



DATA STORYTELLING

MODULE 1.3 INFOGRAPHICS

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Module Outline

- Understanding of the principles and role of infographics



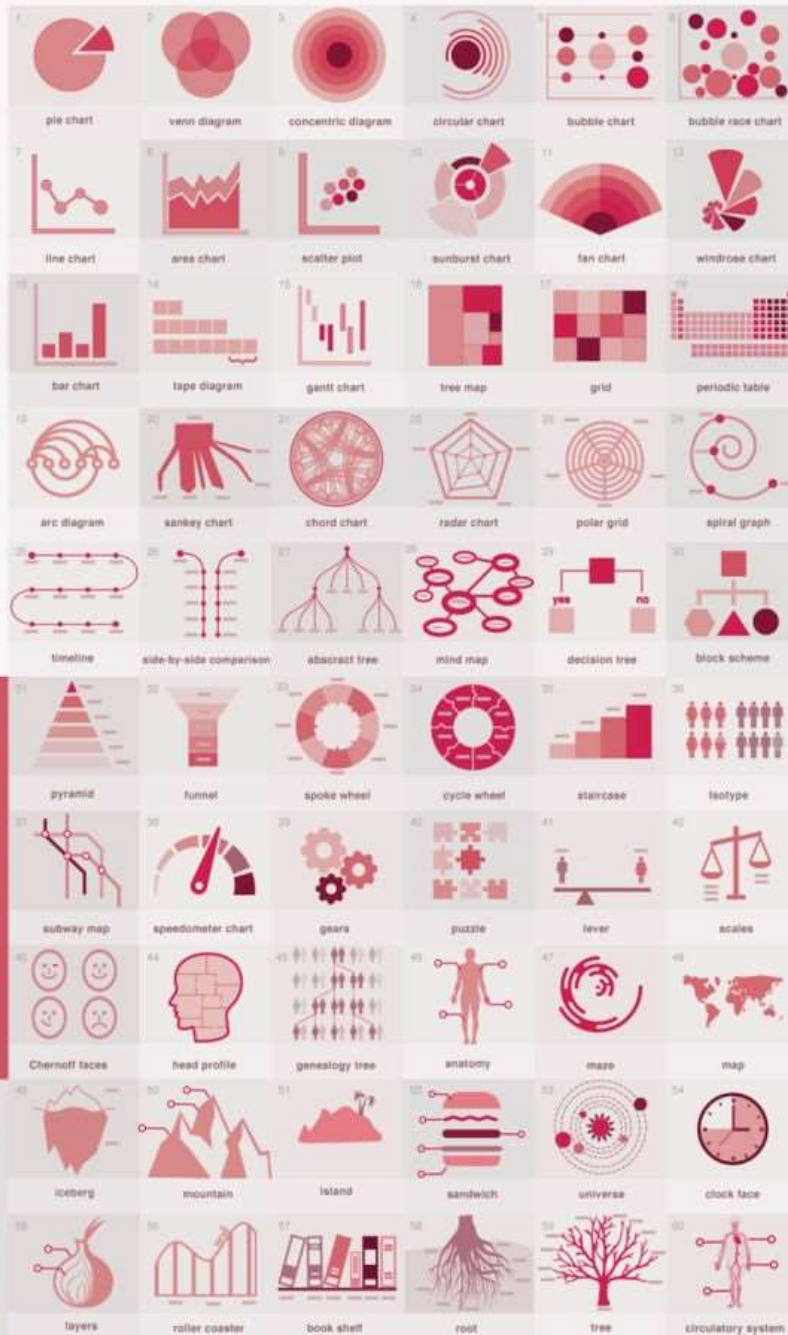
What is infographics?

- **Infographics** is an artistic representation of data and information using different elements such as:
 - Graphs
 - Pictures
 - Diagrams
 - Narrative
 - Timelines
 - Check lists, etc.
- Can be used to visualise complex qualitative and multi-dimensional quantitative data

