Infographic
Introduction
By Erik Tuckow

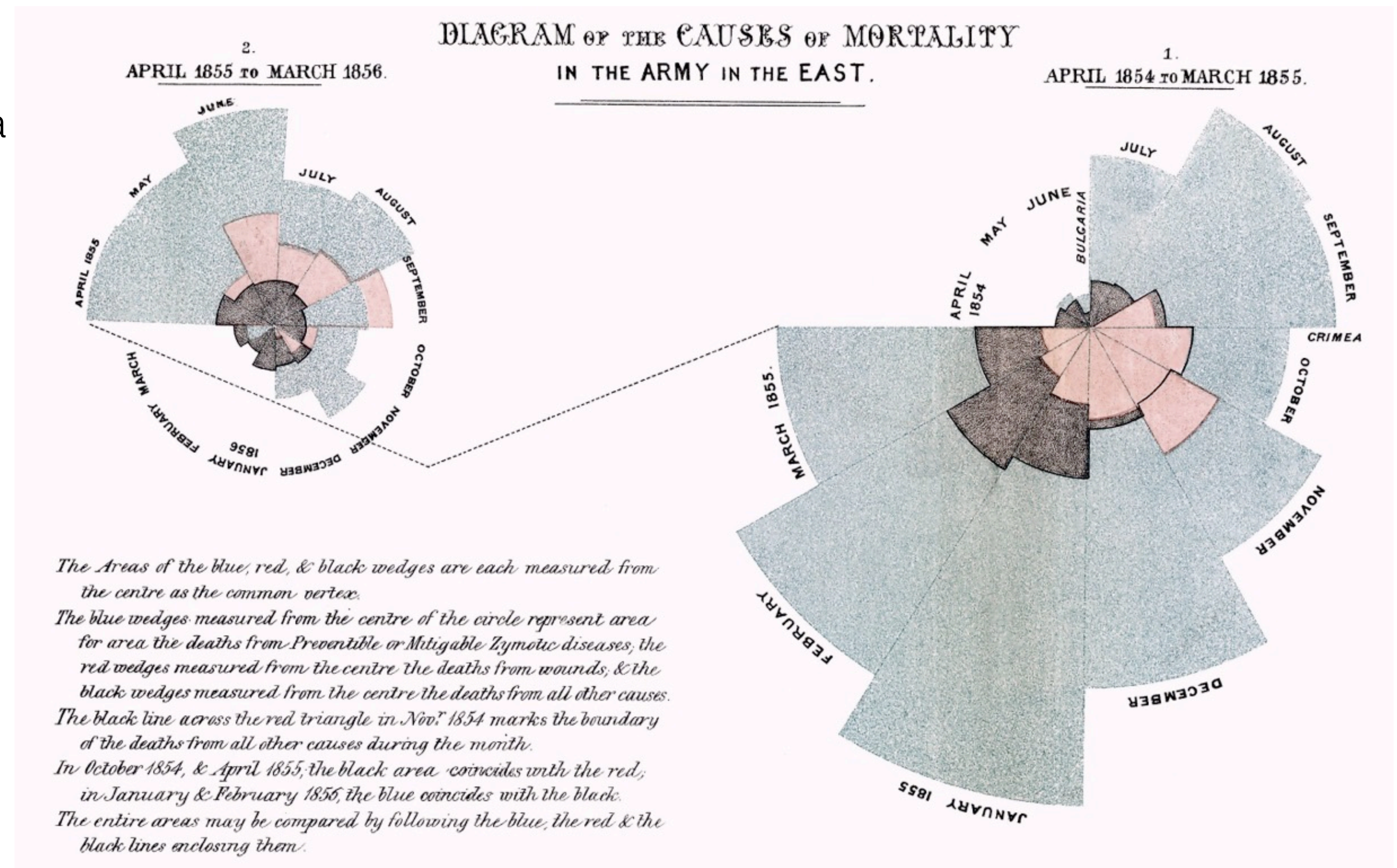# Exercise 1 - draw a tiny chart of a part of your life

Now, please create a tiny chart of your life and answer one of the following question. Scribble on a paper, if possible the description in English, write your name in big Letter on the scribble, take a photo and import it to miro or send me a signal message with the photo.

-Where have you life until now?

-How is your workflow?

-What kind of doors did you pass trough the way to your work?

-How is your Work-life-Balance?

-How do you use your mobile?

- How locks like your daily mobility?

-How many man and woman have you seen yesterday?

-How much of your dream have you realized?

Polar-area-diagram
- every pie piece is a month, divided in three parts.
- red: wounding
- black: other
- blue: infection
- the scale is the longitudinal axis of the pie pieces

Is it allowed to show the data like this?
Is it manipulative?

DIAGRAM OF THE CAUSES OF MORTALITY
IN THE ARMY IN THE EAST.

2.
APRIL 1855 TO MARCH 1856.

1.
APRIL 1854 TO MARCH 1855.

The Areas of the blue, red, & black wedges are each measured from
the centre as the common vertex.
The blue wedges measured from the centre of the circle represent area
for area the deaths from Preventible or Mitigable Zymotic diseases; the
red wedges measured from the centre the deaths from wounds, & the
black wedges measured from the centre the deaths from all other causes.
The black line across the red triangle in Nov.r 1854 marks the boundary
of the deaths from all other causes during the month.
In October 1854, & April 1855, the black area coincides with the red;
in January & February 1856, the blue coincides with the black.
The entire areas may be compared by following the blue, the red & the
black lines enclosing them.

Infographics have the power to change the mind!

"To effect through the eyes what we cannot convey to the public through their ears, which are sealed against words"

Florence Nightingale, Nurse

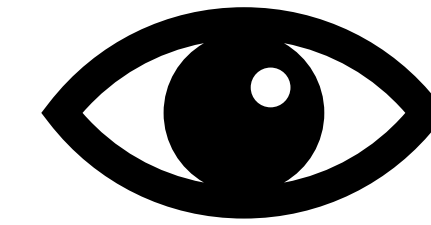Florence Nightingale

Why are we using infographics?

- to inform
- to explain
- to convince
- to tell the truth
- to get attention
- ~~to emotionalize~~
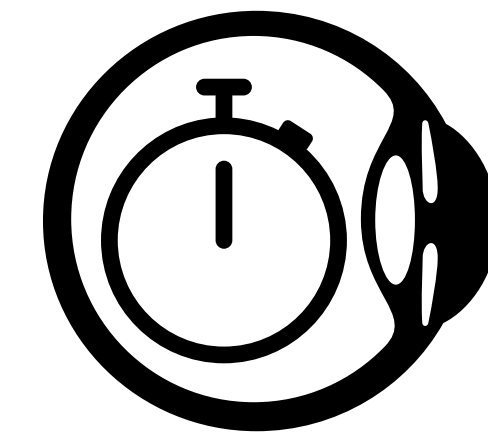

www.coming-soon.be

Why are we using infographics?

○ humans recognize their

environment with the eyes

🌐 https://informationisbeautiful.net/

70% of sensory receptors
are in the eyes

50% of the brain have to work
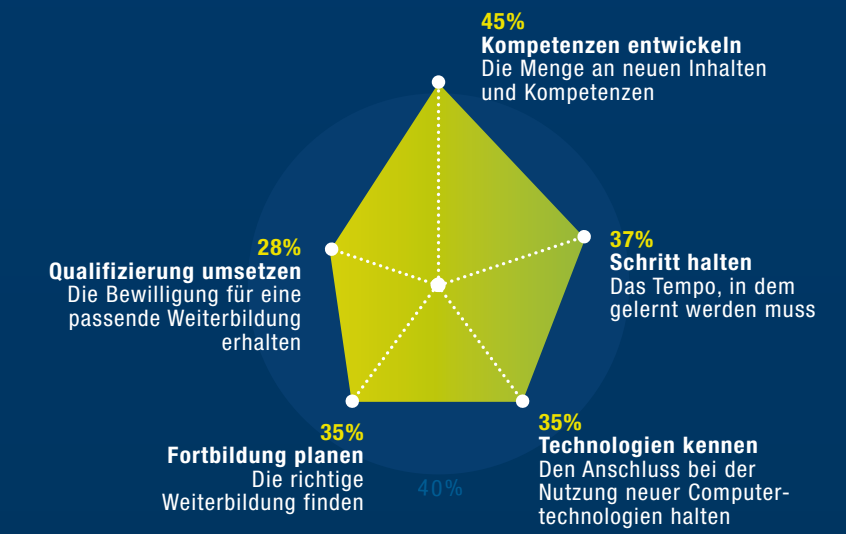with visual perception

0,01 sec. We need to
understand a visual scene

Why are infographics *so super ?*

- they seem to be serious ⭐ ⭐ ⭐

- people believe diagrams

- they show comparison

- color is faster than content!

… and we love to solve puzzles!

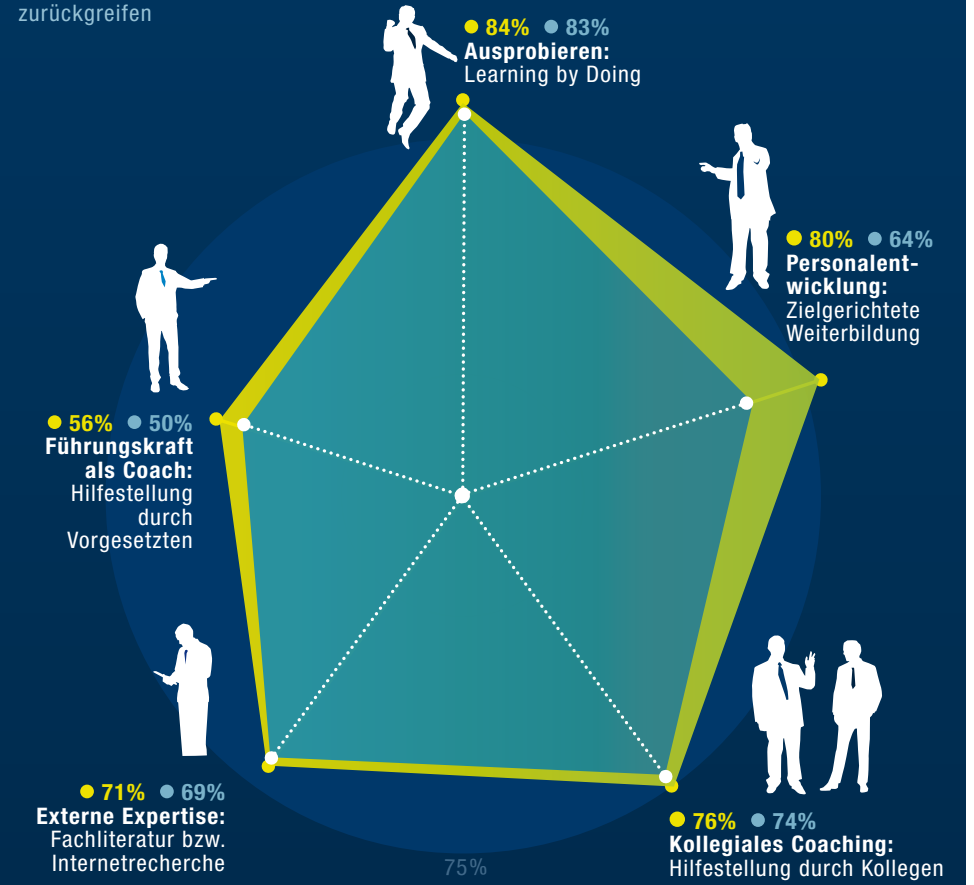# What is most important for a good visualization?

