The history

Let’s start with a question about the role of graphs and charts.

Sometimes you get the impression they are there in place of pictures of cute kittens in more serious articles. For example, those about finances or politics.

But are graphs merely blinking, three-dimensional trinkets?

As it turns out, that’s not the case. Well designed graphs can save many lives. Don’t believe us?

[The Lady With The Lamp]

A certain Florence Nightingale has shocked her family when she told them she wants to become a nurse. At the time that just wasn’t a job for women from good homes.

But Florence was not a woman who gets discouraged easily. She was very engaged in nursing and took great care of her patients. Watching over them at night she would walk the hallways of hospital rooms. Her involvement became legendary and writers and poets begun to write about the famous “Lady with the lamp”. But it wasn’t the kerosene lamp which which she walked the hospital rooms that made Florence recognized as the pioneer of nursing.

During the Crimean war Florence, who was also a statistician, noticed that most soldiers died in a hospital not because of their wounds, but because of insufficient care, malnutrition, infections or fever.

She appealed for more resources to organize hospital care but arguments backed by numbers were unsuccessful.

She designed a polar diagram, also called the Nightingale rose or coxcomb diagram on which she presented the causes of death at the hospitals.

The diagram is completely dominated by the blue color, which shows that soldiers were dying not because of war wounds, but because of low level of personal hygiene, weakness and malnutrition.

Out of 18,000 deaths, as many as 16,000 died of causes that could be prevented by organizing better hospital care.

The message of this diagram was clear, the patient must be nursed after the surgery, it is not enough to just remove the bullet from the wound.

That is obvious today but it wasn’t always clear. A single diagram has changed forever the image of nursing.

[Mystery plague]

A graph designed in 1854 by an English doctor named John Snow carries an equally strong message. When London was struck by a cholera outbreak, city authorities and even doctors were convinced it was caused by the so-called bad air. They would prohibit airing and even wall up the houses.

Trying to understand the disease, doctor John Snow would talk with families of the patients. He collected evidence searching for causes of cholera infection.

When he placed the information about the location of cholera patients on the map, he discovered that the houses of many of them were located near the Broad Street water pump. And even if they lived elsewhere, they drunk water from that pump at work or at school.

The arguments proved strong enough to cause the closure of the pump.Scientific proof confirming Snow’s suspicions, the existence of a bacteria that causes disease was only proven several years later by Louis Pasteur.

Today, looking at the map which shows the addresses of the patients and the location of the water intakes we have no doubt that the Broad Street pump must have played some role in this outbreak.

[Could Miłosz have met with Bulgakov?]

A diagram doesn’t have to save lives to be useful. Very often a diagram plays a role of a frame around which we can build an interesting, complex story. Studying the list of books read in schools it is interesting to note how the authors of great works influenced each other. But who served as the inspiration and who was the follower?

Was it possible for Miłosz to have met with Bulgakov?

Or Kafka’s “The Trial” to be an inspiration for Mrozek’s “Tango”?

On this chart we have collected the lifespans of notable authors and the dates on which they wrote their best known works. That simple portrayal of data shows the school reading list from a whole new perspective.

As an interesting point we would like to add that the author of the first chart which presented data in this way was Joseph Priestley, who discovered oxygen. Priestley, a Renaissance man, was also known to contemporaries as the author or graphics which showed the lifespans of influential scientists, thinkers, heads of state and politicians.

[Where will I find good schools?]

More and more information about us and about the world around us is digitized - it appears in an electronic version on the Internet. This information, when shown correctly, can be very useful and can help in better decision-making.

If we are searching for a specialist doctor, we can use a chart to show clinics with the shortest waiting time.

Or maybe you are searching for a school for your child. On a neighborhood map it is possible to show where the good schools are and where you can count on a more private atmosphere and individual approach towards students and which ones are huge schools that operate in two shifts, like a factory.

Now it is easy to see if there is just one good school in the neighborhood or if there are many that offer comparable teaching quality.

Let us go back to the question about the role played by charts. These examples should be able to convince us that a good picture is worth more than a thousand words and a good chart is even more valuable. Let’s see then how to make a good chart.