Artful sentences (book title from his mom)
Artist tours
Christie’s book auction (Galileo)
Art vs science threads on website
---
1: the visual display of quantitative information
2: envisioning information
3: visual explanations
4: beautiful evidence
---
http://www.youtube.com/watch?v=OxM--mALGXc
Steven Malinovsky (YouTube)
Chopin lullaby, opus #57
Past present future
Visual music interface
Pure information/content

1:90-91
Supergraphic (locate that noun:thing you talk about)
Tremendous filtering that got them to your presentation (think the best audience-let them use their own cognitive style)

3:16-19
120k cases
3k counties
Avoid Clutter/confusion
High resolution designs
Where you lived
Parents lived
Smoked meats

20mb/sec for both eyes processing info (10mb/eye)

Meeting should be shorter
30% shorter
Make a data dump before a mtg

4:78-79
SARS
Show causality (primary intent) --> show causality (design principle)
Nouns-patients
Agency - how the disease was transmitted
Diversity of evidence: Data reflects (molecular/clinical-epidemiology/public health)
E.g. 17 authors work for public health organizations, this info is not trying to sell a drug, better evidence
Academic-process driven (pre-specification)
Read: annotated linking lines and annotated nouns

How can financial data be explained?
Evidence: movies, tables, sentences

****"Linking lines" are VERBS
Don't use generic linking lines (dotted vs solid)

Never segregate information by acts of mode of production (software constraint)
E.g. People want to learn the effects of stimulus fund
Keep info transparent

Countries are in bold typeface-reflects insecurities of the designer
Audience might be suspicious of design and wonders if the design is hiding something, also no numbers (no quantification) or view this info graphic from a "Whatever it takes" POV.
Good map: grid, enormous amount of information, annotated linking-lines

FEMA graphic always ends in disaster
Box example (strip out information): look at figure on Asst dean of Bureaucracy (bureaucratic bloat)

Make clear your story
Make sure it is credible/provide reasons to believe

Consumers: filter cherry pickers, figure out story, assess credibility, show credentials, independent review, coherent argument
Incompetence-underrated
Conspiracy-overrated

(?) if you have boring data, choose different data (boring data is a content issue, not design problem)

Universal laws/patterns
Humans are always looking for relational information
Open mind, avoid an empty head
Competition rises to overthrow original material

1:120-121 beautiful text from Salman Rushdie
3:56-57
ICU bill - 26 days
Multiply by 4 to put into today's dollar
1% of this countries GNP used for ICU
Pointer lines-perpendicular (none have drop shadows) -not black, pale gray
Relevance, truth, accuracy is a content property
1+1=3 pts of information. (line+line+negative space/activation)
e.g. pointer line+data
Subtitle

Major league baseball app
Web-turf war, boxes/frames
25% of the homepage turf war
Don't destroy content real estate
User testing doesn't work, hired a bunch of temps to design group
Testing - users sometime loses context
Noise turf war is the enemy
Jonathan Ives doesn't do focus groups

4:174-176
Don't alphabetize tables
Scan list
Trebuchet is a good typeface to use on tables
Table design is extremely difficult (must be subtle), best designed by a typographer versus a developer, find a good template and copy it.

4:176 Arithmetic on table
Minimal design vs tables in sport section
Table (avg number of slides is 12 in a PowerPoint presentation)

PowerPoint and military intelligence: Tufte thread (google it)
8% throughput

Old rule (constraint): website (no more than 7 buttons)
Break rule (these sites get thousands of hits): Nytimes, WSJ, GoogleNews has 300-400 links

16m hits under cancer, Tufte used to wipe out Mayo clinic, etc.
Steven J. Gould (the median is not the message-google-relation to mcluhan's book)

Example:
mayoclinic.com/health/medical/imo2158
Drop shadow
People represented as gold and purple dots
Non-fiction presentation to diverse find good examples that are common (eg google news, wsj, nytimes), example fire warden weekly presentation (look below in super graphic example)

Science presentation: nature (Watson and Crick presented stick figures)
Public science: plos (research integrity)

5 or 6 Templates:
Tables
Annotations
Way to integrate table, annotation, image, etc
Talent imitates/genius steals
Steal googleNews, wsj, nytimes, Washington post
Have a Supergraphic: high resolution, easily reproducible, (Newark aerial map, put a red dot for every fire, yellow false alarms, etc.)

