The secret behind infographics

data visualisations vs. infographics:
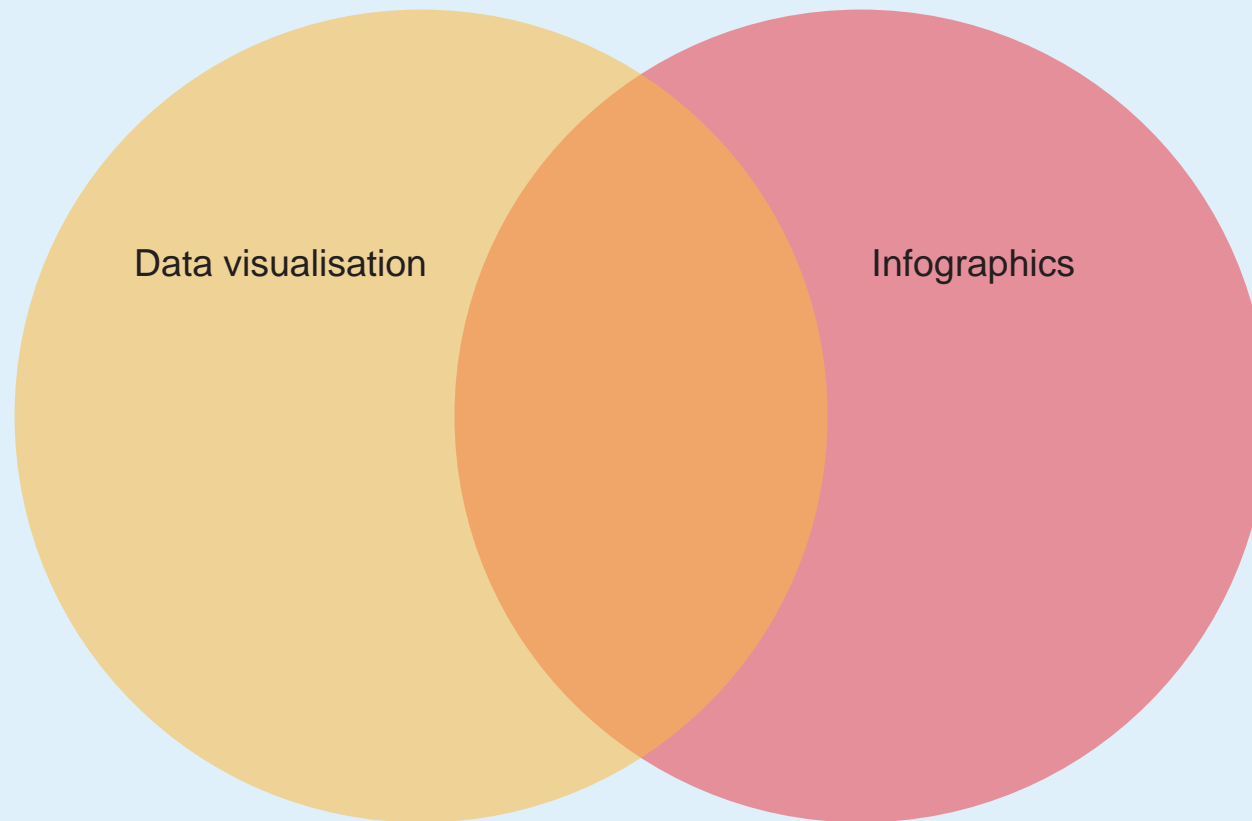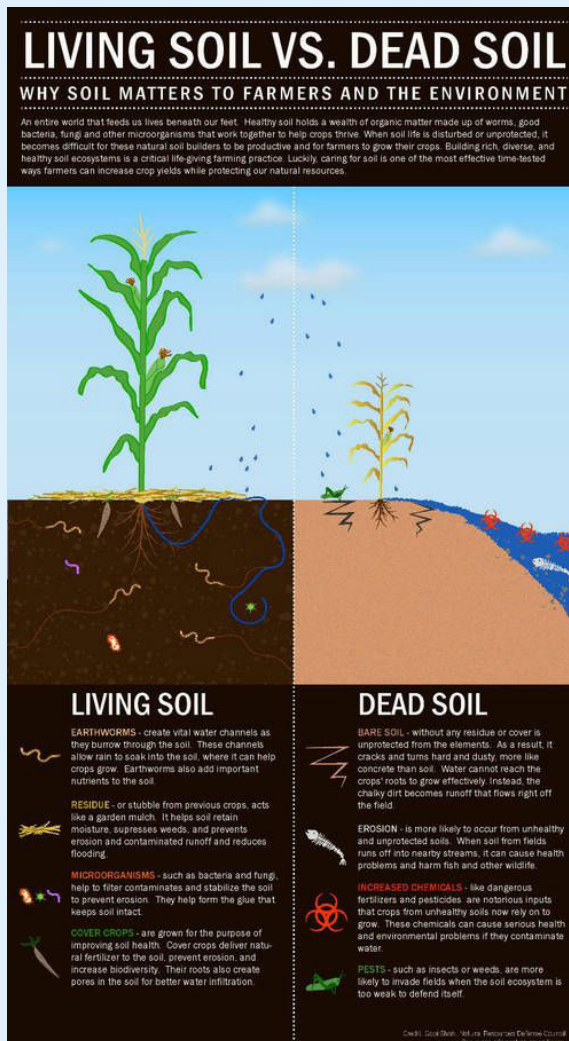
Data visualisation

Infographics

similarities:

- They both seek order
- They both are meant to be informative.
- They are both visual representations of data.
- They convert data (usually numbers) into graphics.
- They can both be static, interactive or animated.

what is an infographic?