to tell an emotional story

A

to show Data exactly

B

to find out the best comparison
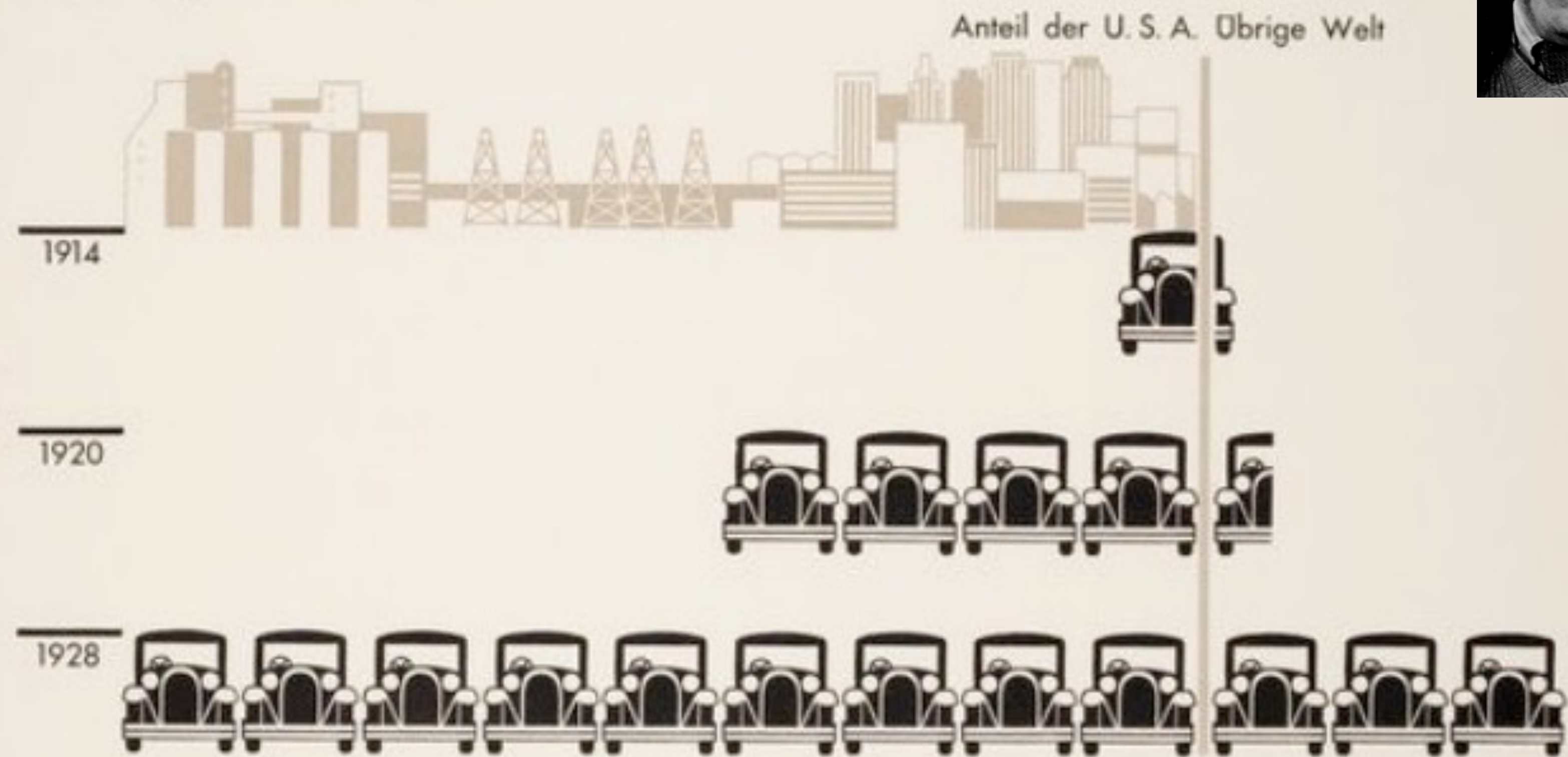
C

"*... to remember simplified set pictures
is better than forgetting exact numbers.*"

Otto Neurath (isotype)
Sociologist and economist
1929

Kraftwagenbestand der Erde

Anteil der U. S. A. Übrige Welt

1914

1920

1928

Jedes Auto 2 500 000 Kraftwagen
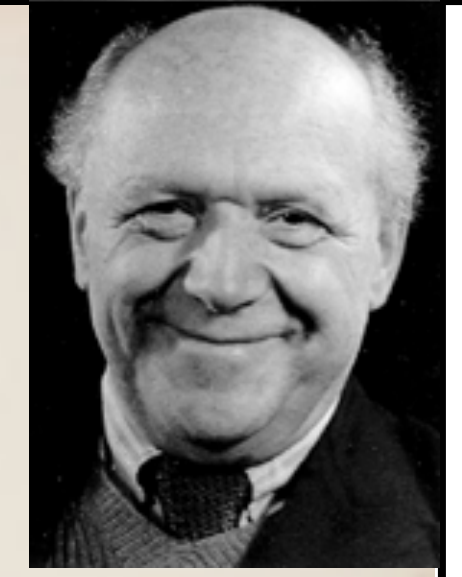
How to use - is your decision!

Information
serious
Statistic

trustful

storytelling

Entertainment
emotional
Illustration
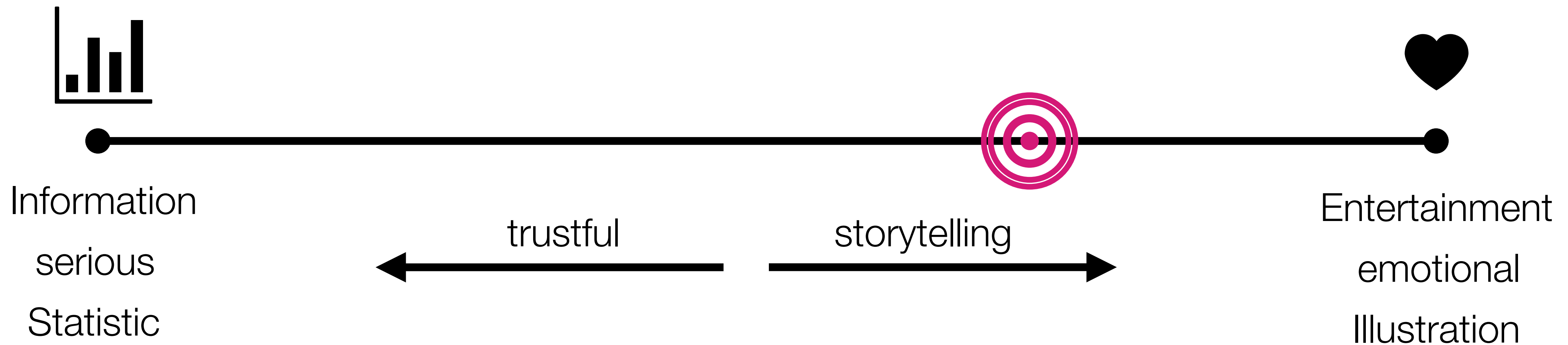
Emotional potential of infographics

Maps, diagrams, tables

Process-graphics

Titanic (1997) with Leonardo di Caprio and Kate Winslet

zero emotion

pure emotion

Scale of emotions
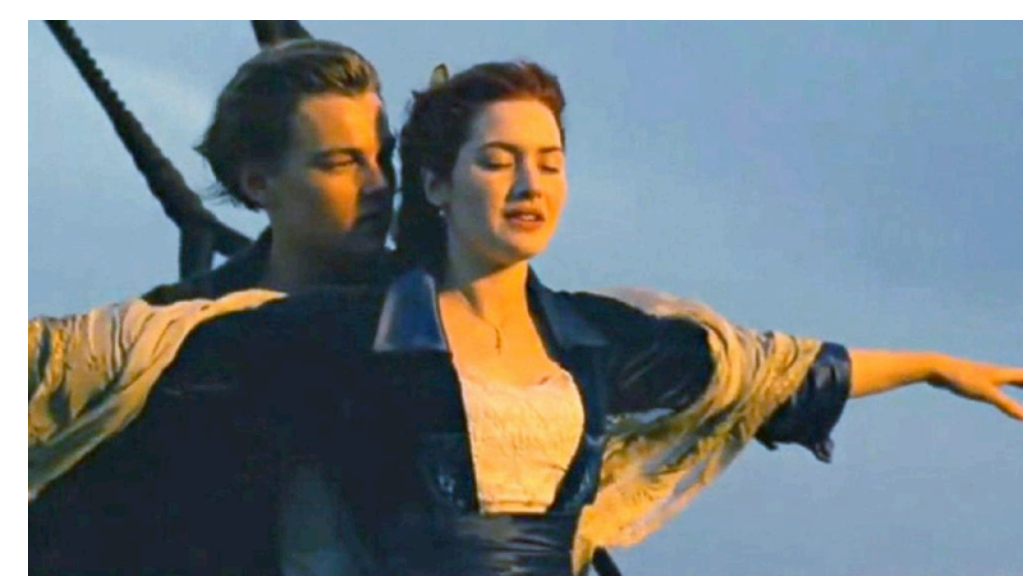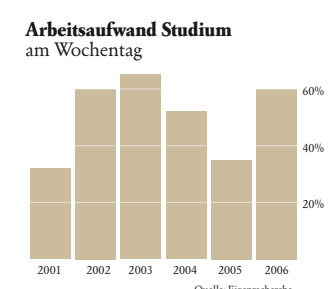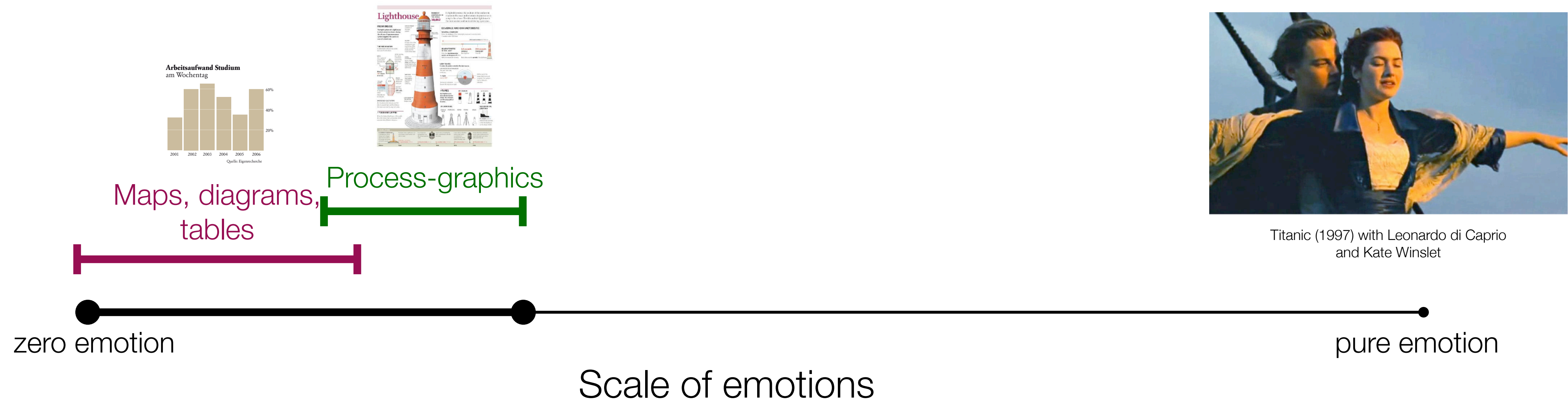
It is important to know the medium!

Print
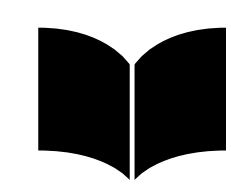
Digital

Magazine

conscious
decision to read
the article

Website

conscious
decision to visit
the side
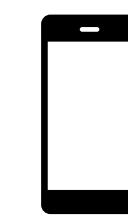
Socialmedia

Short Attention
*Used on a mobil
with distracting
environment*

The empire strikes back — Giogia Lupi, Accurat

Global population growth is predicted to tail off by the end of the 21st century — Fincial Times

https://www.instagram.com/p/CRWcWlZrvYG/?utm_source=ig_web_copy_link

https://www.instagram.com/p/Bspn6S_nlN2/?utm_source=ig_web_copy_link

The 5 Oceans by Size
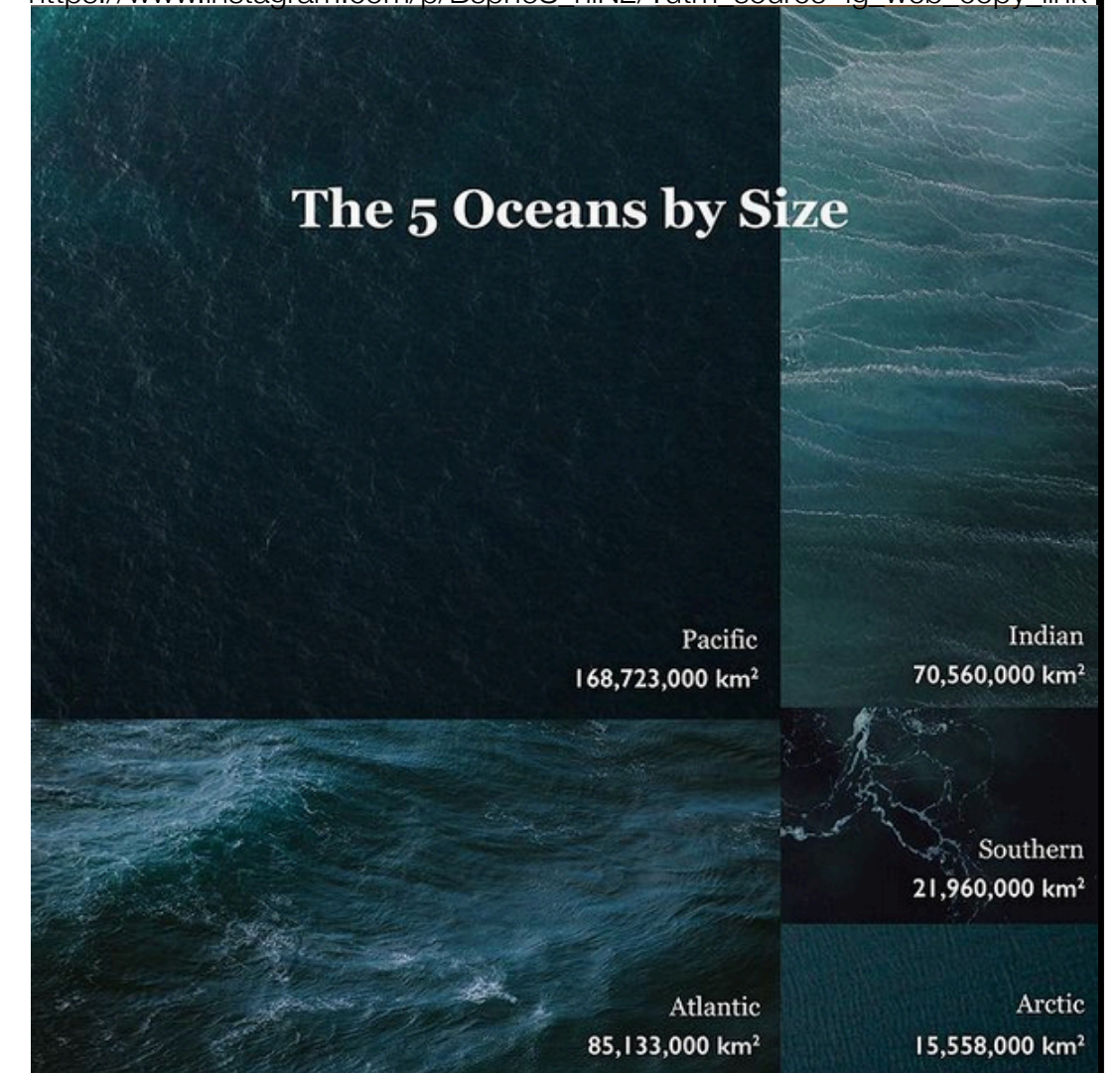
Two kind of infographics

