INFOGRAPHICS

CONTENT

1. DID YOU KNOW?

An infographic is an effective way to present information through graphs, maps or diagrams to communicate facts or data to an audience. Although some people think that infographics are a new trend, they have been around for a very long time. Interesting images of bars have been found in old books written and copied by German monks before Descartes invented his axes that later became the basis of any graph or diagram. However, some believe that one of the very first infographics was designed in 1869 by French engineer Charles Minard

Although this was not the very first infographic designed by Minard, it may be his most curious work as he figured out an original way to depict Napoleon's Russian Campaign. The light brown line represents the number of soldiers who left France, while the black line represents those who came back from Russia. Below the graph, Minard drew the main rivers they encountered and the temperature difference as time passed — clearly, the number of French soldiers decreased every time they found an obstacle. It's fascinating to see how an old infographic can tell a story usually written in words.

Later, doctors, researchers and engineers developed what we now call data visualisation, designing new kinds of charts — clearer and clearer — that are now used for the same purpose: to explain complex concepts in a simple way.
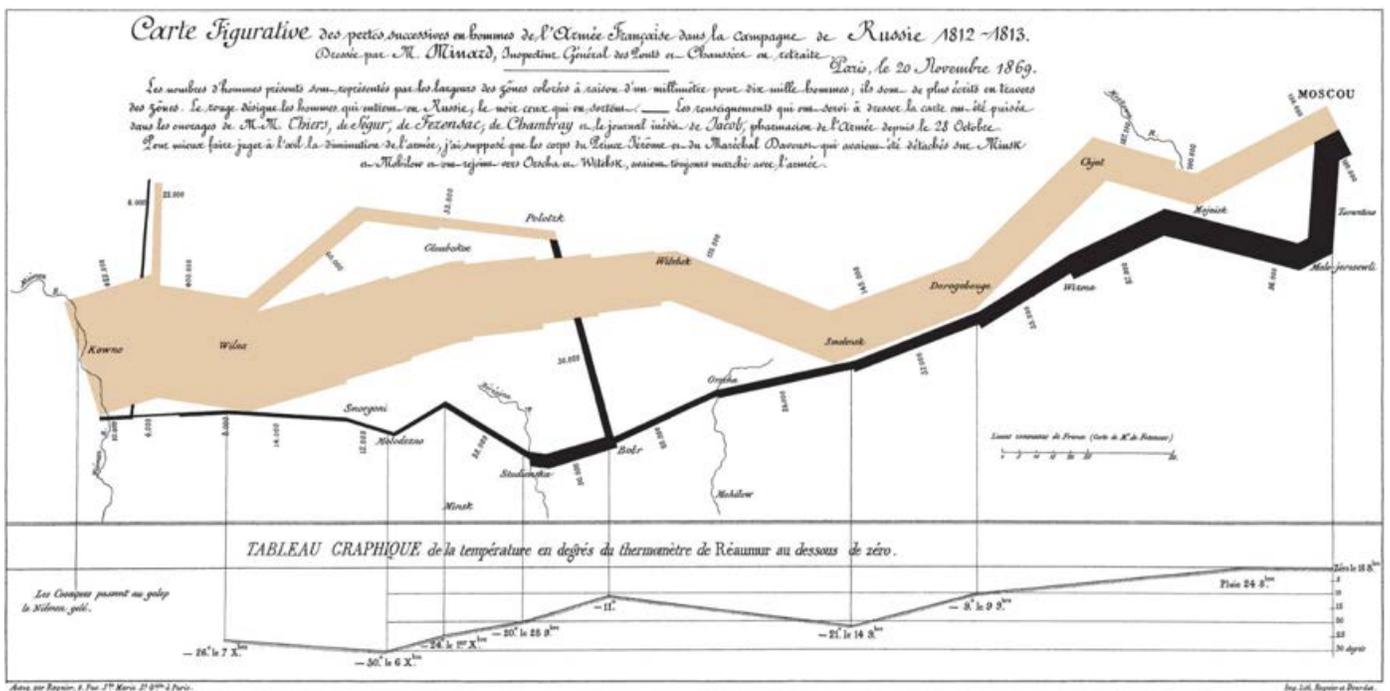
2. WHY ARE INFOGRAPHICS SO IMPORTANT TODAY?

