Introduction to Infographics

Contents

Introduction to Infographics ...................................................................................................... 1

Contents ................................................................................................................................... 1

Introduction ........................................................................................................................... 2

What is an Infographic? ........................................................................................................ 2

Infographic Best Practice ....................................................................................................... 2

The Anatomy of an Infographic ............................................................................................. 3

Types of Infographics ............................................................................................................. 4

Chart: to present statistics, facts and figures .................................................................... 4

List: with a focus on text ..................................................................................................... 6

Timeline: to present development over a period .............................................................. 9

Flowchart: to explain stages of a process ........................................................................ 11

Comparison: to contrast and compare data.................................................................... 13

Location: maps with colour coded areas ....................................................................... 15

Hierarchical: to present data according to levels ......................................................... 17

Visualised numbers: to add visual interest to numbers .................................................. 19

Creating Infographics: The Process ...................................................................................... 21

Digital Tools for Creating Infographics ................................................................................ 21

Visme ................................................................................................................................ 21

Piktochart ........................................................................................................................... 21

Summary .............................................................................................................................. 22

Full URLs ............................................................................................................................... 22
Introduction

By the end of this tutorial you will be able to:

- Define the term infographic.
- Understand different types of infographics.
- Create an effective infographic using a digital tool.

What is an Infographic?

Information + Graphics = Infographics.

“A visual representation of information or data, for example as a chart or diagram. ‘a good infographic is worth a thousand words’” (Oxford Dictionaries, n.d.)

The human brain is very well adapted to processing visual information.

This makes data visualizations and infographics very powerful tools for communicating lots of information in an easily digestible format.

You don’t need to be a graphic designer or an artist to make effective infographics - there are lots of free online tools available to help you.

Infographic Best Practice

The mark of a good infographic is its effectiveness in communicating a message concisely and quickly.

David McCandless (2010) – data journalist and information designer - describes this as “knowledge compression”.

- See his website: Information is beautiful.
- Watch his TED talk: The beauty of data visualization.
The Anatomy of an Infographic

Top 10 countries importing UK manufactured goods by Office for National Statistics used under CC BY 2.0

• Focused title with a key message that narrates a story worth telling.
• Simple but visually appealing design; brightly-coloured circles help convey the key message.
• Accurate and well-researched data.
• Produced by a reputable source.

Back to contents
Types of Infographics
Chart: to present statistics, facts and figures

Household Taxes 2012/13
TAXES PAID BY THE POOREST AND RICHEST 20% OF HOUSEHOLDS
E per year - figures may not sum due to rounding

Households are grouped into quintiles (or fifths) based on their equivalised disposable income. Equivalisation accounts for the fact that larger households are likely to need a higher income to achieve the same standard of living as smaller households. The richest 20% of households have the highest equivalised disposable income.

DIRECT TAXES
Income Tax
4,743

INDIRECT TAXES*
VAT
1,397
Taxes on goods and services
2,602

TOTAL TAXES
7,140

Poorest 20%

Richest 20%

Employee's NI contributions

Capital Gains Tax

Income Tax
14,559

Total Taxes
29,462

Direct Taxes
20,322

Indirect Taxes
9,140

*Indirect taxes
The amount of indirect tax a household pays is determined by their expenditure rather than their income. Indirect taxes can be divided into two key types: taxes on goods and services and intermediate taxes. Intermediate taxes are taxes paid by companies on inputs into the production of goods and services. It is assumed that companies pass on the value of these taxes onto the final consumer.

Household Taxes, 2012/13 by Office for National Statistics used under CC BY 2.0
Each year 1.7 million deaths of children under 5 are linked to the environment.

- **570,000** deaths due to respiratory infections, including pneumonia
- **360,000** deaths due to diarrhoea
- **270,000** deaths due to neonatal conditions, including prematurity
- **200,000** deaths due to unintentional injuries, such as burns, drowning
- **200,000** deaths due to malaria

Reducing environmental risks could prevent a quarter of these deaths.