➕ Flexible & Standard
➕ Fast understandable
➕ Designelement
➕ Give the report a trend
➕ Standard workflow
➕ Develop just in time
➖ Seems boring

Arbeitsaufwand Studium
am Wochentag

60%
40%
20%

2001 2002 2003 2004 2005 2006

Quelle: Eigenrecherche

A B C

Effort

Lighthouse

➕ Unique
➕ Complex
➕ Attention (key visual)
➕ Powerful
➖ Extremely high effort

ABC

Arabisch 2%
Farsi 3%
1% Kurdisch
1% Spanisch
Türkisch 18%
19% Sonstige
56% Deutsch

	Gefällt	Geht so	Geht nicht
Lenztreff (Angebote für Familien)	67%		9%
OKJA (offene Kinder- und Jugendarbeit)	69%		6%
Alt und Jung (Angebote für Senioren)	52%		6%
Sonstige Angebote (Nachbarschaftsfest, Mittagstisch…)	76%		0%

Current project, 2021

Financial supervision

One regulator to rule them all

Officials have been given enormous discretion to corral finance.

Banks' legal penalties, $bn

In the United States
Rest of world

THE new masters of the financial universe are neither bank bosses nor hedge-fund titans. They are the regulators whose job it is to make finance safer. Daniel Tarullo, Andrew Bailey and Danièle Nouy, senior regulators in America, Britain and the euro zone respectively, may not have the salaries, egos or profiles of Wall Street superstars, but the decisions they and people like them make are shaping the industry. As John Mack, a former boss of Morgan Stanley, reportedly told his successor: "The government is your number-one client." Even for those who deeply mistrust finance, that ought to give pause.

The global financial crisis made new rules inevitable and necessary. Taxpayers need protection from the risks of failure: hence a series of measures to ensure that banks finance themselves with more equity, have lots of liquid assets and will "bail in" creditors if they collapse. The disaster of 2008 persuaded officials not just to write harsher rules, but also to be more flexible. Risks can materialise in unexpected places—dull old money-market funds, for instance, proved a shocking source of vulnerability. The industry can game static, well-understood rules more easily than dynamic, fuzzy ones.
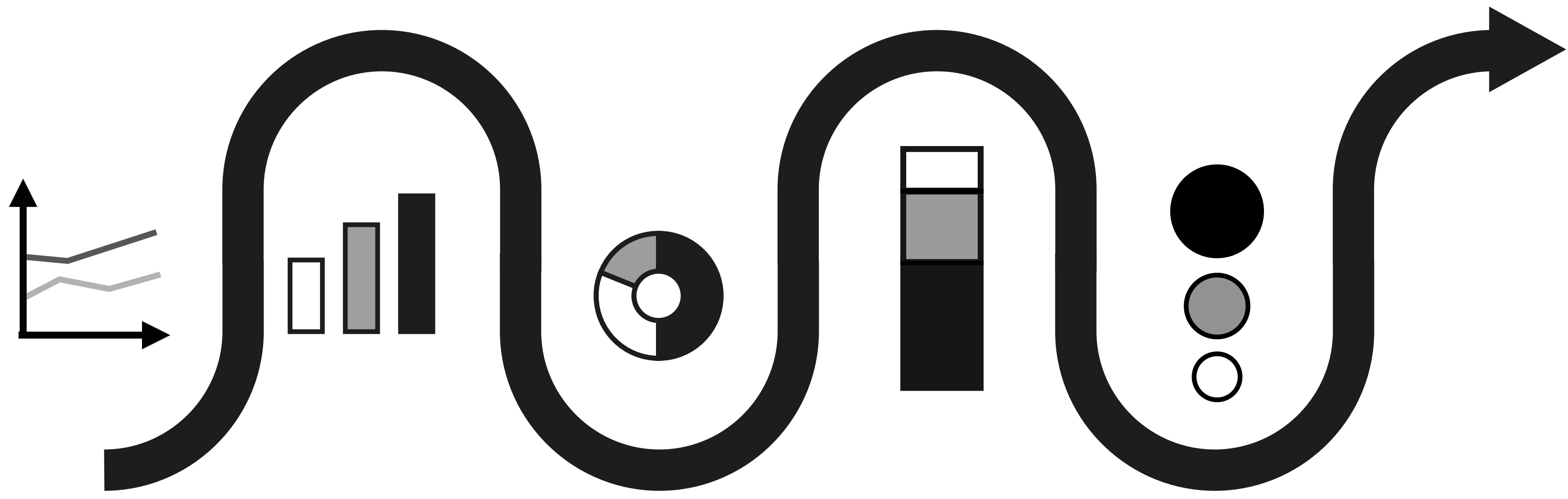
Naturally, the regulators therefore want wriggle-room. Consider Mr Tarullo, a governor at the Federal Reserve who takes

The Economist

Global population growth is predicted to tail off by the end of the 21st century
Population (billions)
Estimated
Sources: United Nations, Our World in Data   FINANCIAL TIMES

People around the world feel increasingly insecure about their future
% of adults who think they are or will be worse off than their parents
A secure job
A successful career
Enough money to live well
Your own home
A comfortable life in retirement
Source: Ipsos   FINANCIAL TIMES

Vaccines have made Covid-19 far less lethal
Risk of catching and dying from Covid* (log scale), by age group, before and after full vaccination
Risk of Covid death before vaccines
A fully vaccinated 80-year-old now has roughly the same risk of dying from Covid as an unvaccinated 50-year-old
Risk after two doses
* Risk is the population fatality rate, e.g before vaccines roughly 1% of all 80-year-olds in England had died from Covid
Source: FT analysis of data from Public Health England   FINANCIAL TIMES

The virus has remained widespread in Mexico for a full year
7-day average of % of tests that are positive
Mexico
Italy   UK
US   Spain
Sources: Our World in Data; UK government Covid-19 dashboard
FT graphic John Burn-Murdoch / @jburnmurdoch   FINANCIAL TIMES

Financial Times (Instagram)

How to start the process of creation

Exercise 2 - find a form for a small dataset

German elections on next Sunday.
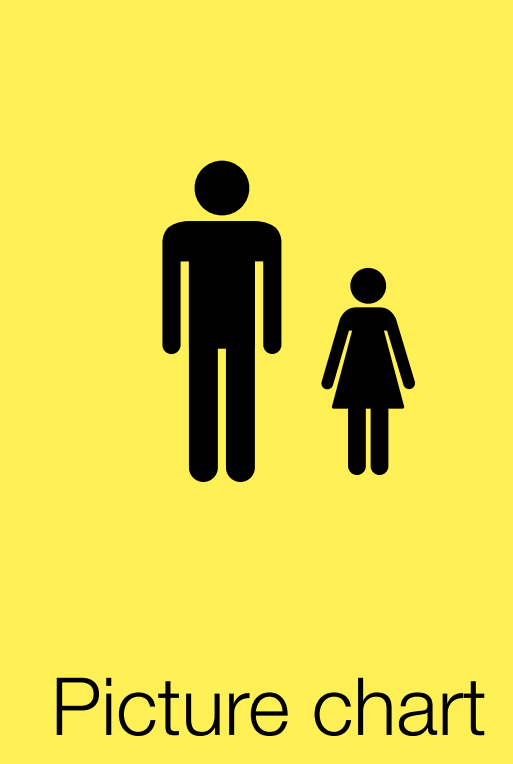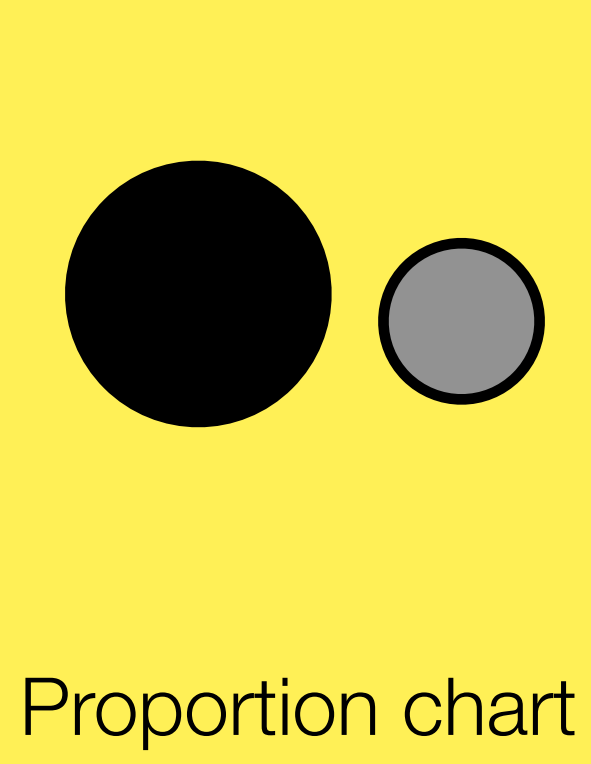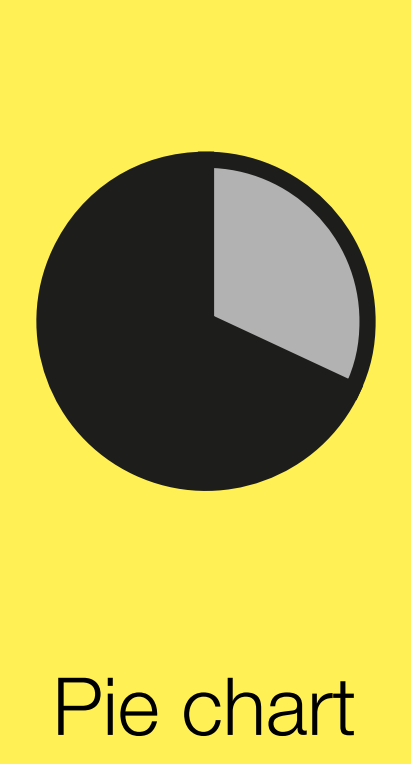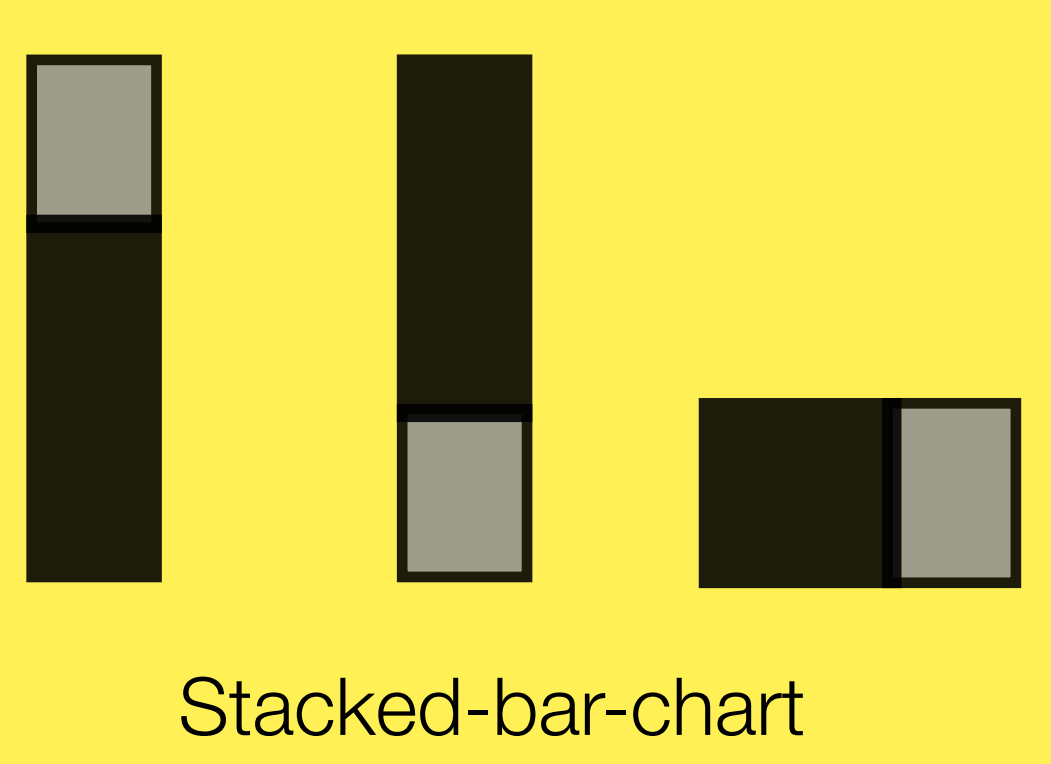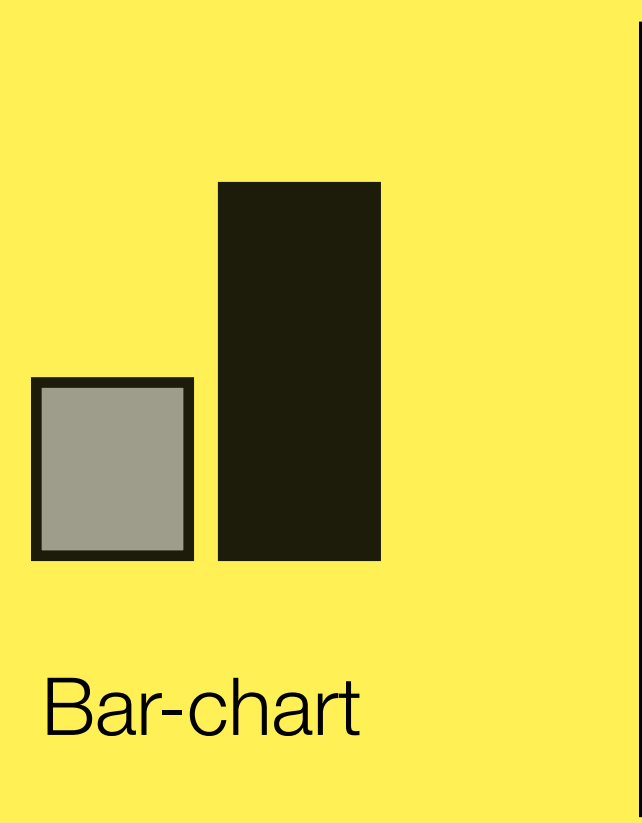We take a look back into the past to focus on the gender distribution.