- generally created to tell or explain a specific story
- usually intended for a specific audience
- therefor Infographics are subjective.
- self contained and discrete
- it is information presented with context
- graphic design is obvious, as it will be designed for that certain audience,
- or to fit in with the style of a website/ publication
- content illuminated by illustrations, icons and other graphical flairs

As this is the case, it is usually necessary that each one be constructed by hand, although there are tools that are available to make them using templates.
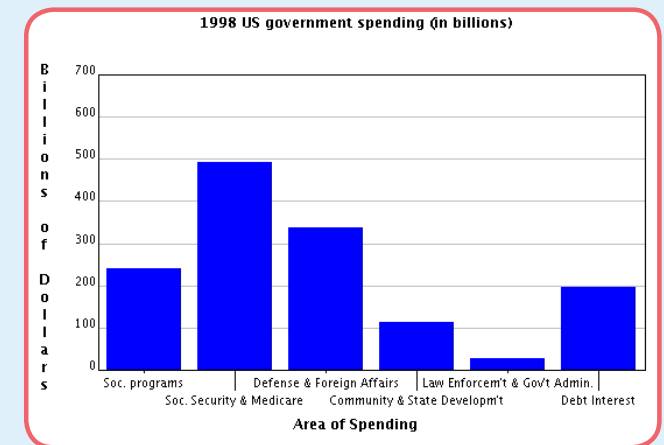
data visualisations vs infographics:

Website visits (000s)

- Organic search
- Email marketing
- Social media
- Referrals

- Data Visualisation can be both an item, and a discipline.
- quantifiable information in the form of numbers.
- data visualisations should be objective
- created for the purpose of making sense of the data,
- or to make data more accesible.
- likely to be created automatically
- transferable process to other data set
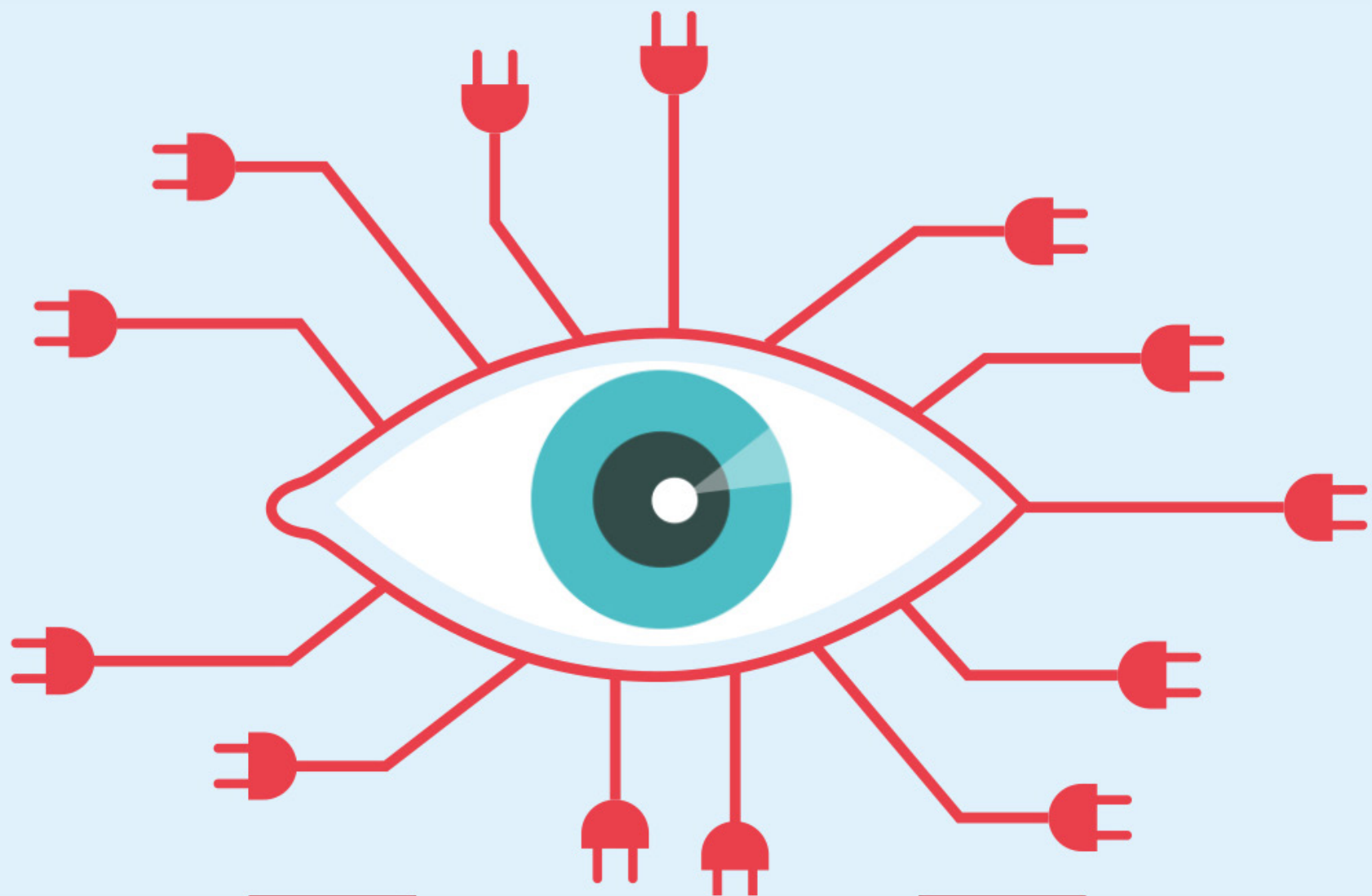- Graphic design is often less important

