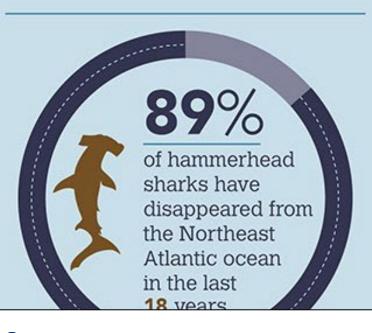
300,000 cetaceans are killed every year

Cetaceans are marine mammals including: whales

Just over 27
million tonnes
of marine life
are discarded
annually as a
result of fishing





Introduction to Infographics

Kelly Schultz, Data Visualization Librarian

kelly.schultz@utoronto.ca

Slides: https://uoft.me/infographics2023slides



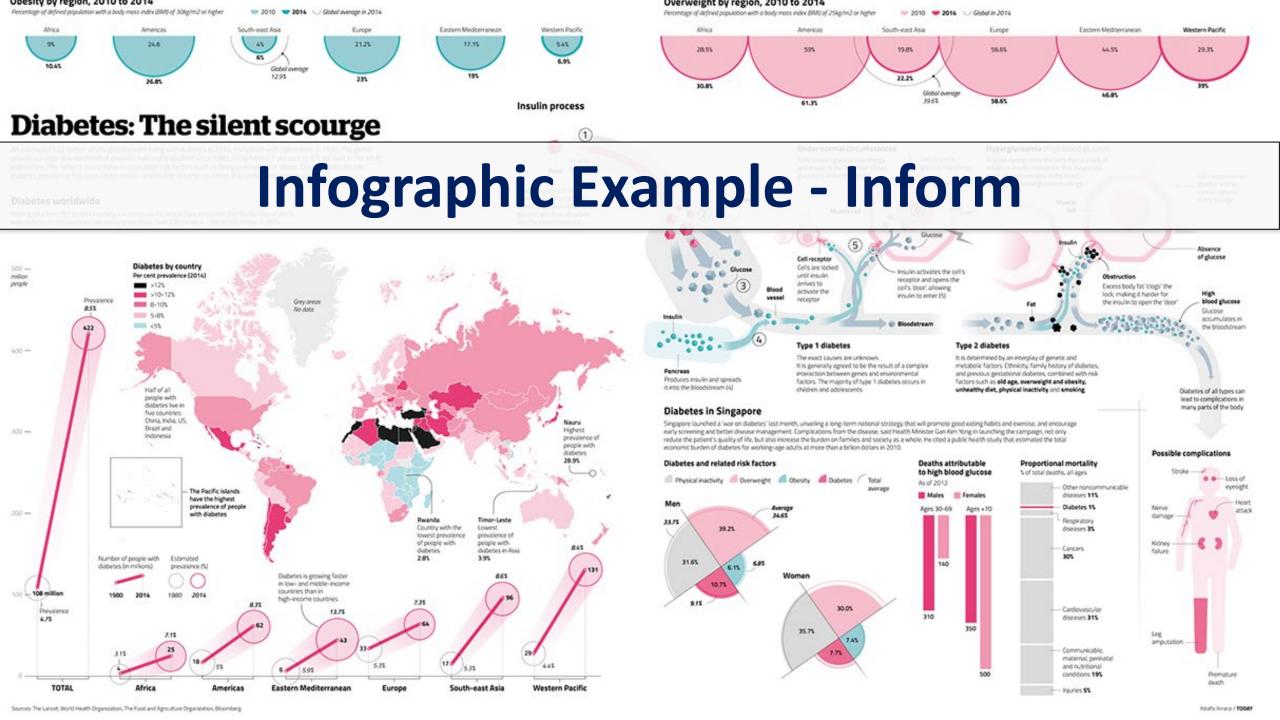
Agenda

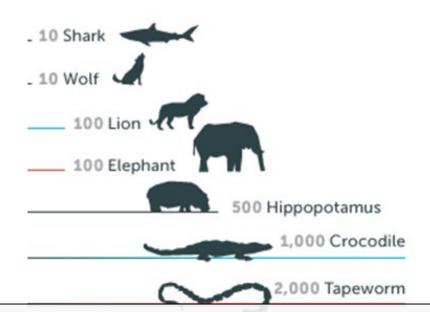
- Learning Objectives
- Introduction to Infographics
- Design Process Best Practices
- Activity: Critique
- Break
- Tools
- Activity: Creating an Infographic
- Wrap-up

Learning objectives

- Participants will be able to:
 - ✓ Describe what infographics are
 - ✓ List examples of how infographics are used
 - ✓ Identify best practices for creating infographics
 - ✓ Critique infographics, using knowledge of best practices
 - ✓ Identify appropriate infographic creation tools
 - ✓ Use Piktochart to create infographics following best practices
 - ✓ Be aware of Map & Data Library services and where to go for more help

Definitions Infographics?





World's Deadliest Animals

Number of people killed by animals per year

Infographic Examples - Persuade



10,000 Assassin bug (Chagas disease)



10,000 Tsetse fly (sleeping sickness)



25,000 Dog (rabies)



50,000 Snake



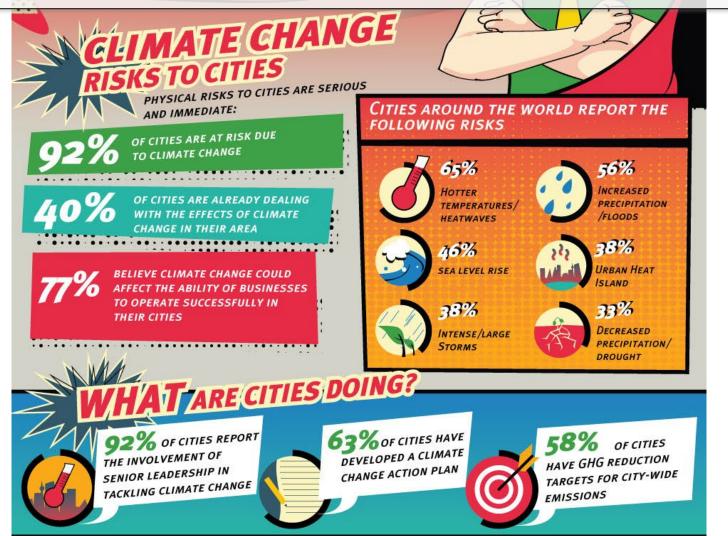


Infographic Examples - Persuade

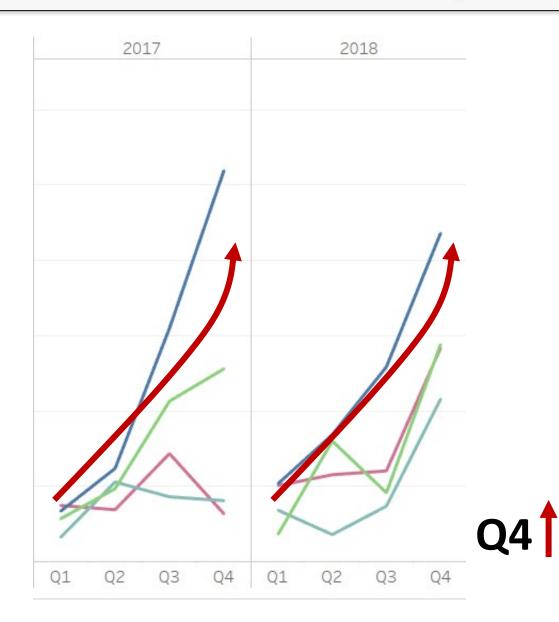


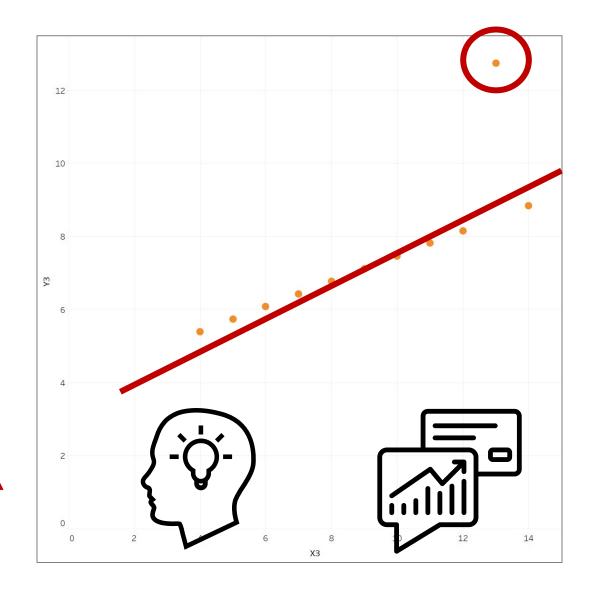
PGET SUPERHERUL SILGOVERNMENT TO THE RESCUE!

Why use Infographics?

