

Infographics

How Infographics can help you to get your message across

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Webdesigner at EMBL Heidelberg

One Look Is Worth A Thousand Words--

One look at our line of Republic, Firestone, Miller and United States tires can tell you more than a hundred personal letters or advertisements.

**WE WILL PROVE THEIR VALUE
BEFORE YOU INVEST ONE DOLLAR
IN THEM.**

Ever consider buying Supplies from a catalog?

What's the use! Call and see what you are buying. One look at our display of automobile and motorcycle accessories will convince you of the fact.

**THAT WE HAVE EVERYTHING FOR
THE AUTO**

Piqua Auto Supply House

133 N. Main St.—Piqua, O.

1913 newspaper advertisement
(Piqua Leader-Dispatch)

What...?



1913 newspaper advertisement
(Piqua Leader-Dispatch)

"Use a picture. It's worth a thousand words."
1911 newspaper article, Arthur Brisbane*

*Arthur Brisbane (December 12, 1864 – December 25, 1936) was one of the best known American newspaper editors of the 20th century.

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Information Design

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„The interior decoration of graphics generates a lot of ink that does not tell the viewer anything new. The purpose of decoration varies — to make the graphic appear more scientific and precise, to enliven the display, to give the designer an opportunity to exercise artistic skills. Regardless of its cause, it is all non-data-ink or redundant data-ink, and it is often chartjunk.“

Tufte, Edward R. (1983). *The Visual Display of Quantitative Information*.
Cheshire, CT: Graphics Press.

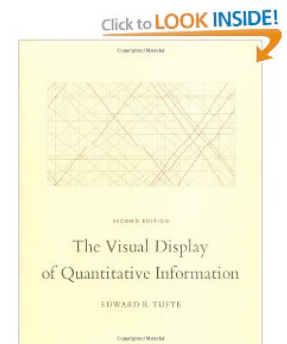
Information Design

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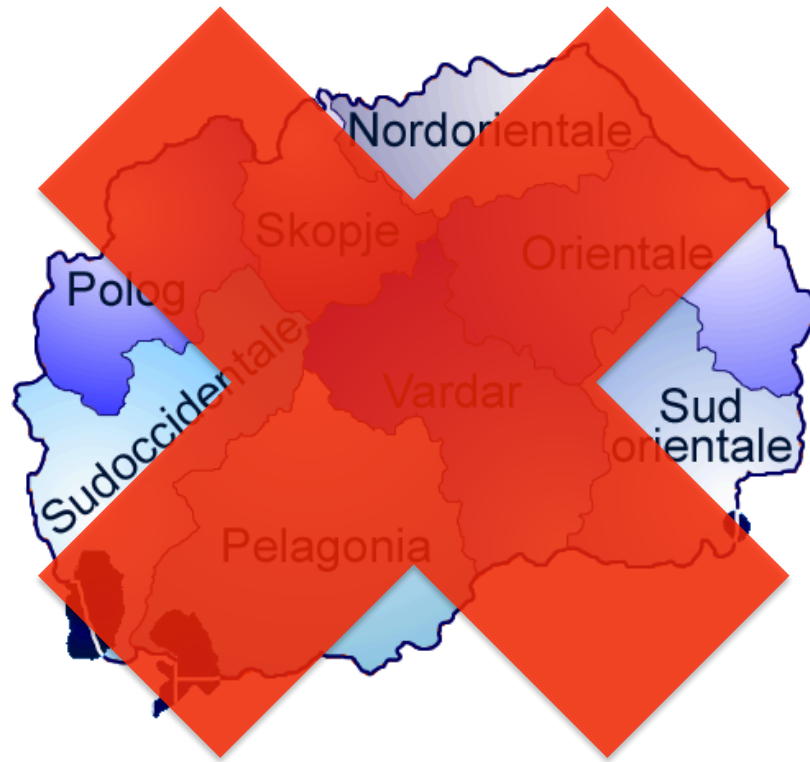
Tufte, Edward R. (1983). *The Visual Display of Quantitative Information*. Cheshire, CT: Graphics Press.

***Edward Rolf Tufte** (born 1942) is an American statistician and professor emeritus of political science, statistics, and computer science at Yale University. He is noted for his writings on information design and as a pioneer in the field of data visualization.