7/01/09   XAO Daily
djia

+120%
+100%
+80%
+60%
+40%
+20%
+0%
-20%
        00   01   02   03   04   05   06   07   08

1998 US government spending (in billions)

Billions of Dollars
700
600
500
400
300
200
100
0

Soc. programs   Defense & Foreign Affairs   Law Enforcem't & Gov't Admin.
    Soc. Security & Medicare   Community & State Developm't   Debt Interest

Area of Spending

Why do infographics work

The power of images

This is because we are 'visually wired'

visual by neomam.com

almost

50%

of your brain
is involved in

visual
processing

70%

of all your

sensory
receptors

are in your eyes

0:01 seconds

we can get
the sense of a

visual
scene

in less than
1/10 of a second

Thorpe, S., Fize, D. & Marlot, C. (1996). Speed of processing in the human visual system, Nature, Vol 381.

# It only takes us 150ms for a symbol to be processed + 100ms to attach a meaning to it

VS

While you are travelling down this road there is a chance that one or more rocks of varying size may fall from the slopes on one or both sides of you. You should be aware of this before you travel this way so that you are cautious of this particular type of hazard.
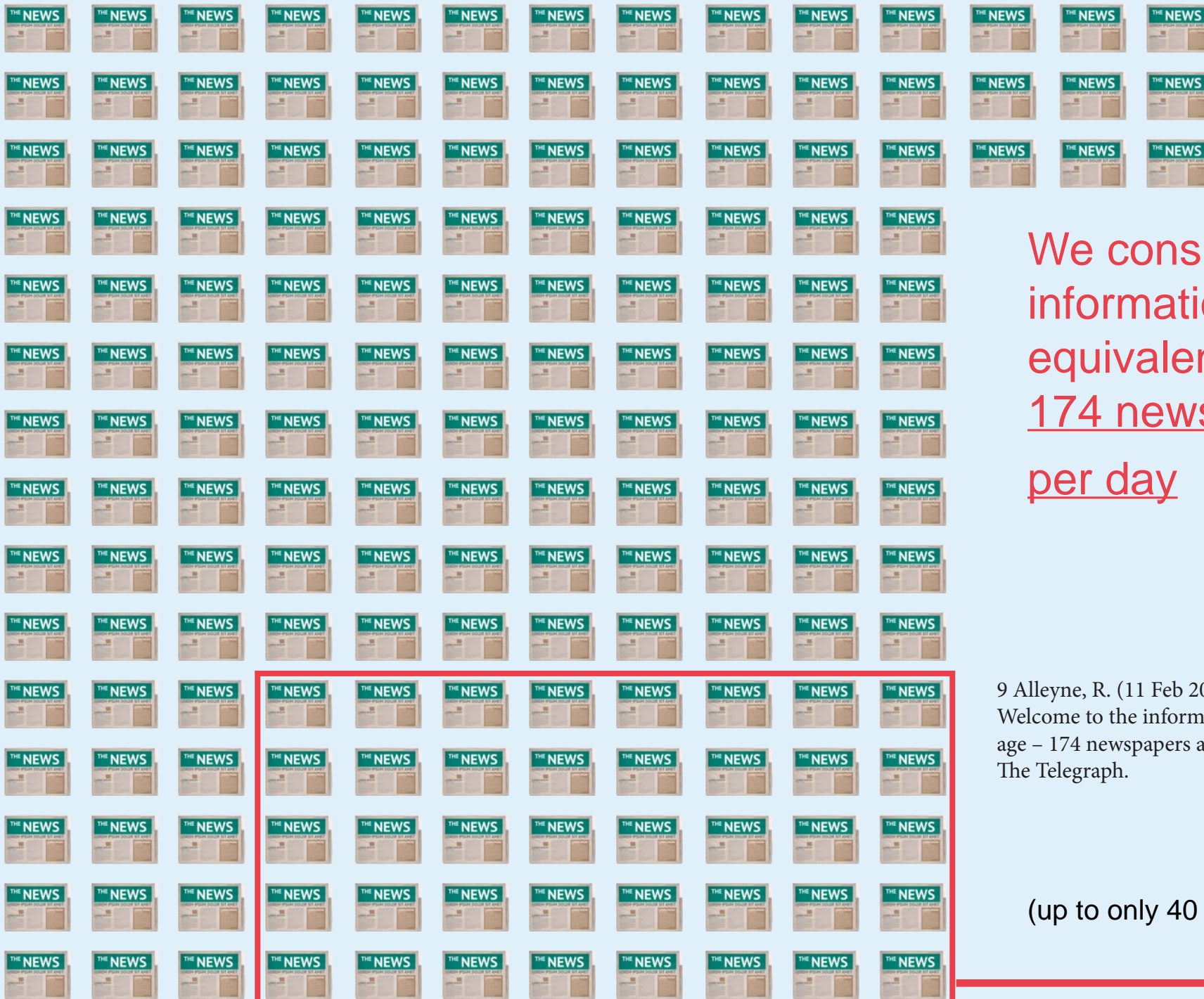
Holcomb, P. and Grainger, J. 2006. 'On the time course of visual word recognition'. Journal of Cognitive Neuroscience, 18.

