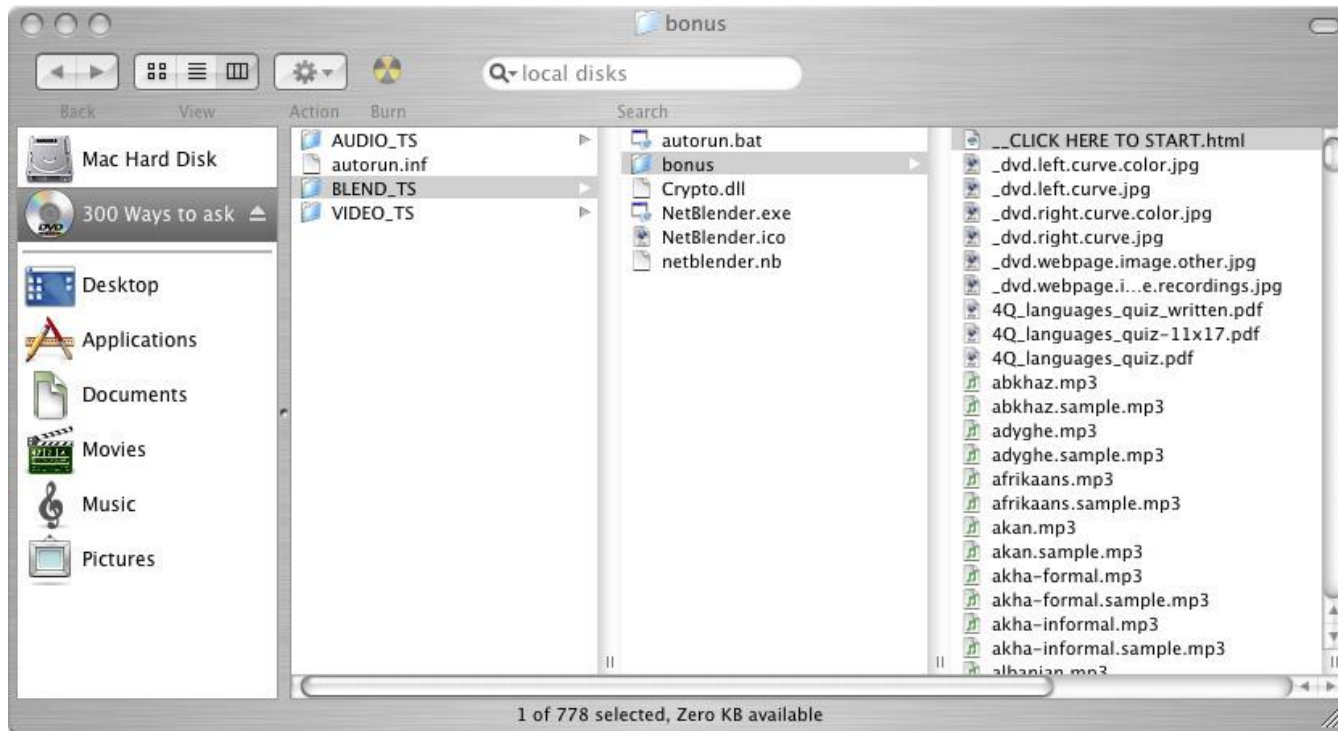
Continuity



- Scrollbar refers the invisible part
 - indicates that about 80% is visible

Closure

- we perceive as a connection
 - bit it is not continuous



Paieškos langas OS X

Principles for memory and attention

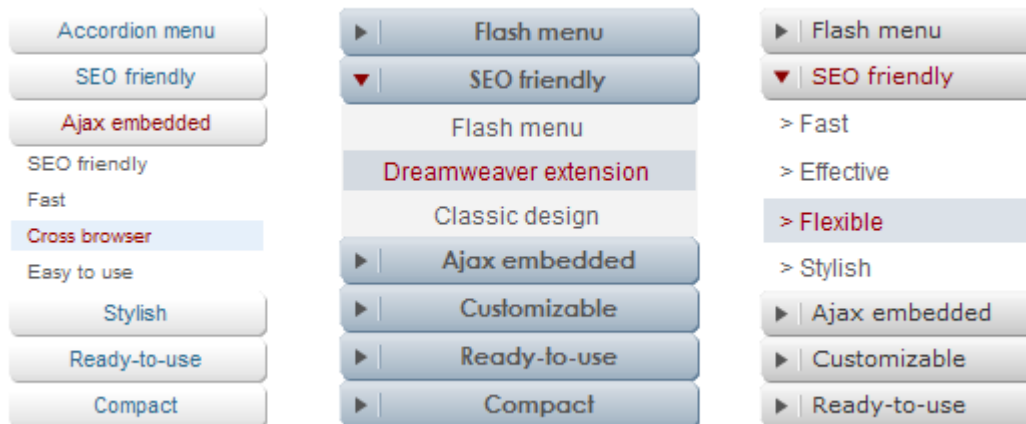
- Short-term memory

- George Miller (1956):

- short-term memory is limited to 7 ± 2 small chunks=

- Cowan (2002): 4 ± 1

