

**POINT OF VIEW**

## **Hans Rosling: unveiling the beauty of statistics for a fact-based world view**

**This is an act you have to see to believe! It is almost impossible to capture the energy, passion, knowledge and humor of Hans Rosling on paper. Live or perhaps on video is really the only option. Read this article and then go to the websites listed at the end. There, you can broaden your knowledge of the world around us as Rosling brings the statistics alive. Google found the concept so interesting that in 2007 it acquired the Trendalyzer software from Gapminder Foundation to help with their mission to make information more available and useful.**

Hugh O'Brian

A humble professor of Global Health at Stockholm's Karolinska Medical University in Sweden, the institution responsible for deciding the Nobel Prize in medicine, Hans Rosling has become fairly well known in recent years. Through speeches at some of the most influential meetings in the world, he has been impacting and informing world political and corporate leaders with his amazing Gapminder tool for explaining and animating the world around us. "After I spoke for the first time at the TED conference in Monterey, California in 2006," says Rosling, "two people rushed up to the stage to talk with me: Al Gore and Larry Page." (For those who don't know, Page is the co-founder of Google. And Gore is Gore, as everyone knows.)

"Al Gore was literally shaking me, whispering, perhaps so no one would hear him: 'I didn't have the slightest idea about the remarkable health and demographic progress in Vietnam that you just showed us in those graphics.' So I whispered back: 'And you know a lot about the world. Imagine the other politicians. It's frightening.'" This is what Hans Rosling is all about. This is his mission. Helping the world to understand the world.

**SEA CHARTS FOR THE WORLD.** "I see myself as making sea charts for the modern world, covering all aspects and variables, not just the waterways. If you think about it, in the past, sea charts had a very positive effect because they allowed world exploration and safe travel, they encouraged trade and tourism and, of course, eventually helped increase economic development and standards of living. At the same time there have been negative aspects of sea charts, such as being used for war and conflict. But my basic belief is that there is more good than bad in showing the new world in a more understandable way."

An example of his first chart, created originally around 1997, is shown on this page. This is the Gapminder World Chart with data from 2006, plotting health (child death rate) versus money (GDP per capita) for most of the world's countries. Note the compass in the upper left pointing to Healthy, Rich, Poor and Sick. Obviously there is a high correlation between wealth and health.

With his broad and deep background in global health, gathered from studies all over the world, Hans Rosling has gained a global insight and understanding that he now wants to try to share with the world in a positive, beneficial and easily-available manner.

"To know and understand the world," says Rosling, "you have to be very familiar with factors such as child mortality rate, family size, life expectancy, GDP, literacy, exports, governance, gender issues, rights and all kind of data. Many companies and people are only aware of one or two dimensions of the state of nations. I think the corporate sector is realizing this is a problem and I have found numerous companies coming to me in sectors like pharmaceuticals, oil and gas, and consumer products who want to upgrade the world view of the senior staff."

**IMAGINE IT COMING TO LIFE!** The incredible feature of Rosling's Gapminder work has been to bring the statistics and, more importantly, stories of progress and stagnation to life. So you can see a time series of numerous variables over many years. It is the moving bubbles that is the key to understanding the story. It might be compared to hearing a Beethoven symphony instead of simply looking at the musical notes on paper. And it is a lively performance! "It has to be lively to get attention," says Rosling. "I want to be like a tabloid newspaper that maintains the scienti-

fic rigor of a statistical report because this is the way to get people to notice and to get people to think. So these animated graphics that arise from the software Gapminder created also need a rough and simple story to make use of evidence based statistics.”

But, one wonders, how did a professor of Global Health come up with the software tools to do this? “Actually I have to say all of this is based on work done by my son and my daughter-in-law, with a team of Swedish Flash developers. They made data come alive with their IT skills. I have simply been water skiing behind their boat! I had lots of knowledge and data but wanted to bring it to life and make it more understandable, animated and interesting. So they worked on this for seven years and developed the software we call Trendalyzer.”

**GOOGLE FOUND HIM BY MISTAKE.** Trendalyzer was, in fact, bought by Google in 2007 for an undisclosed sum. The money went not to Rosling but to Gapminder, which is a non-profit foundation based in Stockholm. Typical of his humble attitude, when asked how Google came to learn about him, Rosling explains with a laugh:

“It was a bit of a mistake. Bo Ekman, the founder of the Tällberg Foundation in Sweden, was at the Book Fair in Gothenburg in 2003. He got lost on his way out of the exhibition center and somehow he came into the room where I was giving a lecture on global health. He started listening and then came up to me afterward and said he wanted me to speak at the Tällberg Forum, a meeting dedicated to deepening understanding of issues of leadership and change in society and business. So from Tällberg I was directly picked to speak at the World Economic Forum in Davos and also to the TED (Technology, Entertainment, Design) conference where Larry Page and Google came into the picture.”

**FROM SWEDISH TAX-FUNDED TO GOOGLE.** “As we were developing Gapminder we realized it could be a useful tool for the world. When we talked to Google, it made lot of sense. Google was started by Larry Page and Sergey Brin not to make money but to organize the world's information. Of course they have made lots of money along the way, but their original aim was and still is 'to organize the world's information and make it universally accessible and useful.' That fit in perfectly with our view of visualizing the world to better understand it. The university here in Stockholm was also very supportive of our cooperation with Google.”

