Flogging a dead statistic

Chris Lawrence
Public Health Intelligence Analyst
Westminster Council | Kensington and Chelsea Council
Contents

- Where have infographics come from
- Principles of a good chart / infographic
- Statistics in Public health
- How we have used Infographics
- The technology we use
- Questions
Where have infographics come from?

- Cave paintings from 30,000 BC could easily be called the first infographics
- Egyptian hieroglyphics
- William Playfair an early innovator in Statistical Graphics

Early healthy eating strategy

Affordable pyramids strategy

England’s National Debt, 1786
Principles of a good chart / infographic

- Data: Is it a credible and comprehensive dataset?
  - Only show data that supports this story.
  - Always show a key/legend. If you can, make your key part of the story.

- Story: What does your audience care about?
  - One story per chart/infographic.
  - If your story has many layers, then guide your reader through it.
  - Most important information first – so readers can take what they need. Be as concise as possible.
  - If your story has many sections, then break it into manageable chunks.
The True Size of Africa

A small contribution in the fight against rampant misperception by Rav Akosile

Graphic layout for visualization only. (Some countries are cut and rotated.)
But the conclusions are very accurate: refer to table below for exact data.

In addition to the well known social issues of illiteracy and immiserity, there also should be such a concept as “immapreciation”, meaning insufficient geographical knowledge.

A survey with random American schoolkids let them guess the population and land area of their country. Not entirely unexpected, but still rather unsettling, the majority chose “7-8 billion” and “largest in the world,” respectively.

Even with Asian and European college students, geographical estimates were often off by factors of 2–3. This is partly due to the highly distorted nature of the predominantly used mapping projections (such as Mercator).

A particularly extreme example is the worldwide misjudgement of the true size of Africa. This single figure tries to embody the massive scale, which is larger than the USA, China, India, Japan and all of Europe......combined!

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Top 100 Countries

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Area (in km²)</th>
<th>Percentage of World Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Russia</td>
<td>17,098,240</td>
<td>11.5</td>
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<tr>
<td>2</td>
<td>Canada</td>
<td>9,404,704</td>
<td>6.5</td>
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<tr>
<td>3</td>
<td>China</td>
<td>9,597,037</td>
<td>6.5</td>
</tr>
<tr>
<td>4</td>
<td>Brazil</td>
<td>8,511,965</td>
<td>5.7</td>
</tr>
<tr>
<td>5</td>
<td>United States</td>
<td>9,147,512</td>
<td>6.1</td>
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<tr>
<td>6</td>
<td>Australia</td>
<td>7,692,024</td>
<td>5.2</td>
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<td>7</td>
<td>Argentina</td>
<td>7,045,261</td>
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<td>Pakistan</td>
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<td>Japan</td>
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<td>Indonesia</td>
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<td>244,822</td>
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<td>16</td>
<td>Brazil</td>
<td>8,511,965</td>
<td>5.7</td>
</tr>
</tbody>
</table>

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Principles of a good chart / infographic

- Chart: Which charts bring your story to life?
  - data-to-viz

- Design: Does your chart look good?
  - Think size, canvas, title, colours
Statistics in Public health

- The good and the bad

Lost work days each year: 25 million

Migraine - National picture

Main causes for lost working days in 2013

- Musculoskeletal conditions: 31m days
- Minor illnesses (coughs and colds): 27m days
- Stress, anxiety or depression: 15m days
How we have used Infographics

- Highlight reports
- School Profiles
- Ward Health Profiles
- Funding bids

- 48% of adults are overweight or obese
- 66.7% of adults meet activity guidelines
- 10% of all 5 year olds are classed as obese
- 14% of Westminster residents smoke
- 50% of which will die from a smoking attributable condition
- 16% classed as inactive
- 1 in 4 residents will suffer from poor mental health this year
The technology

ArcGIS

infogram

Power BI

Public Health England Fingertips
Questions

- Chris Lawrence
- clawrence2@westminster.gov.uk