HOW TO THINK VISUALLY

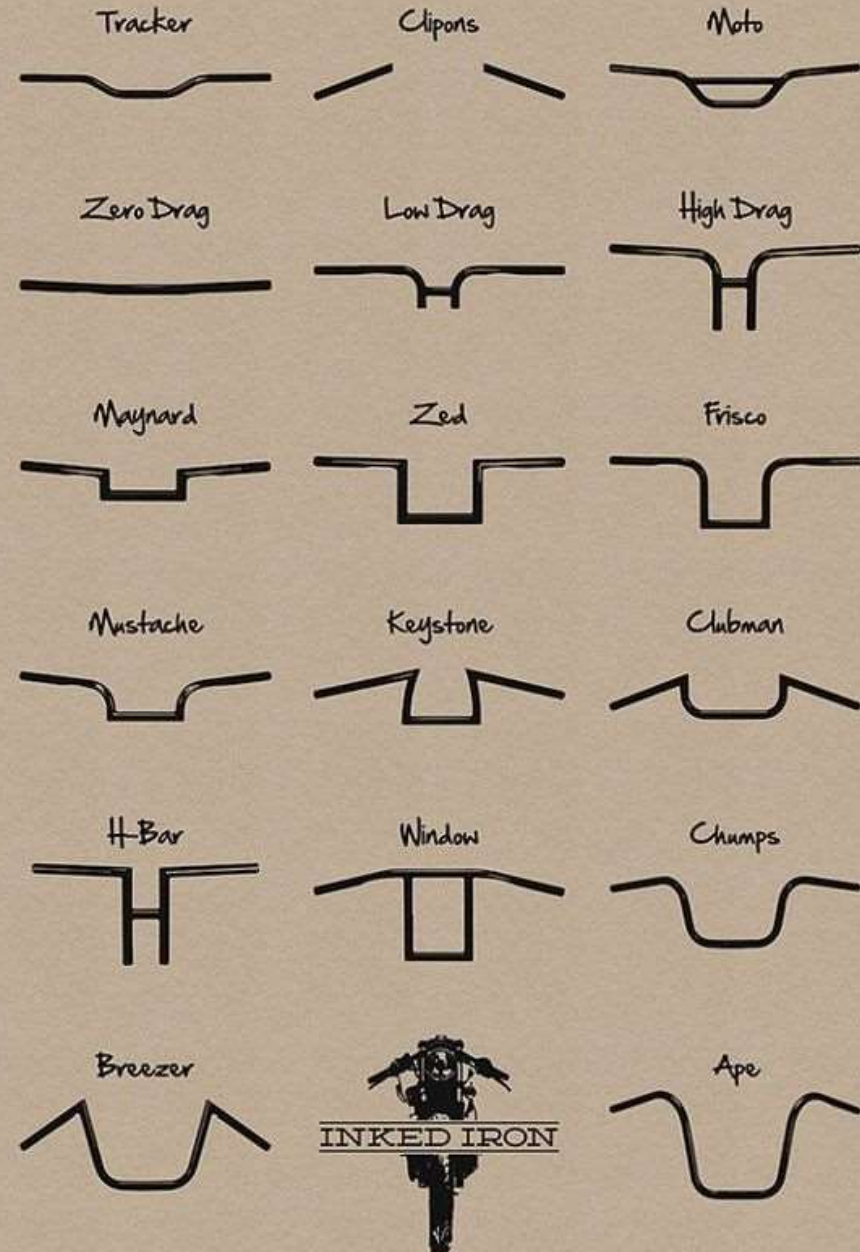
using visual analogies

by Anna Vital



Examples of infographics

HANDLEBARS A FIELD GUIDE





MILESTONES OF THE 1960s MUSTANG

1964½

Unveiled at New York World's Fair April 17 1964.
First initial model year, rock-muscle 94%
22,000 orders taken on the first day alone.
Prices start from \$2,368.



126,538
MUSTANGS
PRODUCED

77%
COUPE
23%
CONVERTIBLE



SEP '64

Tilly Hissneron has her Mustang Convertible
shredded by James Bond's Aston Martin in
Goldfinger



DEC '64

263,434 Mustangs sold by the end of '64

1965

1965 model year brings Fastback body
style, alternative instead of granular and a
revived hood.



559,451
MUSTANGS
PRODUCED

73%
COUPE
13%
CONVERTIBLE
14%
FASTBACK



APR '65

416,810 Mustangs built after 32 months in production

1966

1966 model year receives a new grille.
Hertz GT3000 'Roo-a-Roo' can be
penned for \$17 a day plus 17 cents a mile.



607,568
MUSTANGS
PRODUCED

82%
COUPE
12%
CONVERTIBLE
6%
FASTBACK



FEB '66

One millionth Mustang leaves the factory



1967

First prototype for the Mustang, with the Fastback
receiving the bulk of the attention.
New 396 V8 introduced with 120hp.
Rushly GT390 launched with 428 V8.



472,121
MUSTANGS
PRODUCED

75%
COUPE
10%
CONVERTIBLE
15%
FASTBACK



Examples of infographics

THE SEVEN STAGES OF

Alchemical Transformation

1



Calcination

CHEMICAL

Heating a substance over a flame until it turns
to ash.

PSYCHOLOGICAL

Breaking down the ego and attachment to the
worldly.

2



Dissolution

CHEMICAL

Dissolving ashes of substances into water.

PSYCHOLOGICAL

Immersion into the unconscious. Conscious
word release control, leading to a re-emerging
of parts of ourselves that were hidden.

3



Separation

CHEMICAL

Isolating and filtering the products of
distillation.

PSYCHOLOGICAL

Reveal restructured material and decide what to
separate or integrate. What parts of our shadow
can we learn from, and what toxins let?

4



Conjunction

CHEMICAL

Burn a new substance from the separated
elements we choose to keep.

PSYCHOLOGICAL

Merging of the conscious and the unconscious
aspects of the self to a single essence. The union
of dualities allows for the true self to emerge.

5



Fermentation

CHEMICAL

Induce chemical breakdown of substance with
bacteria or other micro-organisms.

PSYCHOLOGICAL

Intention of spiritual awakening through testing
the strength of the solution. To first create wine,
grapes must rot. Suffering breeds resilience.

LIDDELL
150 YEARS
IRELAND
1866

As Liddell celebrates its 150th
anniversary, we revisit some pivotal
moments in our vast history
To see our story in detail click here

1866

William Liddell & Co Founded

After serving his apprenticeship from the age of
16 onwards, William Liddell set up, with John Liddell
and Company, in 1866 at the end of St. Augustine's
in Drogheda, Ireland, the factory which was the
largest Irish linen producer of its kind in the country.



