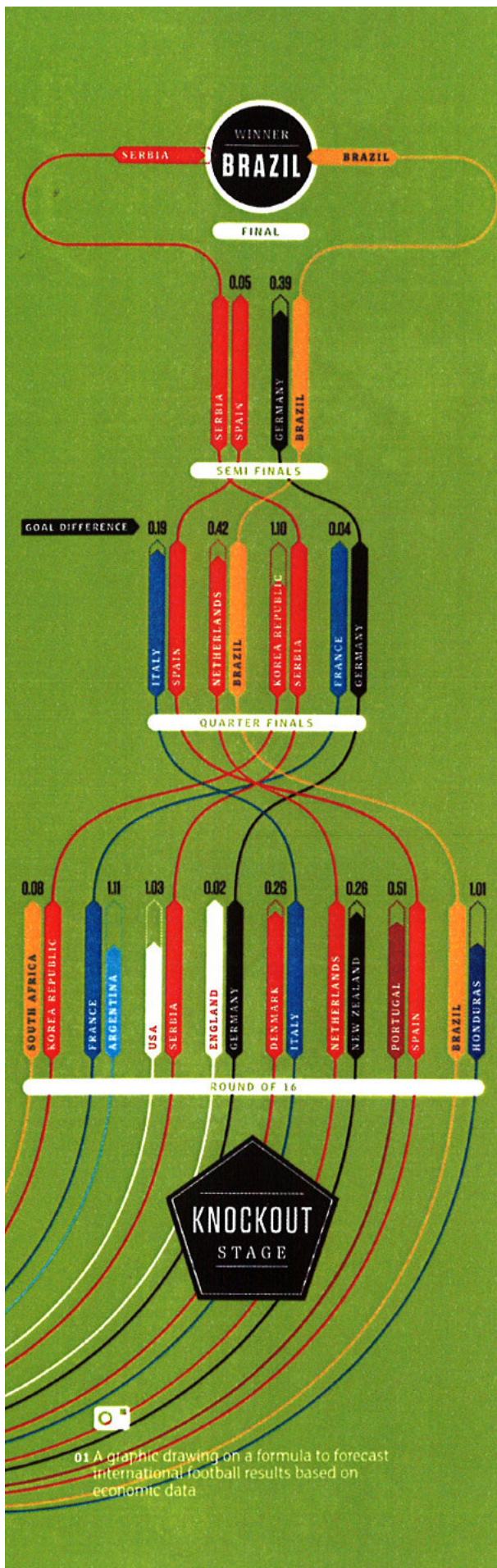


VISION
Information Graphics



About the writer

Splitting her time between London, her native Melbourne and Berlin, Trish Lorenz has been a design journalist for 10 years. She writes a weekly column for *The Independent*, and contributes regularly to *The Guardian*, *The Telegraph*, *Elle Decoration* and *Monocle*



01 A graphic drawing on a formula to forecast international football results based on economic data

Since our earliest beginnings, mankind has used imagery to communicate ideas and stories. Be it cave paintings visualising hunting grounds, the pictorial depictions of the afterlife on Egyptian tombs or complex tales such as the story of one nation conquering another as depicted on the Bayeux tapestry, our history is littered with information graphics.

In the modern world, we have access to more information than our minds can ever process. Waves of data wash over us from mass media outlets such as TV and newspapers and from the incalculable vastness of the internet. Today, all our learning is enhanced by visual aids; diagrams explaining news stories, data-based graphs, detailed maps or pictorial school texts. The need for pictorial explanation of data has developed to such a point it has spawned a discipline known as information graphics, where designs combine imagery with the written word to create visual stories.

Visual journalist Luis Chumpitaz, Information Graphic Director at Dubai Media Incorporated, has spent 15 years creating information graphics, and for the past five years has worked in the UAE, where he has established an award-winning

multimedia graphics department that now serves three of the country's leading newspapers: *Emirates Business 24/7*, *Emarat Al Youm* and *Al Bayan*.

He says the growth in graphic communication is spreading across our lives, from education and business to simple tasks such as washing your shirt. "Although information graphics have been around for a while, they used to be constrained to certain fields of knowledge, generally the more technical ones," says Chumpitaz. "Now you can find them in manuals, in educational publications, in maps, in magazines and newspapers, online and even in your clothes – those little icons that convey so much all in a tiny label in your shirt."

Sandra Rendgen is an art historian with a special interest in visual culture. Her book *Information Graphics*, a 500-page tome dedicated to the joys of the graphic communication of complex data, was published this year by Taschen. She believes it is the digital revolution – our growing dependence on the internet – that has revolutionised information graphics.