Informavores
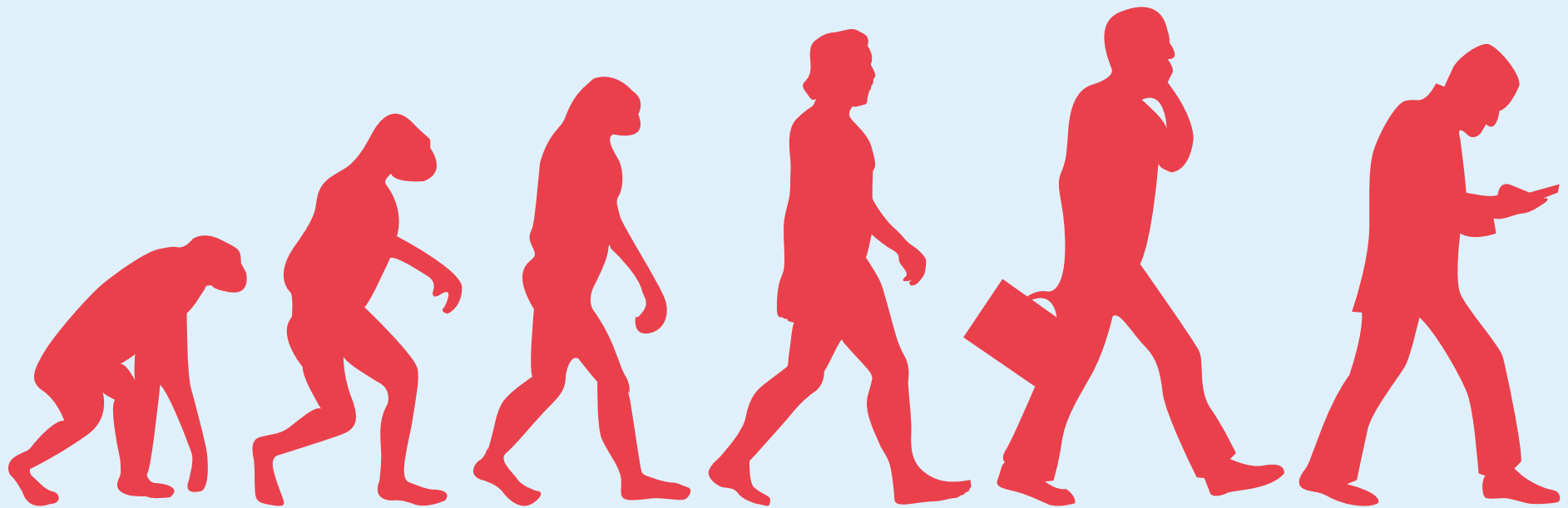
We're all informavores now, hunting down and consuming data as our ancestors once sought wooly mammoths and witchetty grubs.''
\- Rachel Chalmers

We consume information equivalent to 174 newspapers per day

9 Alleyne, R. (11 Feb 2011). Welcome to the information age – 174 newspapers a day. The Telegraph.

(up to only 40 newpapers in 1986)

Information overload

9 Alleyne, R. (11 Feb 2011). Welcome to the information age – 174 newspapers a day. The Telegraph.
10 Bohn, R. & Short, J. (2012). Measuring Consumer Information, International Journal of Communication, Vol 6.
11 Nielsen, J. (2008). How Little Do Users Read?

We receive

5x

as much information today as we did in 1986. [9]

34 gigabytes or **100,500 words**
– the amount of information we consume outside of work on an average day. [10]

On average users only read

28%

of words per visit. [11]

visual by neomam.com

Infographics counter information overload because...

They're more engaging

80%

Researchers found that colour visuals increase the willingness to read by 80%.!!

12 Green, R. (1989). The Persuasive Properties of Color, Marketing Communications.

Easier to recall [17]

People remember:

80%
of what they
SEE and DO

10%
of what they
HEAR

20%
of what they
READ

Nielsen, J. (2008). How Little Do Users Read?

tips for great infographics

- what to ask
- what to do
- the importance of story telling
- language of context

How to make your own infographic?

What to ask

- What is the purpose?

- Where is the value?

- Why will people share it?

- How can I maximise that?

What to do:

- Visualise as much as possible to aid understanding
- Always have a clear hierarchy of information
- Explore and push boundaries

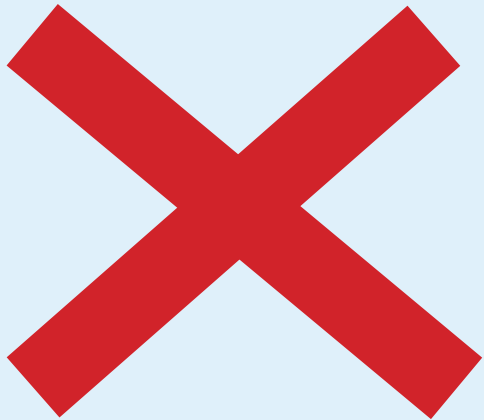The design is to aid understanding & generate appeal

Visualise as much as possible to aid understanding

hierarchy of information

- Find your hook

- Which information do you want to emphasis

- Are there elements to be left out/added?