1908

Francis-British Exhibition

In 1904, William Liddell & Company took part in
the Francis-British Exhibition where they were
awarded a gold medal for bringing linen from the
Francis-British. The gold medal was brought
the company's gold medal and required the
company to support its event winning them the
Gold Medal Collection.



1912

A Titanic Order

On April 10th 1912, the Titanic set sail on her
maiden voyage across the Atlantic Ocean with
the linen Liddell linen on board. And four days
later, the ship went on to their history as it
sank more than 1,200 lives.



1914

Employees and The War

During the First World War, many of William
Liddell & Company's employees left the company
to join the fight. One such man was Willie Rogers,
who, in 1914, took a leave of absence from his job
as an apprentice in the Drogheda factory.
After the war of 1914, Rogers returned to the
company after service in 1919 where he continued
to work for many more decades before his death
in 1981.



1961

Royal Visit

In 1961 William Liddell & Sons received a visit from
the Queen during her visit of Northern Ireland.
During their visit, the Queen and the Duke of
Edinburgh toured some factories who were
involved in the manufacture of products for use
of the armed forces/RAF.



1973

William Liddell & William Ewart

William Liddell merged with William Ewart &
Sons, making this the latest chapter in their
rich history. Both boys would work together to
continue the production and production of linen
in Ireland.

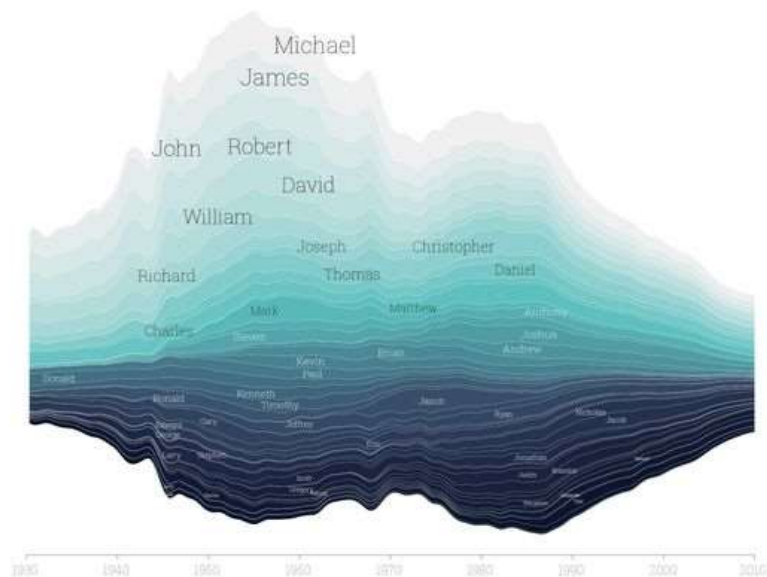
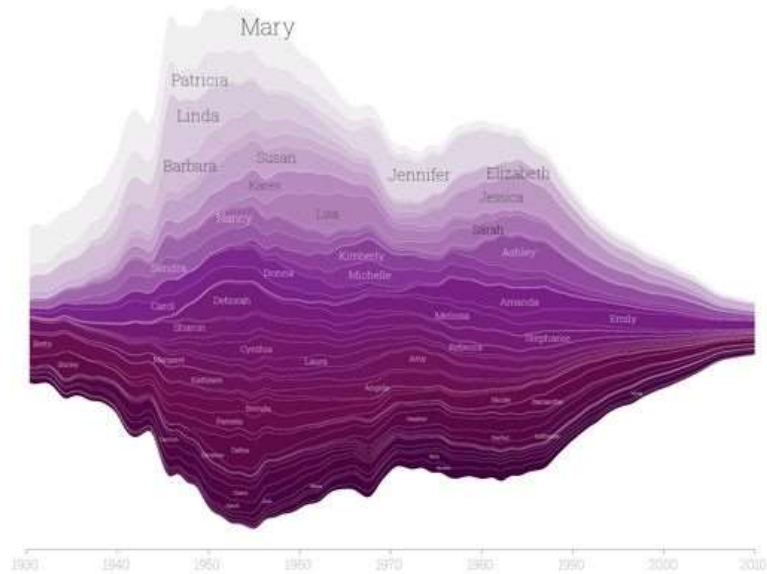




Why infographics?

- **Infographics** allow us to:
 - Present complex information in a visually appealing way
 - Improve cognition by utilising graphics to enhance human ability to see patterns and trends
 - Reach a large audience
 - Create reusable digital assets that could be distributed virally, i.e. by the means of social media and networks
- The **focus** of good infographics is always on **communicating insights**

TOP 50 BABY NAMES 1930-2014



bigpixel.net

Examples of infographics

I'm **Matt**

VIRGINIA
born & raised



MATTHEW GROW
615.752.9505
MATTGROW81@YAHOO.COM

WORK

- **2013**
NASHVILLE SOUNDS AAA BASEBALL
public relations/usher nashville, tennessee
- **2007-2011**
COMMONWEALTH CENTER FOR CHILDREN AND ADOLESCENTS
direct care specialist staunton, virginia
- **2006-2009**
CROSSROADS COUNSELING CENTER
behavior therapist harrisonburg, virginia