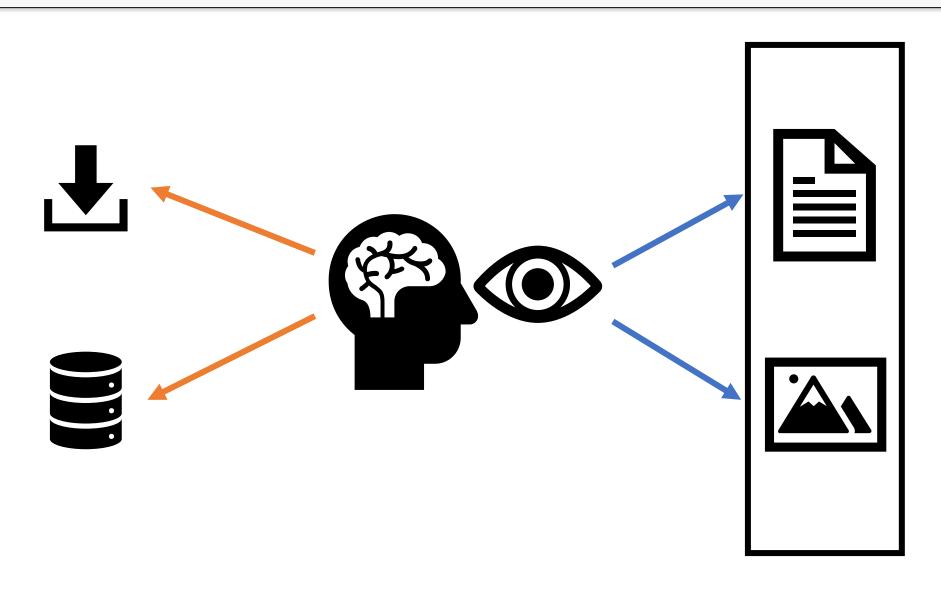


Why visualize?



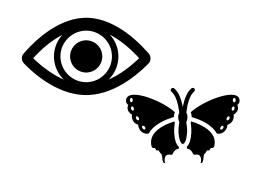


Dual Coding Theory





Infographics















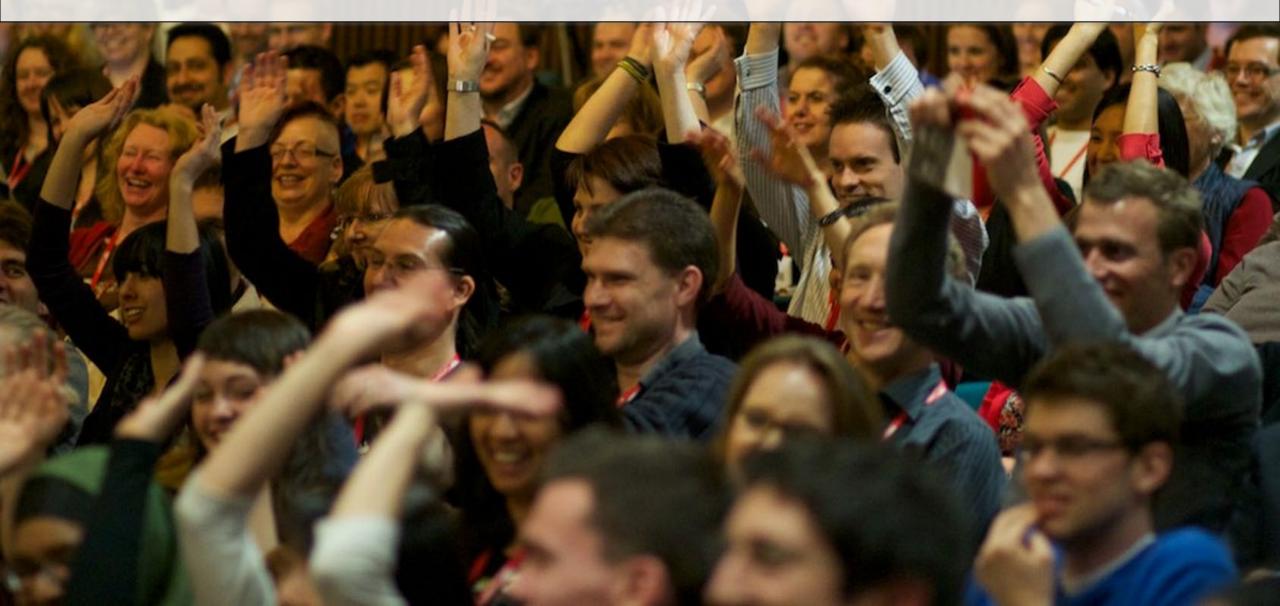


How are Infographics used?