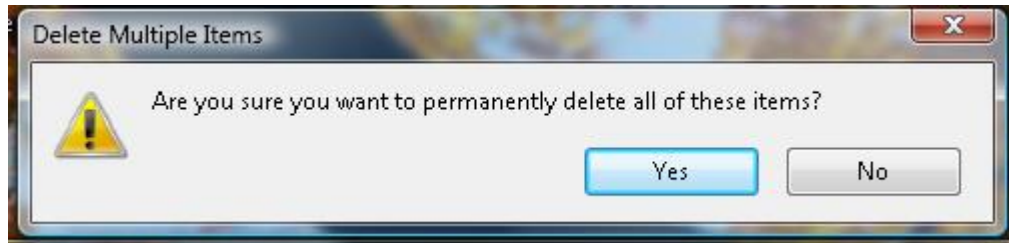
- Chunked dialogs



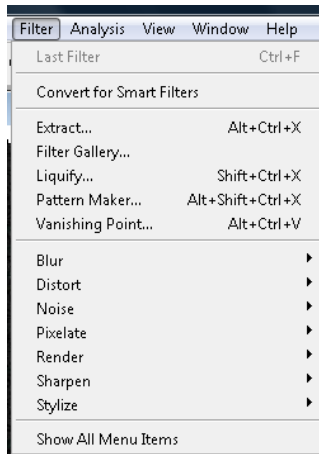
Principles for memory and attention

- Time limitations

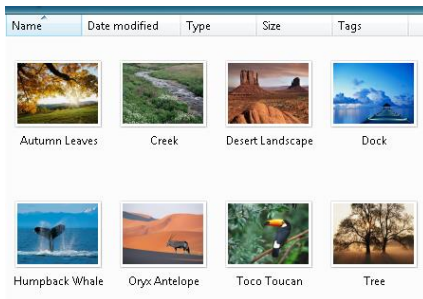
- memories in short-term memory persist for only 30 sec.,
- Important information should be more persistent



Principles for memory and attention



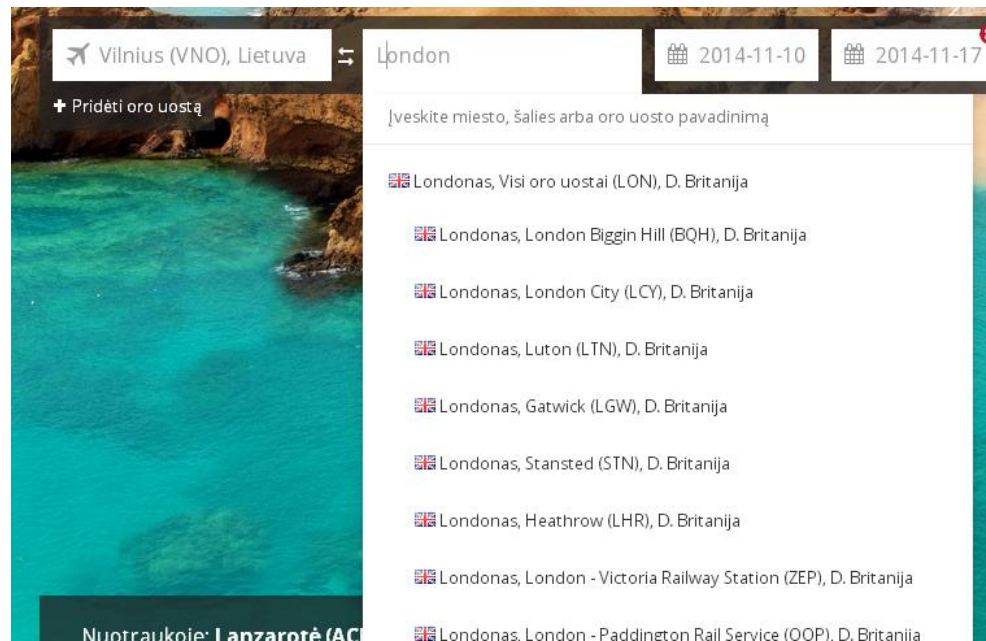
- Recognition
 - menu shows available options
 - images help selection