UNITED STATES ARMY 13F fire support specialist

STUDY

- **2014**
LIBERTY UNIVERSITY
master of arts
human services counseling
health & wellness
- **2013**
LIBERTY UNIVERSITY
master of education
sport management
outdoor adventure sport
- **2012**
SPORTS INTERNSHIP
ravenwood country club
nashville, tn
- **2007**
JAMES MADISON UNIVERSITY
bachelor of science
kinesiology & sport management
minor of business

SKILLS

- microsoft office
- mac osx
- first aid & aed
- organization
- leadership skills
- time management

INTERESTS

- Intuition
- Vision
- Imagination
- know how
- Passion
- Plan
- Do
- Strategy
- Team
- Produce
- Goal
- Ideas
- Time
- Multitasking
- Curiosity
- Problem solving
- Independent Budget
- Patience

TENNESSEE

nashville

I ♥ COFFEE SHOPS
IN MY SPARE TIME I LIKE TO RUN 5Ks



AGILE vs. WATERFALL



AGILE

PROS

- ✓ Customer Approval During All Stages
- 28 Great for Quick Launches
- % Prioritized by Business Value
- 🔍 Customer Involvement Makes Project User Focused

CONS

- 🏃 Disadvantages When Team is Dedicated Full-time on The Project
- 📅 Customer May Not Have Time to be Involved
- 🔍 Customer May Redefine Scope
- 💰 Quick Launches Can Cause Incomplete Tasks



WATERFALL

- 🤝 Early Agreement on Deliverables
- 🕒 No Need for Customer Involvement During Development
- 🔍 Full Scope Known in Advance
- 🚩 Known Deliverables Reduce Chance of "Piecemeal Effect"

- 🚫 Customer Only Sees Final Product and Could be Unhappy
- ❓ Customer Has Trouble Visualizing Project in Early Stage
- 💰 Late Changes Cause Going Over Budget
- 📅 Late Changes Extend Project Timeline

WHAT SHOULD FACTOR INTO YOUR DECISION

Customer Preference Project Size Customer Budget Time To Market Customer Availability

Brera
DESIGN
DISTRICT
MILANO





This is the sound a giraffe makes.



This is the sound an elephant makes.



This is the sound a snake makes.



This is the sound a child stuck in the house all weekend makes.



heart internet

THE ANATOMY OF A WEB DESIGNER

COMPILED & ILLUSTRATED BY HEART INTERNET FOR DESIGN SHOTS

The Heart Internet web designer survey was conducted amongst 300 web design professionals through DesignShots.com. The survey provided vital information about web designers' attitudes towards the industry, from job satisfaction to how they spend their leisure time.

78%
of web designers are male

Average number of additional screens added to clients

3.1

Top 3 services offered by web designers

- Website maintenance
- Web development
- SEO

47% of web designers are aged 25-34 years old

4/5 thought work was either more difficult or just as difficult to find compared to the last 12 months

How designers charge for their services

27% use a combination of hourly rates & flat fees

77% say they are confident about their job security

3/4 think that work will not get any easier to find in the next year

82% of web designers have never performed in any competitive speculative work

1/5 would never participate in any competitive speculative work

62% of web designers are dissatisfied or not employed

9/10 consider their demand for mobile sites has increased

88% say that clients underestimate the cost of web design

79% think prices are being forced down due to increased competition

Heart Internet is a group of sites UK's largest and best-regarded web design & internet services with over 100,000 websites & 100,000 email accounts. We are a leading UK web design & internet services company.

heart internet design shots

DHL THE PREDICTIVE ENTERPRISE WHERE DATA SCIENCE MEETS SUPPLY CHAIN

The holy grail of future business: Harnessing the power of data-driven insight

The emerging field of **supply chain data** offers the potential to transform global companies and reinvent their supply chains from reactive to predictive

What's happening now?

The data tidal wave

- More data has been created in the last two years than in all of human history
- In 2014, the digital universe equaled 1.7 megabytes a minute to every person on Earth
- Between now and 2020, the digital universe will grow by a factor of 10 - from 4.4 trillion to 44 trillion gigabytes
- 88 percent of executives understand the potential benefits of big data analytics. Only 17 percent have implemented such analytics.

Think about it: Supply chain data is a potential treasure trove for enterprise-level business insight and transformation.

STAGES OF MATURITY: Crawl, Walk, RUN

Reaching a 'predictive' state is a journey, with distinct stages: Crawl, Walk, RUN

- 'Crawl and Walk' is today. It is the descriptive supply chain. Organizations use descriptive information and data analytics to help them understand what is happening and react.
- It's like running your business by looking in the rearview mirror.
- Leading companies are aggressively pursuing the 'RUN' stage - the predictive supply chain.
- New tools enable them to spot trends, forecast, to move agile, make better decisions, reduce costs and capture advantages.

The power of predictive

The big opportunity of the predictive supply chain lies in using the analytical output to inform the strategic direction of the entire enterprise and realize sustained value from this intelligence.

- The ROI of predictive supply chain analytics produce powerful results:
- 33.5%** improved revenues
- 26.0%** improved customer service
- up to 30%** lower inventory
- 36.5%** improved product quality
- 29.5%** more successful product launches
- Companies that do a better job of predicting future demand can improve margins by 1% to 2%.