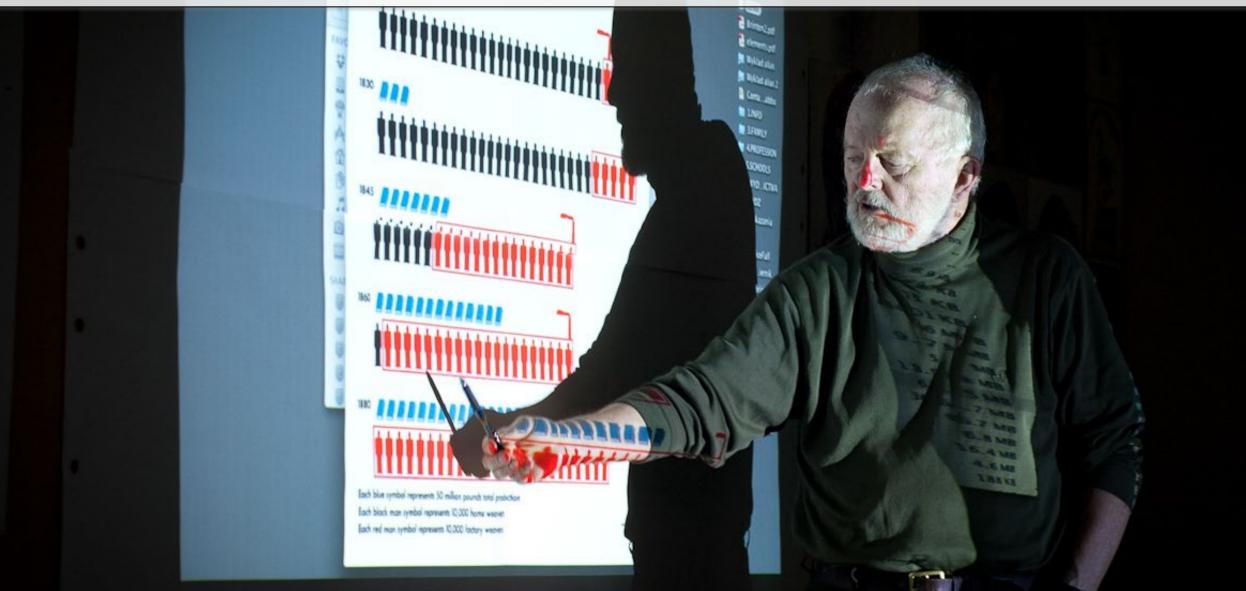




Audience

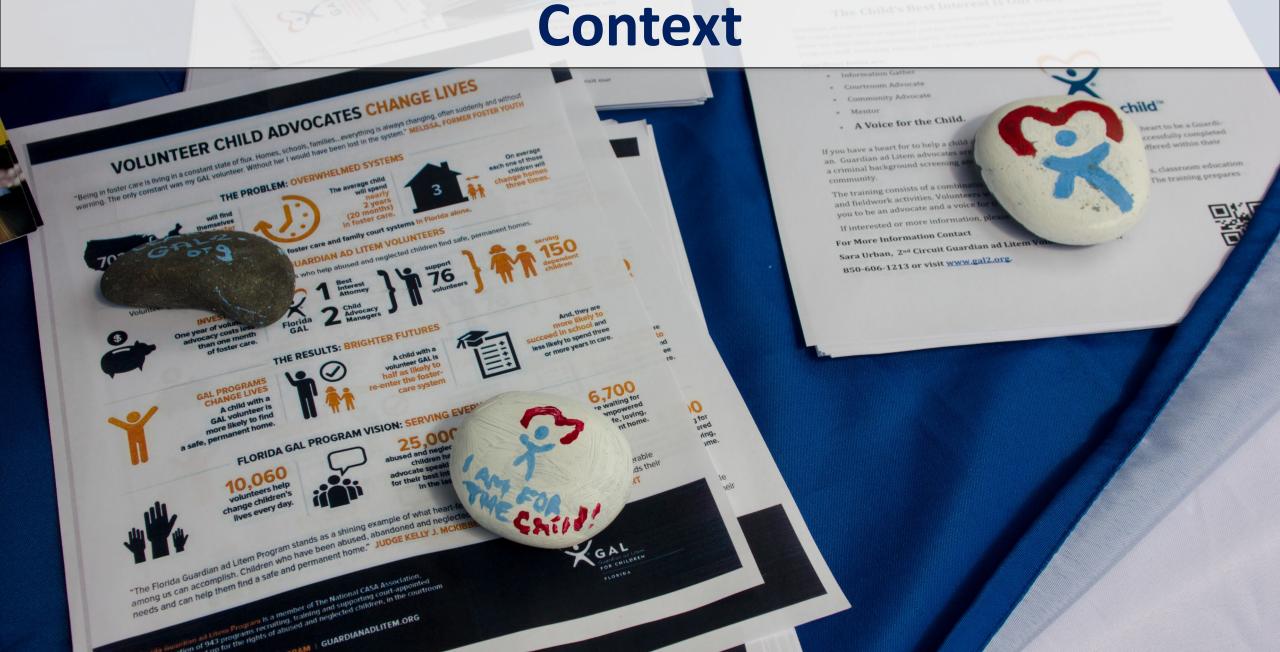




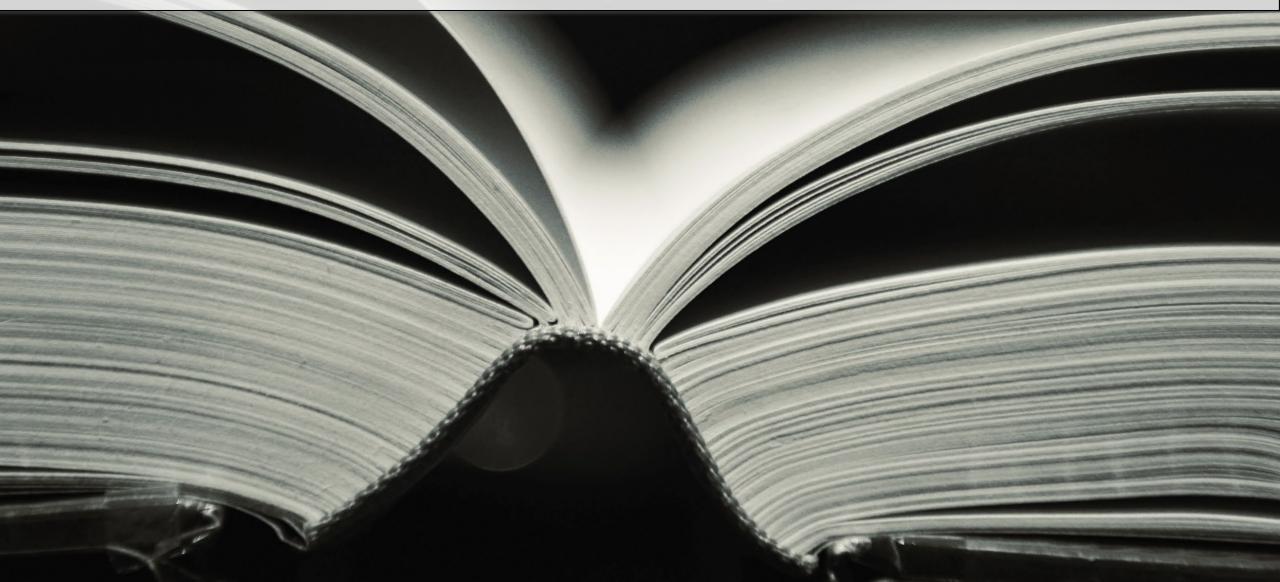


Change The Story for a Local Abused and Neglected Child...