Children's Deaths linked to the Environment by DES Daughter used under CC BY-NC-SA 2.0

Cloud computing by Office for National Statistics used under CC BY-NC-ND 2.0

Back to contents
Girls who stay in **education** and complete secondary school are:

**More likely to**
- Marry later
- Have higher incomes
- Have fewer children
- Have healthier children
- Have children that go to school
- Take part in decision-making
- Escape poverty

**Less likely to**
- Contract HIV & AIDS
- Contract Malaria
- Undergo FGM
- Die in pregnancy
- Die in childbirth
- Have children who die in infancy

**UK aid is supporting over 10 million children to get a good quality education**

Designed by: DFID_UK_16/06/15

[Girls Education Infographic by UKaid](https://unsplash.com/photos/ukaid) used under [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/)
The Importance of Self-Care: WHY YOU SHOULD PAMPER YOURSELF

Benefits of relaxing:
• Reduce stress
• Promote the production of your body’s "feel-good" hormones
• Improve cellular function

Low-Cost Self-Care Ideas:

Search YouTube for a relaxing yoga or meditation routine.

Write down what’s stressing you and, if you want, rip up the paper.

Listen to relaxing music with your eyes closed.

Go for a walk.

Play with a pet for 15 minutes.

Take a bubble bath.

Spend some extra time getting ready in the morning.

Write a list of things that make you happy.

Find a relaxing hobby.

Get a massage from a friend or partner.

Make a homemade edible facemask.

Take a break, alone or with friends.

Pick up or make your favorite treat and savor it.

Find free local events at places like museums, botanical gardens, and zoos.

Self-care: Allow yourself to do things that make you feel great!

Good self-care can prevent, delay, or reduce physical and mental health problems

Connect with us: Facebook, Twitter, Instagram, Pinterest

Self-Care by Pain Pix used under CC BY 2.0
Advantages

Clean Energy

Obtaining energy from the wind emits zero emissions into the atmosphere, providing a clean alternative to fossil fuels, which contribute significantly to dangerously high levels of atmospheric CO2.

Less Space is Needed

Wind turbines take up much less space than what is required for a single power station, and the surrounding land can continue to be used for other purposes including agriculture.

Renewable Energy

Unlike fossil fuels, the wind will not run out, and can provide the planet with a limitless supply of "free" power.

Generate Energy in Remote Locations

In remote mountainous or countryside regions, utilising wind power can provide a much cheaper and convenient source of energy.

Do the advantages outweigh the disadvantages?

Disadvantages

Unreliability

The main issue concerned with power from the wind, is that of its unreliability. Wind strength cannot be controlled and in some areas it is just not a viable source of power.

Lower Electricity Output

Wind power generates significantly less electricity than its fossil fuel equivalent, meaning more turbines are required to generate the same amount of power. Wind turbines are also highly inefficient in terms of output capacity.

Expensive Construction Process

Wind turbines are costly to build with one turbine costing up to $1 million per MW of nameplate capacity installed.

Costly to surrounding wildlife

With demand for renewable and cleaner energy sources growing it is likely that the need for land for windfarms will increase, which will potentially damage a high percentage of local wildlife in the process. It is also estimated that each wind turbine kills over 4 birds a year.

Noise Pollution

The noise produced from a singular wind turbine is similar to that of a small jet engine and can be a cause of major concern for those living near a windfarm.

Wind Power

Advantages and Disadvantages

The US accounts for 32% of new installed wind capacity in 2008

Wind Power provides 1.5% of total electricity consumed

In-shore farms could produce up to 40x the world’s total electricity

World Total Installed Capacity (MW)

1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

Current Worldwide capacity 121,188MW

Advantages and Disadvantages of Wind Power by GDS Infographics used under CC BY 2.0

Back to contents
Timeline: To present development over a period

Stress vs Productivity by GDS Infographics used under CC BY 2.0
Lung Cancer

SURVIVAL OF LUNG CANCER IS AMONGST THE LOWEST OF ALL CANCERS

Five-year survival estimates among adults (aged 15–99 years) diagnosed with lung cancer between 2007 and 2011 and followed up to 2012

LUNG CANCER INCIDENCE AND MORTALITY RATES

SMOKING IS STRONGLY ASSOCIATED WITH AN INCREASED RISK OF DEVELOPING LUNG CANCER

Percentage of males smoking cigarettes

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>51%</td>
</tr>
<tr>
<td>2011</td>
<td>21%</td>
</tr>
</tbody>
</table>