Chartjunk



Chartjunk



too wide

gradients

enormous decoration

Why **Info**graphics

- Saves time in explaining technical concepts to artistic designs
- Simplifies knowledge transmission
that would normally require long hours to cram into our
thought processes
- Our brain naturally registers patterns

visual system => **infographics**

Related term – Visual Literacy:

”pictures can be read“

meaning can be communicated through a process of reading

Infographics

- ... knowledge compression
 - ... provide an appealing way to share tremendous amounts of information easily
 - ... design nice and simple graphics
 - ... orientation
- ... in times of information and data overload

Examples

Source

Title:
EMBL ADVANCED TRAINING CENTRE
CORPORATE PARTNERSHIP PROGRAMME

The Corporate Partnership Programme supports the brightest minds in molecular biology and their contributions to scientific gatherings held at the EMBL Advanced Training Centre with fellowships and travel grants.

2013

128 fellowships and travel grants

41 nationalities

21 conference and courses

(THEN)

Title:
Top 10 Nationalities of CPP recipients – count

(Pie or bars?)

		2013	
Top 10 Nationalities with count of delegates	Count of Nationalities	41	
		Germany	12
		India	12
		USA	9
		Poland	9
		France	9
		Italy	8
		Brazil	7
		Russia	7
		Spain	5
		Australia	4

Top-10 Countries where CPP recipients live

(Pie or bars?)

		2013	
	Count of Countries	40	
		USA	14
		Spain	12
		France	8

	UK	8
	Russian F.	7
	Poland	7
	India	7
	Brazil	6
	Australia	6
	Germany	5

2010-2013

(We agreed on three circles with the following info)

624 fellowships and travel grants

68 nationalities

77 conference and courses

(Then...)

Position of fellowship recipient (this is a pie with percentages)

Early Stage Researcher (PhD)	329	53%
Experienced Researcher (Post Doc)	150	24%
Principal Investigator (Group Leader)	53	8%
Other (Masters Student, etc.)	37	11%
Staff Scientist	22	4%

(Then...)

Gender distribution

Pie / circle with percentage

Female 53%

Male 47%

Infographics - Examples

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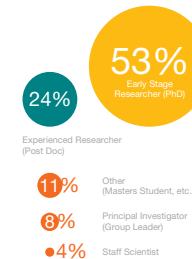
EMBL Advanced Training Centre
Corporate Partnership Programme

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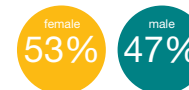
2010 – 2013



Position of fellowship recipients



Gender distribution



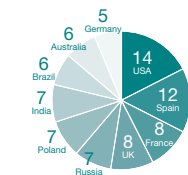
2013



Top 10 nationalities of CPP recipients – count



Top 10 countries where CPP recipients live



Infographics - Examples

EMBL Advanced Training Centre
Corporate Partnership Programme

The Corporate Partnership, now only in its fourth year of operation, has already supported many life sciences events, including research fields well beyond the current scientific main stream.



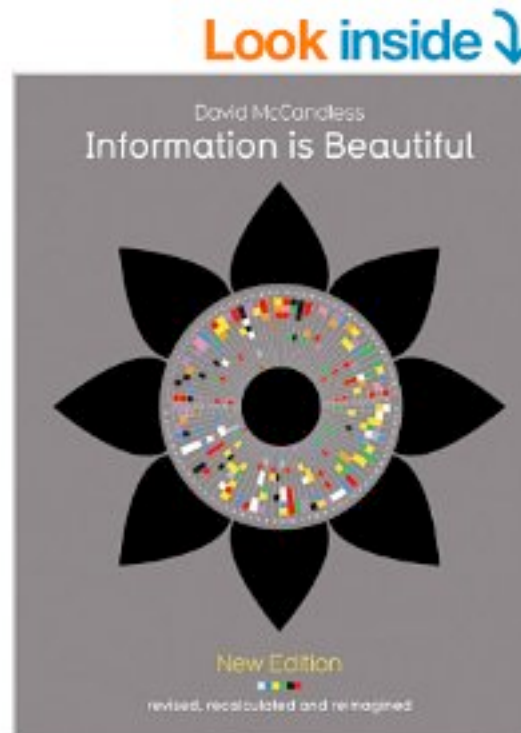
Conferences and Courses

Infographics – Tools

- hand: graph, paper, pencils, markers, ...
- computer software:
Adobe Illustator, Inkscape (Freeware)
- visually:
<http://visual.ly/>

Infographics - Book

Information is Beautiful, David McCandless (€19)



Sources

Wikipedia (2014)

http://en.wikipedia.org/wiki/A_picture_is_worth_a_thousand_words

Karim Hachani (2013)

<http://www.pepperweb.co/blog/why-do-we-love-infographics/>

Ludovic Houplan & Hervé de Crécy (2009)

<http://vimeo.com/2285902>

David McCandless (2010)

[http://www.ted.com/talks/
david_mccandless_the_beauty_of_data_visualization.html](http://www.ted.com/talks/david_mccandless_the_beauty_of_data_visualization.html)