Principles for memory and attention

- Recall

- autocomplete help to recall the names
 - airports



Principles for memory and attention



- colours

- maximum 5 + 2
- use central and peripheral colours
- do not use simultaneous high-chroma, spectral colours
- Use familiar consistent codings with appropriate references



Information design

- Goal – present large amount of data in easily understandable form
 1. Sir Edward Playfair (XVII a.), Jacques Bertin (1981)
 - the proper representation helps to solve the problem

REFERENCE

DISTRICT RAILWAY	METROPOLITAN RLY.
BAKERLOO LINE	GREAT NORTHERN & CITY RLY.
PICCADILLY LINE	EAST LONDON RAILWAY
EDGWARE, HIGHGATE & HORDEN LINE	CENTRAL LONDON RLY.
INTERCHANGE STATION	UNDER CONSTRUCTION

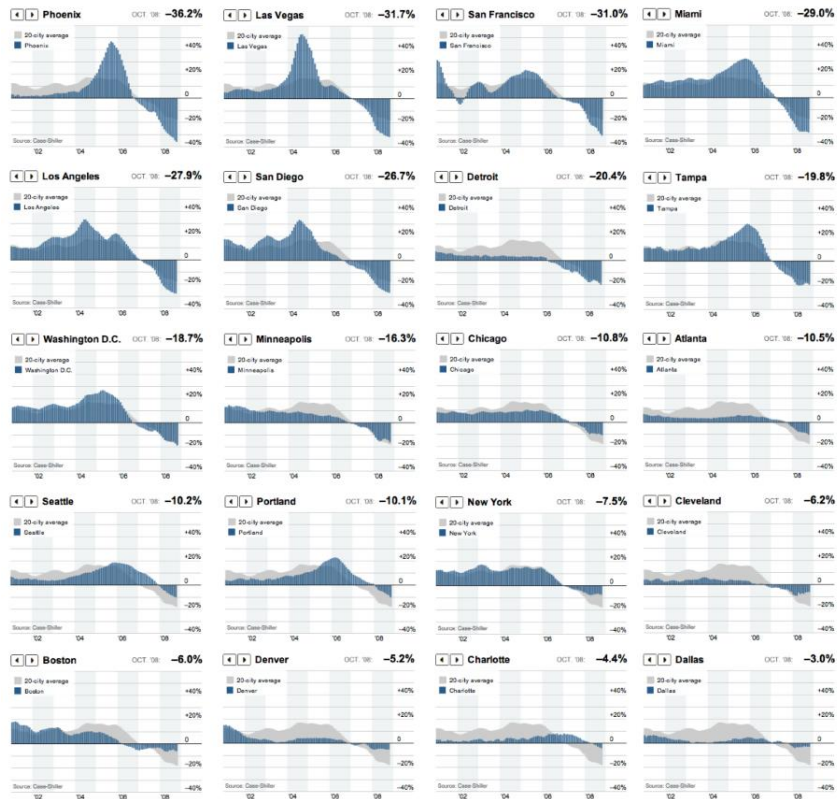
UNDERGROUND

Information design

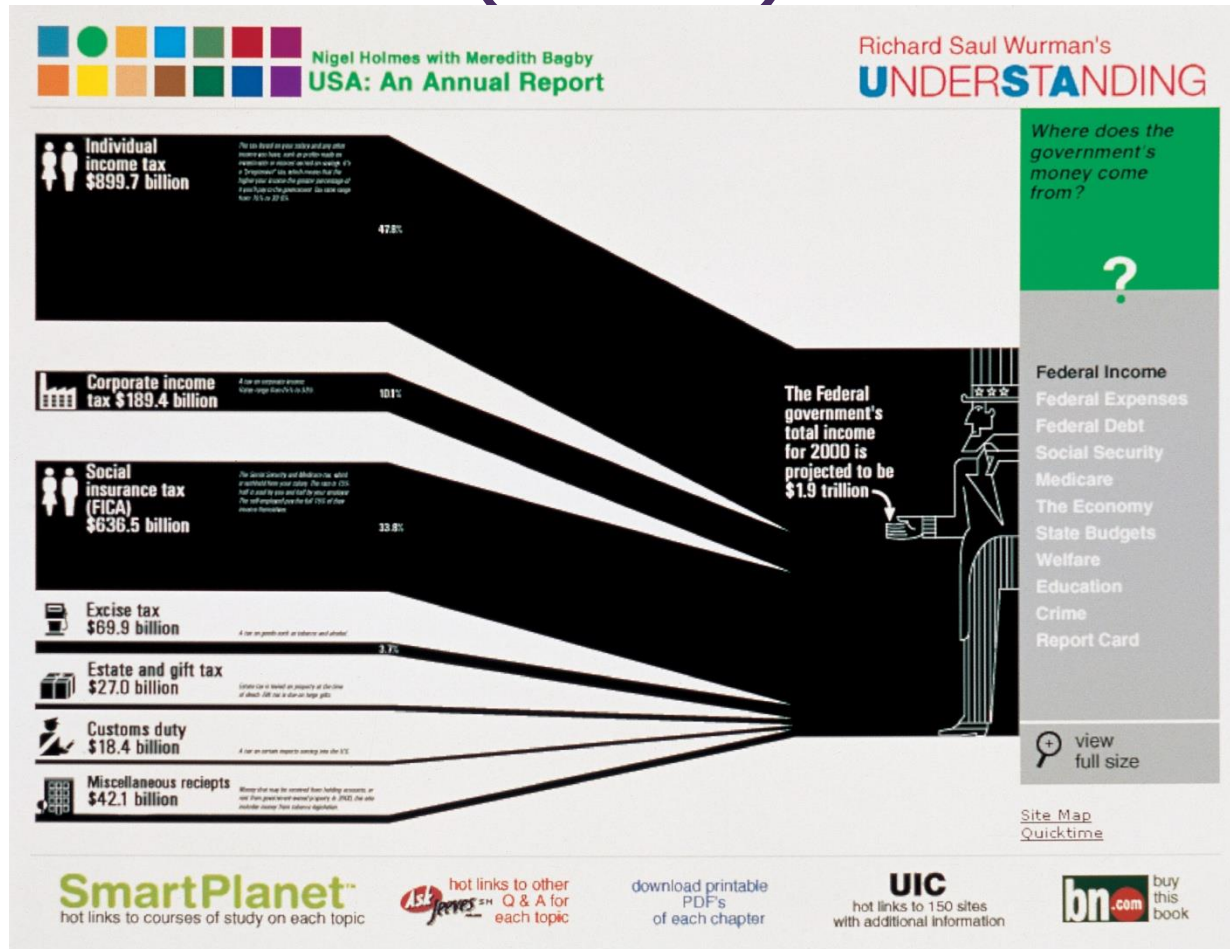
- gestalt laws

Change in Home Prices (year over year)

From New York Times Economix blog



Wurman, Understanding USA (2000)