As we said, infographics are not new, as they have existed for decades. Only in last few years, however, have they become more necessary. This is probably the result of digital technology that has exponentially expanded the amount of data that is not accessible to many people. So it's not surprising that infographics have found a big place in business presentations, conferences or other events where data is presented. Here are a few reasons why infographics are now indispensable and why many businesses should consider using them.

Easy to understand and memorise.

This may not seem like a good reason, but images stimulate the use of sight, which is the most effective of all the senses. It sends information instantly to the brain, which processes images and gives us their meaning. Our brains can remember 80% of what we see: graphs, bars and colours stay in our memory. For example, TV adverts are so well remembered because they say something while showing it — the same thing happens with infographics.
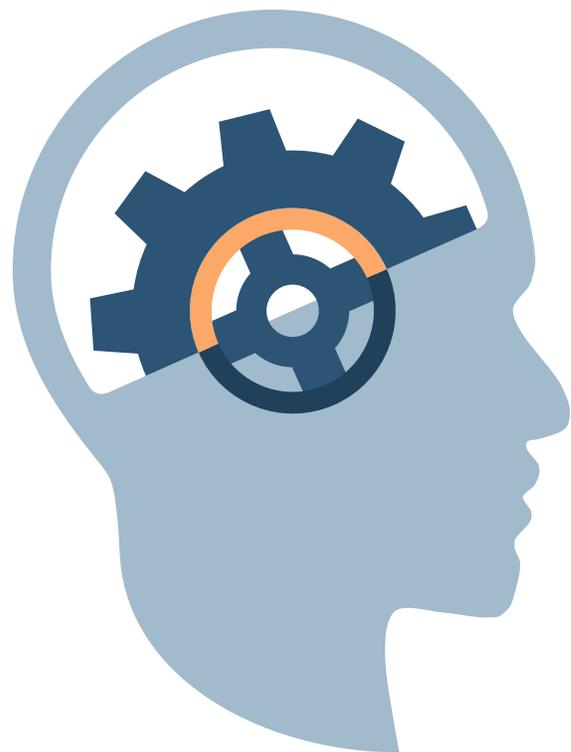
Convince your manager.

