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If you want to compare how people live in different countries you must use some form of statistical measurements. That might sound scary, but today it's quite easy. This is the first in a series of short films where I will show you how to compare countries using statistics. I will show you the most commonly used measurements, what statisticians call indicators. In these films, I'm also going to show you a range of graphical tools and techniques that you can use to visualise the numbers, and even to animate them, and you'll see that visualising and animating statistics will really help you to discover the stories and to clearly see how countries are changing.

But here, have a look at this, some examples of how you can present data about the countries of the world. Here a horizontal axis, babies per woman, all the way from 1-2 to 7-8, and here a vertical axis that is lifespan, life expectancy, how many years a new born can expect to live. First you decide which indicators you want to display, then you can show each country as a bubble. Here are all the countries, and these green ones is America, north and south. The yellow ones is Europe, east and west. And blue is Africa, north and south of the Sahara, and red is Asia, and we include Australia and New Zealand.

I often use colours to show the region, but you can use colours to show other things, and I let the bubble size represent another indicator. The size of the bubble show the size of the population. Look, the big ones over there is China and India, and Bangladesh is just behind. Animating the bubbles shows how countries are changing and how fast they change. Here is the data, I start Bangladesh, indeed life is getting longer and babies fewer, 6, 5, and life even longer, 4, 3, and they land now almost to 2, it's 2.2 and the life span is 70.

Animation works not just for one country, it can show all the countries of the world changing at the same time. And now, independence, and with independence health is improving faster than it ever did in other countries here, and now starts the fast economic catch up of China and other Latin American countries.

There are also other ways to show data, like using distribution shapes to show the variations within countries and regions. And I take down all the countries in the Americas, and now you can see from the richest person to the poorest person, and the height here shows you how many there are on each income level. You can show distributions together. Here I stack them on top of each other, and you can also animate these shapes. I start the world and you can see that many people are born into poverty here, but Asia goes towards higher income, and one billion goes out of extreme poverty this way, and the whole shape of the world changed.

I'll show you how to do all this and much more on your own computer. You don't really need a holographic projector in a TV studio. Try not to feel nervous about using statistics. Most of us use statistics every day without realising it. Every time you read the sport results in the newspaper, you use statistics. You compare the performance of teams and players by counting the number of goals. Basically every time you compare one thing to another using numbers, that's statistics. If you don't use statistics you will only base your ideas about the world on personal experiences and impressions, or you might rely on media, but media like to show you what's unusual, exciting, or shocking, things that are rarely representative of the world as a whole. You might even base your world view on facts you learnt at school, facts that are now out of date. When I come across people who do not know how much the world has changed, most of them do use numbers, but the numbers they use are no longer correct. So where do we find up to date statistics about the countries of the world?

Well today you'll find most statistics you need free on the internet. In these films I'm going to show you some of the best websites, but you can also use the website of the

foundation I work for, Gapminder. We have not only collected the main time series in one place, we have also invented a new interactive graphical tool. It displays the indicators you select in a beautiful and understandable way. Anyone can use it for free. So watch the films, visit the website, and play with the data for yourself. And if the statistics confirm what you already know about the world, that's good, isn't it? But if not, you'll be giving your knowledge a check-up, and that's always a good thing to do.