Tiny dataset:

	Woman	Man
Party Green	32 %	68 %

Exercise 2 - find a form for a small dataset

	Woman	**Man**
Party Green	32 %	68 %

Bar-chart

Stacked-bar-chart

Pie chart

Proportion chart

Picture chart

Take a break

BREAK
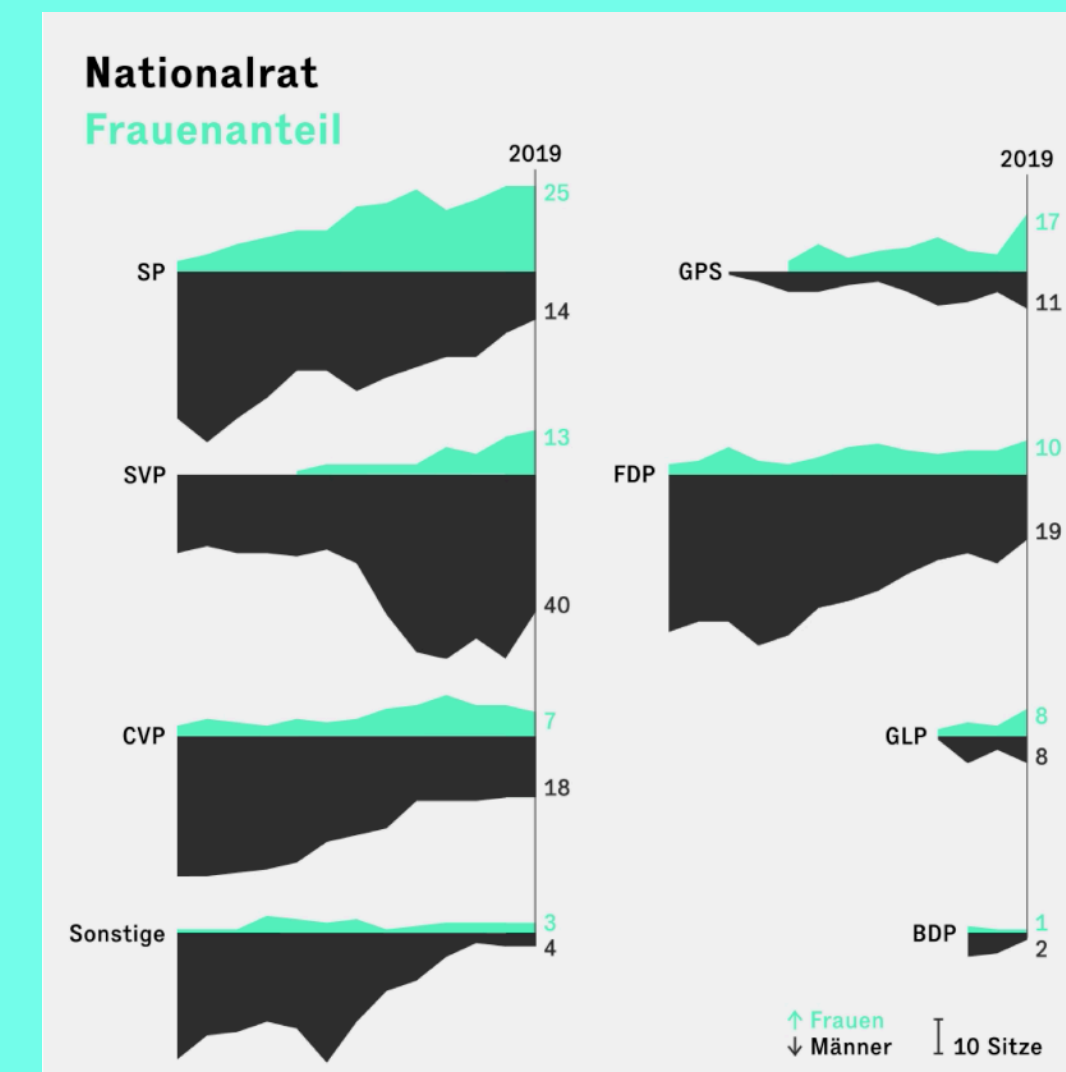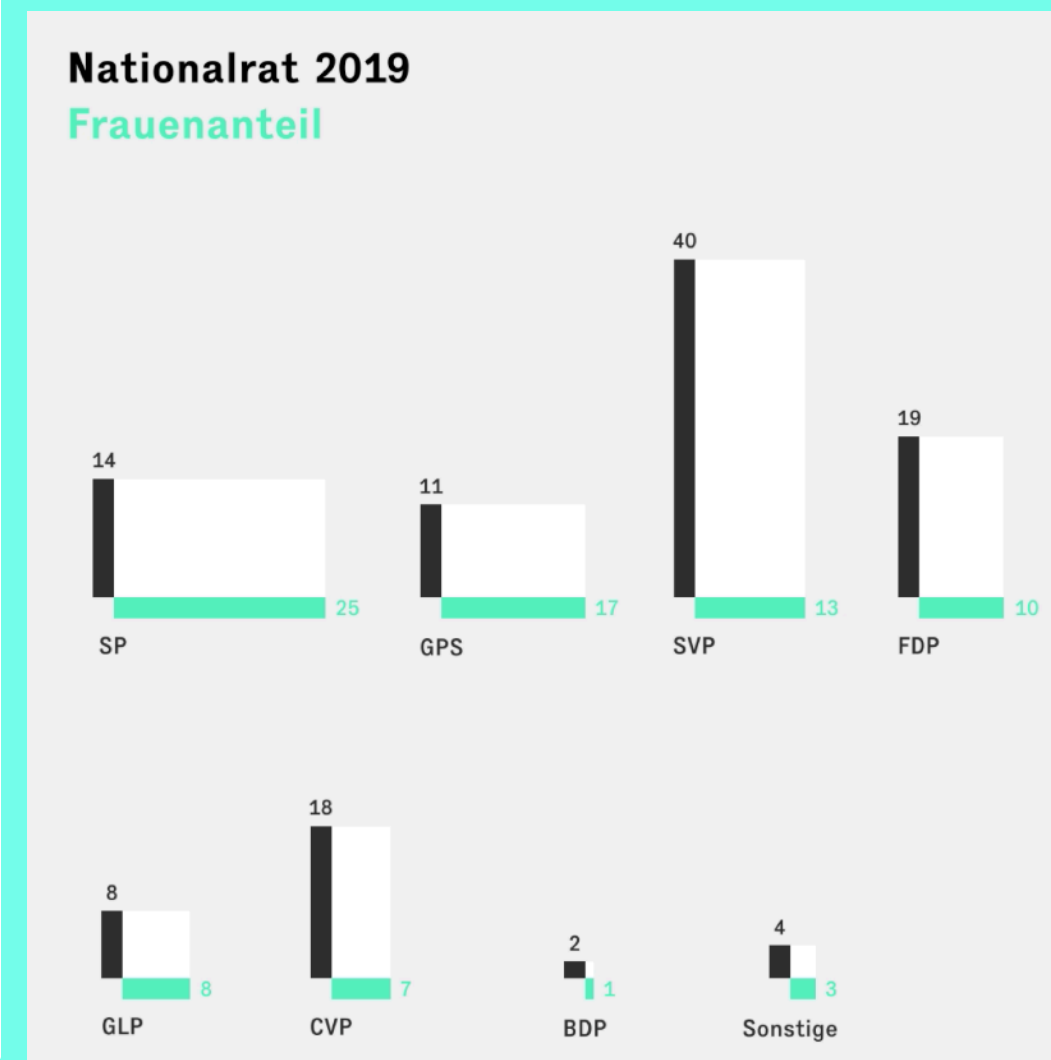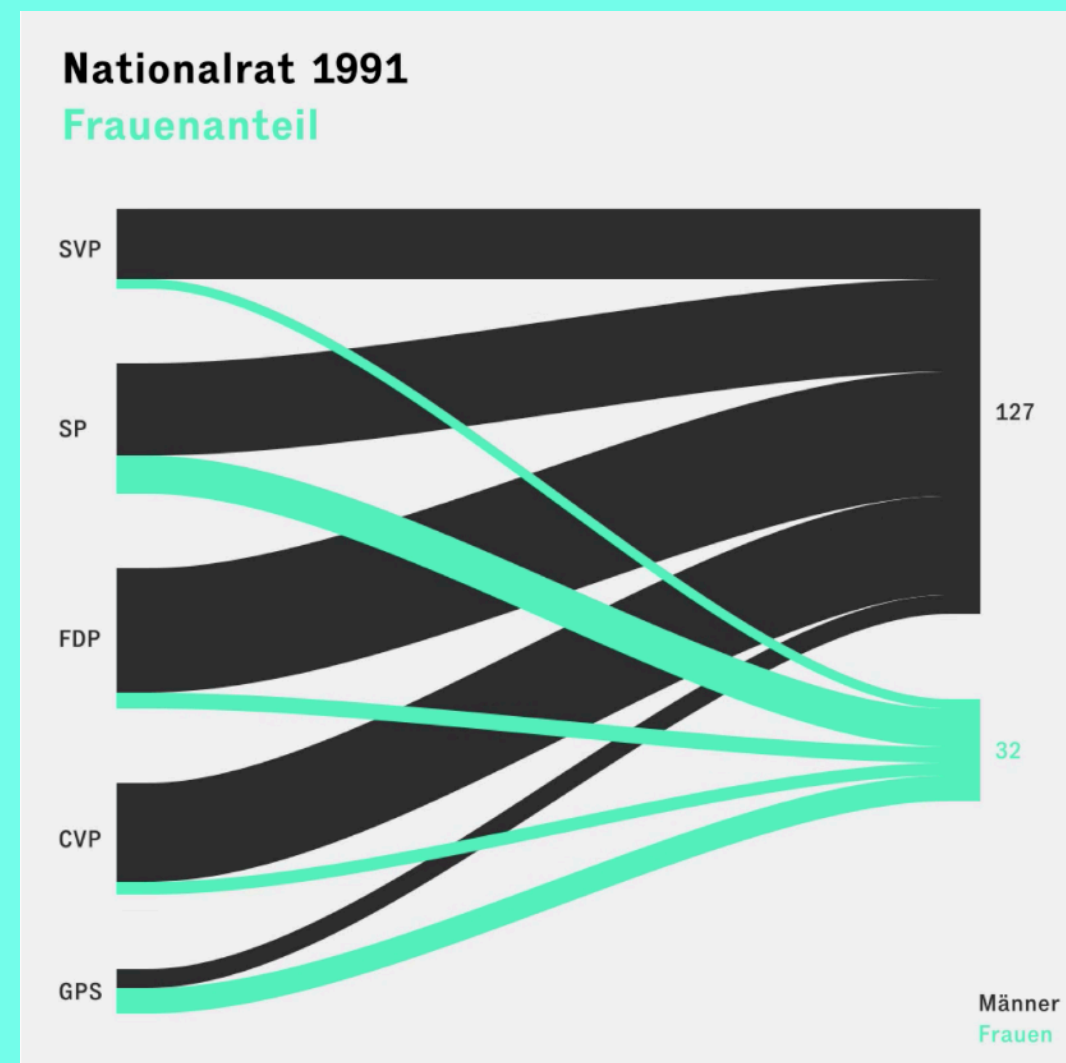
https://hahn-zimmermann.ch/projekte/nationalratswahlen_2019

