



Data Visualisation 101

Data visualisation is the graphic representation of data. It is nothing new and you have probably been using it to tell your organisations story and impact without even thinking about it! Pie charts, graphs and maps are all examples of data visualisation.

What is the best way to show my data?

There isn't one answer to this question. It depends on what you're trying to show and the story you're trying to tell. The table below gives some examples:

What you want to show	Best way to present
Key facts and figures	Icons, images, infographic
Comparisons	Bar charts
Parts of a whole	Pie chart or donut, icons
Change over time	Line graph
Relationships between different factors	Scatter plot
Geographical spread	Heat map
Text analysis	Word cloud

If you not sure what some of these charts are then [this link](#) will show what they look like.

Doing Data Visualization

There are five key steps to consider when doing any data visualisation -

1. Why – What do you want to achieve
2. Who - Think about your audience (what will work for them)
3. What – Anything you do will only be as good as the data you have. Is your data accurate, up to date and able to show what you are trying to communicate?
4. Choose your visualisation: what's the best option for the data you've got and the message you are trying to get across?
5. Make it! (Or get someone who can!)

Tools that can help

There is software that can help with data analytics and visualisation such as [Tableau](#) or [Power Bi](#) but you can do basic visualisation via the [charts function in Excel](#). There are other simple tools available via the internet to help bring your data to life:

- Icons: If all you need is images to break up the text, sites such as [the Noun Project](#) has a wide range of free icons to download and use. Just make sure to check if you need to give any attribution.
- Infographics: There are various tools and software that can help you to create infographics (which are often great to share via social media. Examples include [Icon Array](#) and [Canva](#) who offer free tools whilst [Piktochart](#) offer a reduced fee for non-profit organisations.
- Words: [Taqxedo](#), [Wordclouds](#), [Wordle](#) and [Word tree](#) are all tools to analyse and show the frequent words in a body of text.
- Maps: Various tools can help you to utilise maps including [BatchGeo](#), [Kumu](#) and [DataWrapper](#)
- Virtual Maps: [Mindomo](#) help to create virtual mind maps. Whilst tools such as [Netlytic](#) help visualise social media

Data Protection

Whilst this factsheet suggests a number of tools and resources it is important that you follow your organisations procedures for purchasing / getting software and to consider any data protection implication with your projects especially if you are using [personal data](#).

Further Information / Training

[NPC – Data Visualisation – What’s it All About?](#)

[Future Learn Course - Data to Insight: An Introduction to Data Analysis and Visualisation](#)

[Future Learn Course - Data Analytics for Decision Making: An Introduction to Using Excel](#)

[Open Learn Course - Visualisation: Visual representations of data and information](#)