

## Google knows your curtains

Johan van Looveren interviewed Gerlinde Schuller for the publication 'Thoughts on Designing Information', Lars Müller Publishers, 2015

In her book 'Designing Universal Knowledge', Gerlinde Schuller points at the complexity of universal communication. As an information designer and a visual journalist she reflects on the role of information design and reminds designers on their impact and responsibility. By questioning the acts and motives of today's global information suppliers, she expands the debate towards a global scale: who has access to which information, and who's in control of it?

**Johan van Looveren: I got to know your work through your book 'Designing Universal Knowledge'. What gave you the idea to make a book about this and how did this book come about?**

Gerlinde Schuller: The ultimate goal of information design is to design something that is universally understood. That means that the target audience is always very broad and international. Think of the signage systems for airports or the user interface design for computers. Universal design is really a promise made by information designers and I was curious to find out if they could fulfill this promise. Moreover global information suppliers like Google or Wikipedia call it their mission to collect all human knowledge for us. So the book bears the name 'Designing Universal Knowledge?', with a question mark. It questions whether universal knowledge actually exists, and if so, to what extent is it universal?

I started out with a series of questions and then attempted to answer them for myself by researching appropriate projects and conducting interviews. The interest in the universal aspects of design obviously comes from the information design field itself.

**J.V.L.: That's quite a challenge. How did you formulate the criteria for selecting your material?**

GS: Those criteria were already summarized in the title of the book. Basically it has to be related to universality, globalism, internationality. In addition, it has been connected to knowledge, to the world's largest and most complex knowledge collections: the largest libraries, archives, databases. The third parameter was that it had to be associated with design. The interviewees in the book almost all come from one or other design discipline. They're not necessarily information designers, but creatives, active in the field of information design. The book discusses the question: 'How do you design complex knowledge?'

**J.V.L.: What was finally your impression or conclusion? Is there such a thing as universal knowledge and design?**

G. S.: Universal knowledge does not exist. It's a moving target, changing constantly. Due to the technological developments and the speed with which data can be collected today it's changing every day. Therefore the definition of universal knowledge changes every, too. Only by developing standards, information designers can come closer to universal methods to visualize complex knowledge. Of course nowadays some standards exist: for cognitive science, web design etc. Those universal principles of design are applied by a great deal of designers, especially when working for a large audience. Maybe that's close, but I wouldn't call that universal, which means for me 'understandable for the whole world'.

One of the biggest barriers that exist for universal design is the language barrier. There's no way to bypass the use of headings, codes or abbreviations. There is always some part of textual explanation present, which is exactly where you encounter this language barrier. Of course, more and more often automatic translation software is called upon. But its quality is still very poor. Once that software will be accurate, we will be a whole lot closer to universal design. Most people in the world, after all, speak only one language. You can imagine what kind of impediment that entails. People only understand a very small amount of the Internet's content. That remains in my opinion the biggest obstacle. Translation software that would understand all the languages of the world would be as great a leap as the invention of the printing press.

**J.V.L.: A new Rosetta stone?**

G.S.: Yes. We are not there yet but multinational enterprises like Google, Yahoo and SDL plc. are fully engaged in developing software for translating digital text perfectly.

**JVL: In your book there's also a strong emphasis on the democratic aspect of information. Who collects information, who provides access to information and who gains or has access to information? How do you see this progress on a global scale? How democratic is the dissemination of global information?**

G.S.: Currently, the protection of personal data is in full swing. WikiLeaks or the Open Data Movement have helped advance the discussion considerably. Whistle blowers have come to the fore and on an international level public data are increasingly made more available to the general public: not private data, but urban and nationwide data. Anyone can use those data now, even for commercial purposes. The collection of these data was paid for with public money. Previously, as a journalist you had to take a lot of lengthy administrative steps to gain access to certain information, even if it was only to find out certain quantities. Little by little that is changing everywhere.

Furthermore new laws are being considered, also in Europe, but standards certainly have not been established yet. What's more, I am concerned about the concentration of data, concentration of data in the hands of a single company or institution. It is not news that commercial data are being collected by companies, but in recent years a small group of global companies have been focusing on collecting private data. Think of social networks or search engines where private data is made public. Currently, this seems like a win-win situation for the user: I give you my personal data and I get your service for free. However, at present those data become the property of these companies, such as Google, Amazon, Facebook... These are private companies which apply data mining or may sell the data. Everyone should become aware of the fact that his or her private data is one of the most expensive commodities in existence and that we are therefore now more vulnerable than ever before. If one moment you publish data on Facebook but you regret publishing the information a little while later, you have very little control over it. Once the data is made public you don't know where your data is.

**J.V.L.: John Maeda wrote in his 'Laws of Simplicity' that people would rather entrust their private information to a computer than to people close to them.**

G.S.: Especially young people seem more inclined to do that. They only become aware of their vulnerability once something goes really wrong. It all seems easy and free, but it ends up costing you a lot.

On the other hand global information suppliers are entirely disinclined to inform their users of what exactly they can do with the data. In these matters international rules or laws are essential. Especially when you realize that for example Google's search results are not objective. The algorithms used are constructed in such a way that only commercial results are published at the top of the ranking. This is when you enter the territory of manipulation. When the Google search engine, that seems so uncomplicated, so simple, so white generates output, you don't even get the impression that the information has been manipulated. Information designers need to realize that they have an important influence on this.

