

Visualització de dades

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27 d'abril de 2021

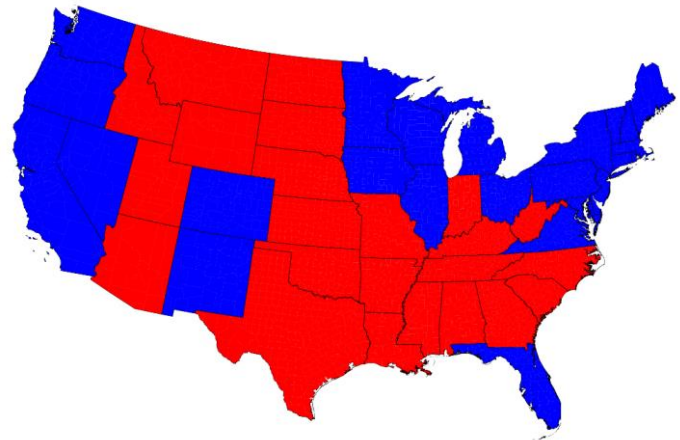
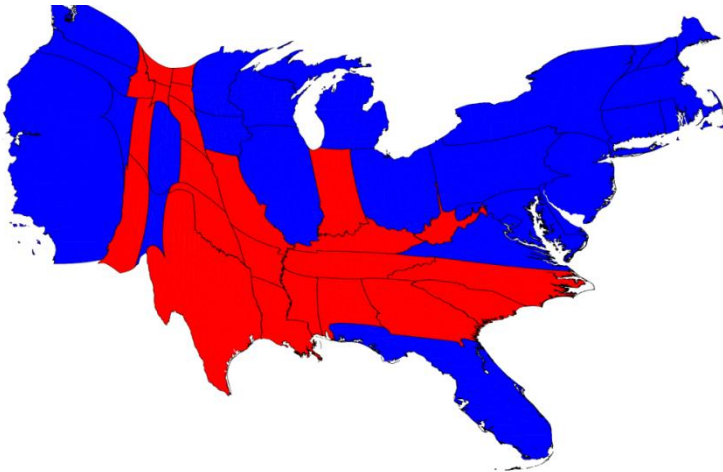
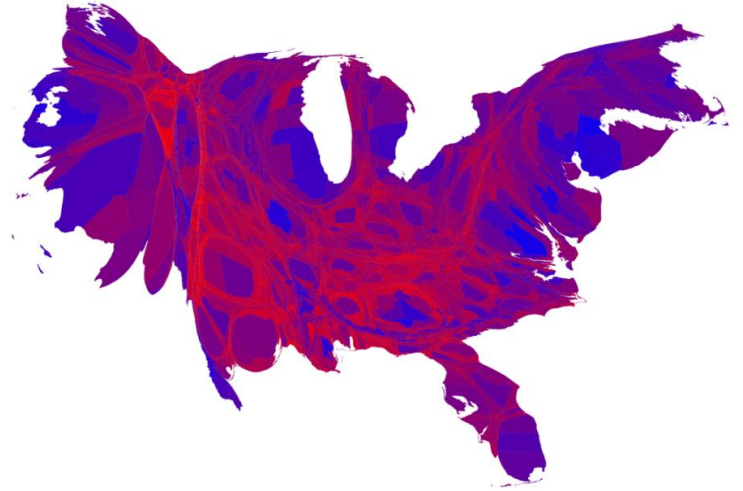
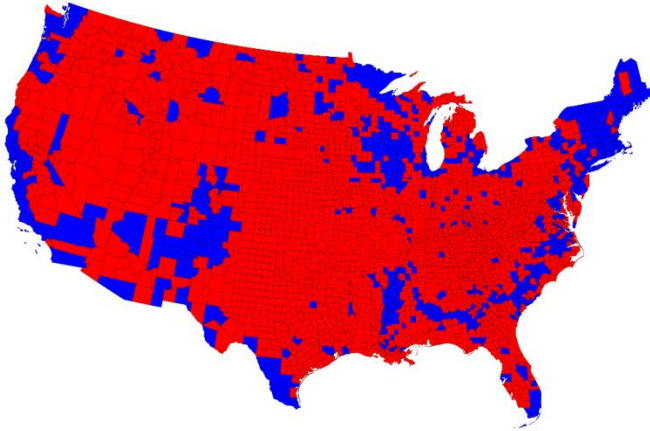


1. Importància de l'ull de l'espectador
2. Perquè visualitzar?
3. Com represento visualitzacions?
4. Errors comuns

L'ull de l'espectador

- “... visualization is [...] such a powerful amplifier of human abilities that it should be illegal, unprofessional, and unethical to do data analysis using only statistical and algorithmic processes”
- *Ben Shneiderman*
- *Information visualization and HCI pioneer*

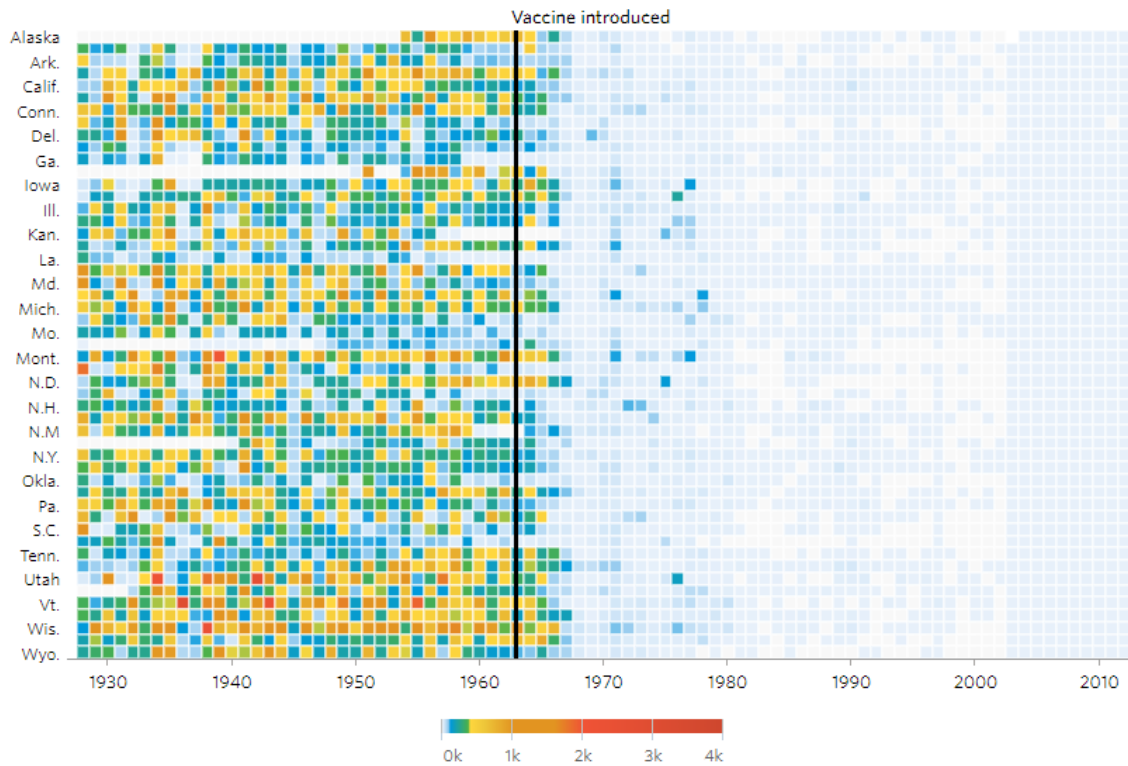
Compara!