Become a Guardi



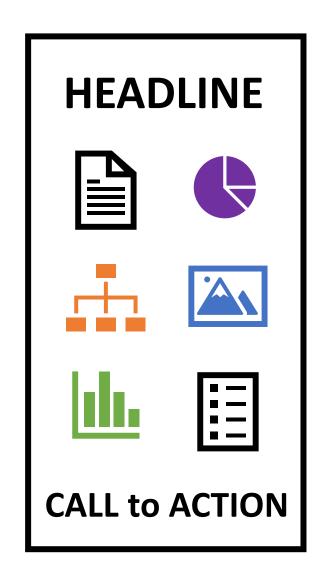
Storytelling



Finding your story



Beginning, Middle, & End



Visuals



TONE



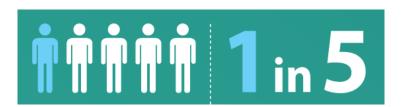
REINFORCE

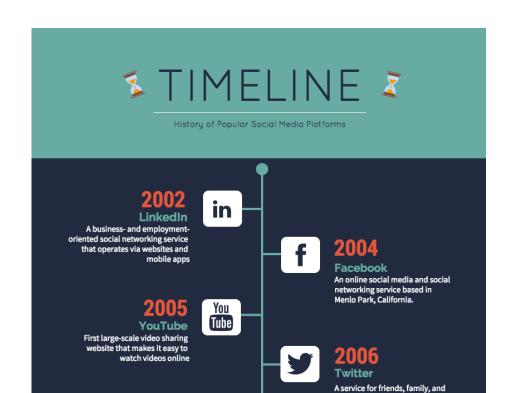


EYE-CATCHING



Common Types of Visuals

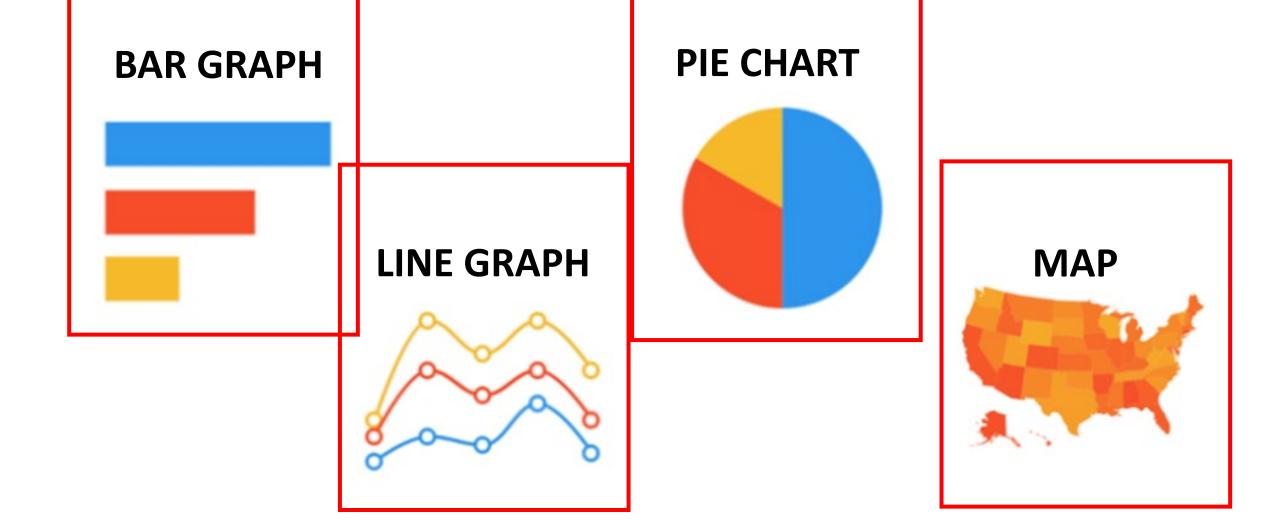






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Common Charts & Graphs



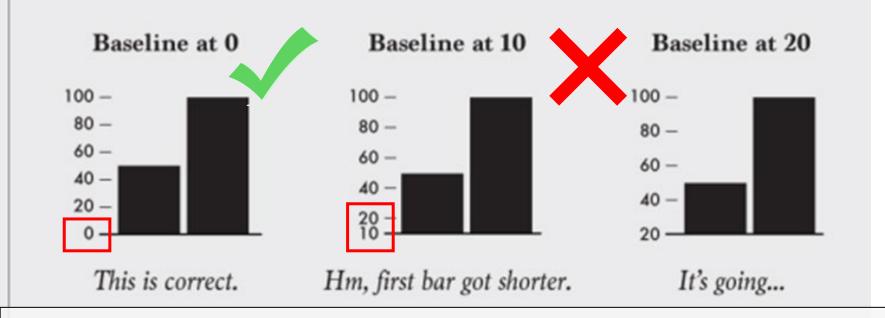


Chart & Graph Tips – Bar Graphs

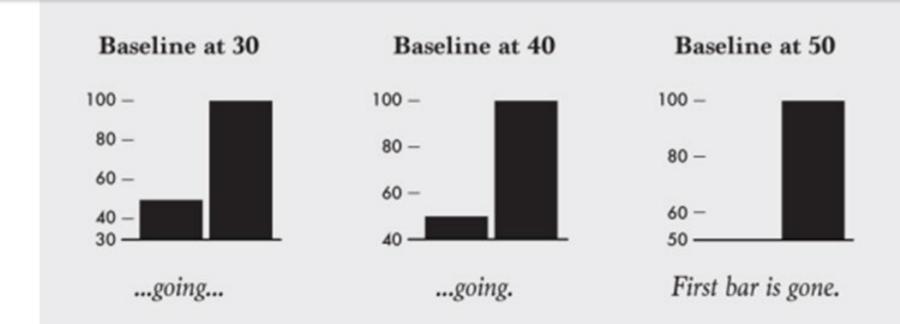
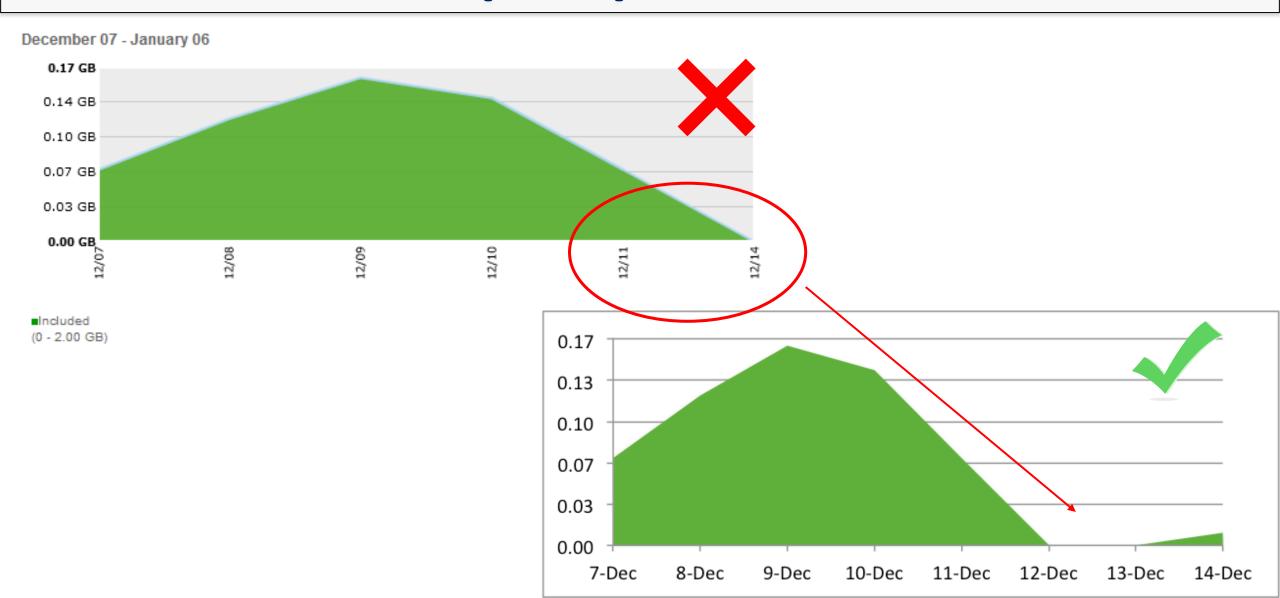
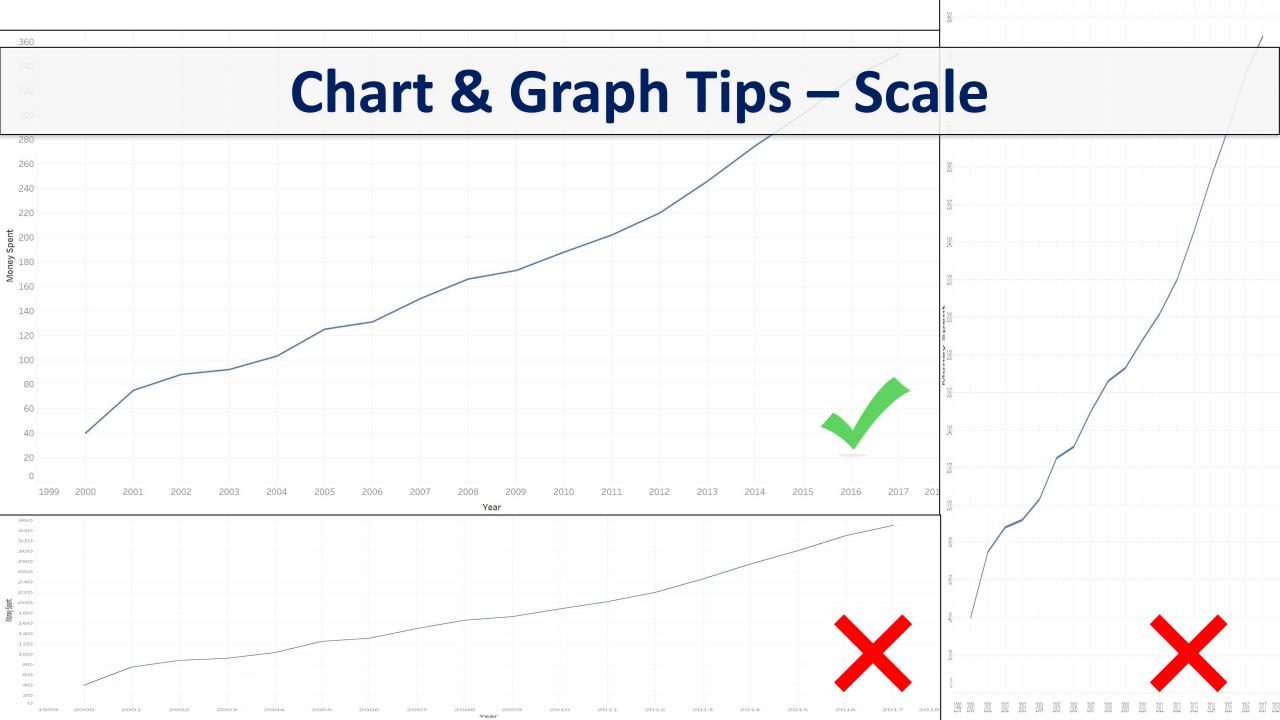