Intellectual model: non-fiction
Shouldn't look glossy or slick (looks like your selling something)
Not trusted
Reporting
Must look like a document
Strip jargon
Provide reasons to believe (reputation)
Hands on quality that you do know about details
Don't sound like an MBA
Demonstrate mastery of detail

Cornell supercomputer
Cornell theory center
Glitziness
Viz-o-matic animation (google it)
No content was harmed, lol.

--
Inductive (above) vs deductive approach (below)
--
Information resolution -communicate more bits over time
Mobile (improvement resolution of screen displays)
Scientific resolution grew 10 million times since Galileo
Escaping flatlands: the elements of geometry (euclid's geometry) -book that travels w/Tufte; paper has 9x the resolution of the laptop screen
Don't think of reasons not to do it, think of reasons how to do it: maximize the users content time and minimize their format-processing time (use boring and standardized formats)

can cast shadows to demo physical objects in space as a method

2:16:fold pyramid

4:136-136

Approach: Most design is guided by fashion, some design guided by technology
Fundamental principles of design should be universal ("should be indifferent to language, culture, century, technology")

4:122-131
Napoleon march
Brown attack
Black retreat
Poland (left), Moscow (right)
4:128: show causality (sidebar: medical -causal factor is wealth)
4:130: multivariate (show 3 or more factors), eg x causes y but we don't see the third factor
Size of the army
Army's location Land
Direction of the army
Temperature (multivariate reason why Napoleon loses)
There are 6 factors (look for two)
4:130 Principle 4: "whatever it takes" model; do not specify only 1-set approach unless designing a method
4:132 Principle 5,6: document sponsors citation, provides credential
Was an anti-war poster
He left out the Russian army (approximately 1 million)
4:136 "Analytical presentations ultimately stand or fall depending on the quality, relevance, and integrity of their content."

2:18-19
Galileo (book title: Surely, You're Joking Mr. Feynman) / Tufte tells joke that Galileo and Feynman are both from Brooklyn.
2:120-121
Galileo's drawings of Saturn
"this" vs "that" findings
Galileo's infinity of stars

Liberated by wordy arguments
2:18 sunspots (high resolution observation/telescope circle of paper projection >> woodcuts, engravings
Principle 7: it's hard to make a comparison when illustrations are not adjacent in space (e.g. One illustration on one page and another one on the backside of the page). Stacks play temporal trick and user has to rely on shot-term visual memory. Serious and reflective stuff stack in adjacent space.
(e.g. Monitor::Lots of tight pixels adjacent in space)
4:19 sunrise (left), sunset (right) of sun spots moving; 37 suns (turned into animation) multivariate.
4:30-31 John Gotti infoviz of government informants; the deal that the government witnesses got. The only thing the defense has is to attack the deal the informants got.

--

Interface design (GUI)
Xerox parc
DOS metaphor "Remember and type"
New metaphor will be the gesture of touch.
All the users saw are document icons. They never or saw or heard of any existence of an operating system.
There were no apps, and you edit the document within the document... Content-oriented
Segregation of modes of process (like adobe vs word, etc.)

--

3:146-147 kiosk for the National Gallery by IBM
Al...
4:54 baseball
Absence relays away games. Lines relay home games.
(read) whiskers

Sentences are smarter than bullet points.

How to make presentations more relevant...
1) what the problem is?
2) Who cares?
3) What you are doing about the problem?

Skip irrelevant reading.

High resolution data dump*** (should be first PowerPoint/presentation slide)

Steve Ballmer got tired of the long and winding road of PowerPoint, so now he requests PowerPoint presentation slides ahead of time.

Show up early because the room might be double booked, or there might be issues with the projector. Say hi to your audience. You will finish earlier. Shorter meetings.