Forms and Functions

Different Chart-forms

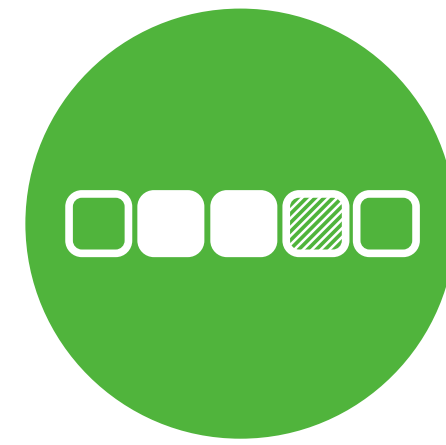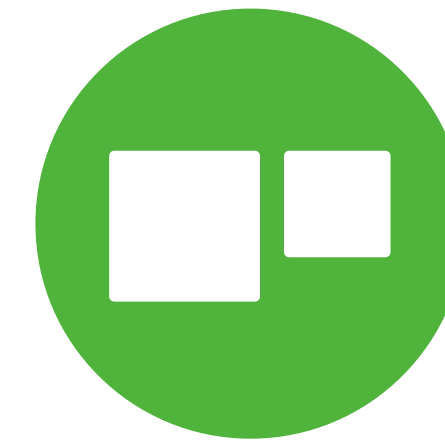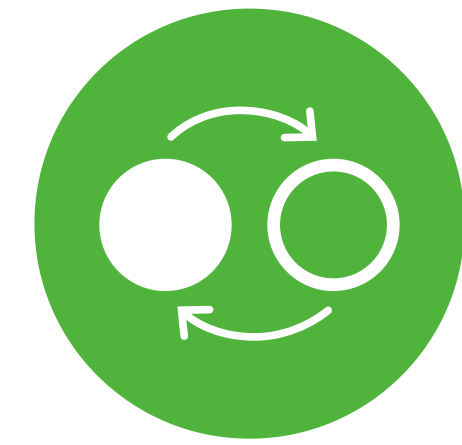|							
Bar chart	Multi-Set-chart	Stack-chart	Proportional-chart	Span Chart	Line-chart	Bevölkerungs Pyramide	Area graph
Pie chart	Donut-Chart	Polar-Area-Diagram	Sunburst Diagram	Radial Column Chart	Bubble Chart	Spiral Plot	Radical Bar Chart
Scatterplot	Scope Chart	Candlestick Chart	Radar Chart Netzdiagramm	Stacked Area Graph	Shape Diagramm	Marimekko Chart	Heatmap
Choropleth Map	Connection-map	Bubble-Map	Dot-Karte	Sanskey diagram	Timeline	Gantt-diagramm	Tree diagram
Arc Diagram	network Diagram	Brainstorm	Chord Diagramm	Circle Packing	Treemap	Venn diagram	Box & Whisker Plot

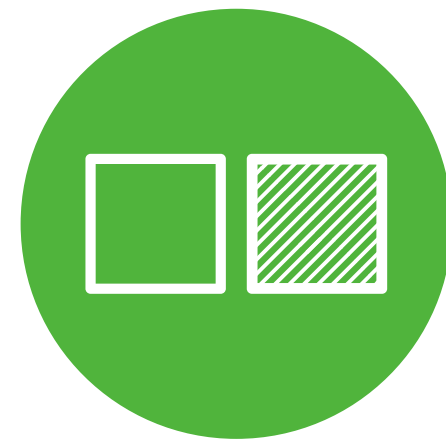# Forms and Functions

Functions
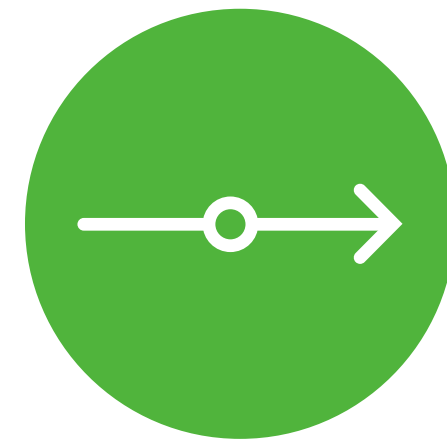

hierarchy

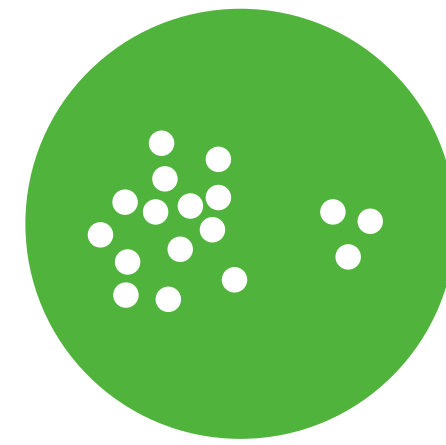
part_to_a_whole

Patterns

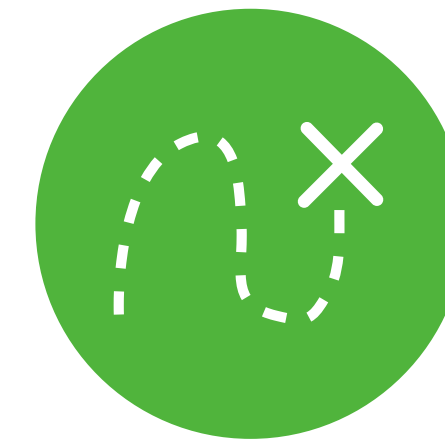

Proportion

Relationship

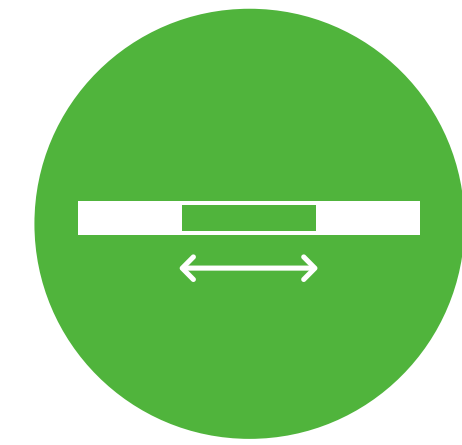comparisons

data_over_time
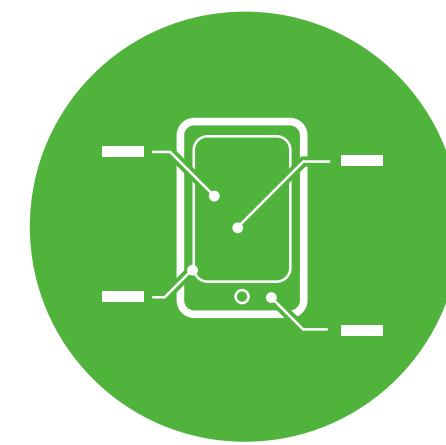

distribution

location

Range

analysing text

how_things_work

concepts

processes_and_methods

https://datavizproject.com/

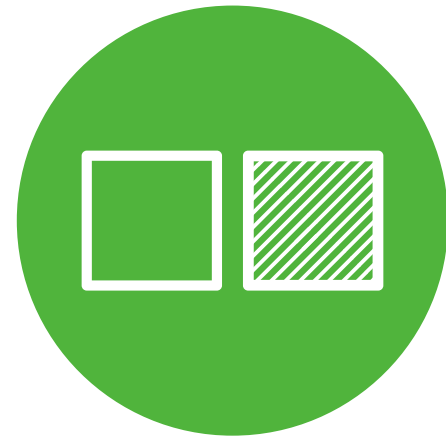https://datavizcatalogue.com/

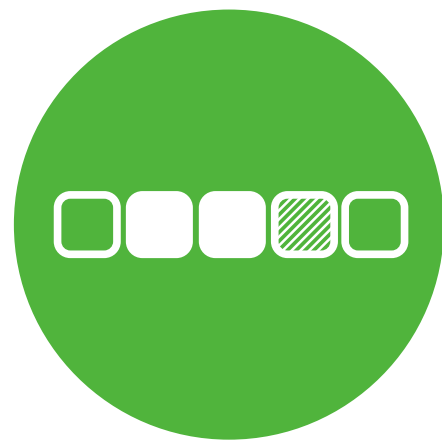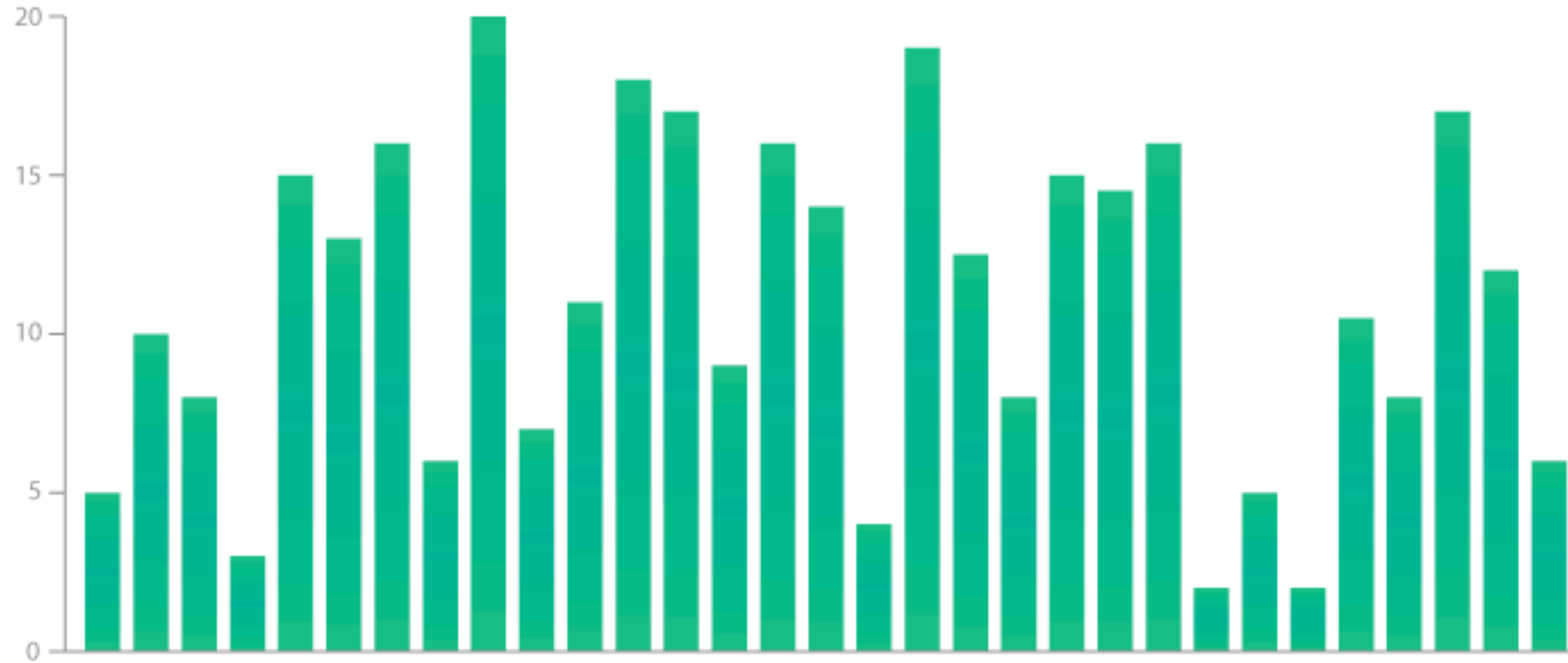Copyright: Erik Tuckow ▮ sichtagitation | 2021