Chart & Graph Tips – Scale Intervals





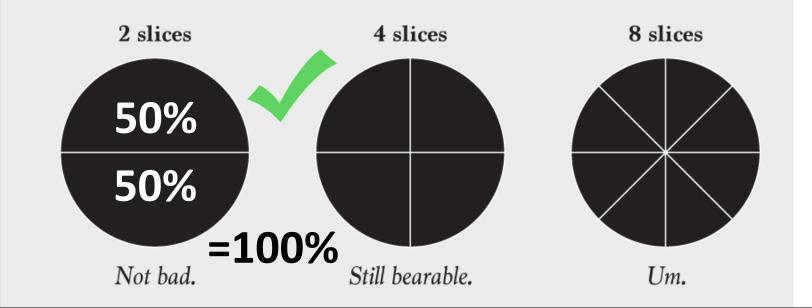


Chart & Graph Tips – Pie Charts

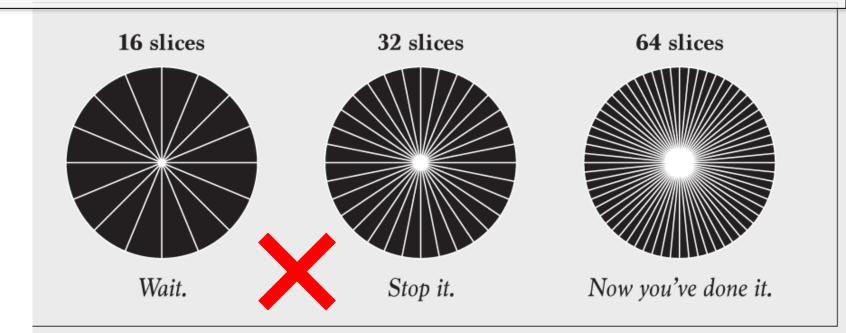


Chart & Graph Tips – 3D

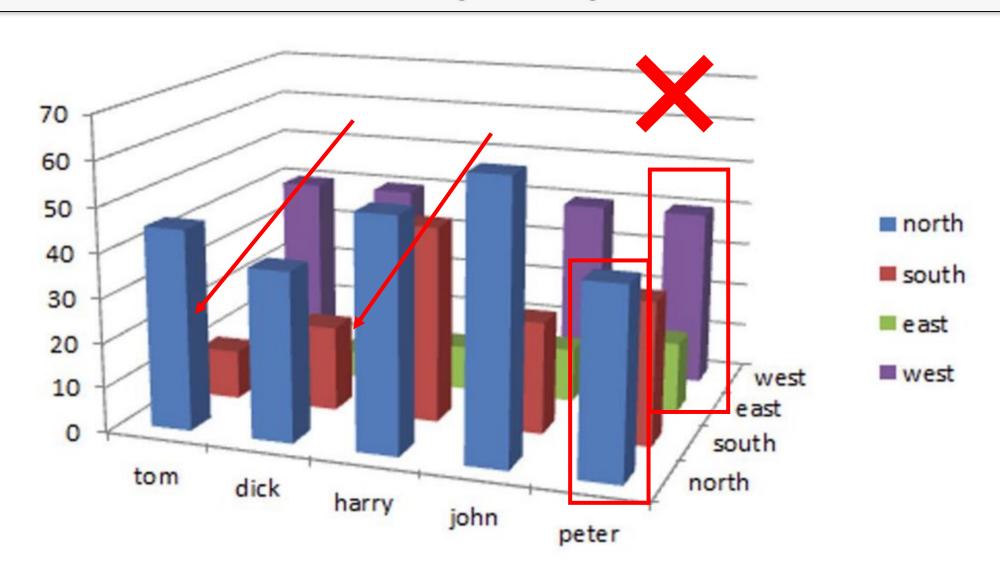


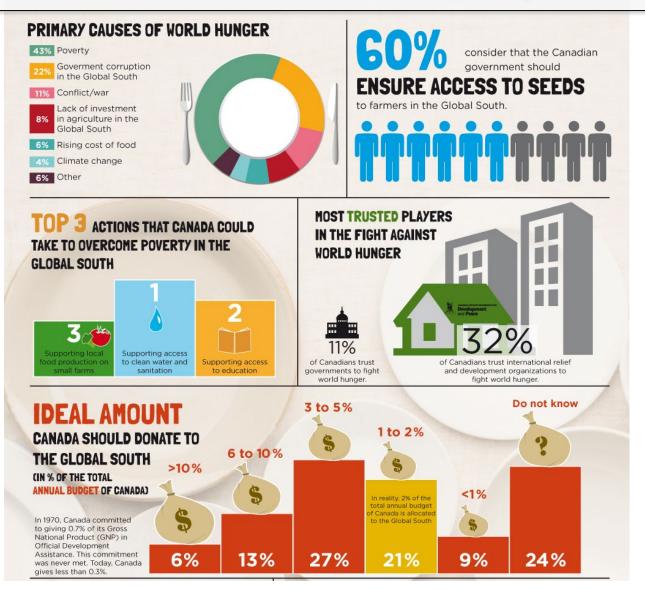


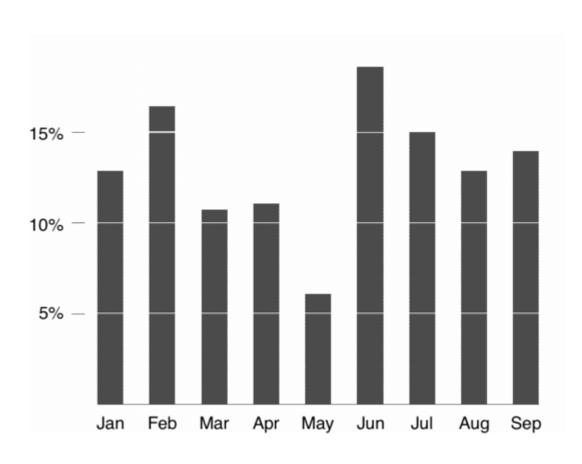
Chart & Graph Tips - Maps



CANADIAN PERCEPTIONS ON WORLD HUNGER

Clarity vs Creativity

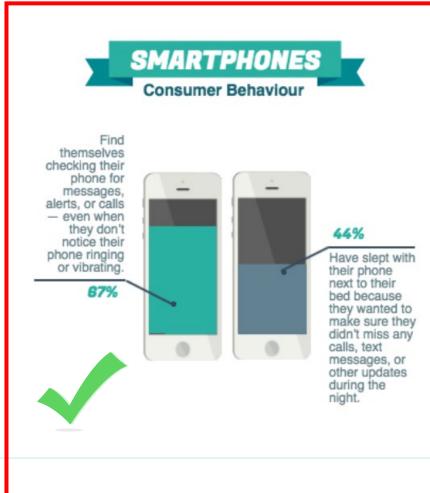


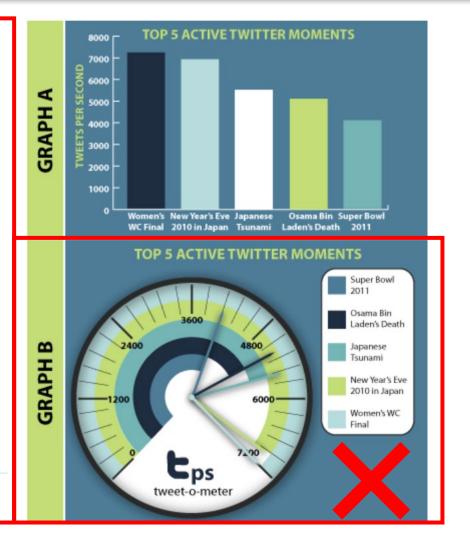


Clarity vs Creativity Example



during the night.

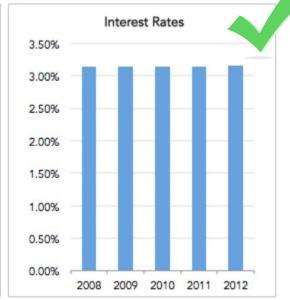




Integrity

Same Data, Different Y-Axis





References

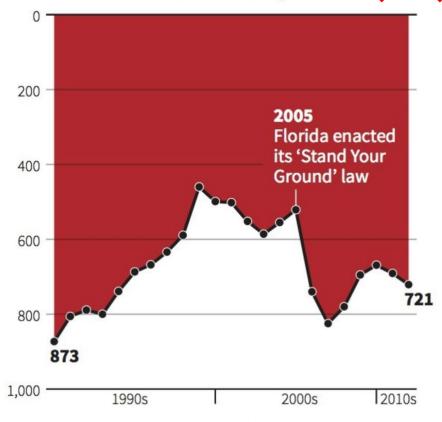
Map: By Lokal_Profil image cut to remove USA by Paul Robinson [CC BY-SA 2.5 (https://creativecommons.org/licenses/by-sa/2.5)], via Wikimedia Commons

Data: Statistics Canada. 2017. Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29 2017. http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E Note: Houses = Single-detached houses

Gun deaths in Florida



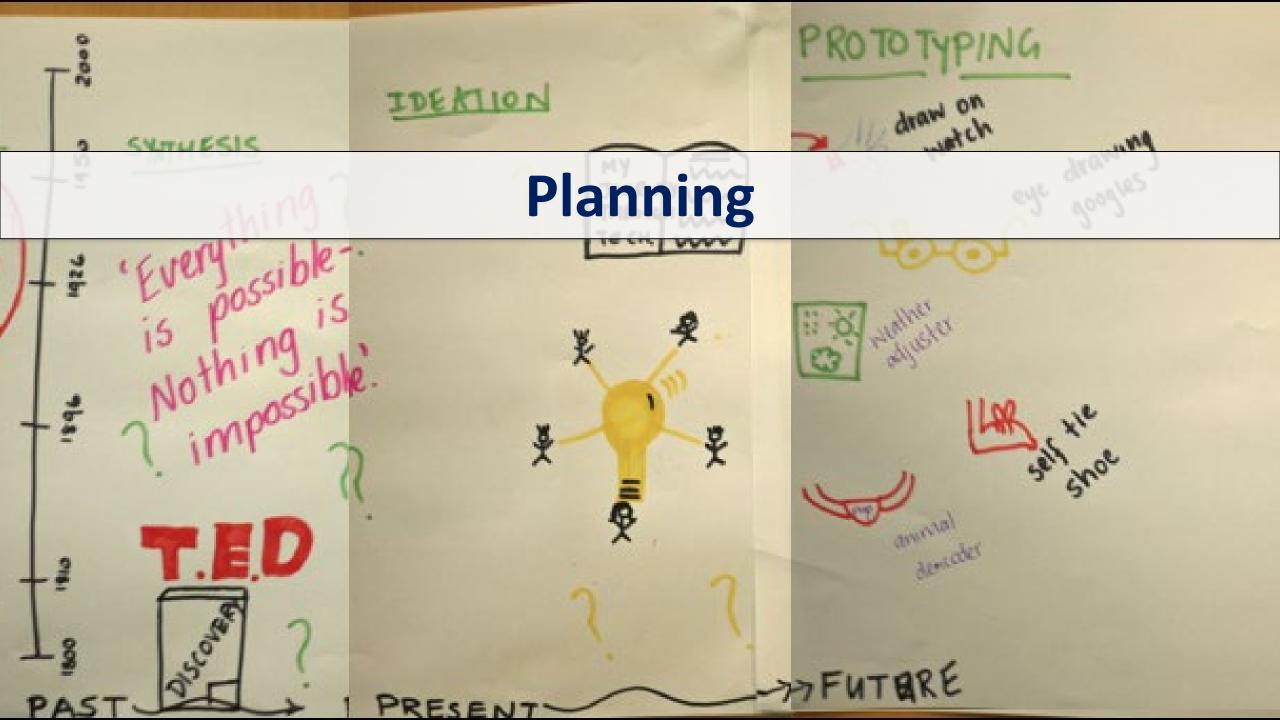
Number of murders committed using firearms



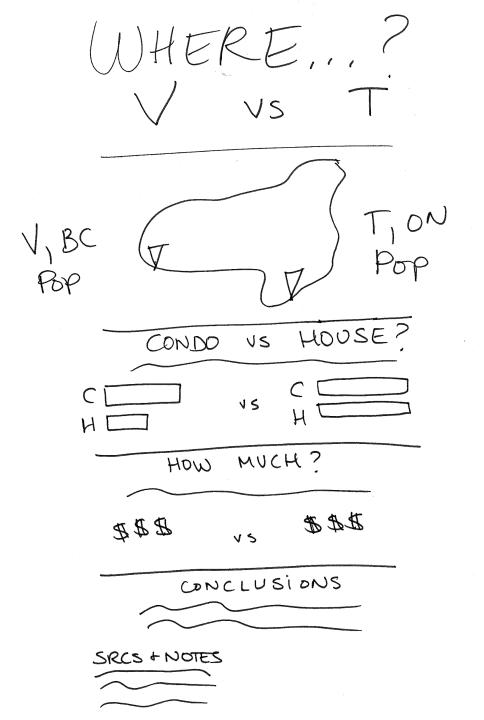
Source: Florida Department of Law Enforcement