**J.V.L.: How would it then be possible for search engines to produce objective results?**

G.S.: You could, for example apply the L.A.T.C.H. principle (Location. Alphabet. Time. Category, Hierarchy), first introduced by Richard Saul Wurman. As a user, you would be able to ask the results to be generated alphabetically, or based on where something was published, when and in what category. With Google, you do not find out when certain information was put on the Internet, you only find out which sites were most often clicked on. That is of course a very different choice. They obviously have a number of advanced search tools, but those too are secondary to commercial purposes: the most clicks still rank at the top, you can still buy your way to the top. Google is not objective, it's a commercial product. Everyone should realize that. And it's smart for them to collect private data. Through data mining they can improve their services and products and even develop new products. Meanwhile they are acquiring other companies, which allows them to link different databases.

Google has bought up so many companies now, they are able to constantly monitor your activity. They know what you are looking for, they know where you are, where you go on holidays, where your second home is and even what your curtains look like. All in all this is a whole lot. It's still subtle. You won't even notice that they are screening you. But you and your data are being used.

**J.V.L.: 'Simplicity' is one of the most interesting entries in 'Designing Universal Knowledge'. In his essay Markus Frenzl writes: "The filtering of information, which appears necessary to attain simplicity, is one of the great challenges but also one of the biggest risks". Somewhat further down he specifies that by oversimplification, you may lose depth or background.**

G.S.: Information design is the translation of complexity into a simple and understandable design without deleting data. It is not about circumventing the complexity. Handling the complexity is precisely information designers' expertise. You start from raw data, which can basically be anything: you too – as we just saw – are data, raw data, which you can do nothing with by itself. By organising, combining, condensing the data you translate it into 'information'. It's an editorial step. After that you should find an appropriate visualization and storytelling format by asking yourself what you want to communicate through your information visualization.

**J.V.L.: The role of a client is also important. What does he/she want to be communicated?**

G.S.: You should not be manipulated by your client. If necessary, you should refuse the commission. Data is transformed into information through an editorial process. I do not

occupy myself with visualizing raw data. There's software available for that, but I think that software is oversimplifying things. To me it's the editorial side that's very important. In the editorial stage you verify how to avoid manipulation, whether you are able to do it. The challenge is to not add anything that isn't there and to not omit something that is there, to not overdo it but to preserve correct proportions. The data must remain truthful.

**J.V.L.: What is your role in your work then: do you collect your own data, or do you only process them?**

G.S.: I do both. When I work on a commission I usually get data sets from the client that I work with. For my own projects like the book "Designing Universal Knowledge" or "Making the Impossible Possible" I collected the data, meaning all the material in the book, myself. For one particular project, the book "Amsterdam in documents" I first developed the concept, designed a dummy and then I took the whole project proposal to the Amsterdam City Archives. They were very keen on making their data available for this project and for that reason a commission came from that. For me this is the ideal way of getting commissions.

**J.V.L.: What is the importance of an interdisciplinary approach?**

G.S.: Information design is fundamentally interdisciplinary and does not depend on certain media. The working approach of 'making complexity understandable', is always the same – it doesn't matter whether the end result is a systematic book, a website, an exhibition or a signage system. Information design combines skills from graphic design, web design, 3D design, psychology, cognitive science and information theory, so in my opinion information designers should have a versatile and multidisciplinary background. They should know about different areas of expertise and have a journalistic curiosity.

After my visual communication studies, where I focused on conceptual design, typography and photography I did a one-year postgraduate scholarship at the Designlabor in Bremerhaven, Germany. I worked there in interdisciplinary teams with architects, 3D designers and exhibition designers. One assignment was to design a product for Alessi and our project leader was Gijs Bakker from Droog Design. In that interdisciplinary team I learned a lot about 3D and materials. I made models of different materials and for nights I tested if an object felt right in one's hand. You can imagine that this time turned around my two-dimensional world. And I also realized that for information design an interdisciplinary approach was essential. In my final exam I had focused completely on information design, so in my thesis where I expounded the long history of information design it was abundantly clear that the most important developments in this field always originated from experts from different disciplines: scientists, archivists, librarians, interaction designers. For information designers this doesn't mean that you have to be a specialist in all these areas simultaneously. You have to know what the respective possibilities are and be willing to work in a team.

**J.V.L.: How do you think graphic design education should prepare a future information designer in the best possible way?**

G.S.: Analytical thinking, openness and an international orientation are crucial. It sounds cliché, but our current era is very global. You get news and tweets from around the world, you can be reached anywhere... You have to work internationally. So you're not a 'Dutch designer' or a 'German designer'. You also need great empathy: there are so many different themes you have to familiarize yourself with if you want to be able to understand them. When we make climate charts for a book about the climate, then you need to comprehend how it all works in order to visualize it in the best possible way for a large audience. You should be able to muster up enough interest to understand how it works. You need to read a lot, talk to people, do research... to be able to understand the complexity of the data.

When students just start out they don't have these analytical skills. You have to offer this in your education. There are methods to find data and to analyse them. There are organisational systems and standards. All you need to learn is how and when to apply them. The tools to design information are still in their infancy. But they do exist. You need to learn how to use them. Of some of the visualizations I see, I think 'this is not an information visualization'. It might look beautiful – data-art does exist, which I often find beautiful – but it's not a visualization that clarifies the information. These basic methods, standards and skills have certainly not been introduced in all graphic design courses. But the development of special information design courses is still in full swing.