Bar chart

comparisons

Patterns

Multi-Set-
Diagramm

Bevölkerungs
Pyramide

Radical Bar Chart
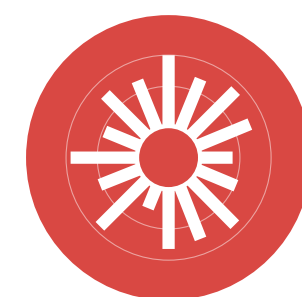
Chart Column
Chart

Linien Diagramm

Flächen-diagramm
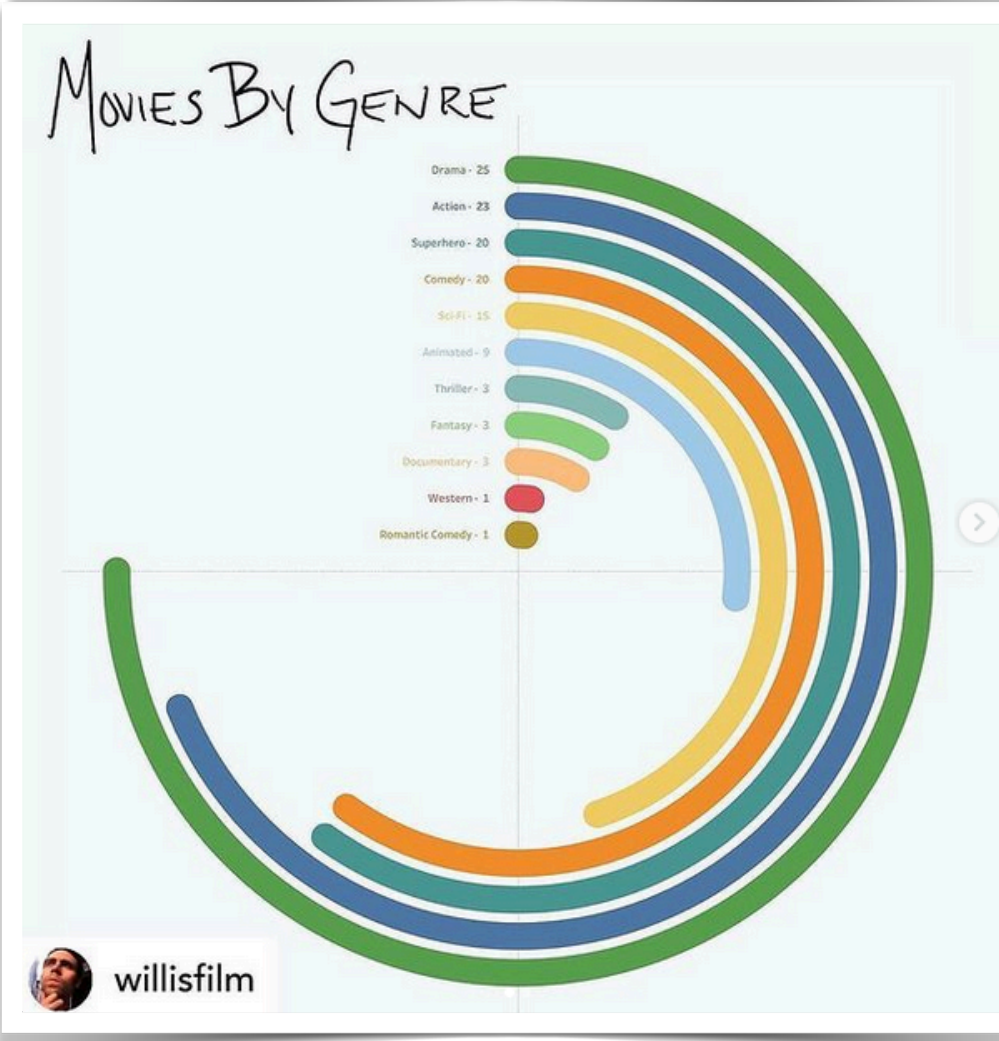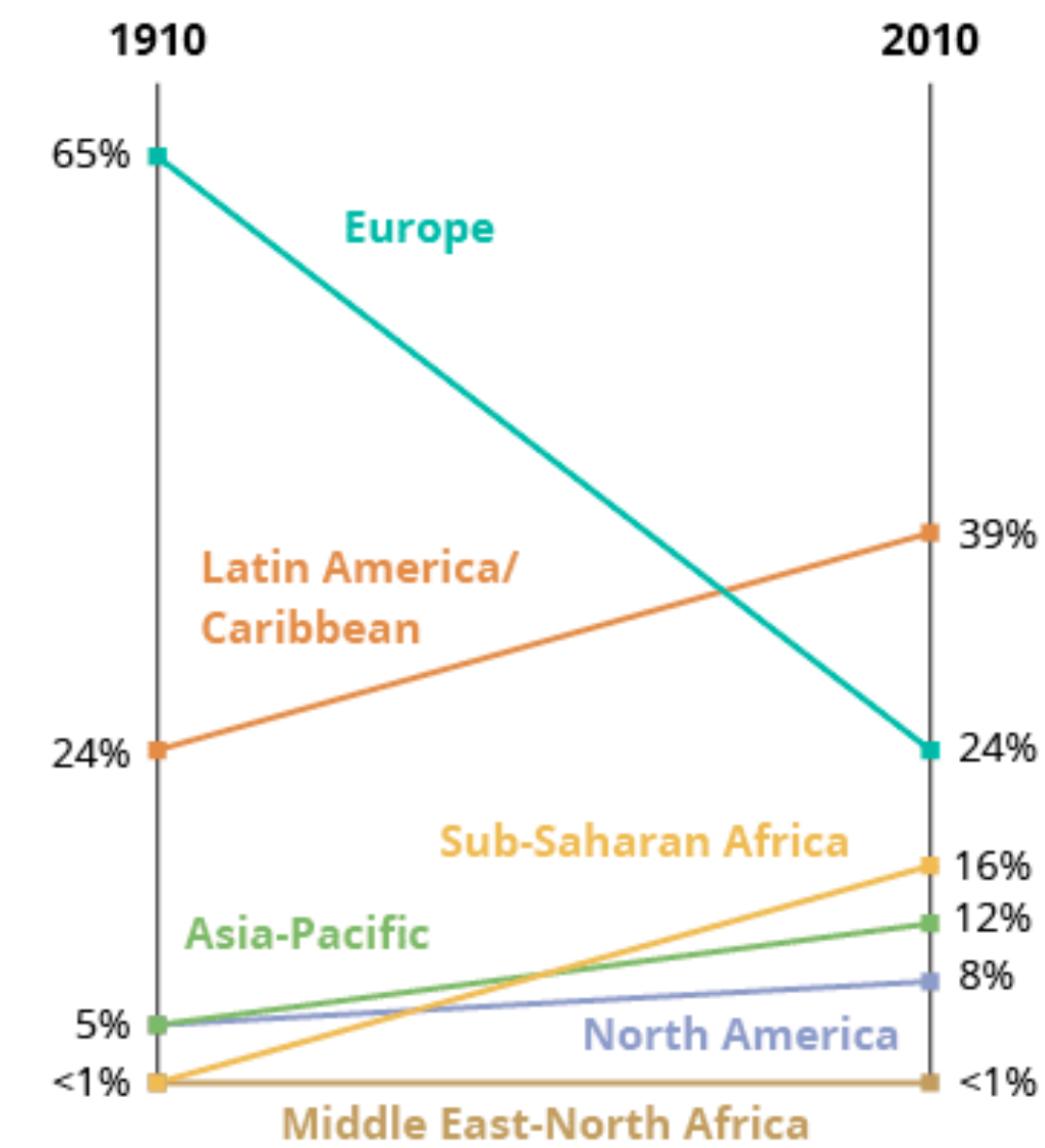
sichtagitation | 2021

What kind of function and form

Weight gain reasons
(In quarantine)

coupleindata

He | She

50% Fridge assault | 20% Delivery meals

35% Fridge assault

30% Boring meetings | 15% Delivery meals | 50% Boring meetings

Source: Studying the behaviour of Couple in data 2020

MOVIES BY GENRE

willisfilm

A Changed Church...

A century ago, most Catholics were European. Now, they're from all over the globe.

Regional distribution of Catholic population*

1910 — 2010

65% |
Europe
Latin America/Caribbean | 39%
24% | 24%
Sub-Saharan Africa | 16%
Asia-Pacific | 12%
North America | 8%
5%
<1% Middle East-North Africa | <1%

*Numbers may not add up to 100 due to rounding.

Bumps, Bruises and Breaks

Heading into Super Bowl week, NFL players have collectively sustained more than 1,300 injuries on the field this season.

Arm 9
Shoulder 116
Head 96
Neck 41

Concussion 87
Jaw 7
Other 2

Back 49
Core 51
Hand 63

Elbow 25

Wrist 24
Thumb 14
Hand 13
Fingers 12

Hip 47
Groin 64
Knee 300

Lower leg 30
Upper leg 155

Hamstring 96
Thigh 29
Quadriceps 21
Other 9

Ankle 206
Foot 93

Sources: SimpleTherapy; iStock photo illustration
The Wall Street Journal
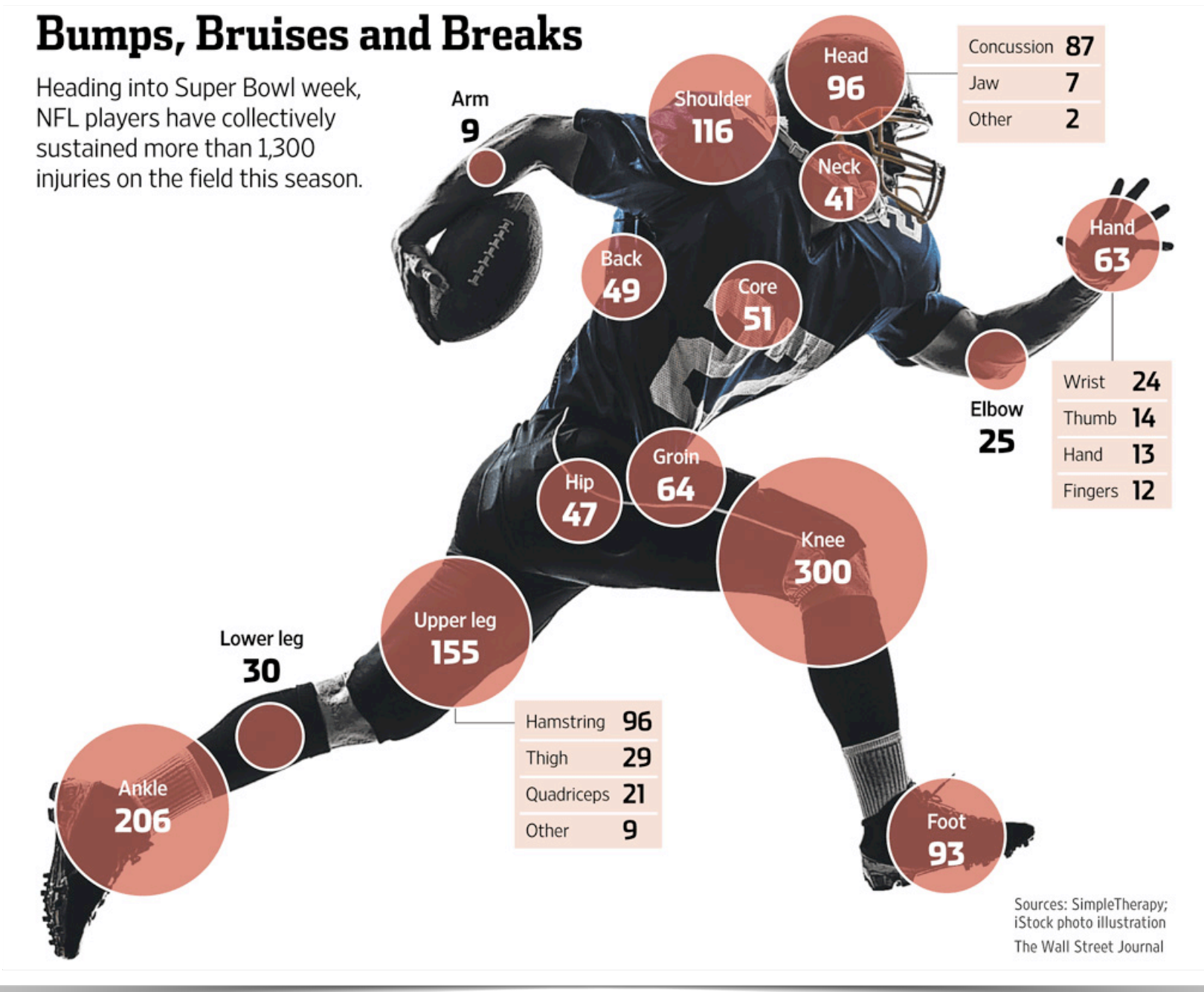
What kind of function and form

What kind of function and form

What kind of function and form

Bumps, Bruises and Breaks

Heading into Super Bowl week, NFL players have collectively sustained more than 1,300 injuries on the field this season.

Arm	9
Shoulder	116
Head	96
Neck	41

Concussion	87
Jaw	7
Other	2

Back	49
Core	51
Hand	63

Wrist	24
Thumb	14
Hand	13
Fingers	12

Elbow 25

Hip	47
Groin	64
Knee	300

| Lower leg | 30 |
| Upper leg | 155 |

Hamstring	96
Thigh	29
Quadriceps	21
Other	9

| Ankle | 206 |
| Foot | 93 |

Sources: SimpleTherapy; iStock photo illustration
The Wall Street Journal

A Changed Church...

A century ago, most Catholics were European.
Now, they're from all over the globe.