36% of men smoked heavily (20 cigarettes per day) in 1974 compared to 8% in 2011

Percentage of females smoking cigarettes

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>41%</td>
</tr>
<tr>
<td>2011</td>
<td>19%</td>
</tr>
</tbody>
</table>

13% of women smoked heavily (20 cigarettes per day) in 1974 compared to 4% in 2011

The narrowing gap in lung cancer incidence rates between males and females may be due to increasingly similar smoking habits between the two sexes.

www.ons.gov.uk
Office for National Statistics

Lung cancer 1971-2011 by Office for National Statistics used under CC BY 2.0

Back to contents
Flowchart: to explain stages of a process

Can I upload by Giulia Forsythe used under CC BY-NC-SA 2.0
The journey of a tweet by GDS Infographics used under CC BY 2.0

Ten steps to building an IES system by GRID Arendal used under CC BY-NC-SA 2.0

Back to contents
Top 100 baby names in England and Wales 2012

Comparison: to contrast and compare data

Top Baby Names by Office for national Statistics used under CC BY 2.0
89% OF MEN HAVE USED THE INTERNET
MEN ARE MORE LIKELY TO HAVE USED THE INTERNET THAN WOMEN

Source: Internet Access Quarterly Update, Q1 2014

Internet Usage by Office for National Statistics used under CC BY-NC-ND 2.0

From Kennedy to Obama
The dream of manned space exploration

Kennedy’s mission to the Moon

Obama’s mission to Mars

Missions to the Moon

Missions to Mars

From Kennedy to Obama by GDS Infographics used under CC BY 2.0

Mars Mission by GDS Infographics used under CC BY 2.0

Back to contents
ENVIRONMENTAL IMPACTS ON HEALTH

WHAT IS THE BIG PICTURE?

FACT:
23%

of all global deaths are linked to the environment.
That’s roughly 12.6 million deaths a year.

WHERE IS IT HAPPENING?

- 3.8 million in South-East Asia Region
- 3.5 million in Western Pacific Region
- 2.2 million in Africa Region
- 1.4 million in European Region
- 854,000 in Eastern Mediterranean Region
- 847,000 in the Region of the Americas

What is the big picture? by DES Daughter used under CC BY-NC-SA 2.0
The most polluted places by GDS Infographics used under CC BY 2.0

Top 10 countries importing UK manufactured goods by Office for National Statistics used under CC BY 2.0

Back to contents
Hierarchical: to present data according to levels

**Waste management hierarchy** by GRID Arendal used under CC BY-NC-SA 2.0

**Hierarchy of Interface for Tabletop Games** by Daniel Solis used under CC BY 2.0
Visualised numbers: to add visual interest to numbers

British Cycling Infographic by Andreas Kambanis used under CC BY 2.0
**WEEK IN NUMBERS**

11 April – 18 April

IN THE NEWS

- **1,500** Applications for police officer jobs in the first 12 hours after recruitment opened.
- **12** Months after a Walsall takeaway driver was killed, detectives have renewed their appeal for info.
- **2** Years since capture technology was introduced in Dudley, as officers fit spy cameras to lawnmowers and sheds.
- **6** The number of religions represented in the force's multi-faith chaplain system.

#TOWIS

THE ONLY WAY IS SAFETY

- **2** #Towis videos launched to remind teenagers to keep their belongings safe.
- **4,350** Fewer victims of robbery in the West Midlands last year compared to ten years ago.
- **60%** More than half of robbery victims in April and May are young people targeted in streets, parks and city centres.

HAPPY EASTER

- **1,000** Chocolate eggs donated by police and local people in Walsall to Rosie’s Helping Hands charity.
- **3** Easter fun days being held by local police and partners in Dudley next week.
- **24/7** Our officers and staff will be working round-the-clock to keep you safe this weekend.

Week in numbers by West Midlands Police used under CC BY-SA 2.0

Back to contents
Creating Infographics: The Process

1. Choose your topic and ensure it is relevant and engaging.
2. Define your audience. This will dictate your content depending on their prior knowledge of the topic.
3. Define your aims and objectives to give the infographic purpose and structure.
4. Research your topic and find images to effectively illustrate your key points.
5. Organise your information, references and data in a clear and visually appealing design.
6. Choose a digital tool and get creating.