- Adjust the elements of the story you want to tell

Explore and push boundaries

Robotic templated design
Copy, paste, change the colour
"Do this one, but about giraffes."

Trying new things
Creative, unusual approaches
Within an organised framework

The importance of story telling
- head to tail -
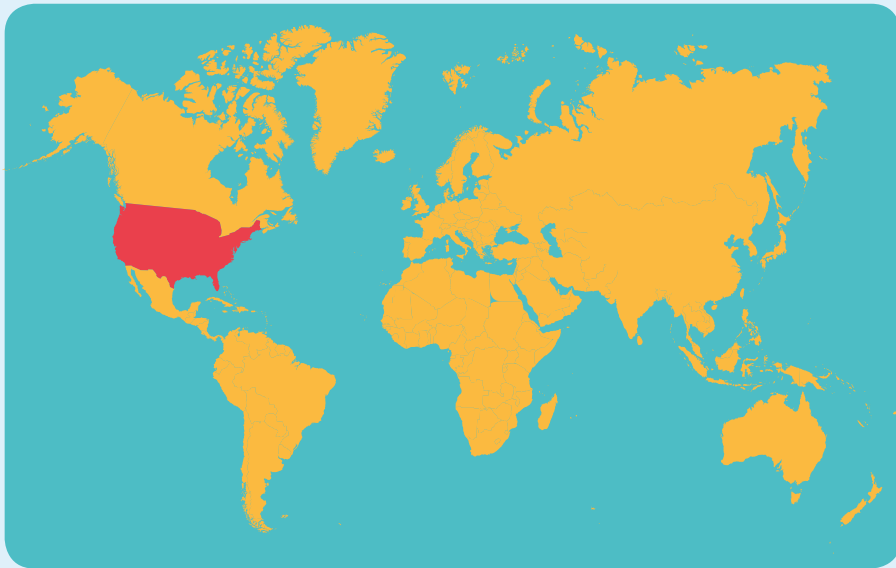
introduction / foundation

Ah-Ha!
The Main Event

conclusion / call-to-action

The language of context

2,267,233,742
global internet users

2,267,233,742
global internet users

Approximately 311,591,917 total people in the U.S.

Approximately 7,009,000,000 people on earth

how to create your own infographic

- choosing a format
- building a wireframe
- use simple design principles
- visualize the hook
- refinement and testing

1. choosing a format

PRACTICAL

Flowchart How-to

World Maps / Countries That...

How to Guides

Illustrated How-Tos

The Guide to...

Photo Guides

EDITORIAL

Visual Answer to a Question

Versus Infographic

Statement with Proof

SOCIAL

50 Facts
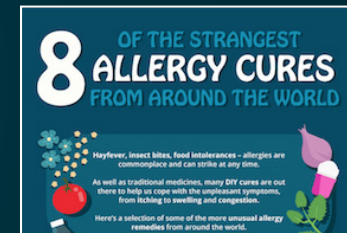
Lists Using Illustrations

Visual Map

visual by neomam.com

1. choosing a format

PRACTICAL

Flowchart How-to

World Maps / Countries That...

How to Guides

Illustrated How-Tos

The Guide to...

Photo Guides

How to **do / solve / answer** something

Intellectual **insight**

Provide **knowledge**

1. choosing a format

EDITORIAL

Timely - responds to a calendar event

Presents **intelligent reputable data**

Sharer appears to have **knowledge.** Refer to social proof concept in Jonah Berger's 'Contagious'.

Visual Answer to a Question

Versus Infographic

Statement with Proof

1. choosing a format

- Creates a **visual buzz**
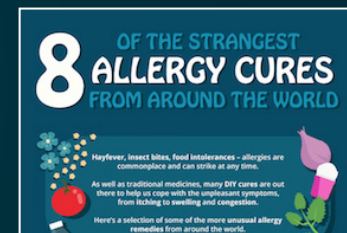
- Quirky content & **dynamic, engaging design**

- Provides sharer with **'cool factor'**

SOCIAL

50 Facts

Lists Using Illustrations

Visual Map

visual by neomam.com

1. choosing a format

Visual answer to a question

Purpose

• Trigger for editorial calendar
• Timely (not evergreen)

Focus

• Visual storytelling
• Keep interest throughout in content and design
• Use clear sections to aid user navigation
• Analytical and data-dependent – needs to be easy to understand
• Triggers different editorial approach in the eyes of journalists by posing questions

1. choosing a format

Statement with proof

Purpose

• Based on a topical issue
• Sharer looks knowledgeable

Focus

• Evidence will be from high-end sources
• Look viable, believable, scientific
• Hypothetical situations based on existing data
• Build up the case visually alongside content
• Visuals are to <u>enhance</u> understanding, not cloud it - allow journalists to create their own angle

1. choosing a format

Visual map

Purpose

• Map-orientated
• Highly social

Focus

• All data requires top map for context
• Detail below
• In contrast to 'World Maps', where a specific location/country/region is featured, rather than a global view
• Narrow/niche topic which appeals to a specialized community
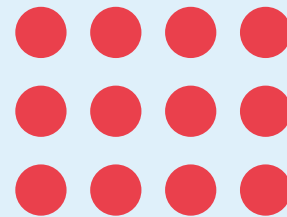• Combination of photo and illustration works well