What will it take to realize this vision?

- Height, collaboration & coordination in an industry-wide level
- A 360° central tower view of the entire extended supply chain
- Super connected, internally and externally, people, machines and devices

A bigger end game

- "This is about having a smarter enterprise. The end game objective is far bigger than just operational improvement. Ultimately, it's about creating profit, growth and value on a sustained basis."

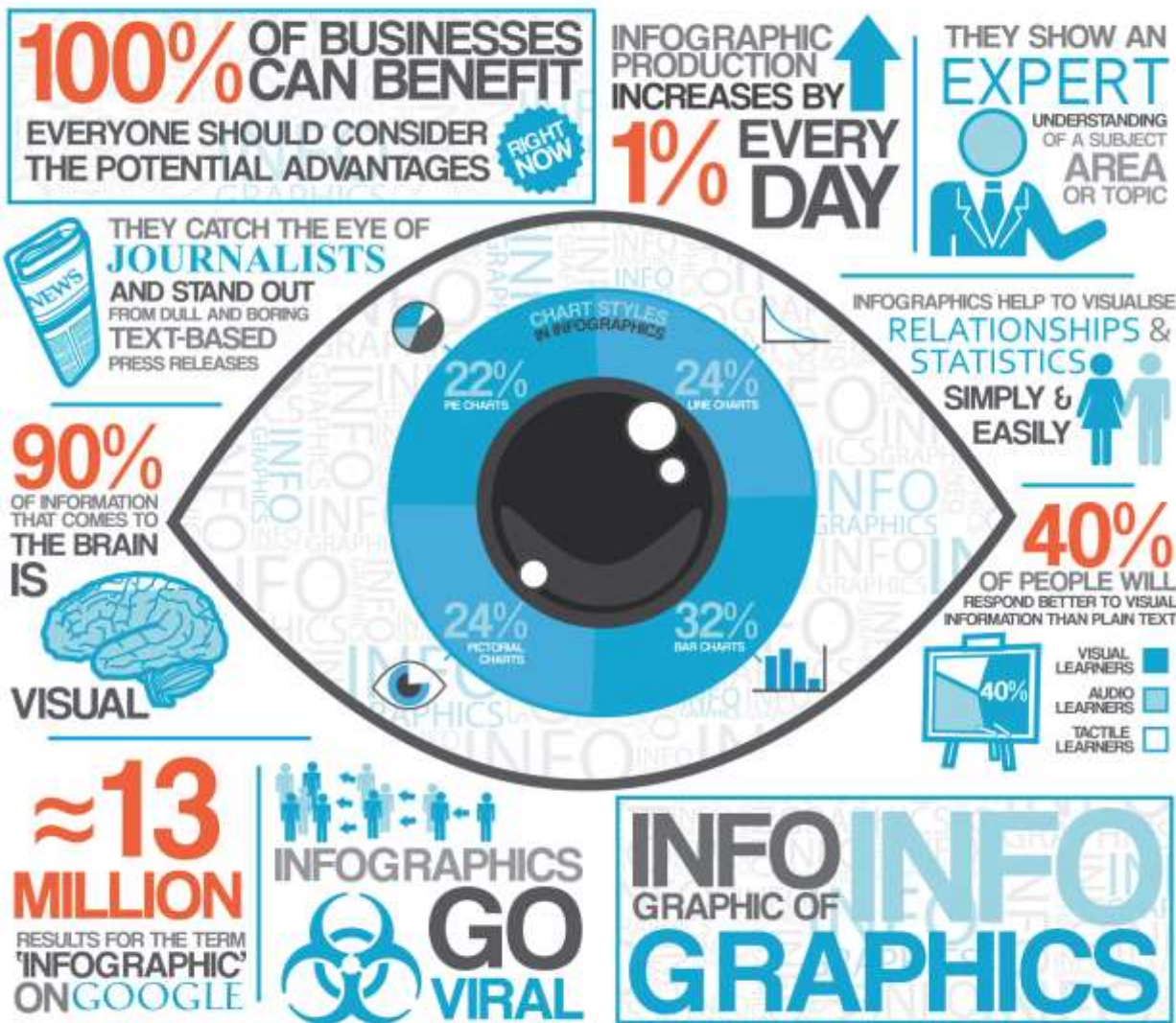


7 Common Types of Infographics

easelly

Infographics about infographics!

WATCH THIS SPACE. INFOGRAPHICS ARE **IN**



©2013 ZABISCO. ALL RIGHTS RESERVED. FOR THE TERM 'INFOGRAPHIC' ON GOOGLE AS OF 2013, VISIT <http://www.google.com/search?q=infographic&btnG=Search&oeq=infographic>. 40% OF PEOPLE WILL RESPOND BETTER TO VISUAL FORMS OF LEARNING ACCORDING TO 'Learning Styles for Real' Through Their Individual Learning Styles: Visual, Auditory, and Kinesthetic. Charts, Statistics, and Graphics. Copyright © 2013 by ZABISCO. ALL RIGHTS RESERVED. 40% OF PEOPLE WILL RESPOND BETTER TO VISUAL FORMS OF LEARNING ACCORDING TO 'Learning Styles for Real' Through Their Individual Learning Styles: Visual, Auditory, and Kinesthetic. Charts, Statistics, and Graphics. Copyright © 2013 by ZABISCO. ALL RIGHTS RESERVED. 40% OF PEOPLE WILL RESPOND BETTER TO VISUAL FORMS OF LEARNING ACCORDING TO 'Learning Styles for Real' Through Their Individual Learning Styles: Visual, Auditory, and Kinesthetic. Charts, Statistics, and Graphics. Copyright © 2013 by ZABISCO. ALL RIGHTS RESERVED.