Exemple

Measles

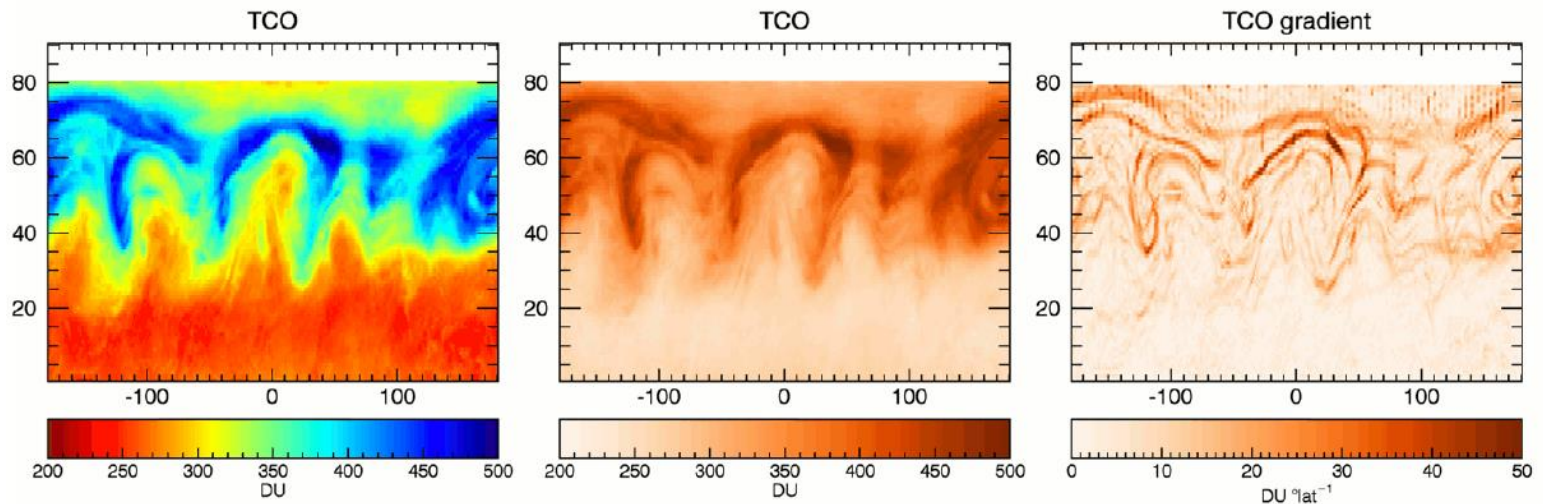


<http://graphics.wsj.com/infectious-diseases-and-vaccines/>

Perquè visualitzar?

- Exploració de dades
- Comunicació de dades / explicar

Una escala de colors diferents pot mostrar efectes en les dades



Sean Davis, NOAA

Com represento visualitzacions?

Planning

Who is the audience?

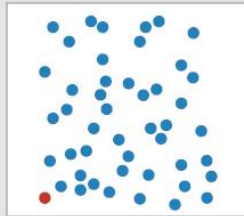
How will it be used?

What is the goal?