2. building a wireframe

- lay out your concept

- make a sketch of the hierarchy and lay-out

- use this step to have your concept and ideas reviewed

3. clear design
basic design principles

- unity - harmony

- balance
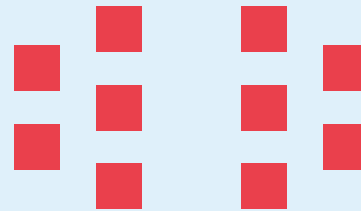
- hierarchy

3. clear design
basic design principles

- scale - proportion
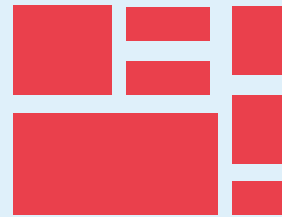
- dominance - emphasis
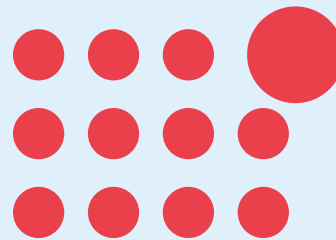
- similarity - contrast
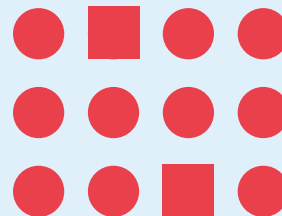
3. clear design colour

- limit your colour palette

- stick to 3 - 6 colours to grab attention

- make use of available tools (http://www.colourlovers.com)

Green, R. 1989. 'The Persuasive properties of color'. Marketing communications. xerox.com

3. clear design
icons, visualisations

- make sure your icons and visualisations are easily read

- make use of repetition

- try to work with vector files as much as possible *(.svg .ai .eps)

- make great use of graphic visualisation tools

3. clear design fonts

Fonts are a great way to spice up your infographic:

- think about (contrast in) style,size, weight

- dress for the occasion

- avoid small wimpy diffrences

4. visualise the hook!

HOOKS
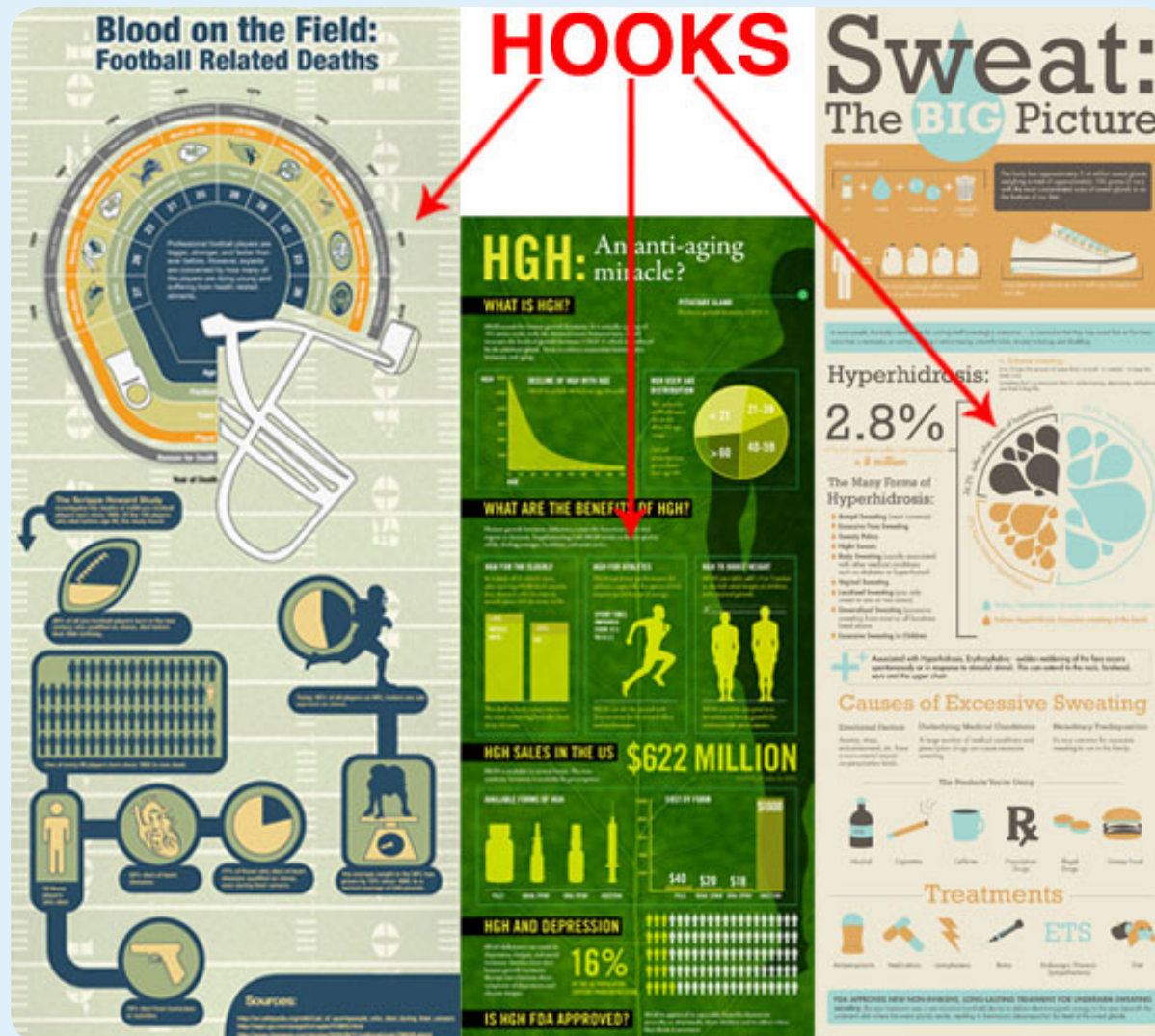
5. refinement and testing

- Discuss your infographic with others,
does it convey the right message,
is the infographic clear?