- Use engaging visualisations, but keep the focus on the message, not the artistic greatness
- Translate any raw data in easy to use visualisations



Best practices

- **Clarify purpose**
 - Informational, promotional, reference
- **Design for form factor**
 - Poster (size?), mobile, tablet, pinterest, email, print
- **How is it consumed?**
 - Who, where, how much time?
- **Have a set of reusable assets**
 - Icons, containers, colour palette, webdings symbols, custom themes



Best practices (cont'd)

- **Take early feedback with sketches**
 - Remember that an infographic is a self contained unit
- **Alignment is beauty**
 - Align containers to page, major objects to containers, use guidelines
- **Stand out factor**
 - Humour, eye candy
- **Speak to Production early**
 - Resolution, quality

SIMPLE INNOVATIONS HELP AFRICAN FARMERS THRIVE

Approximately one billion people live in chronic hunger and more than one billion live in extreme poverty. Most are small farmers in the developing world. Helping these farming families to be more productive is one proven solution to reducing poverty and hunger. Simple solutions like the ones shown here are helping make a difference in the lives of smallholder farmers and their families.

Better Information

TEACHES
FARMERS TO
INCREASE YIELDS



Working with radio stations in five African countries, a radio project has reached 33 million farmers with valuable information on a range of agricultural techniques to help farmers improve their productivity and access to markets.

Better Seeds

30%
MORE YIELD IN
DROUGHT-PRONE AREAS



New and improved maize (corn) varieties that can survive on less water are already helping more than 3 million smallholder farmers in Africa get higher yields and incomes.

Better Tools

50%
MORE AFFORDABLE
THAN MOTORIZED PUMPS



Instead of buying motorized pumps that are costly and difficult to maintain, farmers are using "foot power" to operate treadle pumps that can lift water from 20 feet below the surface.

Better Storage

PROTECTS
CROPS FROM INSECTS

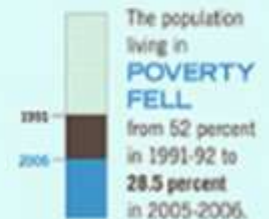
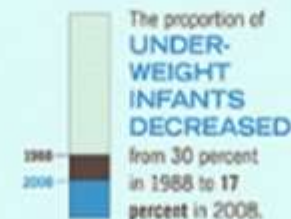
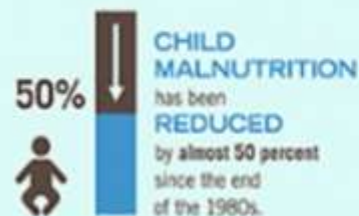
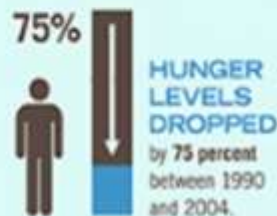