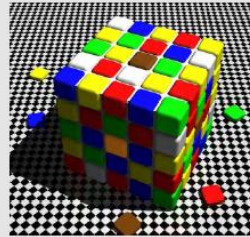


Design

Perception



Color



Composition



Typography



Storytelling

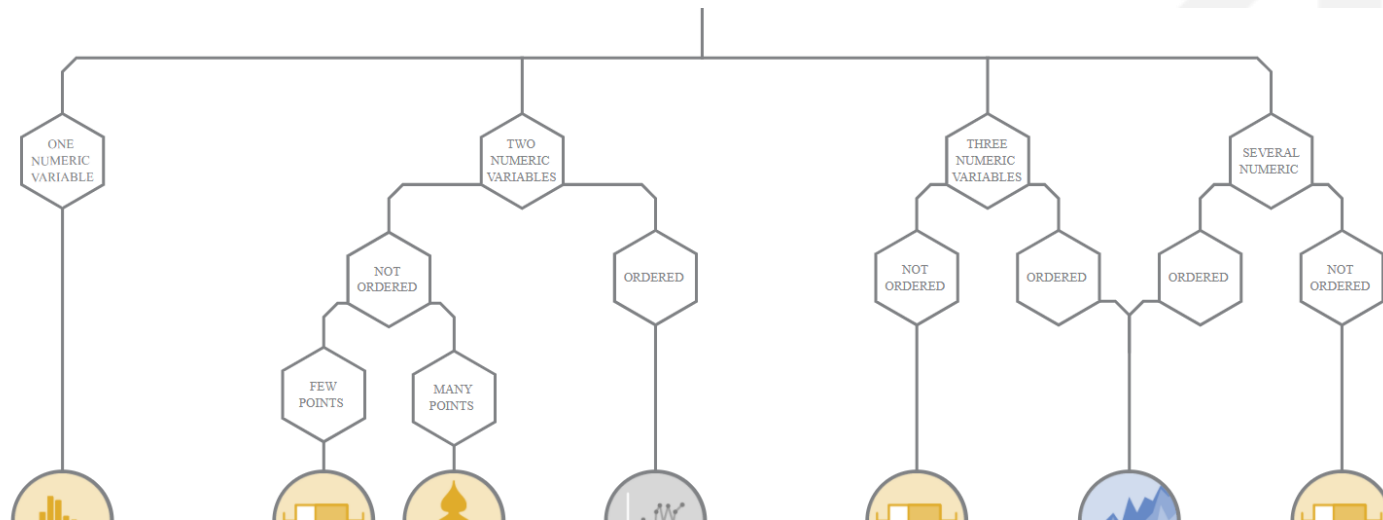
How to tell a data story

- Decide what is the story about
- Delineate the story arc
- Prioritise and filter
- Make your charts tell the story points
- Design the visual hierarchy



Com represento visualitzacions?

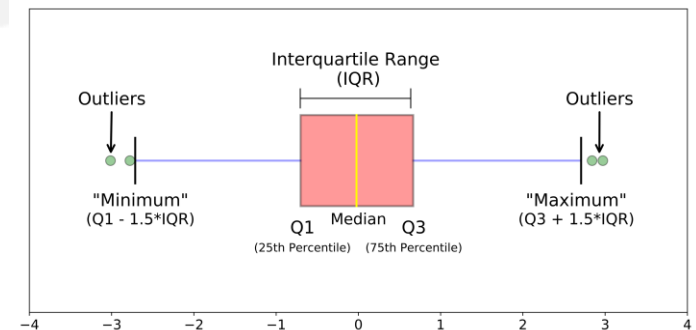
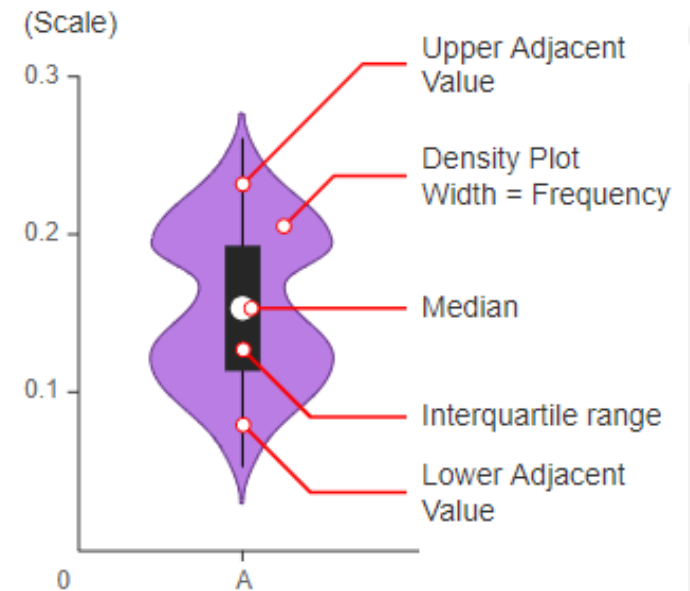
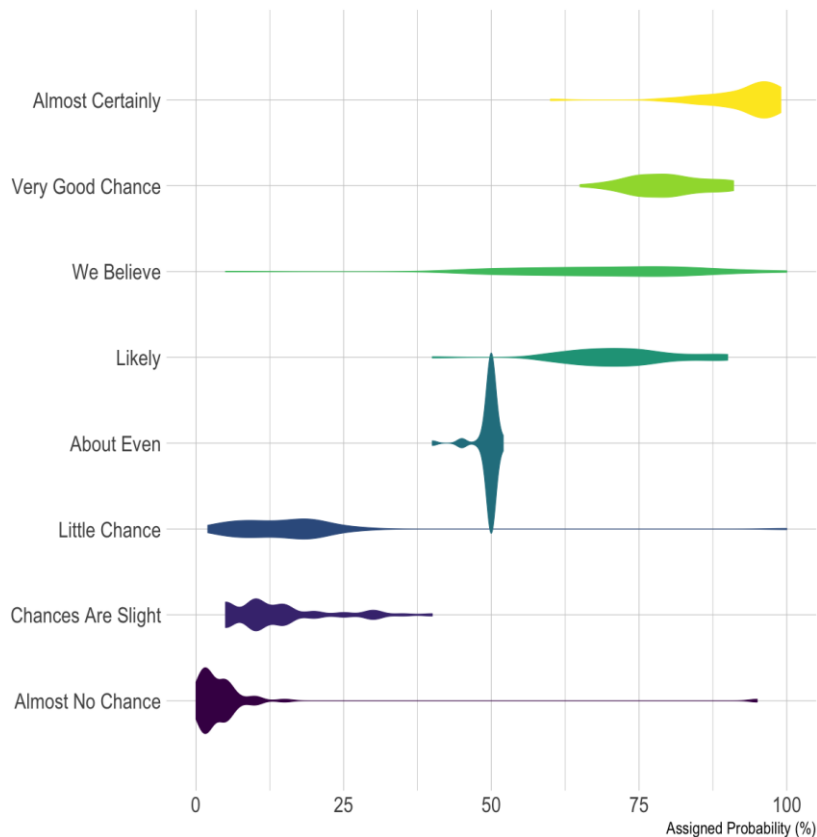
Escollir el tipus de gràfic adequat