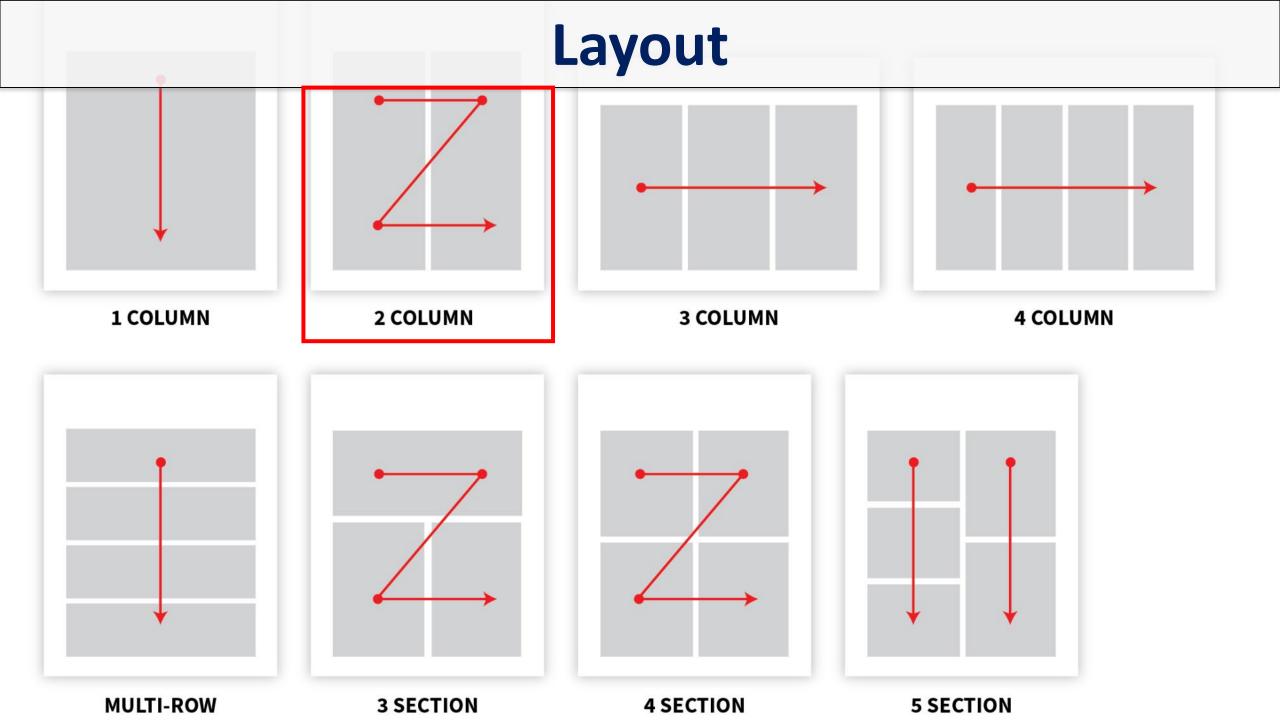
C. Chan 16/02/2014



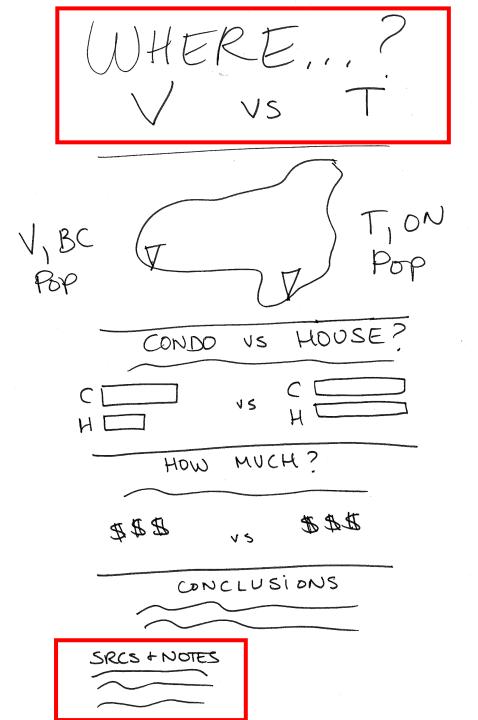


Rough Sketch





Spatial Hierarchies



A Brief History Of Lorem Ipsum By: John Smith



What is Lorem Ipsum?

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

Why do we use it?

It is a long established fact that a reader will be distracted by the readable content of apage when looking at its layout. The point of using Lorem Ipsum is head with a reader will be distracted by the readable content of apage distribution of letters, as opposed to using Lorem Ipsum is head with a reader will be distracted by the readable content of apage distribution of letters, as opposed to using Lorem Ipsum is head with a reader will be distracted by the readable content of apage distribution of letters, as opposed to using Lorem Ipsum is head with a letter as opposed to using 'Content here, content here, making it look like the local and a search for 'lorem ipsum' will uncover many web sites the distribution of letters, as opposed to using 'Content here, content here, making it look like the local and a search for 'lorem ipsum' will uncover many web sites the distribution of letters, as opposed to using 'Content here, content here, when looking at its layout. The point of using Lorem Ipsum is head with a reader will be distracted by the readable content of apage. like readable English. Many desktop publishing packages and w Lorem Ipsum as their default model text, and a search for 'lorem ipsum' will uncover many

web sites still in their infancy. Various versions have evolved over the years, sometimes by accident, sometimes on purpose (injected humour and the like).

Where does it come from?

Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old. Richard McClintock, a Latin professor at Hampden-Sydney College in Virginia, looked up one of the more obscure Latin words, consectetur, from a Lorem Ipsum passage, and going through the cites of the word in classical literature, discovered the undoubtable source. Lorem Ipsum comes from sections 1.10.32 and 1.10.33 of "de Finibus Bonorum et Malorum" (The Extremes of Good and Evil) by Cicero, written in 45 BC. This book is a treatise on the theory of ethics, very popular during the Renaissance. The first line of Lorem Ipsum, "Lorem ipsum dolor sit amet " comes from a line in section 1 10 22

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The standard chunk of Lorem Ipsum used since the 1500s is reproduced below for those interested. Sections 1.10.32 and 1.10.33 from "de Finibus Bonorum et Malorum" by Cicero are also reproduced in their exact original form, accompanied by English versions from the 1914 translation by H. Rackham.





Fonts

Arvo 48 pt Arvo

Source Sans Pro 14 pt Source Sans Pro. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus quis sem euismod, efficitur nibh blandit, aliquet lacus. Duis vestibulum sagittis commodo. Praesent vel sapien leo. Cras scelerisque bibendum augue, sed porttitor ligula condimentum sit amet. Cras quis malesuada ante, nec ullamcorper diam.

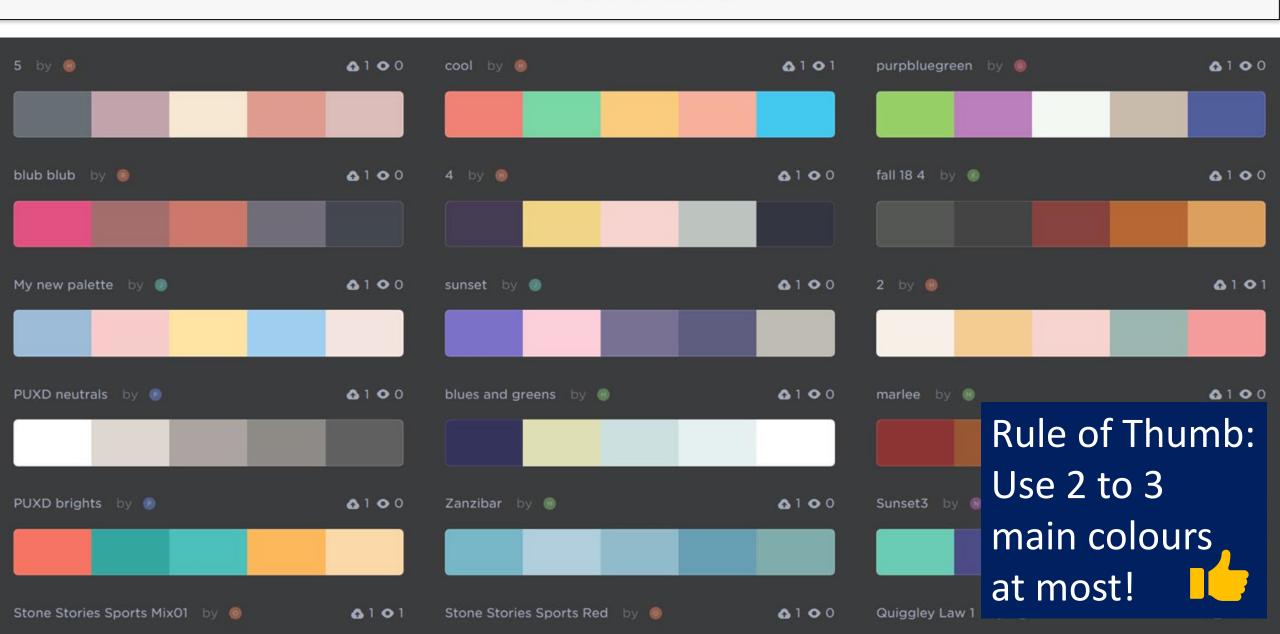
(VENNGAGE

ARTICLE: How to Choose Fonts

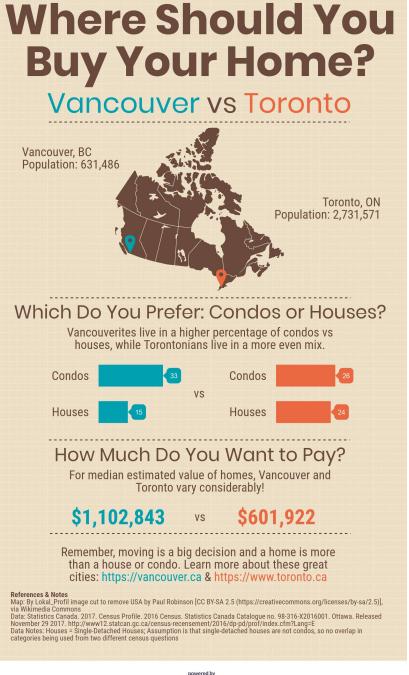


Rule of Thumb: Use 2 to 3 fonts at most!