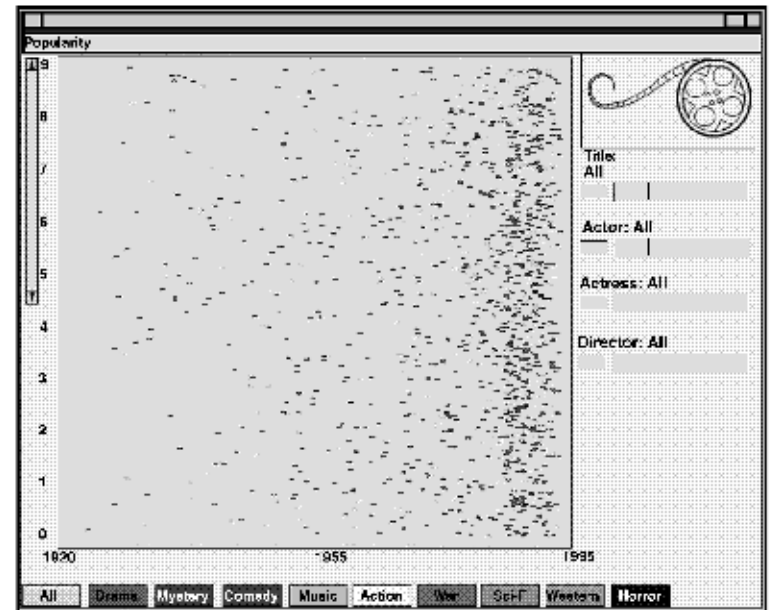
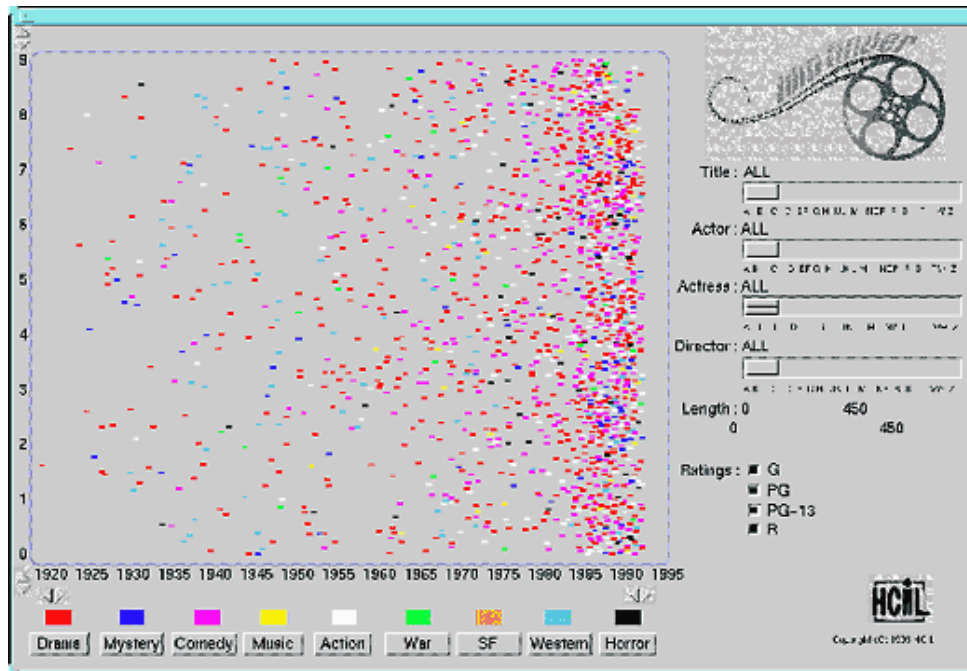


http://designarchives.aiga.org/#/entries/%2Bid%3A83/_/detail/relevance/as/0/7/83/understanding-usa-website/1