- Make a test-print,
think about how do you want to publish.
think about file size
see if everything is in place,
clean up the design from small errors

sources

1 Google Ngram Viewer.

2 Google Trends.

3 Zacks, J., Levy, E., Tversky, B., Schinao, D. (2002). Graphs in Print, Diagrammatic Representation and Reasoning, London: Springer-Verlag.

4 Merieb, E. N. & Hoehn, K. (2007). Human Anatomy & Physiology 7th Edition, Pearson International Edition.

5 Merieb, E. N. & Hoehn, K. (2007). Human Anatomy & Physiology 7th Edition, Pearson International Edition.
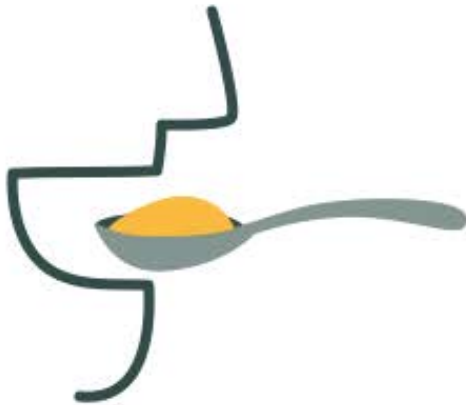
6 Semetko, H. & Scammell, M. (2012). The SAGE Handbook of Political Communication, SAGE Publications.

7 Thorpe, S., Fize, D. & Marlot, C. (1996). Speed of processing in the human visual system, Nature, Vol 381.

8 Holcomb, P. & Grainger, J. (2006). On the Time Course of Visual Word Recognition, Journal of Cognitive Neuroscience, Vol 18.

9 Alleyne, R. (11 Feb 2011). Welcome to the information age – 174 newspapers a day. The Telegraph.

10 Bohn, R. & Short, J. (2012). Measuring Consumer Information, International Journal of Communication, Vol 6.

11 Nielsen, J. (2008). How Little Do Users Read?

12 Green, R. (1989). The Persuasive Properties of Color, Marketing Communications.

13 Dowse, R. & Ehlers, M. (2005). Medicine labels incorporating pictograms: Do they influence understanding and adherence?, Patient Education and Counseling, Vol 58, Issue 1.

14 Levie, W. J. & Lentz, R. (1982). Effects of text illustrations: A review of research, Educational Communication and Technology.

15 Wharton School of Business. 'Effectiveness of Visual Language'.

16 McCabe, D. & Castel, A. (2008). Seeing is believing: The effect of brain images on judgments of scientific reasoning, Cognition 107.