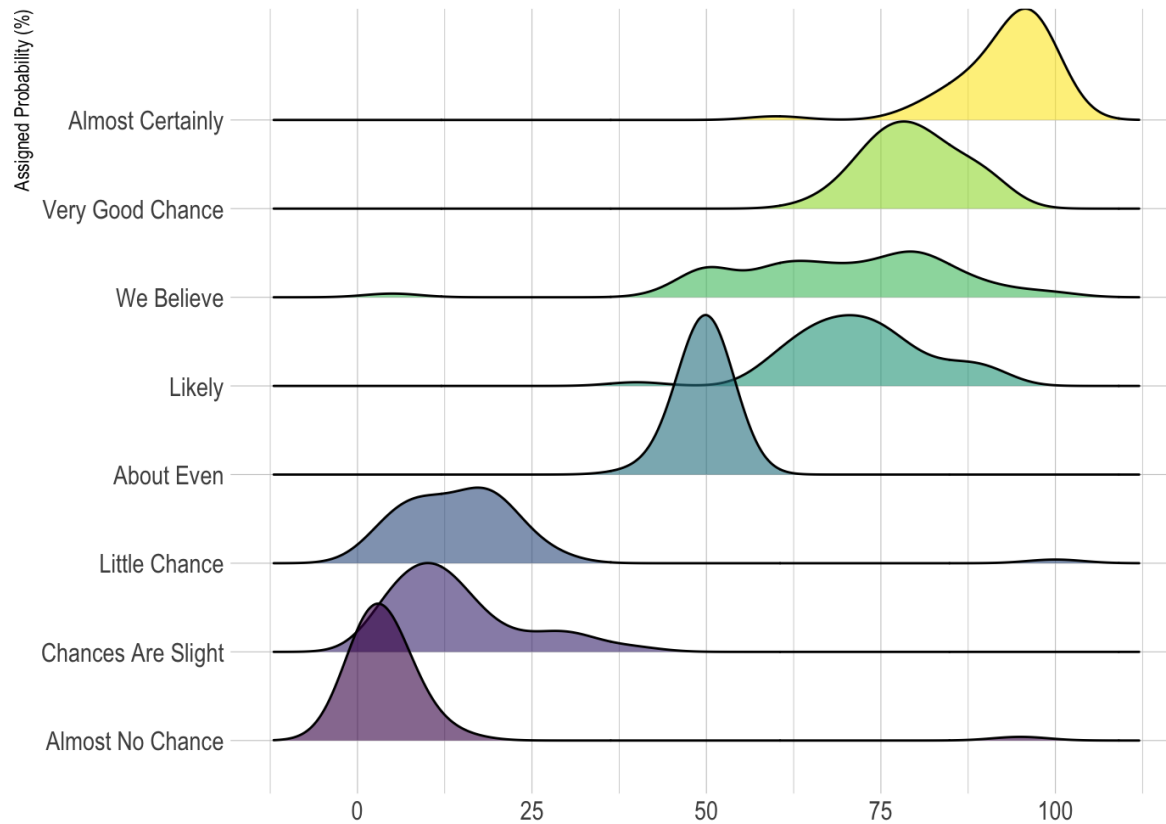
[From data to Viz | Find the graphic you need \(data-to-viz.com\)](https://www.data-to-viz.com)