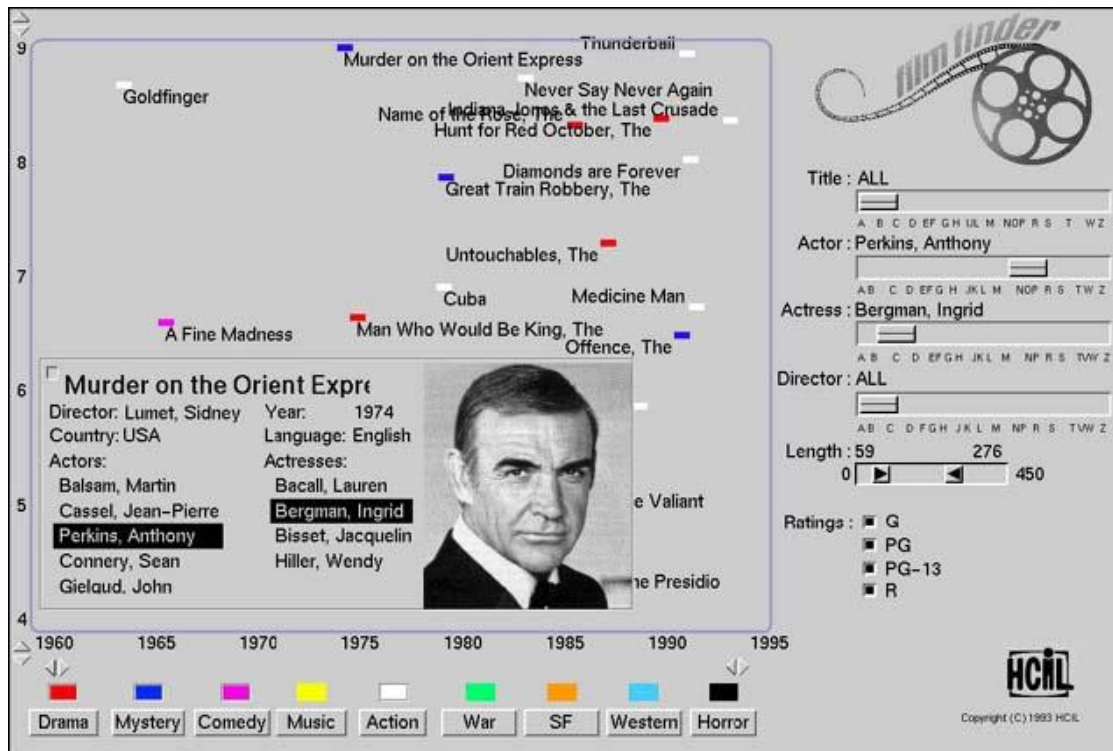
Interaktive visualizations

- Ben Shneiderman
 - overview first
 - zoom and filter
 - then details on demand

Film finder, Ahlberg, Shneiderman (1994)



Film finder, Ahlberg, Shneiderman (1994)

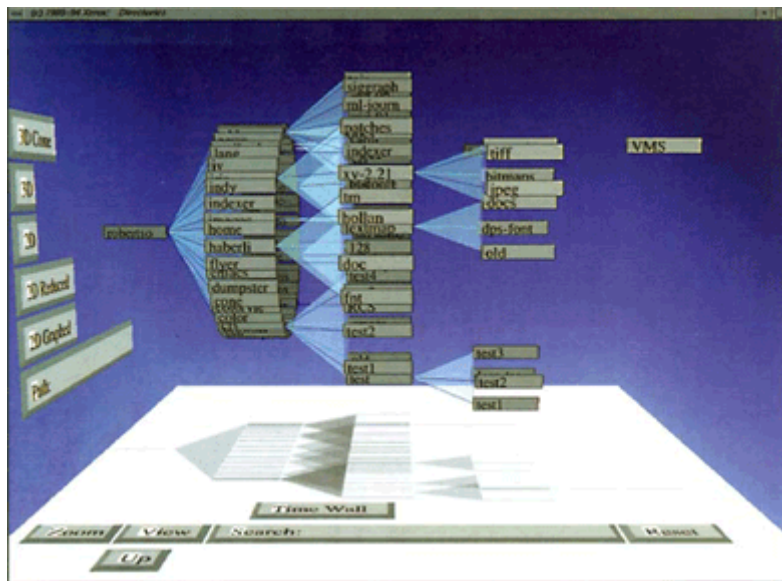


Title:

