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## TELL THEM ANYTHING BUT THE TRUTH: THEY WILL FIND THEIR OWN. HOW WE VISUALIZED THE MAP OF THE FUTURE WITH RESPECT TO THE AUDIENCE OF OUR STORY

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### Abstract

This paper is part of a research project about the visualization of complex systems. More specifically, it focuses on the emerging need for a narrative approach in the understanding of complex networks.

A listener plays a key role in any narration process. Likewise, in every visual representation, the observer has the same role: narrators evoke whereas observers interpret through their imaginary. Why should the designer use a narrative mode of thought? Why should he give to the audience a *good story* more than a *sound argument*? [1]. To answer these questions, we present the *Map of the Future* we designed for *Wired Italy*.

Who are 'them'? But first... who are 'we'? And finally why should 'we' consider truth something avoidable for 'them'?

### What is it all about?

Let's start from the origins of the title.

In 2003, filmmakers Spike Jonze and Lance Bangs began to shoot *Tell them anything you want* [2], a short documentary feature about American writer and illustrator Maurice Sendak, author of the classic children's picture book *Where the Wild Things Are*. The title of this article makes reference to that short documentary in which Sendak himself pronounces the title sentence referring to what parents were supposed to tell children in order to bring them up in the best way. According to Sendak, people should consider children not as little specimens of organism who are not able to understand what adults usually are: to him, children are simply humans and, as with all humans, one should behave honestly. "In the discussion of children and the lives of children and the fantasies of children and the

language of children," he asserts, "I said anything I wanted, because I don't believe in children. I don't believe in childhood. I don't believe there's this demarcation".

In this paper, the target subjects are not specifically children nor a particular category of adults: 'them', in the title, refers to the general audience of any visualization 'we', the designers, produce. And the purpose of this paper is to point out a method for telling visual stories taken from complex systems of information, and not to dig into kids' experiences.

However, revising Sendak's statement, we can easily share his conclusions: the designer must not underestimate the viewers of his/her work, especially when he acts as a narrator for them. As a matter of fact, when any kind of narrator (a movie or theater director, an illustrator of children's books, an author of comics, a song-writer) tells a story, he/she has to rely on a public's imaginary in some degree. Stories convey information, cultural values, and experiences [3]: everything is evoked by the narrator but, eventually, interpretation is the observer's duty.

In fact, interpretation is an instinct for the observer, more than a duty. If a story is visually well-told, the viewer finds it compelling, deserving of wonder: the more qualitative the narrator evocation is, the more the observer is favorably disposed towards its meaning and the connections of its elements.

Sometimes the observer feels so deeply related to the story that he/she becomes co-author of the story itself through the personal or collective imagery that he/she offers to the interpretation: those are the times in which the amount of information held in the images might be grasped more quickly by the audience.

### So what?

Information visualization is a process that transforms data, information, and knowledge into a form that relies on the human visual system to perceive its embedded information. Its goal is to enable the viewer to observe, understand, and make sense of the information [4]. Guaranteeing this goal is the designer's duty.

By nature, in the visualization of complex systems, we tend to obtain a truthful synthesis out of data, to implement a process of transcription from concrete words or numbers to visual signs; but what do we do when we are facing abstract notions that remind us of qualities more than quantities? Narration, considered as a tool with the paramount function of myths to find a shape, a form, in the turmoil of human experience [5], is a great assistant for this kind of job.

Modern research in cognitive psychology states people have two different modes of thought: the paradigmatic and the narrative. Unlike the paradigmatic mode of thought, which is used to persuade somebody of the truth of a *sound argument*, narrative thought uses a *good story* to persuade of plausibility [6].

Designing for narrative means adopting methods that come from disciplines built on narrative purposes. Take cinema: As the movie director, the designer aims to choose the visualization that best preserves the complexity of the environment. He directs actors (the elements of a system), judges light design (the choice of elements to visualize) and set designs (the imagery to evoke), and chooses different optical lenses (the power of focusing) and, most importantly, the critical point of view of the camera (intentionality).

Fig. 1. A detail of the *Map of the Future*, by DensityDesign (© 2009 Wired Italy/Density Design Lab.)



### That's it! But... example please

A case study we're glad to present consists in the *Map of the Future* that we designed for the Italian edition of *Wired* magazine [7].

In 2009 during a long session of brainstorming and simulation games, 7000 visionary players all around the world elaborated different scenarios for the future. This research was carried out by *The Institute for the Future* that transformed the data in a very complex network of tendencies and previsions in the form of a table full of words.