Digital Tools for Creating Infographics

Visme

- Standard version is free
- Create interactive and animated infographics
- Embed data widgets, voice, music and video
- Download the infographic for offline use
- Add others as collaborators
- Create up to five projects at a time

Getting Started with Visme Infographics (YouTube Video)

Visme website

Piktochart

- Standard version is free
- Create infographics with animated charts and graphs
- Embed videos
- Download your infographics
- Create unlimited projects

Introduction to Piktochart (YouTube video)

Piktochart website

Back to contents
Summary

You have reached the end of this resource. This information has been adapted from the Introduction to infographics tutorial.

Why not look at some of our other Research Skills and Critical Thinking resources? Book onto a Workshop or take an Online Tutorial.

Remember to reflect on and record your skills development using mySkills.

Visit our FAQs: Library FAQs

Get in touch: library@sheffield.ac.uk

Back to Contents

Full URLs

Information is beautiful website https://informationisbeautiful.net/


Information is beautiful (book) https://find.shef.ac.uk/permalink/f/15enftp/44SFD_ALMA_DS212033688400001441

Top 10 countries importing UK manufactured goods https://flic.kr/p/ptkS7X

Office for National Statistics https://www.flickr.com/photos/statisticsoncc

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Household Taxes, 2012/13 https://flic.kr/p/oeaWU6

Children’s Deaths linked to the Environment https://flic.kr/p/SPpcpk

DES Daughter https://www.flickr.com/photos/diethylstilbestrol/

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Cloud computing https://flic.kr/p/oCeut7

Girls Education Infographic https://flic.kr/p/uGyVLv

Ukaid https://www.flickr.com/photos/dfid/

Self-Care https://flic.kr/p/uThEUo

Pain Pix https://flic.kr/p/uThEUo

Advantages and Disadvantages of Wind Power https://flic.kr/p/77VqzU

GDS Infographics https://www.flickr.com/photos/gdsdigital/
Stress vs Productivity https://flic.kr/p/77RspM
Can I upload https://flic.kr/p/dQogba
Giulia Forsythe https://www.flickr.com/photos/gforsythe/
The journey of tweet https://www.flickr.com/photos/gdsdigital/4157295889/
Ten steps to building an IES system https://flic.kr/p/25T8pAH
GRID Arendal https://www.flickr.com/photos/gridarendal/
Top Baby Names https://flic.kr/p/fAhef9
Internet Usage https://flic.kr/p/oC3DKY
CC BY-NC-ND 2.0 https://creativecommons.org/licenses/by-nc-nd/2.0/
Mars Mission https://flic.kr/p/7UYRSK
What is the big picture? https://flic.kr/p/FzCsqe
The most polluted places https://flic.kr/p/7NicRa
Waste management hierarchy https://flic.kr/p/ReKcv5
Hierarchy of Interface for Tabletop Games https://flic.kr/p/bQQPi8
Daniel Solis https://www.flickr.com/photos/daniel_solis/
Maslow's Hierarchy of Needs https://flic.kr/p/9VjtZA
BetterWorks Breakroom https://www.flickr.com/photos/betterworksinc/
Wikimedia Commons https://commons.wikimedia.org/wiki/Main_Page
British Cycling Infographic https://flic.kr/p/afgqgX
Andreas Kambanis https://www.flickr.com/photos/andikam/
Week in numbers infographic https://www.flickr.com/photos/westmidlandspolice/13911168173/
West Midlands Police (on Flickr) https://www.flickr.com/photos/westmidlandspolice/
CC BY-SA 2.0 https://creativecommons.org/licenses/by-sa/2.0/
Getting Started with Visme Infographics (YouTube Video) https://youtu.be/OQV5-GemEqY
Visme website https://www.visme.co/
Introduction to Piktochart (YouTube video) https://youtu.be/MMY-t-JKv5k

Piktochart website https://piktochart.com/

Research Skills and Critical Thinking Workshops and Tutorials: https://www.sheffield.ac.uk/library/study/research-skills

mySkills: https://www.sheffield.ac.uk/skills/myskills

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Back to Contents

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