

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

Subtle

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.

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Inductive (above) vs deductive approach (below)

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Information resolution -communicate more bits over time

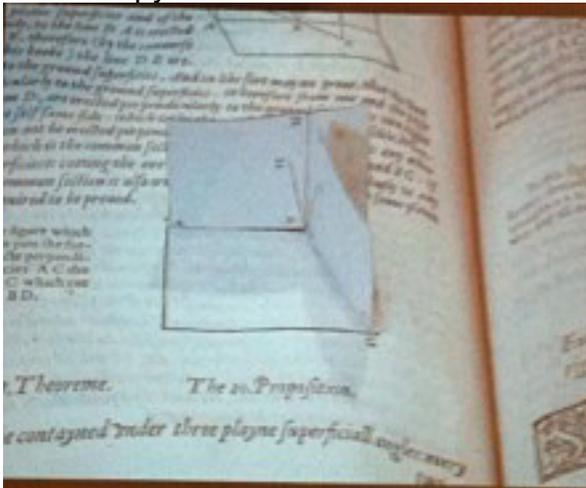
Mobile (improvement resolution of screen displays)

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



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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

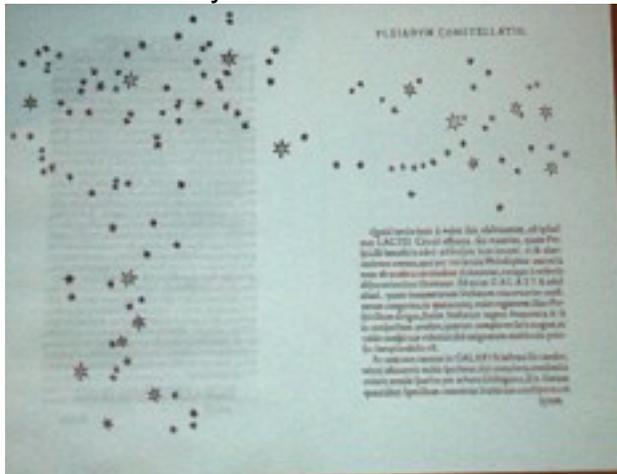
Galileo (book title: Surely, You're Joking Mr. Feynman) / Tufte tells joke that Galileo and Feynman are both from Brooklyn.

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.

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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.)

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3:146-147 kiosk for the National Gallery by IBM

Alan Cooper "No matter how beautiful, no matter how cool your interface, it would be better if there were less of it"

People usually go to the museums with their loved one, this kiosk space is a negotiation space.

Suppress icons, use launch images of art. Get rid of scrollbars.

3:147

Steps 1-4 are complicated.

Footstep icon stolen from Andy Warhol, which he stole from another artist.

Wayfinding between 3 floors and 5 rooms.

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iPhone ui analysis

24 icons

24 words

8?

Photos app>select photo>the entire screen becomes the content

Stockmarket app looks cartoon-y>strong colors, zebra stripes, cartoon graphs

URL, scrollbars goes away (nytimes) so that content is featured.

To clarify, add detail.

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4:47 spark lines (Chopin visualization)

Enormous amounts of data, completely retextualized.

Graphics can be anywhere not in a box.

Noun followed by a number.

Doctors/Nurses can see the normal limits when they read the glucose number.

Normal limits represented by flat line shows deviations.

4:50-51 financial example of spark lines.

Beginning/end are shown in red numbers.

Lows/highs are shown in blue.

Redid everything in GillSans vs Helvetica (20% smaller), and added spark lines.

4:50-53 real science

Spark line resolutions (*Nature*)

Content orientation

No space

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.