Of course, a table full of numbers is not the best way to convince a manager that a project is a good one. Infographics tend to have a positive impact on an audience because they are interesting, easy to follow and grab attention. In addition, researchers have discovered that the use of colours on images increases readers' attention by 80%. In this picture, we can see how Michele Mauri found a nice way to represent the most admired music album covers since the 50s. The green line shows Beatles' albums
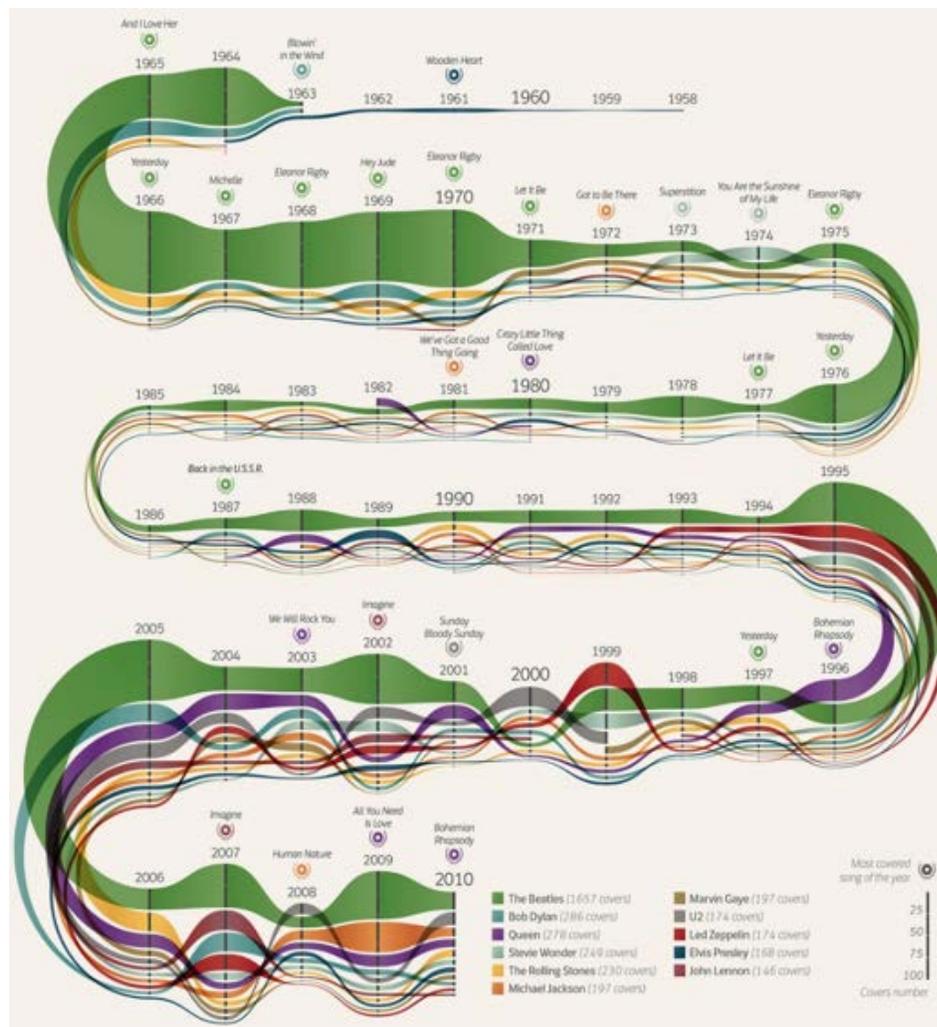
Convince a wide range of people, not only managers.

By using images, infographics become more accessible for everyone. They do not require any previous knowledge of a topic. In addition, research about the comprehension of labels on drugs showed that those without images are less understood than the others that use both text and images. An example of this is data visualisation by PitchInteractive http://drones.pitchinteractive.com/ where they show the victims of the war in Pakistan. The Out of Sight, Out of Mind project was made to bring a story out of data and to tell it to a wide audience that was not aware that drones were dropping bombs in Pakistan. The creator, Wesley Grubbs, explained the project to the press https://docubase.mit.edu/project/out-of-sight-out-of-mind/
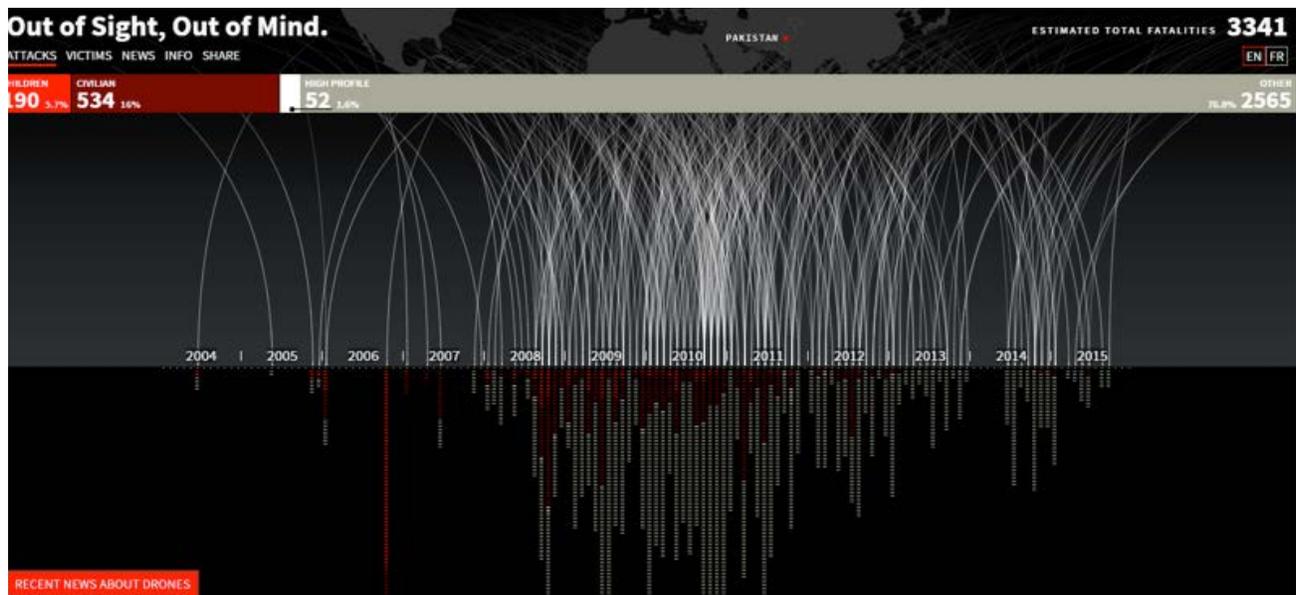
Persuasive Content.

