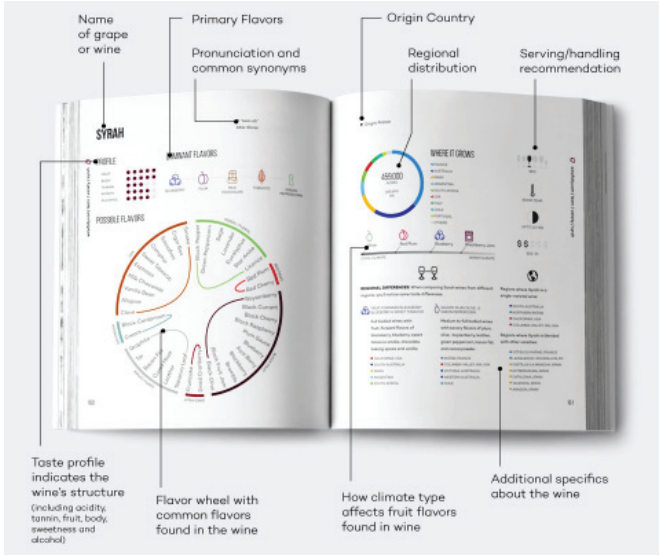
CHANNEL UNO
TRENDS & OTHER INTERESTING THINGS FROM AROUND THE WORLD
SPRING 2015

Nicholas Felton, Annual Report 2012



Madeline Puckette, Wine Folly

IS SEEING REALLY BELIEVING?
UNDERSTANDING MISLEADING INFOGRAPHICS

Over the past few years, infographics and data visualisation have surged in popularity. The days of humble excel-spreadsheet created 3D bar charts are now a thing of the past, making way for their slick, well-designed counterparts and helping to create more than a passing interest in the data behind the headlines.

The designer Nicholas Felton has played a part in bringing information design to the masses, through his annual reports where he charted his daily routine every year from 2005–2013. Types of information which he meticulously collected annually included things such has: Food and drink he consumed, the weather, communication data (who/what/where), music he listened to, even the amount of teeth lost by his cat in 2007 (one).

Similarly, information design is increasingly being used to present information to consumers. Madeline Puckette is a wine writer and Sommelier who developed Wine Folly, a website and publication which connects consumers to the world of wine. Infographics are heavily used in a vibrant and clear manner to break down aspects and educate readers about wine. As wine is a complex and sometimes overwhelming topic, the extensive use of these graphic devices eliminates any fear or uncertainty and makes the world of wine more accessible, especially for a younger audience.

On the other end of the spectrum, news outlets, governments and organisations are progressively using data visualisation to make sense of and present big data. These infographics are useful for providing new and insightful perspectives on the world around us, and are a valuable source of education due to their easy to digest nature. The core traits of a good infographic are honesty, logic and beauty. However, any of these traits can be taken out of the equation which can do more harm than good. From this, information design can easily be manipulated to mislead, emphasise a certain stance and even profit from twisting public opinion to the author's benefit.

As designers, it is our responsibility to shape the information in a manner that sends the correct message to the reader. This includes but is not limited to, using the most appropriate graphic devices to convey the data, ensuring the data is easy to understand, and showing well balanced information from respected sources.

Data in any medium is a powerful tool but when it is expressed visually, the risks for misuse and misunderstanding are highest. Luckily, there are a range of ways to examine infographics to prevent ourselves from being misled.

DATA PRESENTATION

One of the most common and also subtlest ways for an infographic to fool someone is to use visual cues such as colour and shape to emphasise certain data that normally wouldn't be a cause for emphasis.

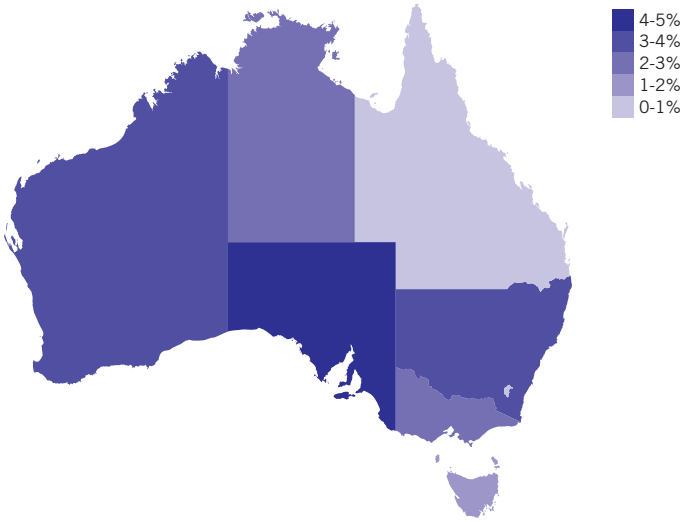
COLOUR

Colour is a popular tool for this. The map to the right shows the percentage of people per state who read data sources of infographics. At first glance, the darkest and lightest states stand out first. The map is showing the percentage of the population which don't read data sources, so we may quickly conclude that people in Queensland never read the data whilst South Australians always do. However, when you look closely at the key it states that the lightest colour represents 0-1% of people whilst the darkest represents 4-5%. So there's not really any difference between the two states, although the map suggests otherwise.