On your Gapminder site one might be skeptical of the accuracy of statistics. How good is the data?

“I would say, in general, much of data it is better than you think. Of course there is some data that is hard to measure, such as poverty rate, substance abuse or suicide, for example. And there are often differences in definitions so you're not always comparing apples with apples. Unemployment is a prominent example of this. But the core statistics that are measured in the same way year after year, and for which there are field survey methods in poor countries without registers, are good enough data to see and anticipate trends.”

“It was a bit of a struggle but we have been able to convince many government bodies and organizations including the UN, OECD, WHO and many others to open up their databases to get the true power out of Trendalyzer. Now we have some data so when you look at Gapminder you can plot something like 300 variables in numerous ways to gain a better understanding. We think if we put up free stats then clever people will come, use them, understand things and find solutions.”

Coming back to Davos, do you think meetings like the World Economic Forum are effective?

“A little bit to my surprise, Davos is actually a very serious meeting. Before attending the first time, I was somewhat skeptical about the whole thing. But I directly saw that cocktail parties and dinners were not the focus, that it was true meaningful speeches, meetings and discussions between people that don't normally meet in this way. Perhaps business, politics and civil society does not meet at all, so Davos was an opportunity for a real exchange of ideas and solutions at all levels. I learned a lot, and some of my preconceived ideas were proven wrong while others were confirmed.”

**CHINA ON THE RISE.** A discussion with Hans Rosling is an event in itself. In a very down-to-earth, friendly manner he rattles off statistics, facts, historical events, causes and effects, trends and much more like a walking, talking encyclopedia. Whether it's AIDS in Africa, or epidemics in South America, Gold Rushes in California in the 1850s, or sugar production in Mauritius, you can't help but be impressed. When asked about the current major trends that will impact the world, he highlights China.

“We clearly have an emerging modern China, which is becoming an equal economic power of the world, no less than the USA, no less than Japan. The government is serious and they are planning for a very long time frame of 25 to 50 years, whereas in Western Europe and the US the politicians are looking at a three-year time frame and companies are only looking at the next quarter. This to me is totally insane. Of course the communist party in China is also stubborn and undemocratic, but it is changing. I used to say, Japan was the trailer, China is the main film, let's hope it will remain peaceful.”

**VIETNAM DEVELOPING RAPIDLY TOO.** “It’s also interesting to look at a country like Vietnam, which has developed tremendously in the past 25 years. Today life expectancy there, for example, is the same as the United States was in 1975, the year that John McCain came home from Vietnam after being a prisoner of war there. But the GDP per capita in Vietnam is today only what it was in the United States in 1900. So we have a big gap between human resources and skills on the one hand and the salary level on the other.

“When you look at the people in Vietnam, they are pretty much the same as everybody in the world. The parents want a good life for their kids, they want shoes for them, a good school, perhaps a guitar and maybe a vacation at the seaside. So they have this standard of health, long life expectancy, which is at the 1975 US level and you can be sure that GDP is going to move up very fast from the 1900 level. They are very hardworking and motivated people.”

“And the device being used is of course the free market. The free market is an incredible tool that will be copied by all countries. I am confident that it will produce better standards of living and health throughout the world, if it is wisely regulated by government and people have the possibility to defend their rights. But it is a myth that economic growth needs democracy. Democracy and freedom are of course extremely important goals for individuals and societies, but to our surprise we now see in the world that one can exist without the other.”

**A NEW VIEW ON STATISTICS.** With this pioneering work Hans Rosling has taken existing statistics and made them more beautiful, alive, understandable and meaningful. The old standard joke that is commonly heard about statistics says there are: 'Lies, Damn Lies and Statistics'. Maybe one day people will talk instead about Truths, Damn Truths and Beautiful Statistics! And we will have Hans Rosling to thank for it. o

**Half college professor, half global genius, and half stand-up comedian. How many halves can a guy have? But there is more. He is also a sword swallower. Really!**

Check these web sites:

<http://www.gapminder.org/videos/>

<http://www.gapminder.org/videos/ted-talks/hans-rosling-ted-2006-debunking-myths-about-the-third-world/>

<http://www.gapminder.org/videos/ted-talks/hans-rosling-ted-talk-2007-seemingly-impossible-is-possible/www.ted.com>

And what can this mean for the tissue business?

“My feeling is there are probably about three billion people who in the next decade are reaching the level of income and living standards where they are potential customers for tissue products like toilet paper, kitchen towels and facial tissue. They probably have the basic necessities of life like water, electricity and maybe even a washing machine so the convenience of tissue paper products should be attractive to them. I think affordability will be the key, and there will be a huge global market opportunity for cheap tissue in high volumes. You can't overlook the price impact on demand.”

“Hygiene is also a very important factor in health. For example if you look at the last cholera outbreak in Chile, it was traced back to and spread by dirty dish cloths. That is a fact. So perhaps paper kitchen towels would have been useful in avoiding this.”