Colours



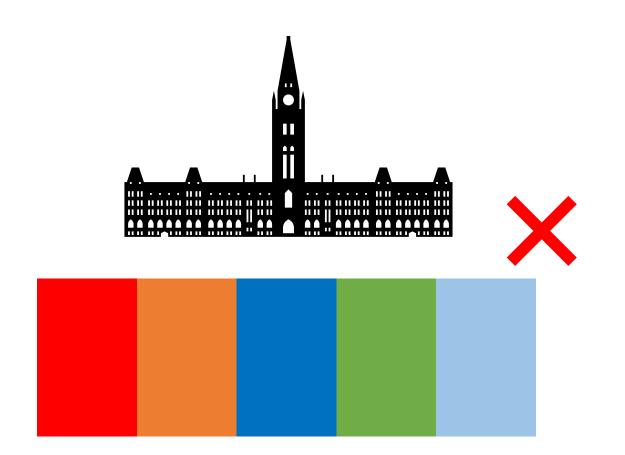
Vancouver information is blue

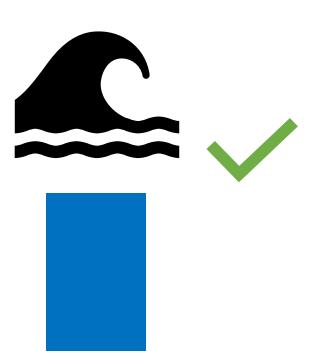


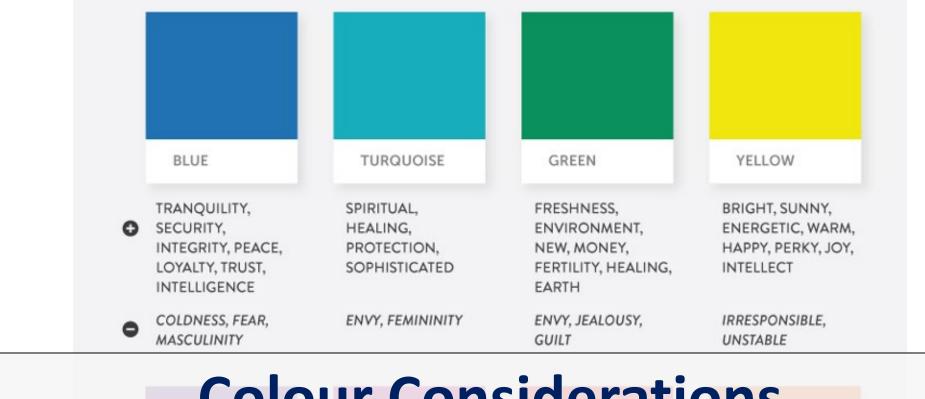
Toronto information is orange



Colour Considerations



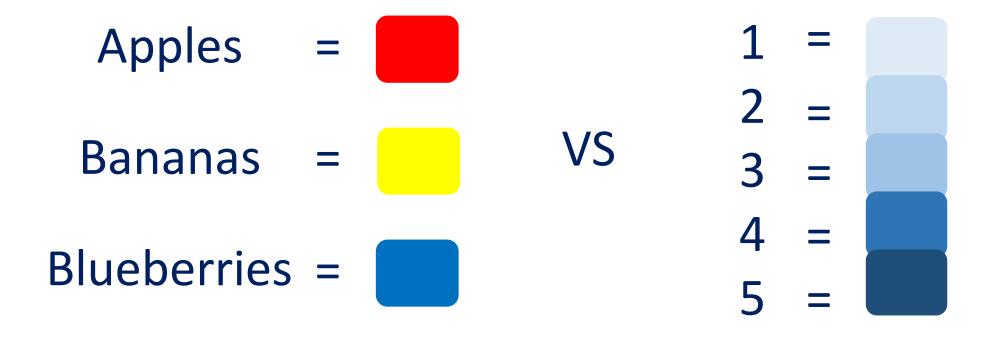


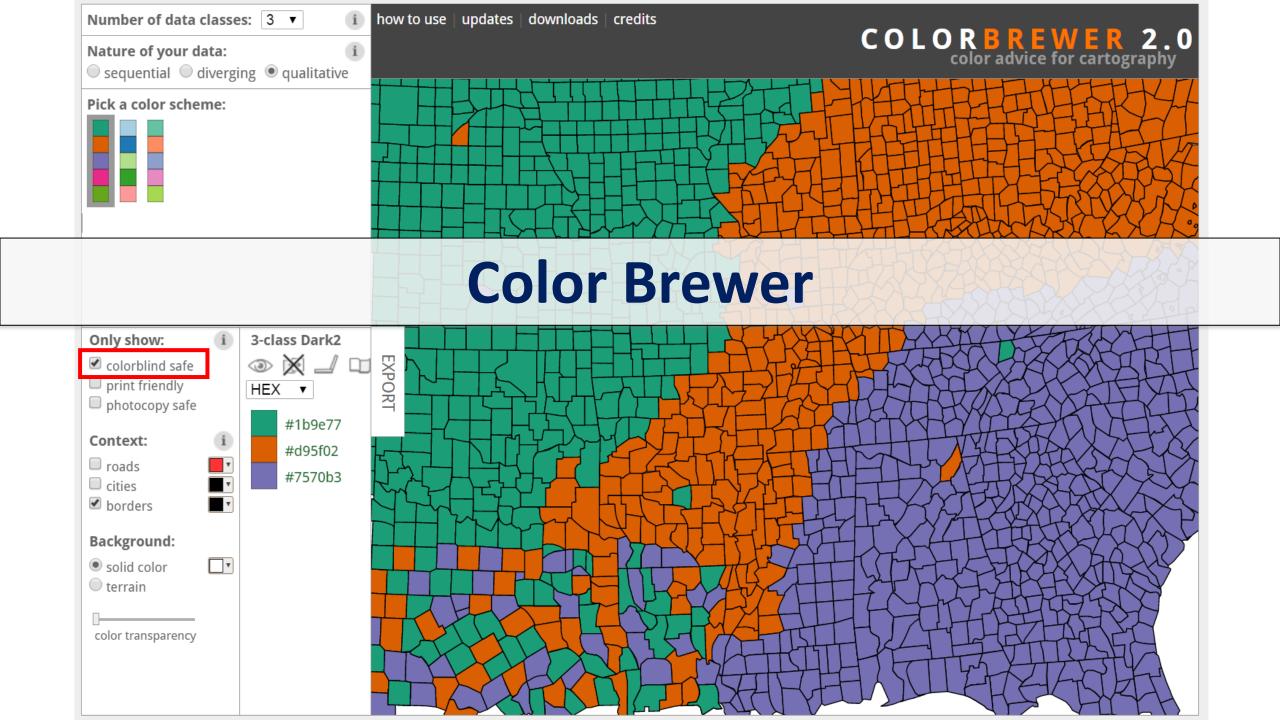


Colour Considerations



Colour





Accessibility

Web Accessibility

<img

Overview

alt="Web Accessibility Initiative logo"

Font size: at least 12pt







while syncing. Or in more technical terms, Reeder doesn't depend on CoreData anymore by using SQLite directly.

So, there is better performance, what else will make Reeder 2.0 so much better than 1.2? Well, let's start with...

State saving

Finally, Reeder will remember where it was last time you used it. When quitting the app, Reeder will save its state and restore it on relaunch. No need to panic anymore if you get a phone call while reading an article.

High Contrast









Family of Seating



Product Story

People at their best live unframed, going beyond expectations to surprise and delight us. With SAYL, we set out to design and build a chair family that gives form to that spirit. Inspired by the principles of suspension bridges, the frameless back of the SAYL work chair encourages a full range of movement while the suspension



CANADIAN PERCEPTIONS ON WORLD HUNGER

Survey conducted by Ipsos of 1,002 Canadians aged 18 years and over from May 22-26, 2014

PRIMARY CAUSES OF WORLD HUNGER



Goverment corruption in the Global South

11% Conflict/war

Lack of investment in agriculture in the Global South

6% Rising cost of food

4% Climate change

6% Other



consider that the Canadian government should **ENSURE ACCESS TO SEEDS**

to farmers in the Global South.