<https://www.data-to-viz.com>

Violin plot



Ridgeline plot

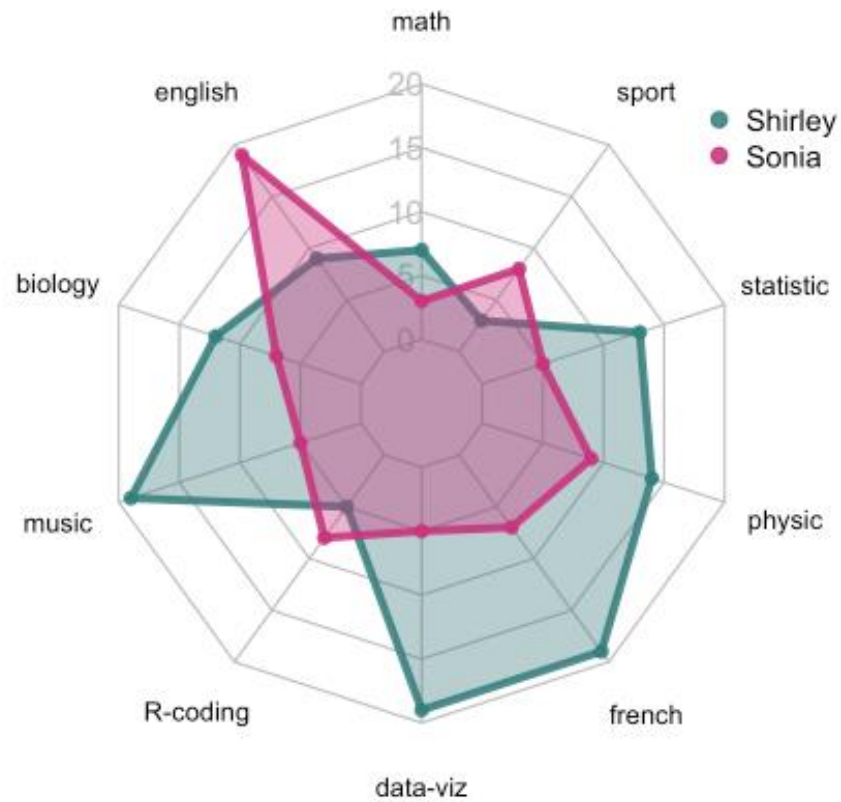


Sunburst

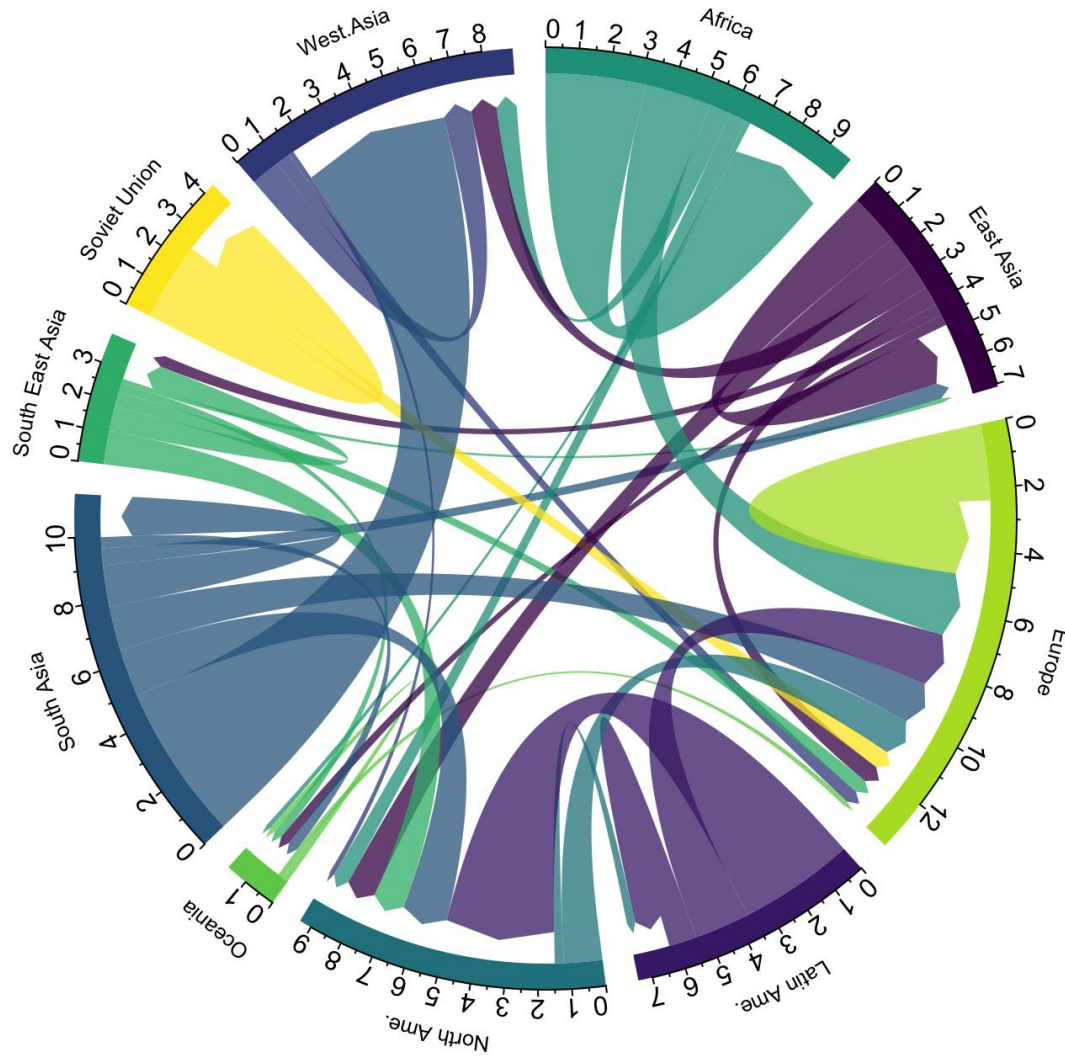


[Sunburst – from Data to Viz \(data-to-viz.com\)](https://data-to-viz.com)