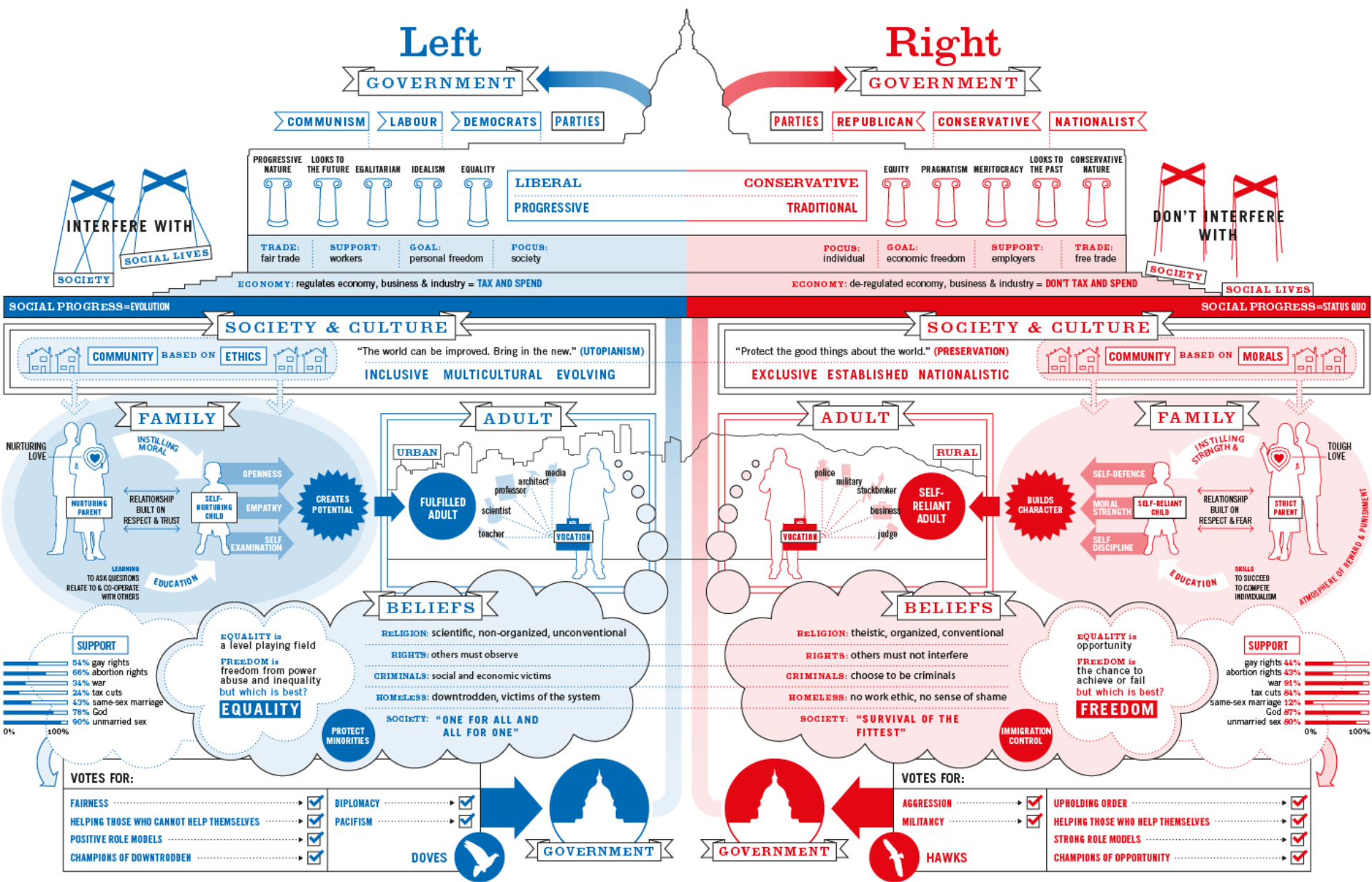
Special storage bags cost only \$2 and protect cowpea crops from destructive insects. Since 2007, more than one million bags have been sold, saving harvests for thousands of farmers.



GROWING SUCCESS IN GHANA

Facing severe food shortages in the mid-1980s, the Ghanaian government increased investments to help rebuild the nation's agricultural system. Through this effort, farmers received technical advice, seeds, fertilizer, ways to manage insects and disease, and gained access to new markets.