3 ACTIONS THAT CANADA COULD TAKE TO OVERCOME POVERTY IN THE **GLOBAL SOUTH**







Do not know

IDEAL AMOUNT

CANADA SHOULD DONATE TO

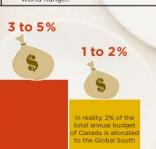
THE GLOBAL SOUTH ANNUAL BUDGET OF CANADA)

>10% (IN % OF THE TOTAL

In 1970, Canada committed to giving 0.7% of its Gross National Product (GNP) in

Official Development Assistance. This commitment was never met. Today, Canada gives less than 0.3%.







MOST EFFICIENT WAYS

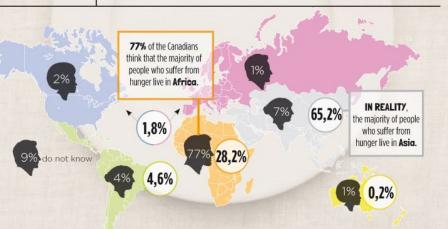
TO REDUCE WORLD HUNGER

believe that advocating to the Canadian government to fund programs that support small family farmers in the Global South could reduce world hunger.

of Canadians believe that donating to charitable organizations that help small family farmers in the Global South could reduce world hunger.



LOCATION OF PEOPLE SUFFERING FROM HUNGER



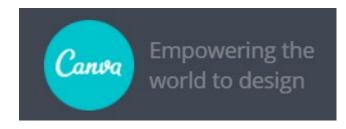


Infographic Creation Tools





















LOG IN



Just a simple, intuitive tool that helps you tell your story with the visual impact it deserves.

START FOR FREE

WATCH DEMO

Demo: Piktochart

https://uoft.me/piktocharttutorial



Resources

Designing your Infographic

- University of North Carolina Chapel Hill <u>Infographic Planning Worksheet</u>
- Some Useful Infographic Design Articles:
 - The Ultimate Infographic Design Guide: 13 Tricks for Better Designs (Venngage)
 - How to Make an Infographic in 5 Steps by Midori Nediger (Venngage)
 - How Designers Do It: 15 Easy Steps to Design an Infographic from Scratch (Canva)
 - <u>Piktochart Design Series: With These 8 Articles You Can Now Design Like</u>
 <u>a Pro</u> by See Mei Chow (Piktochart)
- Visual Abstracts

Map & Data Library Data Visualization Resources

- Data Visualization Guide
 - <u>Design Principles section</u> (with data viz tips)
 - Specialty Visualization Areas section (with map making tips)
 - Research about visual variables and visual perception are found in <u>this</u>
 <u>section</u> of the data viz design workflow page
 - Data Viz Guide's Books, Blogs & More page
- Piktochart Tutorial
- Online Data Visualization Courses:
 - Theory & Critique
 - Practice with Tableau

The Power of Storytelling with Visuals

- Specific resources supporting the ideas mentioned on why visualization and storytelling are so powerful:
 - Implications of dual coding for information design by Sheila Pointis
 - <u>The Visual Display of Quantitative Information</u> by Edward Tufte [PRINT BOOK]
 - <u>Useful Fictions: Evolution, Anxiety, and the Origins of Literature</u> by Michael Austin [PRINT BOOK]
 - Data Visualization: Storytelling [LinkedIn Learning Course] (*Toronto Public Library account required*)

Infographic examples [PRINT BOOKS]:

- Infographic Designers' Sketchbooks
- Infographics: Designing and Visualizing Data
- Infographics: The Power of Visual Storytelling

Layout:

Piktochart Layout Cheat Sheet

Fonts:

- How to Choose Fonts (with sample font pairings)
- Modular Scale (for selecting font sizes)

Colour palettes:

- Adobe Color CC
- Color Brewer
- COLOURlovers
- Coolors

Colour Psychology:

- Handbook of color psychology [ONLINE BOOK]
- Colour hunting: How colour influences what we buy, make and feel [PRINT BOOK]

Accessibility:

- Coblis Color Blindness Simulator
- Inclusive Design: How to Make Your Visuals Accessible to All

Infographic Creation Tools

Desktop Tools:

- Adobe Illustrator
- Microsoft PowerPoint

Online Tools:

- Piktochart
- Canva
- Venngage
- <u>Visme</u>
- Easelly
- Infogram

Useful Websites for Free Icons, Images, etc.

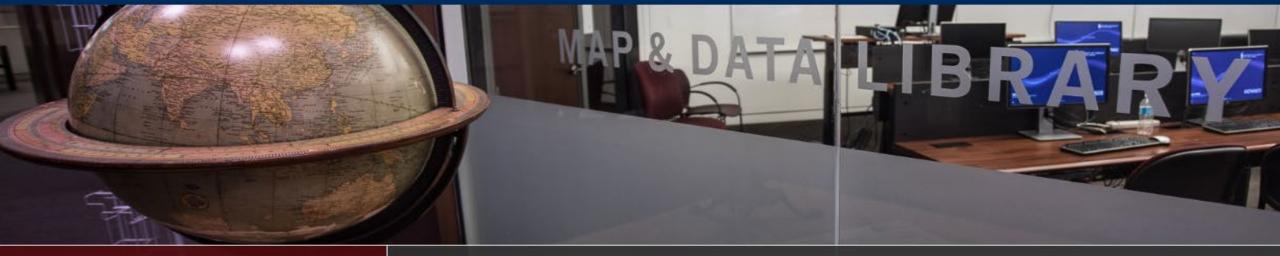
- Flaticon
- Flickr
- Morguefile
- The Noun Project
- Pexels
- Pixabay
- <u>Undrew</u>
- Unsplash
- Wikimedia Commons











About MDL

Our collection includes hundreds of geospatial and numeric datasets, over hundreds of thousands of m photographs, and more! We provide assistance finding maps and data and using GIS and statistical soft



Q Geospatial data

Scholars GeoPortal | Geospatial data | Remote sensing | Air photo

Q Numeric data

Microdata | Statistics | Census of Canada

Q Maps and atlases

Scanned maps | Fire insurance plans | Rare maps

- -> mdl.library.utoronto.ca
- -> mdl.library.utoronto.ca/support/workshops-and-training

Contact: mdl@library.utoronto.ca



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- Slide 2: This image was modified from <u>Manos</u> by xololounge
- Slide 3: This image was modified from <u>Free Drawing Stock Photo</u> by Ove Tøpfer
- Slide 4: This image was modified from <u>Dictionary</u> by greeblie
- Slide 4: These 3 icons were modified from <u>explore</u> by Adrien Coquet, <u>Idea</u> by Toli & <u>Task Management</u> <u>Communicator</u> by Ben Davis from the <u>Noun Project</u>
- Slide 4: This image was modified from a slide from "Working with Infographics" by <u>Lorin Bruckner</u>, a workshop run at UNC Chapel Hill Libraries
- Slide 4: This image was modified from "Cigarette Taxes In Photos" by Intuit, Inc.
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- Slide 5: This image was modified from "<u>Diabetes: The silent scourge</u>" by Adolfo Arranz
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- Slide 8: This image was modified from "Forget Superheroes: Local Government to the Rescue" by C40
 Cities
- Slide 9: These 2 icons were modified from <u>Idea</u> by <u>Toli</u> & <u>Task Management Communicator</u> by <u>Ben</u> <u>Davis</u> from the <u>Noun Project</u>
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- Slide 17: This image was modified from <u>Table display of brochures</u>, <u>flyers and information sheets at the Second Judicial Circuit Guardian ad Litem Program booth at Over The Edge Tallahassee.</u> by Second Judicial Circuit Guardian ad Litem Program
- Slide 18: This image was modified from <u>Not Fade Away.....</u> by Daniel Go
- Slide 19: This image was modified from <u>Yosemite Pierre the observer</u> by naixn
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- Slide 22: This image was modified from "<u>How to Create a Timeline Infographic: The Definitive Guide</u>" by Midori Nediger (Venngage)
- Slide 22: This image was modified from "<u>How to Make an Infographic in 5 Steps (Guide)</u>" by Midori Nediger (Venngage)
- Slide 22: This image was modified from "<u>Icons and Images: 5 'Must-knows' on how to use them effectively</u>" by See Mei Chow (Piktochart)
- Slide 23: This image was modified from "<u>How to Make an Infographic in 5 Steps (Guide)</u>" by Midori Nediger (Venngage)

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*Special thank you to **Lorin Bruckner, UNC Chapel Hill Libraries**, for sharing her slides for her "Working with Infographics" workshop – my workshop was inspired and informed by her work

Links for Workshop

- Infographic Critique
- Piktochart Tutorial
- Piktochart
- Download the 3 Excel files and the 1 Word file and save them somewhere on your computer where you can find them, such as your Desktop:
 - o CensusProfile.xlsx
 - o <u>TorontoHousingMix.xlsx</u>
 - VancouverHousingMix.xlsx
 - <u>TextForInfographicActivity.docx</u>
- How to Choose Fonts (with sample font pairings)
- Modular Scale (for selecting font sizes)
- o <u>COLOURlovers Palettes</u>
- o Coblis Color Blindness Simulator
- o Wikimedia Commons