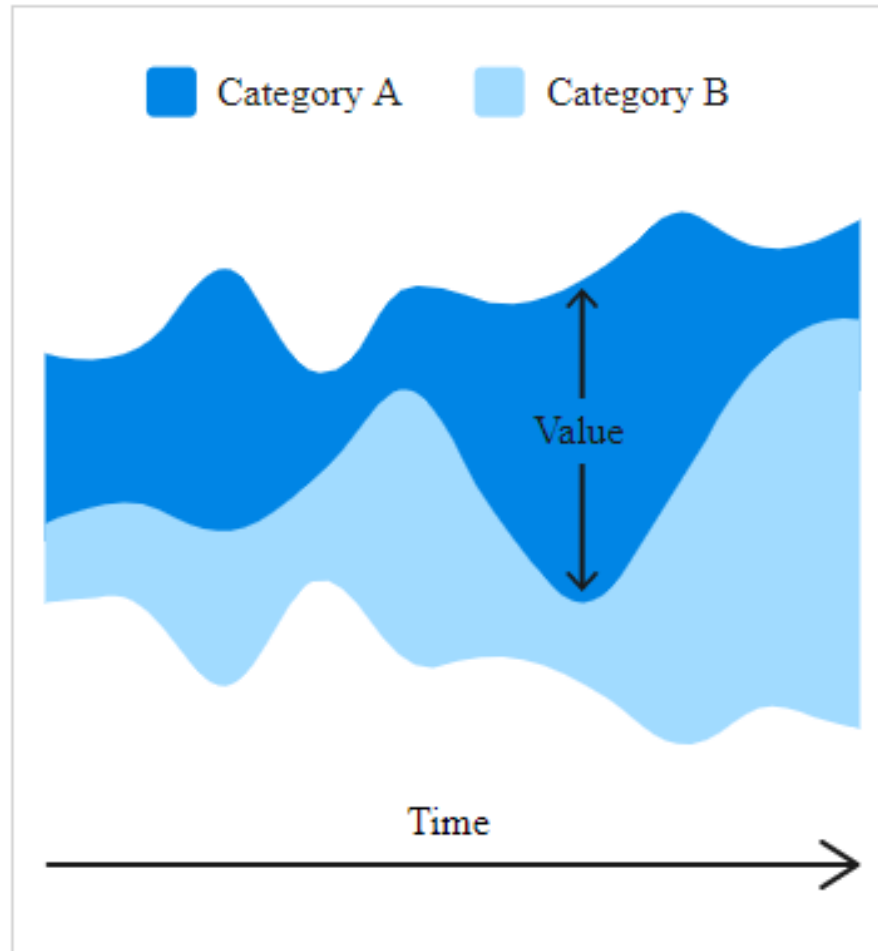
Spider chart



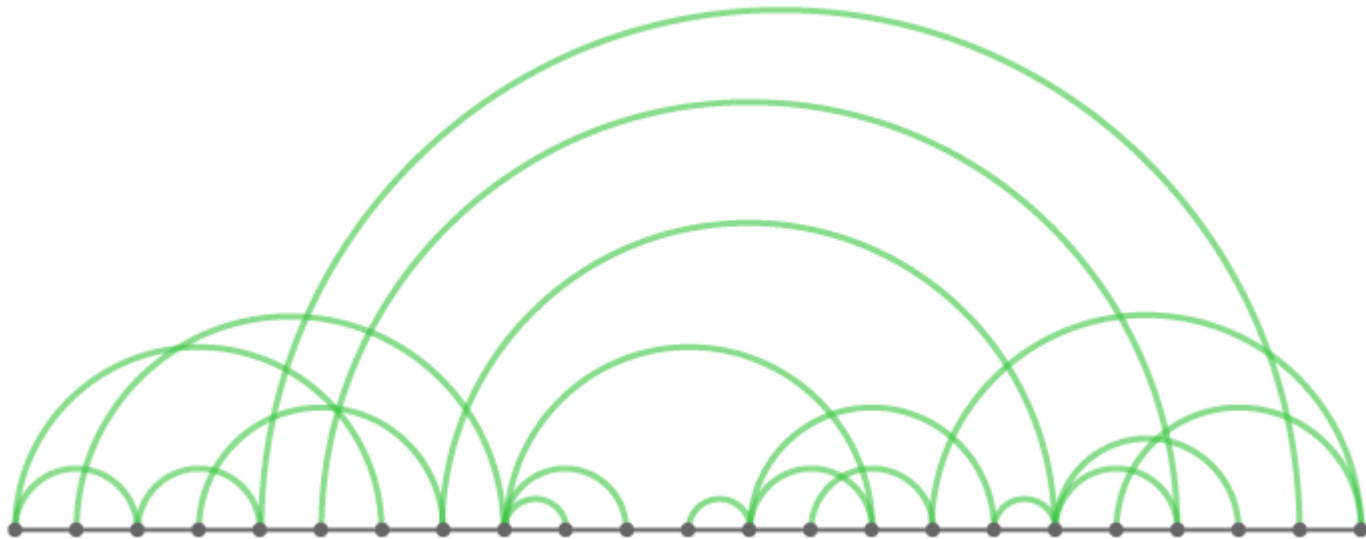
Chord diagram



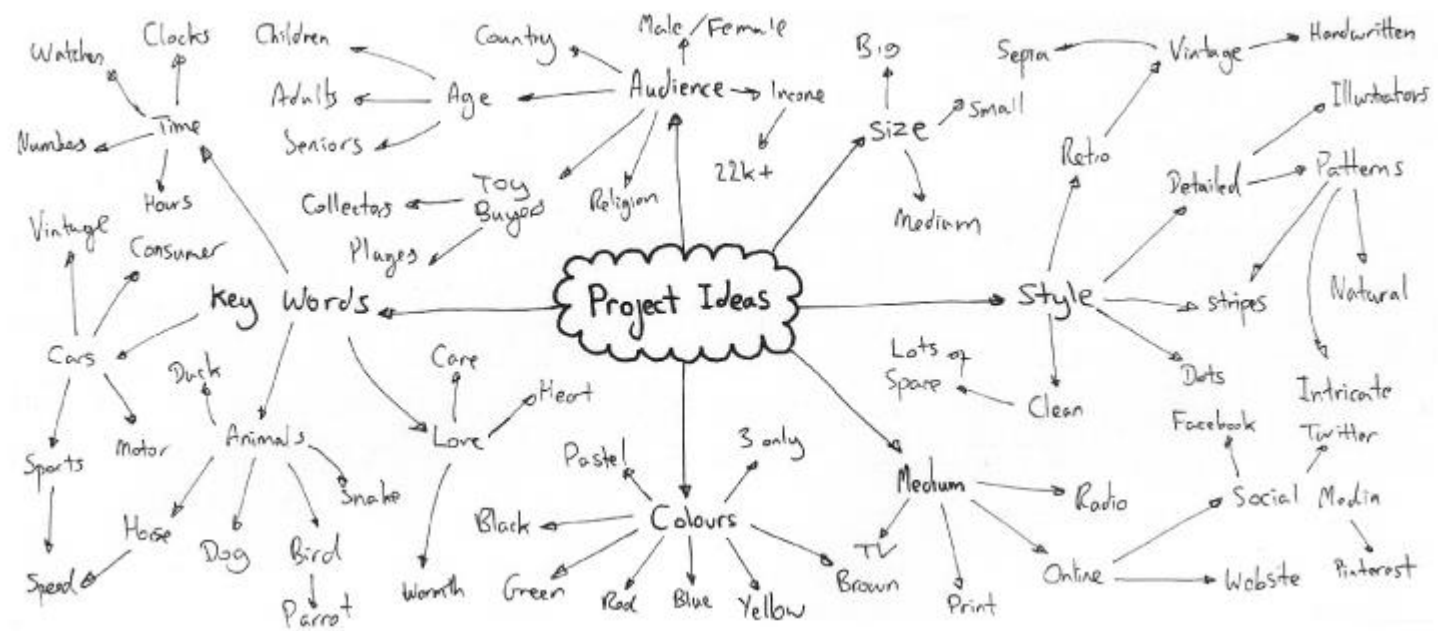
Stream graph



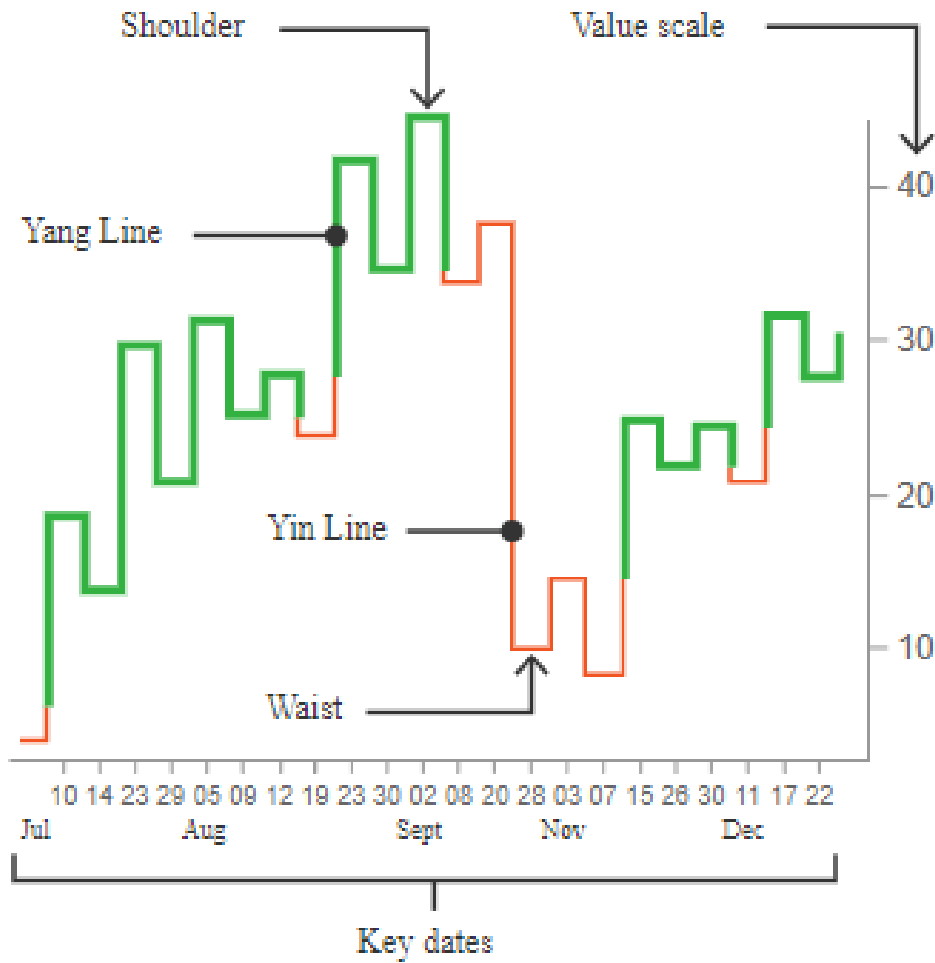
Arc diagram



Brainstorm



Kagi chart

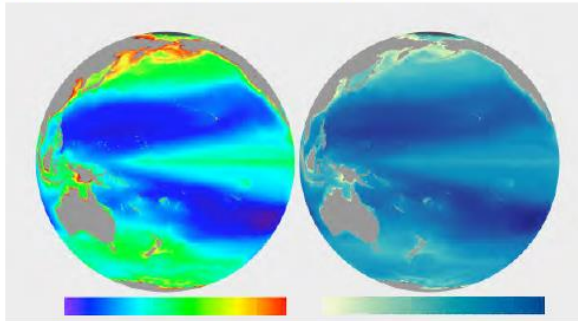


Errors comuns

- Eixos
- Anotacions
- Mostrar les dades
- Massa informació

Escales de colors

Not all scales fit all data

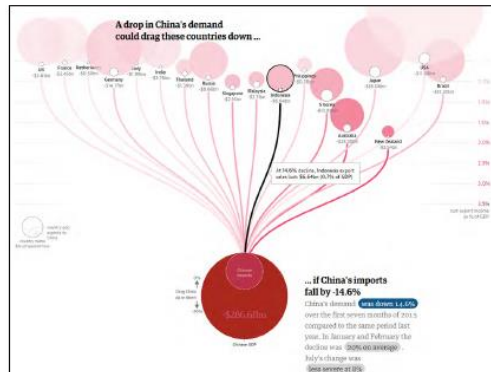


Simmon, 2013