Regional distribution of Catholic population*
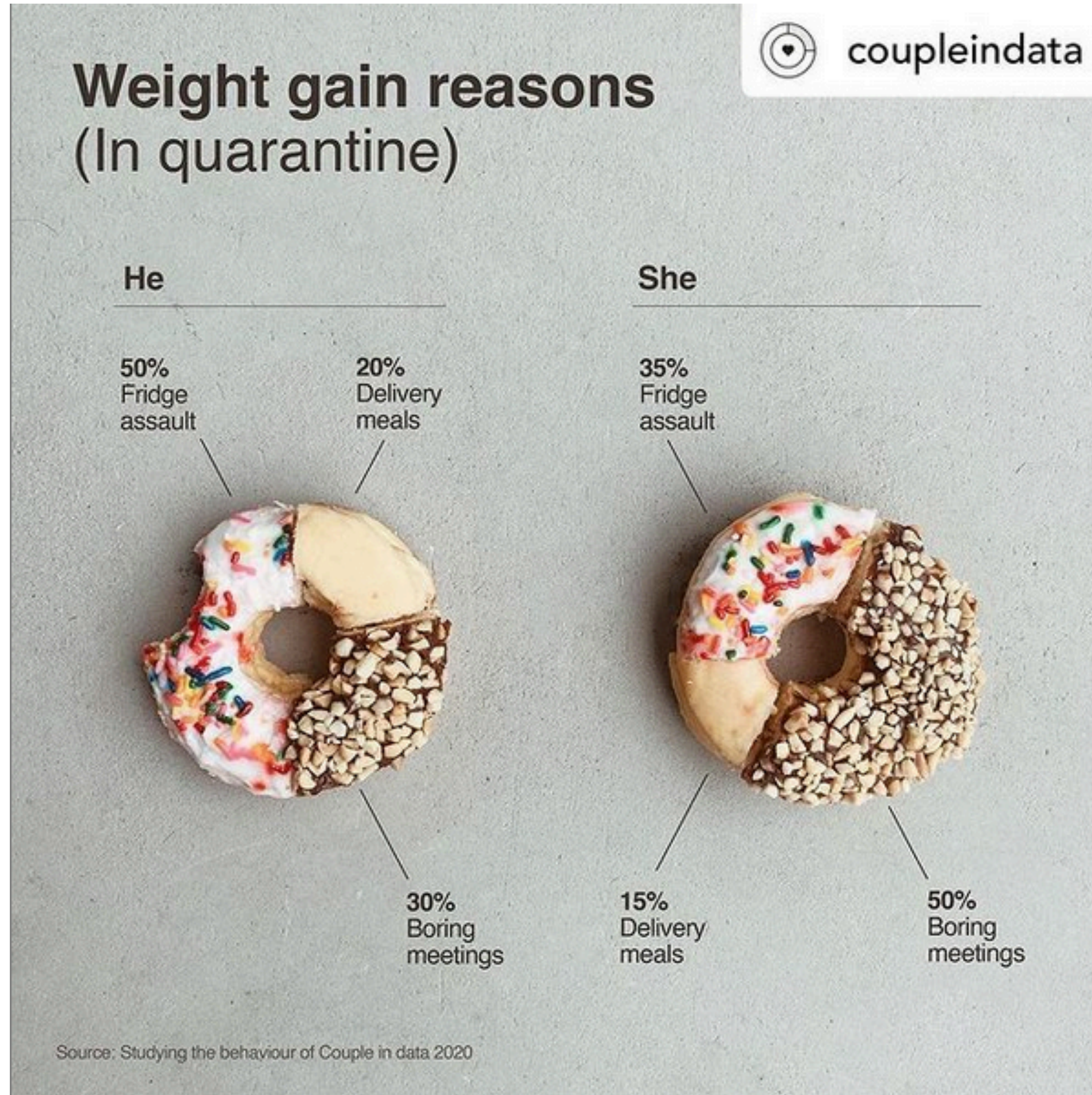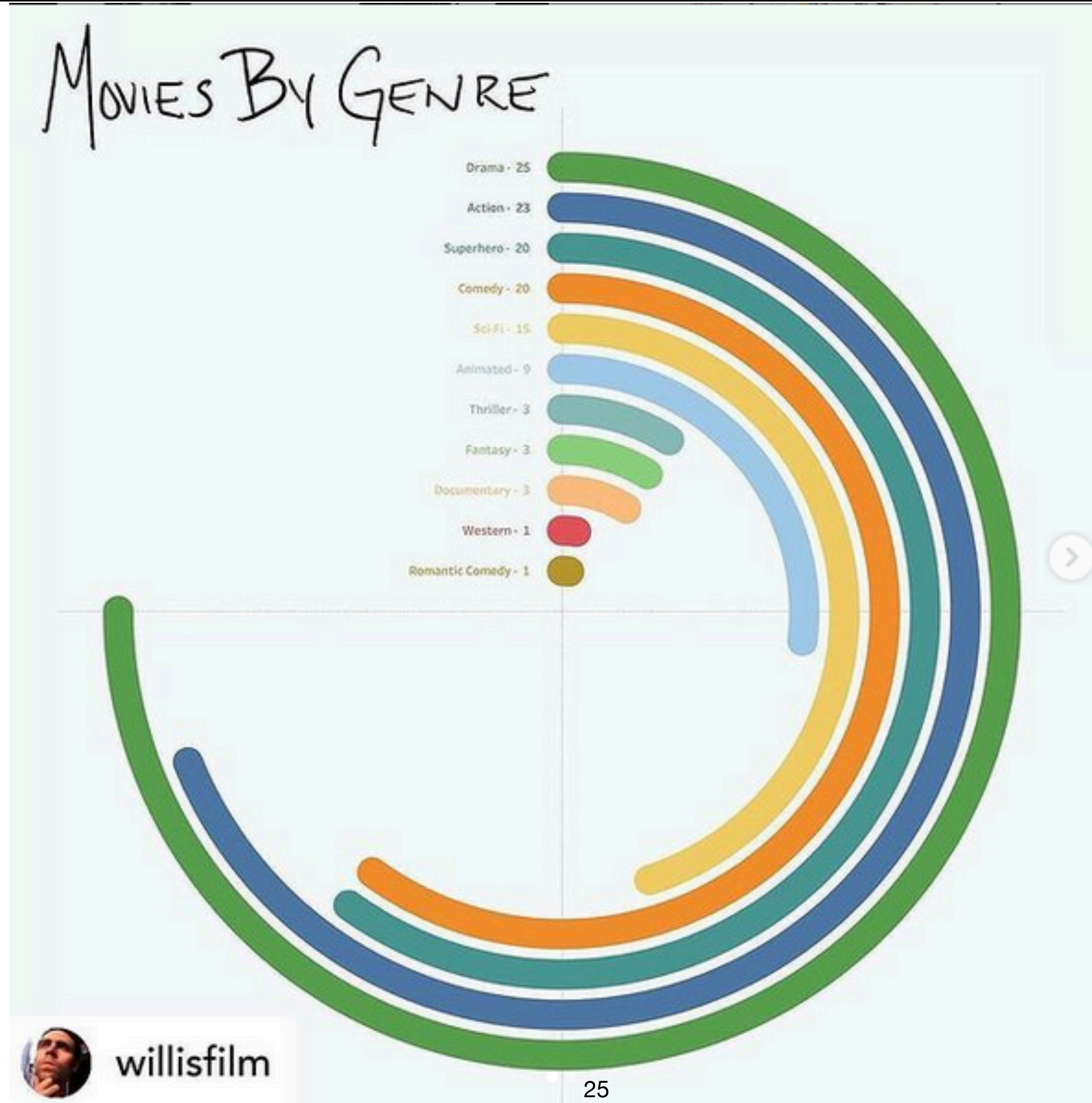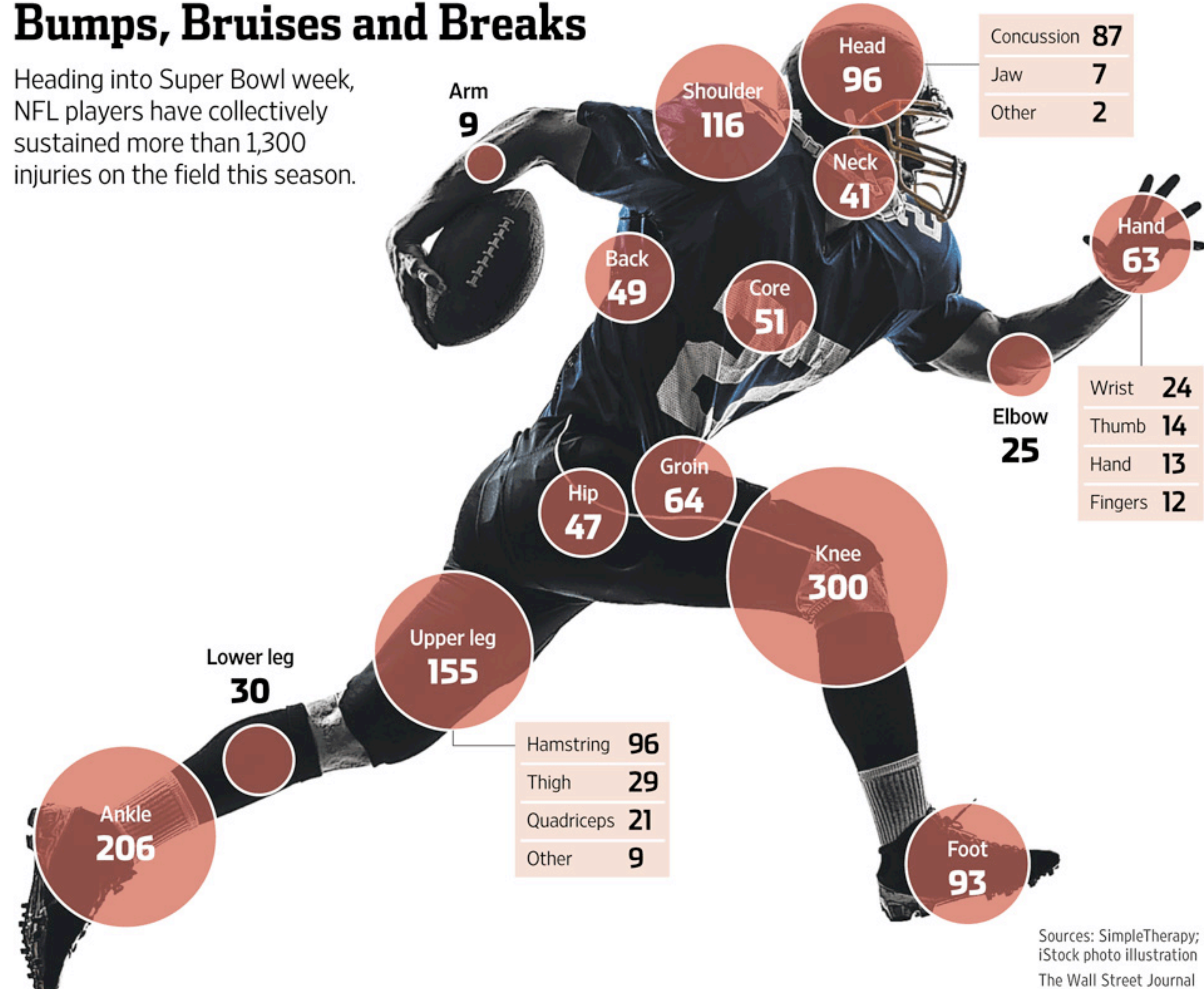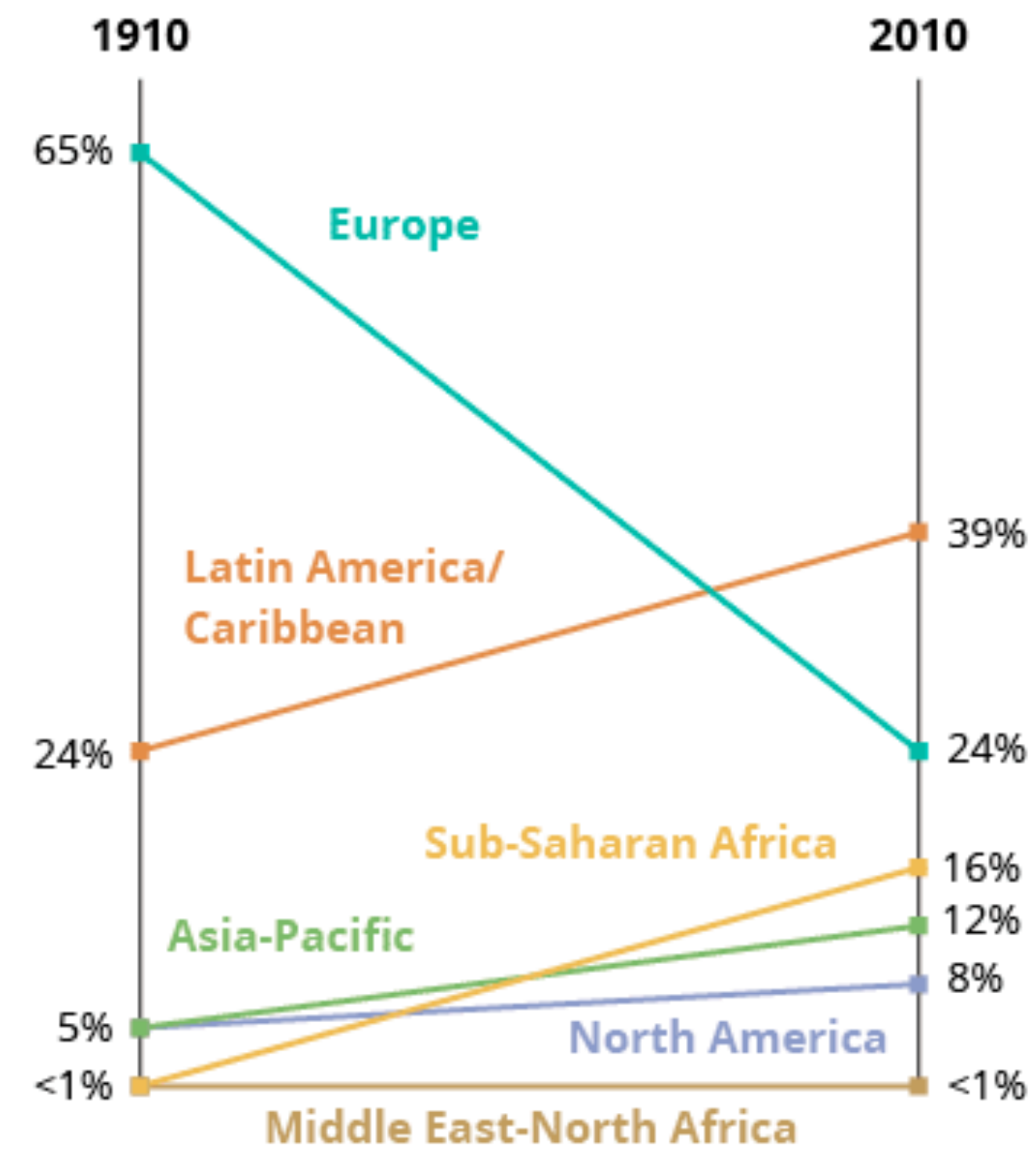