Infographics are particularly appealing and persuasive. One study demonstrated that using visual and verbal content persuaded 67% of viewers, while using only verbal content persuaded 50% of viewers.

Other neurological studies have shown that our brain is more likely to believe something that is visually represented and not just described. An excellent example is a project by Periscopic http://guns.periscopic.com/?year=2013 where they show the number of victims of personal weapons in the US and their effect on relationships.

To persuade people they show how many years of life are "stolen" in a year. Periscopic explained that they started the research for the FBI but then they "were compelled to share".

http://www.periscopic.com/news/2013/02/thoughts-on-visualizing-u-s-gun-murders
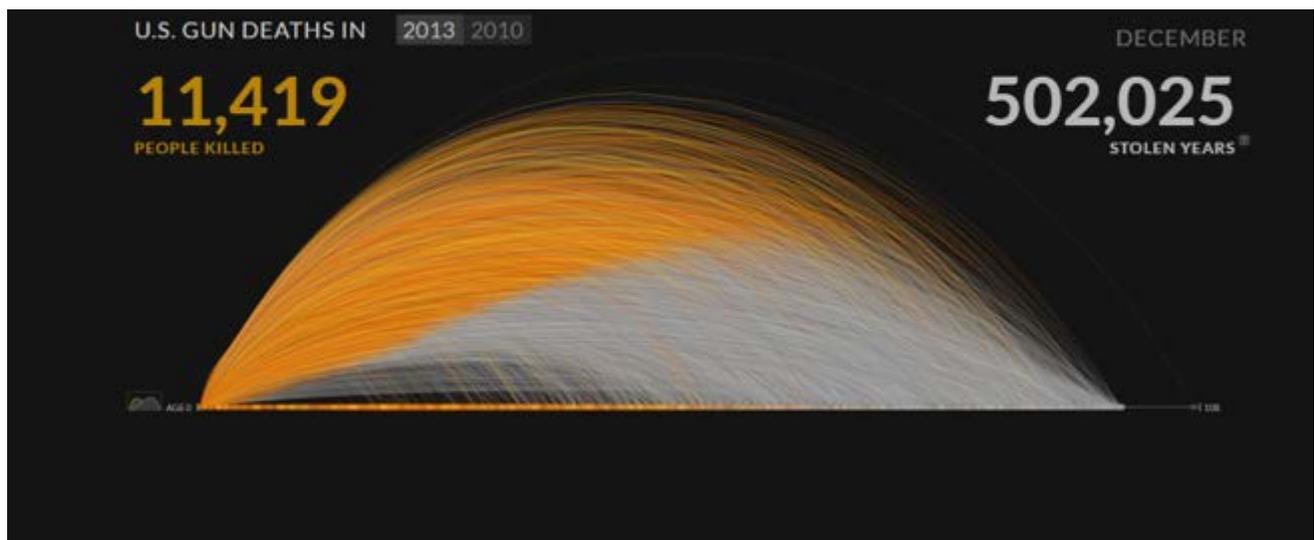
3.HOW TO DRAW AN INFOGRAPHIC?