"Books are good for linear text, but it doesn't work in online

Images: 01 Paul Butts, *Wired* magazine, 2010, UK - image courtesy of Information Graphics by Sandra Rendgen Ed. Julius Wiedemann

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‘The web works best with smaller pieces of text enriched by visual structures. The shift towards digital media means we don’t work with long text pieces so much any more. Because the internet is inherently less text-oriented, graphics and images play a much larger role’

Sandra Rendgen,
Author of *Information Graphics*

communication. The web works best with smaller pieces of text enriched by visual structures,” she says. “The shift towards digital media means we don’t work with long text pieces so much any more. Because the internet is inherently less text-oriented, graphics and images play a much larger role.”

Information graphics really come into their own when dealing with complex data. Want to know how much every country in the world spends on health? No problem, go online and you can access UN data (www.who.int/whosis/en/). Want to know how that spending correlates with development goals and economic growth? Load the data into an Excel spreadsheet and run a simple comparative analysis and you can find out. Want to explain the results to pupils, colleagues or the general

public? There is every chance you will turn to a visual device. It might just be a simple graph or, as Hans Rosling made famous in his TED talks (www.ted.com/talks), you might use an information graphic that not only tells the story through a combination of words and visual tools but that by its dynamic nature also excites the audience and invites discussion, debate and ultimately leads to greater understanding.

British-born, New York-based graphic designer Nigel Holmes has been designing information graphics for decades and has a client list that includes Apple, the BBC and Ford. He says information graphics are best used where words alone cannot adequately tell the story.

“For me, the definition of a good information graphic is one where there is a happy marriage of words and pictures,” says Holmes. “My graphic hero, Otto Neurath, said that the graphic language was a ‘helping’ language, a language that helps the words rather than a complete language that can stand on its own.”

Holmes highlights the difference between what he calls data visualisation and information graphics. In the former, huge amounts of data, sometimes of negligible interest, are transformed into imagery without telling a clear story. If an image is simply raw data represented visually, then it’s not an information graphic, says Holmes.

“Good information graphics actually impart information, tell stories and explain things,” he says. “If they don’t do that, they become merely another art movement, confined to gallery walls. There’s nothing wrong with that, it just shouldn’t be mixed up with journalism and the business of explanation.”

Chumpitaz agrees with Holmes. “Accuracy, ease of comprehension and the economical management of visual resources are the virtues of a good infographic,” he says. “At its best, the correspondence between visual elements and data looks so seamless, so smooth that we can understand the content without much effort. In contrast, poor infographics are visually overloaded. This isn’t a matter of taste but of function: visual noise makes it harder for everyone to understand the story that’s being told.” In an ever more global world, information

graphics may also help cross-cultural communication. “Think of simple sets of instructions like Ikea manuals,” says Chumpitaz. “They can be considered a really global phenomenon.”

Images have the advantage over words when it comes to overcoming cultural barriers, but there are some limits. Rendgen notes that visual cues are often cultural. “Images ease communication but I don’t think they’re totally readable without some cultural presuppositions,” she says. Symbols that mean certain things in the West – the colour red, for example, which is often used to highlight negative data – might not mean the same in Eastern cultures, where red can symbolise good luck and joy.

Holmes concedes that you have to be knowledgeable about cultural customs and ways of showing information. “The way you explain things can have different meanings in different countries, but I’d like to think that basic facts about events and processes can be understood all over the world. My book *Wordless Diagrams* was published in English, Chinese, German and Dutch editions in part because it spoke in a visual language that could be globally understood.”

Information graphics may be taking over the world but there is a word of caution to be noted. The rapid growth in the use of graphics is causing some issues, not least a lack of uniformity. As architect Richard Saul Wurman points out in an introductory essay in Rendgen’s book, no two cities in the world draw their maps to the same scale and none use the same map legends. Accuracy too, is variable. “As always when an information form becomes popularised, there can be an issue with standards,” says Rendgen. “Standards are lowering, and readers and designers need to be aware of the need for accurate, credible and correct interpretations of data.”

And graphics can be misused, even by reliable outlets. “You find that editors sometimes use them to fill space, to brighten up a page or just to give the piece



01 This wheel presents an overview of colour symbols among major cultures worldwide



'The definition of a good information graphic is one where there is a happy marriage of words and pictures... Good information graphics impart information, tell stories and explain things'

Nigel Holmes,
Author of *Wordless Diagrams*

a factual, authoritative feel," says Holmes. It is this last point that is particularly pertinent. Perhaps because of the scientific and academic background of information graphics, readers often take it for granted that diagrams are accurate. "People don't question a visual story in the same way they might question the facts of a written piece," says Rendgen. "We need to be aware that these images are

constructed and edited, and we should question the source and credibility of what we're looking at."