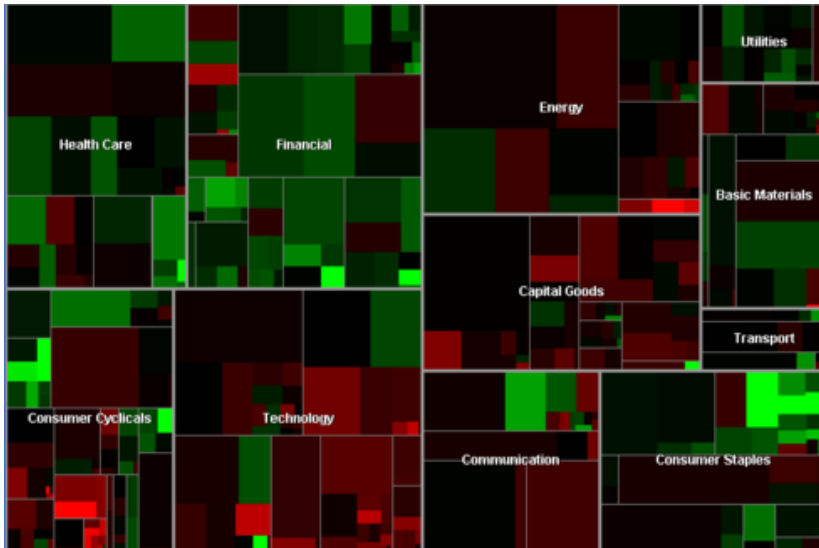
A B C DEF GHIKLM NOPR S T UW

ConeTree

- 3D file system tree

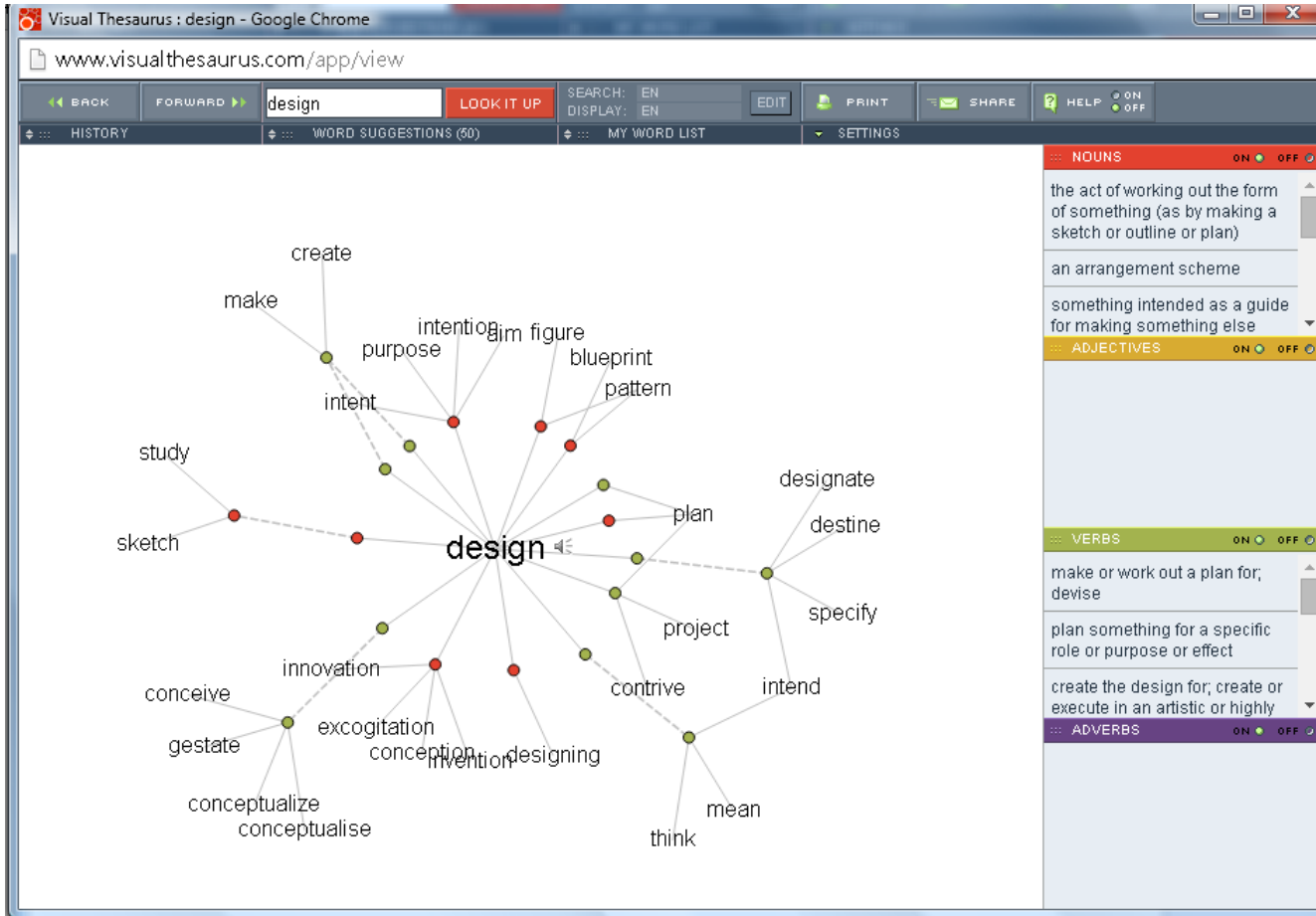


smartMoney.com



- stock market
- colours – changes in values
- blocks – companies
- mousing over the block
 - shows name,
- clicking
 - details

Vizualus tezaurus



<http://www.visualthesaurus.com/>

Reading

- David Benyon. Designing Interaction Systems: A comprehensive guide to HCI and interaction design.
 - in second edition: chapter 14. Interface design: visual aspects