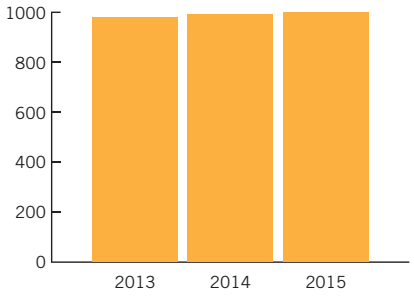
STRUCTURE

In addition, the structure of the graphics can easily mislead people and misrepresent the data. For example, compare the graphs displaying the number of infographics produced per year. The data is exactly the same but the graph has been structured with different y-axis ranges. Graph A starts at 0, where Graph B starts at 900. Here, Graph B looks much more significant as it appears that the number of infographics produced is skyrocketing. However a difference of 20 since 2013 really isn't anything to write home about. By overemphasising a truth, you can create a lie.

Percentage of people who read data sources

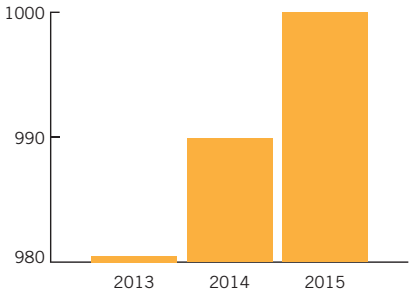


Number of infographics produced



Graph A

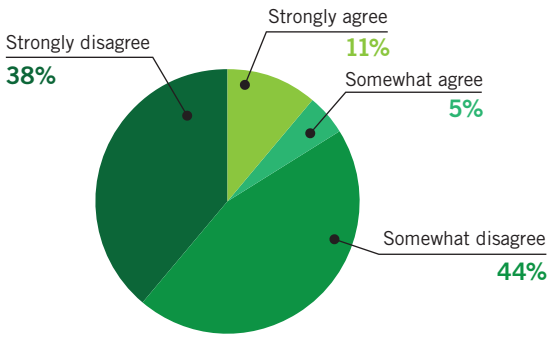
Infographic production remains steady



Graph B

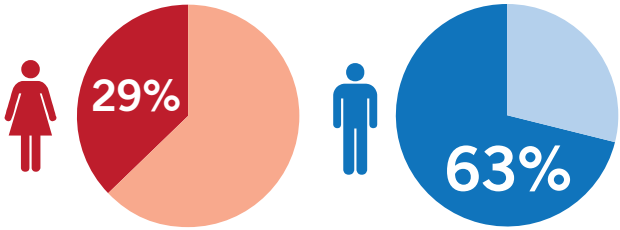
Infographic production is skyrocketing! 2015 is the year of the infographic!

Opinions on cigarette plain packaging



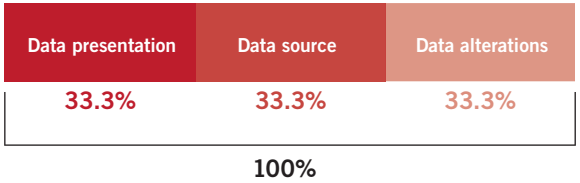
Source: Smoking Enthusiasts Society, 2015

Percentage of people who own a car



Source: Survey, 2015

Things to question in information design



DATA SOURCE

Not all data is created equal.

It is important to check whether the data source is biased or not. For example, a cigarette company is more likely to publish infographics which include data from sources which align closer with their company values. This means that the information displayed would be one-sided, and not include data which opposes their stance, ie. Information from a health organisation which documents the serious health risks associated with smoking. It is relatively easy for organisations to cherry-pick information which benefits their company.

Another type of infographics to be wary of are political organisations, which may manipulate and distort data to discredit their opponents. This is particularly common in the lead up to an election. Generally, data visualisations from non-profit organisations, research laboratories and non-partisan organisations can be trusted but ultimately all data sources should be subject to scrutiny for bias, manipulation and lies - either unintentional or by design.

DATA ALTERATIONS

Information that is excessively curated can lead to deceiving infographics. Similarly to the previous example, information that is blatantly excluded can tell us a lot about the bias behind the data visualisation. Often this information is left out as it inconveniently contrasts with the position the author wants to push.

Statistics are also a tool which should be taken into consideration. As they say, 89% of statistics are made up. If an infographic states that 63% of males own a car, whilst only 29% of females do, those results could be due to chance as the survey only interviewed 10 females and 10 males, or only interviewed people that live in the inner city. In short, if details on the data visualisation aren't provided with the artwork, we should be mindful of how easy it is to make data lie when it's translated into pretty images.

FINAL THOUGHT

Lastly, don't believe everything you are shown, just because it is "research" and "data". As viewers, it is important to understand and sort the massive amount of information we receive everyday. Infographics are often attention grabbing and evoke an emotional response, and it is not a coincidence that the ones that go viral are often ones which have factual issues. We should remember that data visualisation only serves as a rough guide and does not reveal everything. As designers, we have the power to influence this means of design by using the correct graphic devices, being discerning when choosing information sources and ultimately providing balanced, useful information in an easy to understand manner.

UNO 2

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