Here are some rules to follow to create enjoyable infographics that impress your audience:
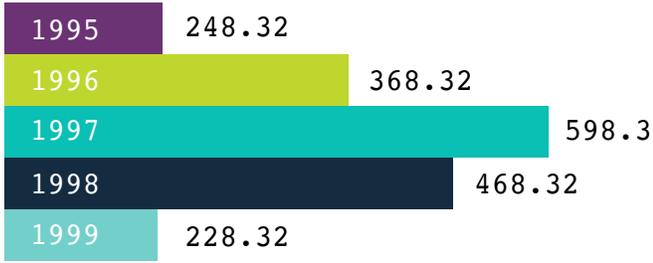
1. Define your object.

If you ever studied marketing, you should have learned that an effective strategy requires having a clear object in mind. The same is true when we want to express an idea in a graph. We need to know clearly what we would like to show and then design a first structure of our infographic. This draft can be done by hand on paper.

2. Identify the public and the context.

Think about who are you talking to, when and where. These are also the principles of public speaking. In the process of structuring an infographic, you need to consider the audience and its level of knowledge about the topic covered in the graph: people will need to de-codify what you are representing in images in order to understand.

3. Remember that 'form follows function' when choosing the type of graph

Some graphs are better than others when it comes to depicting some types of data.

Tag clouds

are useful when representing frequency, simple concepts or brain storming. They should not be used when there are similar frequencies, similar words or synonyms.

Scatterplots

can be used for distributions, correlations and trends. They are able to show big datasets

Line graphs

are another option for depicting trends or distributions in time — however, it's best to avoid more than 6 lines and excessively bright colours

Column charts

are mainly used to compare values in different categories. However, you need to focus your attention on the use of colours (not so bright) and the relation between columns and the space between them. Last but not least, avoid 3D.

|	
1995	248.32
1996	368.32
1997	598.3
1998	468.32
1999	228.32

Bar charts

are another way to show comparisons that can include up to 10 categories with long descriptions. Even in this graph, the use of colour and the relations between columns are crucial.
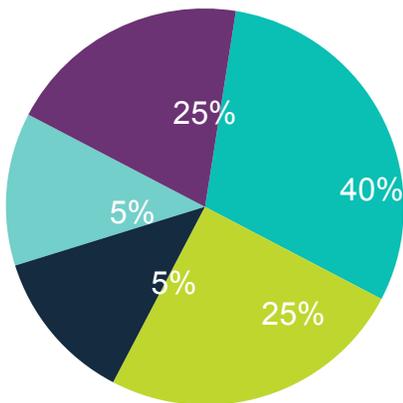
Pie charts

can represent different parts of something bigger, but it's suggested not to include more than six categories. The 3D Cake is not the best idea as it could be misunderstood by the audience

New Jersey Counties
United States presidential election, 2016
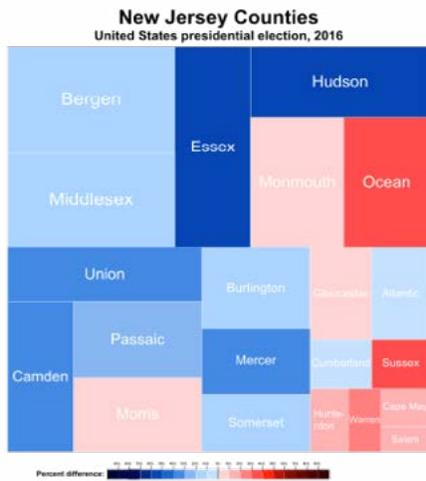
Treemaps

enable you to show and identify a clear message compared with others.
However, they could become complicated if there is too much data to show or too many labels.