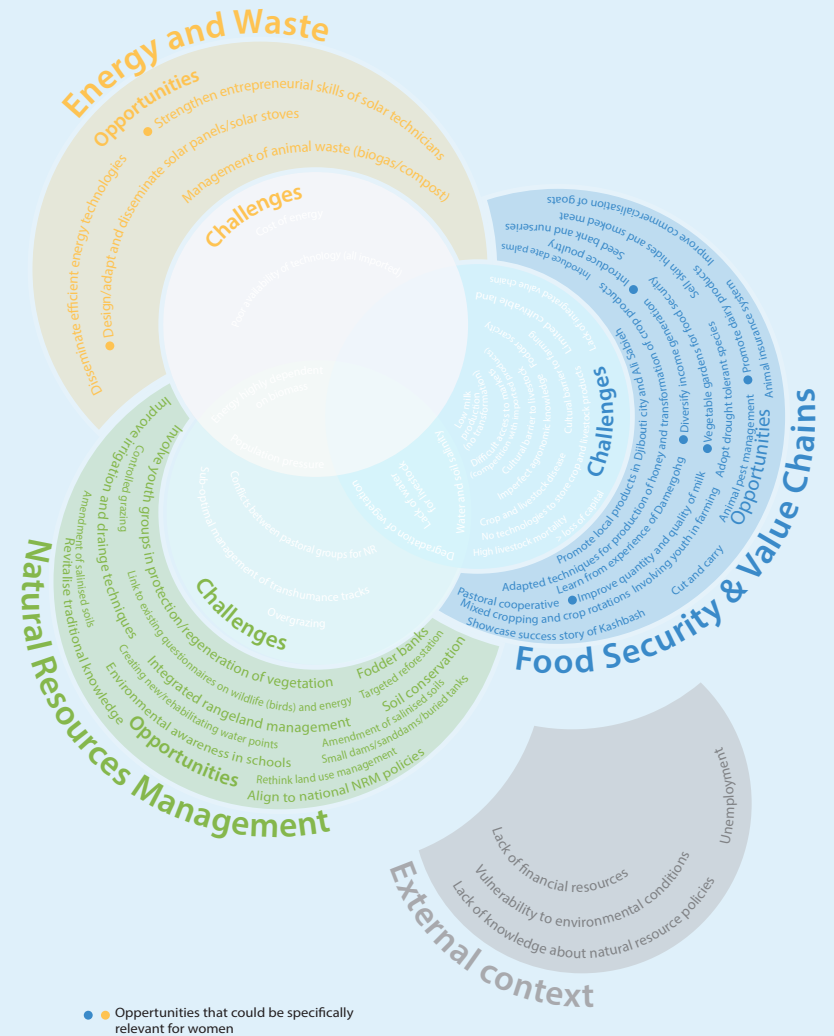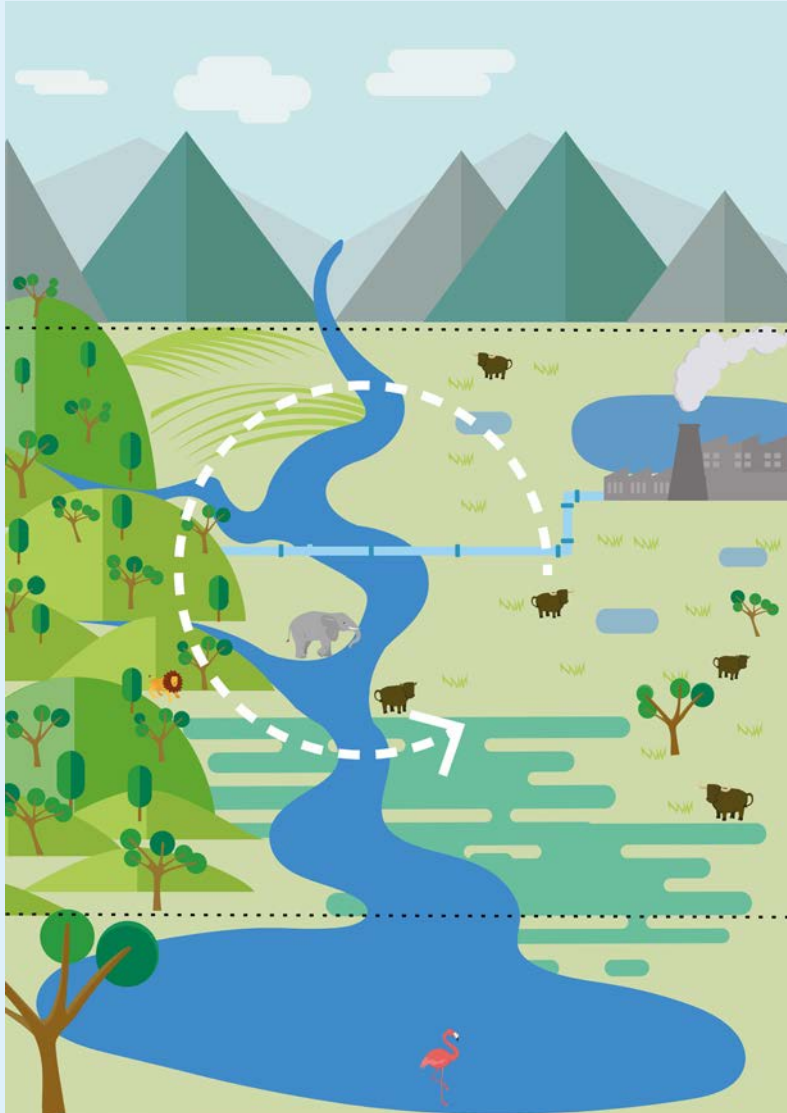17 Lester, P. M. (2006). Syntactic Theory of Visual Communication.

- See more at: http://neomam.com/interactive/13reasons/#sthash.NvBoDzrr.dpuf

Infographics are:

EASY TO DIGEST

FUN TO SHARE

AND EXTREMELY ENGAGING

my work - dataviz.

Energy and Waste

Opportunities
- Strengthen entrepreneurial skills of solar technicians
- Design/adapt and disseminate solar panels/solar stoves
- Disseminate efficient energy technologies
- Management of animal waste (biogas/compost)

Challenges

Food Security & Value Chains

Challenges

Opportunities
- Introduce date palms
- Seed bank and nurseries
- Improve commercialisation of goats
- Introduce poultry
- Sell skin hides and smoked meat
- Diversify income
- Vegetable gardens
- Adopt drought tolerant species
- Animal Pest management
- Promote Animal insurance
- Promote local products in Djibouti city and Ali Sabieh
- Adapted techniques for production of honey and transformation of Dzmergohg
- Learn from experience of Dzmergohg
- Improve quantity and quality of milk
- Involving youth in farming
- Cut and carry
- Pastoral cooperative
- Mixed cropping and crop rotations
- Showcase success story of Kashbah

Natural Resources Management

Challenges
- Overgrazing

Opportunities
- Fodder banks
- Targeted reforestation
- Soil conservation
- Integrated rangeland management
- Amendment of salinised soils
- Small dams/sanddams/buried tanks
- Environmental awareness in schools
- Creating new/rehabilitating water points
- Rethink land use management
- Align to national NRM policies
- Involve youth groups in protection/regeneration of vegetation
- Link to existing questionnaires on wildlife (birds) and energy
- Improve irrigation and drainage techniques
- Amendment of salinised soils
- Revitalise traditional knowledge

External context
- Lack of financial resources
- Vulnerability to environmental conditions
- Lack of knowledge about natural resource policies
- Unemployment

Oppertunities that could be specifically relevant for women

my work - urban design

my work - urban design

my work - urban design