As designers, our work consisted in representing visually all the scenarios and giving the viewers a look at what they might expect over the next 10 years. To do that, we followed an initial two-step analysis that, persisting in our cinematic metaphor, we can call 'pre-production':

1. *Create a logic structure*, find patterns and correlations between the different scenarios and semantic areas of the single predictions (the predictions were classified in 5 areas – politics, infrastructure, environment, economy, society – and then clusters of the classified predictions were made inside any of the 5 chosen fields – for example, in the Economy area, predictions of 'micro-philanthropy networks' and 'seed networking' were clustered under 'solidarity networks');
2. *Arrange* the discovered structure to achieve one macro reading orientation (the 5 areas had different degrees of abstraction, i.e. the predictions in one area were more abstract than the predictions in another, so we have ordered them from the more abstract – politics – to the less – society – see Fig. 2).

These first two interventions set the stage. The actors (the elements of the system – the predictions) were cast; the light design was ready (lights pinpoint the network's most important clusters). At the same time, as the casting and pre-production were going on, everything led to the narrative idea, the third step:

3. *Think about the story*; write down the 'script' evoking a precise imagery (the idea came from the retro-futurism of the 1950s when everything seemed possible and the consequences of the smallest transformation were exaggerated on purpose to open people's minds in wonder).

This is the step in which set design is conceived in detail (deciding how to represent and to style characters and environment plays a fundamental role in capturing the attention and emotions of the audience) and the lenses for shooting are chosen (the power of focusing on some elements is very important to enhance

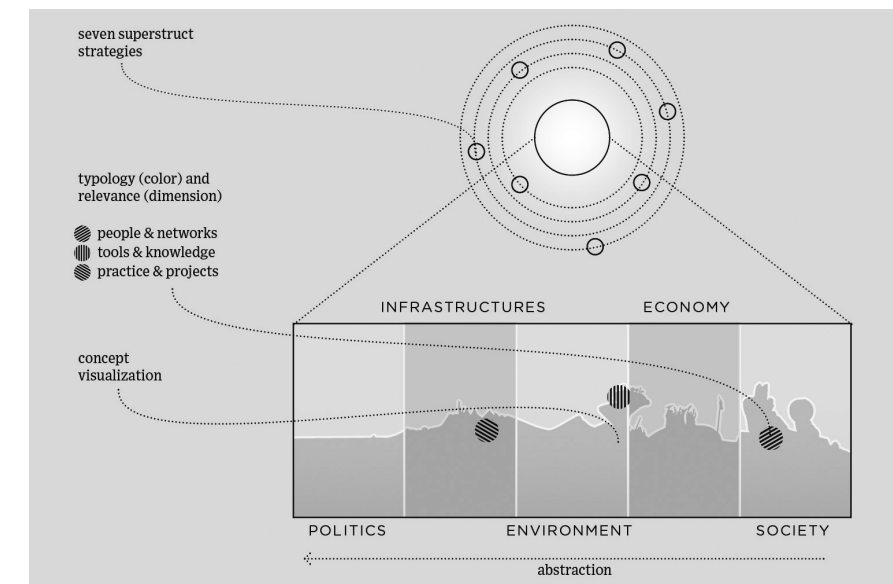


Fig. 2. The structure of the Map of the Future (© 2009 Wired Italy/Density Design Lab.)

narration and capture the cognitive thread of the audience [8] – here the optical lens zooms in from abstract to tangible and figurative level of scale.

Then there's the set-up of 'direction'. The designer, as a director, takes political stances which cannot go unheeded:

4. *Be aware of the intentionality*; you are the designer, you're interpreting with your own point of view, but use it to tell a story made up of multiple tales and not to convey one privileged solution to the audience, in any way (the faraway viewpoint of the *Map of the Future* communicates our distance from the future and gives the observers a panorama).

Now, we were ready for the final step:

5. *Shoot*.

### “Oh joy, rapture, I've got a brain!” said the Scarecrow

In designing a map of the future, based on some semi-scientific cooperative predictions, there's no such thing as truth, or better, there are lots of very likely truths, all different from one another, depending on which combination of 'evolution-factors' is taken into consideration. Therefore, the designer can choose either to visualize every possible future (truth) or to tell the story of a possible world in which many futures could coexist (plausibility), leaving the audience the chance and the charge of deciding which future is more likely to them.

The lack of unchallengeable quantitative data leads the designer to adopt a narrative mode of thought that stimulates itself the narrative mode of thought in the minds of the observers: no truth or certainty can be imposed by the visualiza-

tion, because there is none. Encouraging the audience to think and see connections between multiple visual tales is a form of respect: you have to tell them anything but the truth, indeed.

Expected results are not scientific of course (we do not foresee how exactly someone can interpret visual stories) but empirical: Observers of the *Map of the Future* were driven to discuss it together; they were engaged to the visualized system, emotionally and intellectually, like an incredulous Scarecrow towards the end of *The Wizard of Oz* [9] who exclaims: “Oh joy, rapture, I've got a brain!”

### References and Notes

\* This paper was presented as a contributed talk at Arts | Humanities | Complex Networks – a Leonardo satellite symposium at NetSci2010. See <<http://artshumanities.netsci2010.net>>

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