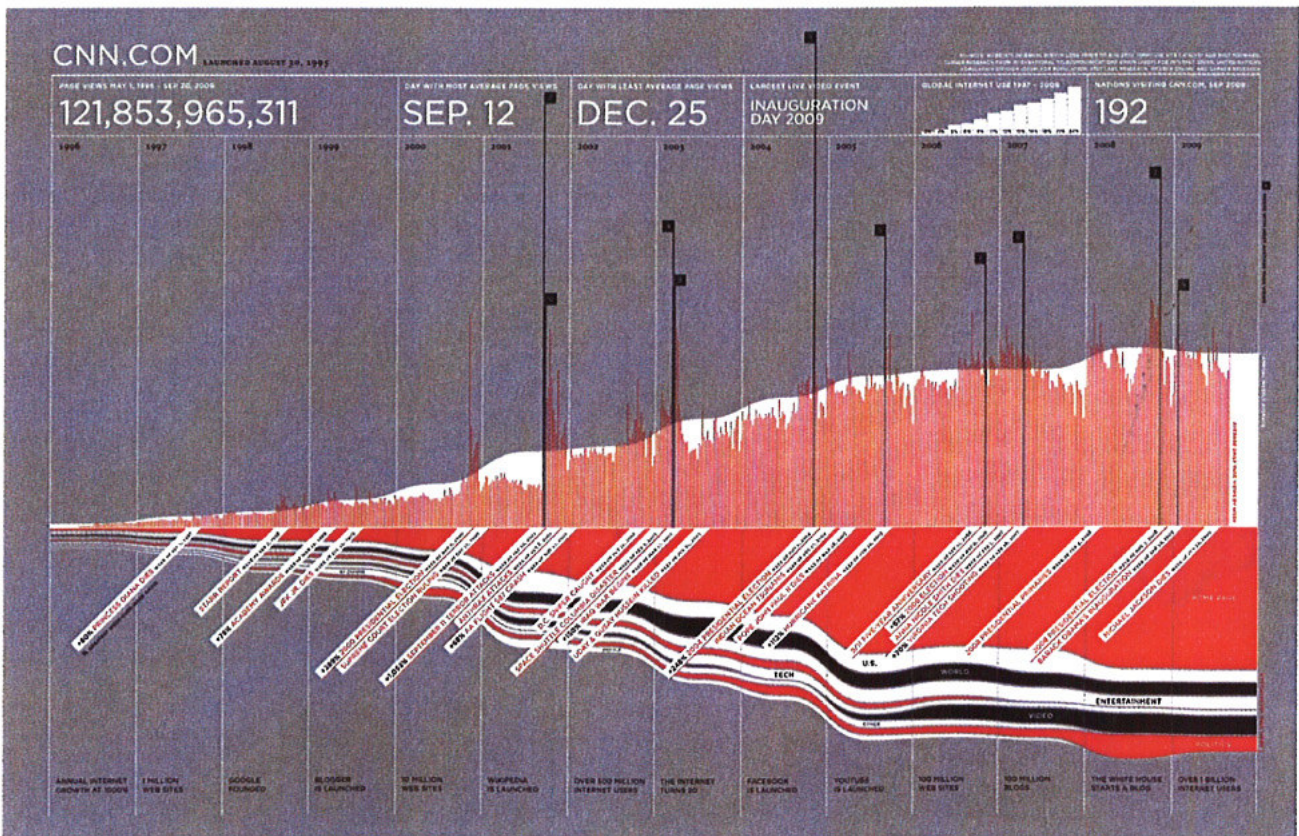
We all need to become more fluent and critical when reading visual stories because there is broad agreement that information graphics are here to stay. "Information graphics are an expression of what we need now: an information-driven society needs information-rich



- 01 This graphic was developed for a technology magazine to show all the attempted missions to Mars
- 02 Charts such as this for CNN.com can be used to demonstrate the number of page views over time for websites

Why it works: expert Sandra Rendgen picks one of her favourite infographics

"One of my favourite graphics is Nicholas Felton's visual history of the CNN website (below). It is aesthetically pleasing but also very dense with data. The central chart demonstrates weekly page views over time, black tags mark the 10 busiest weeks, and specific events are highlighted with white tags. The data is clear and simple to understand: you can look at it and get the message immediately. It has also been enriched with additional data, allowing you to dig down for different details.



Images: 01 Brian Christie, Joe Lertola. IEEE Spectrum, magazine article. 2009, USA. 02 Nicholas Felton, website. 2009, USA - both courtesy of Information Graphics by Sandra Rendgen Ed. Julius Wiedemann