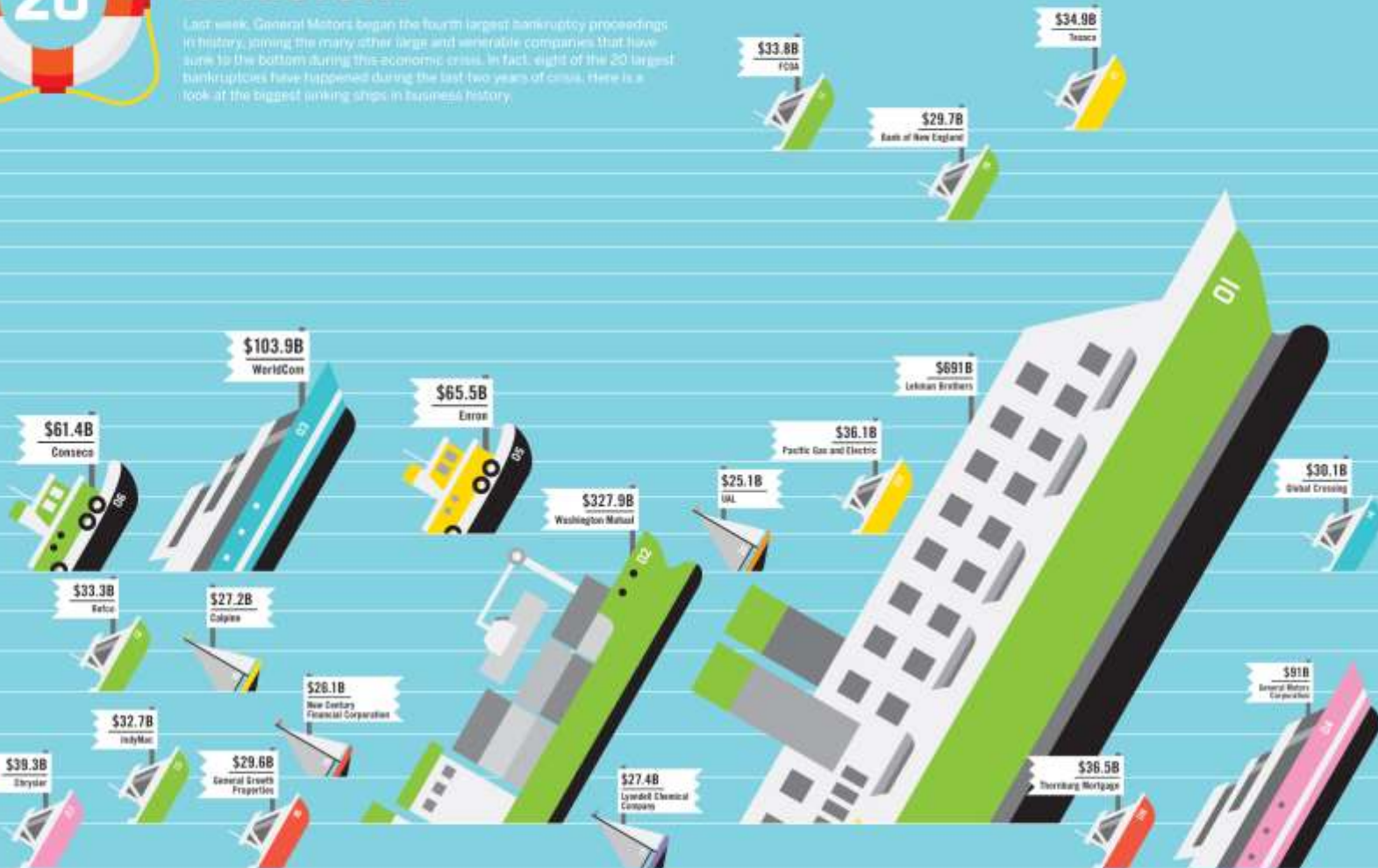




LARGEST BANKRUPTCIES IN HISTORY

Last week, General Motors began the fourth largest bankruptcy proceedings in history, joining the many other large and venerable companies that have sunk to the bottom during this economic crisis. In fact, eight of the 20 largest bankruptcies have happened during the last two years of crisis. Here is a look at the biggest sinking ships in business history.

1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009



BOAT TO PRE-BANKRUPTCY ASSETS (in billions)



SECTOR



PRE-BANKRUPTCY ASSETS (in billions) / Company





Your 2017 Wrapped

You listened to
19,456 minutes
on Spotify this year.

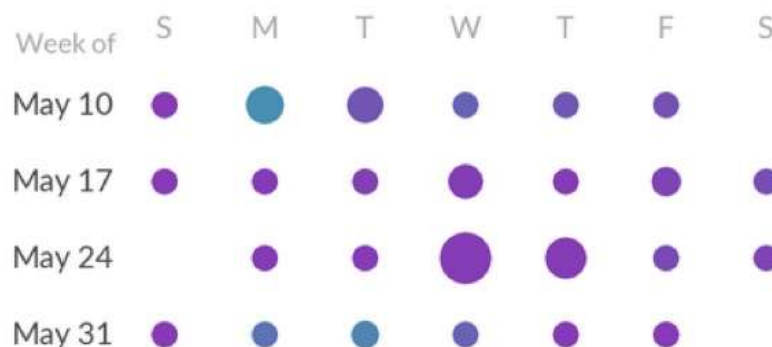


ReallyGoodEmails' Weekly Summary

Monday, June 1st - Sunday, June 7th

Hope you had a good weekend! Here's a summary of what happened on your team last week:

Your team sent a total of **456 messages** last week (that's 266 fewer than the week before). Of those, **59% were in channels** and **41% were direct messages**. Your team also uploaded **13 files** (that's 3 more than the week before).





UBER

2  17

In the rear-view

This year zoomed by fast, didn't it?

1,173

Days since you joined
Time really flies.

406.28

Miles traveled in 2017
That's 13,080 Olympic-sized swimming pools!

4.77 ★

Rider Rating
You're a star!

YOU & YOUR CITY



More of great examples of infographics

- Wind map of the US: <http://hint.fm/wind/>
- Billions are spent on this:
<http://www.informationisbeautiful.net/visualizations/the-billion-dollar-gram/>
- How common is your birthday?
<http://thedailyviz.com/2016/09/17/how-common-is-your-birthday-dailyviz/>
- Food and wine pairing: <http://winefolly.com/review/simple-food-and-wine-pairing/>
- Transit time in New York: <https://project.wnyc.org/transit-time/>



Additional resources

- **Pinterest**

- Has a wealth of infographics examples to draw inspiration from
- You can create mood boards on Pinterest

- **PowerPoint**

- Has smart art templates
- Has wingding fonts

- **Icons**

- Flaticon.com has a library of free icons

- **Online infographic creators**

- Easel.ly
- Infogr.am
- Piktochart
- Venngage
- Creatly
- Canva

- **Word clouds**

- Wordle

- **Hubspot templates**

- <https://www.hubspot.com/infographic-templates>



Create and Infographic

Part 1. Conceptualise infographics/create a Brief

- Think about a topic that you would want to present using infographics. Keep in mind the 8 Commandments ...
 - Audience
 - Goal
 - Format
 - Expected Outcome
- Draft a short brief (could be a few bullet points) about the purpose of your infographics, its intended audience and data it should have

30
mins

ACTIVITY

Part 2. Start working on the 'infographics board'

- Use the seven types of infographics to guide you in selecting the right tool for the right occasion
 - Identify charts and supporting graphics
 - Identify the list of assets required (e.g. charts & images)
- Identify themes, analogies, templates, colour schemes
- Identify messages you want to show
- Identify data / charts / numbers to be shown
- Create a storyboard using post-it notes
- Iterate your storyboard until you are satisfied



Group exercise (cont'd)

Part 3. Go into production

- Create an infographic using your favourite tool (can be pen & paper)
 - Create assets (e.g. charts & images)
 - Assemble assets

Final Part: Present to class

- Pick one person from the team to present your work
- Take feedback

End of Module 1.3