Make missing data recognisable

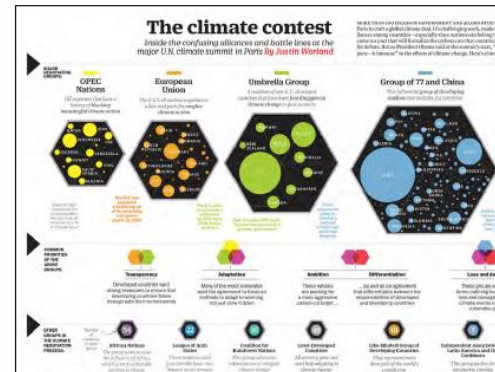


Draw the viewer's attention



The Guardian

Make missing data recognisable



Heather Jones, Justin Worland

Escales de colors



Normal vision



Deuteranope



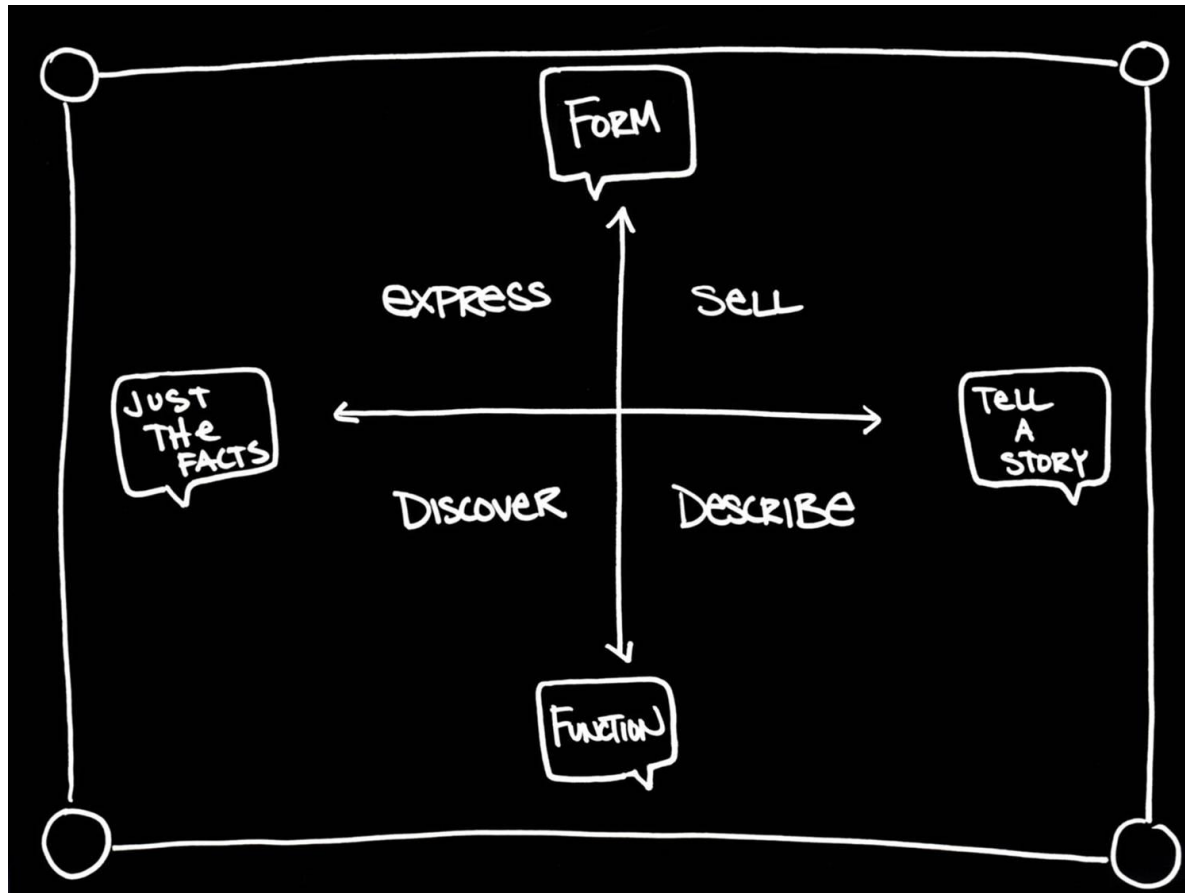
Protanope



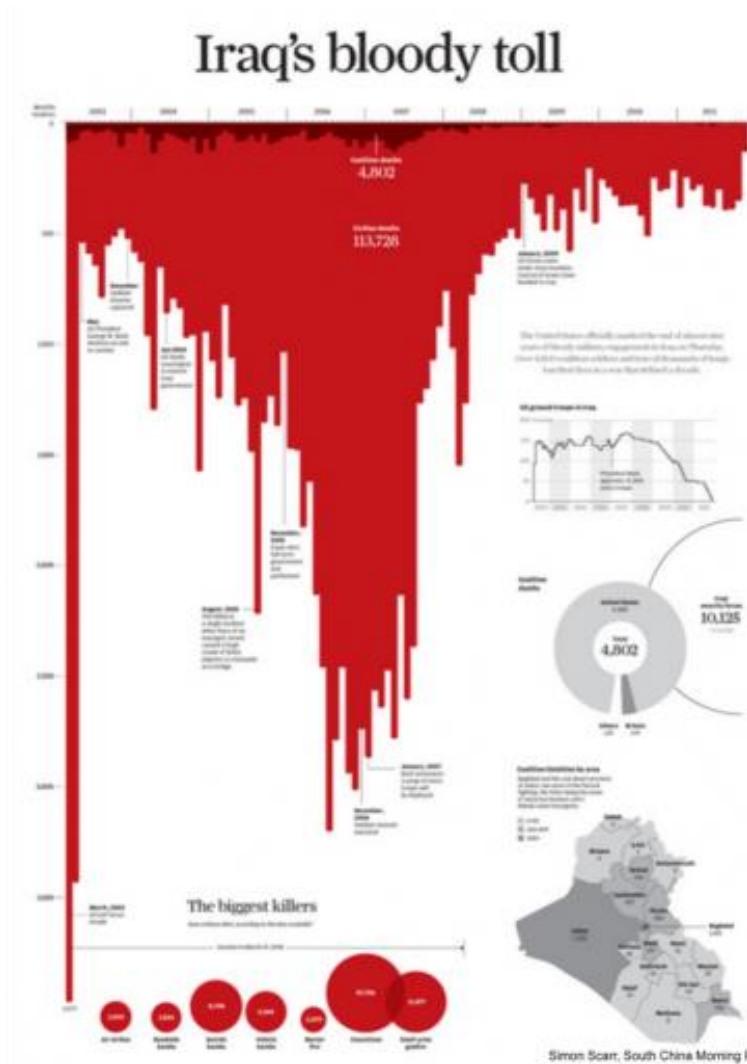
Tritanope

[Seriously Colorful: Advanced Color Principles & Practices. Stone.Tableau Customer Conference 2014.]

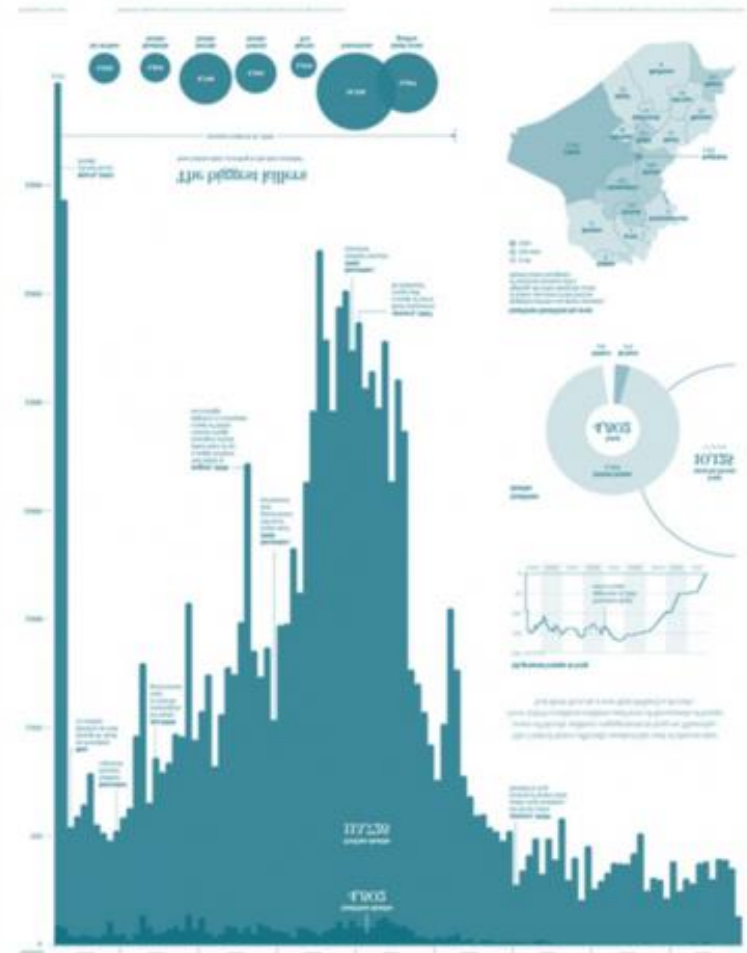
Forbes blog 2012 contribution



Sempre hi ha una història



Iraq: Deaths on the decline



Enllaços útils

- <http://projector.tensorflow.org/>
- <http://playground.tensorflow.org>
- Gràfics animats: [How to Create Animate Graphs in Python | Towards Data Science](#)
- [The Data Visualisation Catalogue \(datavizcatalogue.com\)](#)
- <https://bigml.com/>

Gràcies per la vostra col·laboració!

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**Ajuntament
de Barcelona**



**Barcelona
Activa**