Keeping these guidelines in mind should help you choose the right type of graph for the right information. Of course, there will be exceptions depending on the audience, the context and other factors; remember, however, that there are infinite ways to show data and none of them are wrong or right — you should find the most appropriate one.

After deciding how to show your data, a variety of digital tools can help you to create some appealing infographics. Some are easier to use than others.

Canva

It's easy to use and is considered the best tool for beginners. Canva is a freemium online platform that enables you to share your works with your team and then download it in different formats. (https://www.canva.com/)

Infogram

a free online tool that requires registration — you can upgrade by paying. Includes templates for infographics and graphs. You can share your work on social networks but the download is not free. (https://infogr.am/)

Tableau Public

is free and you can join the online community. You can work on more than 25 templates and generate the html code to embed. There is a download option in different formats included the Tableau sheet. (https://www.tableau.com/)

Silk

a free tool for data visualisation with 14 templates of graphs. (https://www.silk.co/)

Adobe Illustrator

surely the best tool to produce infographics. Professional designers use it to create, research and study. Illustrator enables you to give space to your creativity and make dramatic works. There are many Illustrator tutorials, so everyone can learn and start producing. (http://www.adobe.com/products/illustrator.html)

4. WHAT YOU SEE IS NOT WHAT YOU GET

When it comes to data visualization or infographics, we need to consider that there is always someone behind those works, and that someone has decided what to show and what not to show. This is why it's always better to look at the same fact represented in different way by different people: the same thing that happens when we tell a story from a different point of view.

Something similar happened in London in 1854 when cholera was spreading in the city. Many people were dying and the council did not know the cause of the illness.

Some started saying that the town was cursed and there were spirits coming from the ground to punish humanity. On the other hand, doctors and scientists from the council were studying this case.

In particular, a doctor not working for the government was interested in these events and independently began to study the situation. His name was John Snow. To arrive at the causes of the cholera epidemic, all scientists, including John Snow, represented the number of cholera victims in a graphic way on maps — this helped them see the number of deaths throughout the city.

However, only John Snow understood the real causes of the illness in London. Since he was already studying how viruses could spread through water, he paid attention not only to the number of infected people but also to the position of the public water pumps in London.

He reached the conclusion that the public water was contaminated and it was killing people. Moreover, he noticed that near the suspicious pump there was a brewery (circled in the image) that probably allowed people working there to drink beer for free. That spot on the map was completely blank, not even one death from cholera. In consequence, the cause must be in the water!

Snow tried at the beginning to convince the mayor to close all the pumps but he was unsuccessful. He decided to destroy one of the pumps he believed to be the most contaminated. After many attempts to convince the council of his thesis, Snow was finally listened to and his discovery was published: the major cause of the cholera was the contaminated water, so all the pumps were closed to keep people safe. John Snow was celebrated as the one that saw what other people could not see.

This episode is particularly interesting if we think about how Snow saw the same data in different way than the other doctors: he knew that the water could be one of the causes of the illness so he saw what he wanted to see. On the contrary, the other scientists did not have any clues — they collected data without trying to see beyond it. There are no public water pumps in London today, but the pump Snow tried to destroy still exists to demonstrate his thesis.

GET YOUR COMPETITIVE ADVANTAGE.

Academy Class is the premium training company of choice for ambitious people who want to set themselves apart. Whoever you want to be, we'll follow you step by step throughout the journey. We'll recommend the course you need according to your skill set, and give you a competitive advantage in your industry. Take a look at Infographics related courses:

Designing Infographics

Learn more

Illustrator for beginners Yellow Belt - 101

Learn more

Improving Your Layouts

Learn more

Advance Illustrator Black Belt - 301

Learn more

Illustrator Adobe Certified Associate: Zero to Hero

Learn more

To contact us with your training needs, please email training@academyclass.com, enquire now https://www.academyclass.com/book-online/ or call 0800 043 8899 and speak with one of our team.