1910   **2010**

65%   **Europe**

**Latin America/
Caribbean**   39%

24%   24%

Sub-Saharan Africa   16%

Asia-Pacific   12%

  8%

5%   **North America**
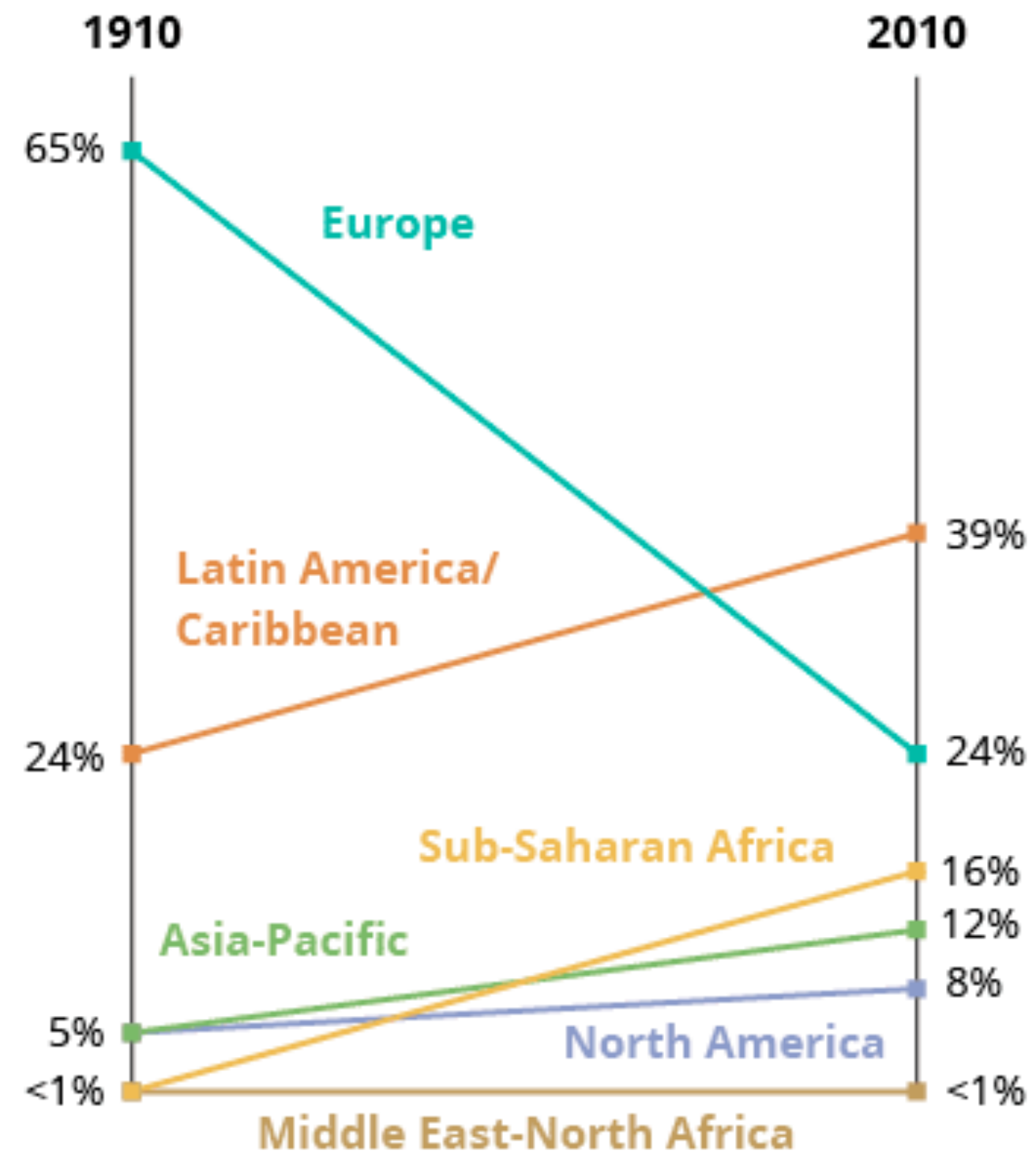
<1%   <1%

Middle East-North Africa

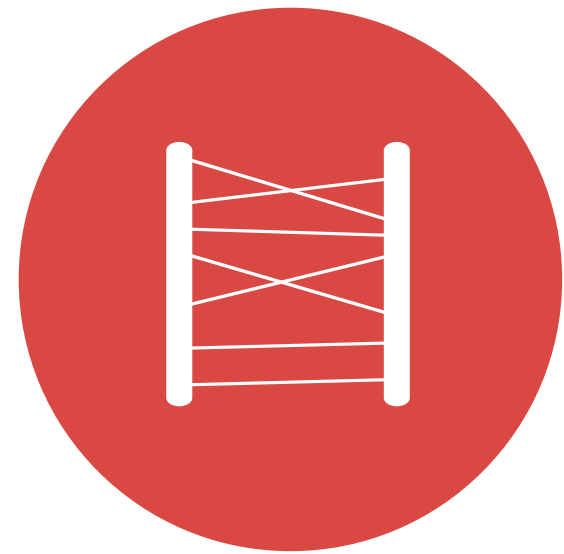*Numbers may not add up to 100 due to rounding.

A Changed Church...

A century ago, most Catholics were European.
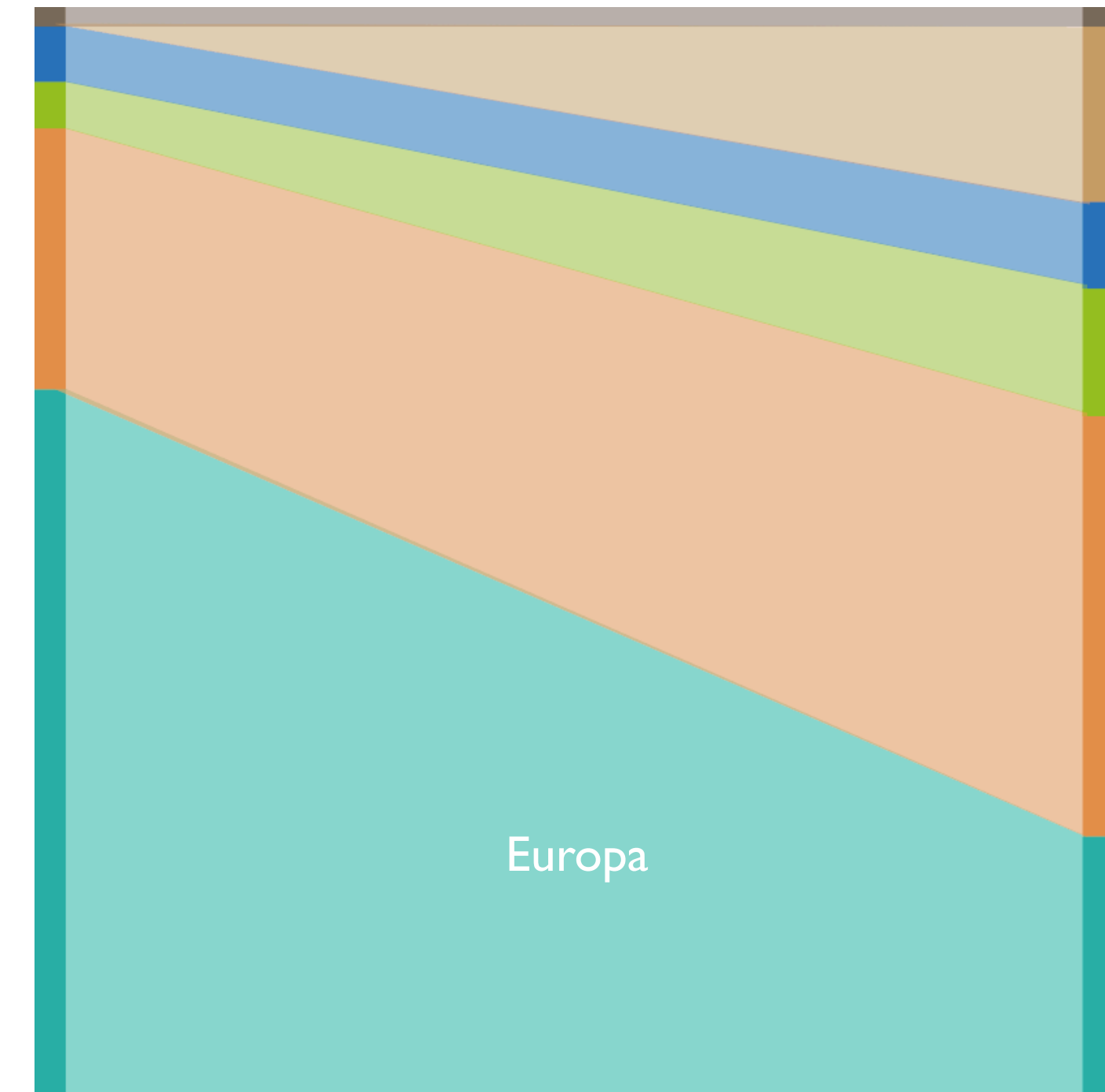Now, they're from all over the globe.

Regional distribution of Catholic population*

Scope Chart

1910		2010
65%	Europe	
		39%
24%	Latin America/Caribbean	
		24%
	Sub-Saharan Africa	16%
	Asia-Pacific	12%
5%		8%
	North America	
<1%	Middle East-North Africa	<1%

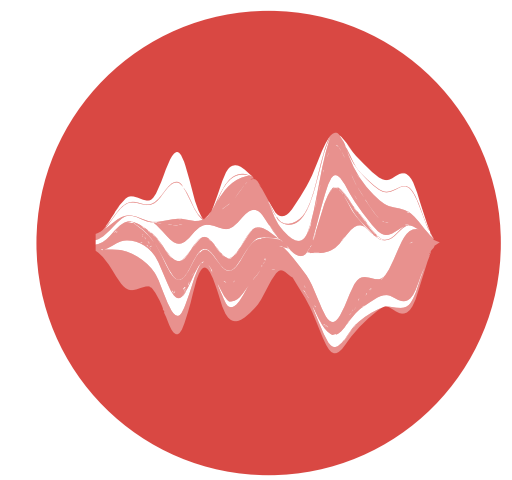*Numbers may not add up to 100 due to rounding.

Europa

1910   2010

Shape Diagramm

Exercise 3 - find a form for a complex dataset

German elections on next Sunday.
We take a look back into the past to focus on the gender distribution.

Datasets of Group 1 and 2 on the next page

Exercise 3 - Group 1

Women in % in German parties in the parliament over 37 years

Parties	1990	2005	2017
CDU	13,8	19,9	20
SPD	27,2	36	41,8
FDP	20,3	24,6	23,8
GRÜNE	37,5	56,9	58,2
LINKE	47,1	48,1	53,6

Exercise 3 - Group 2

Elections 2017 - Vote in % and gender distribution of the parties

Party	Vote in %		Women %	Men %
CDU	32,9		20	80
SPD	20,5		41,8	58,2
FDP	10,7		23,8	76,2
Grüne	8,9		58,2	41,8
Linke	9,2		53,6	46,4
AfD	12,6		10,5	89,5

BREAK

Elements of an infographic

Content

Data & story

Forms

Text

Design

Diagrams

Labeling

Color

Illustration
(Datajunk!?)

Abstract

Forms

Legend

Format

DesignStyle

Typo
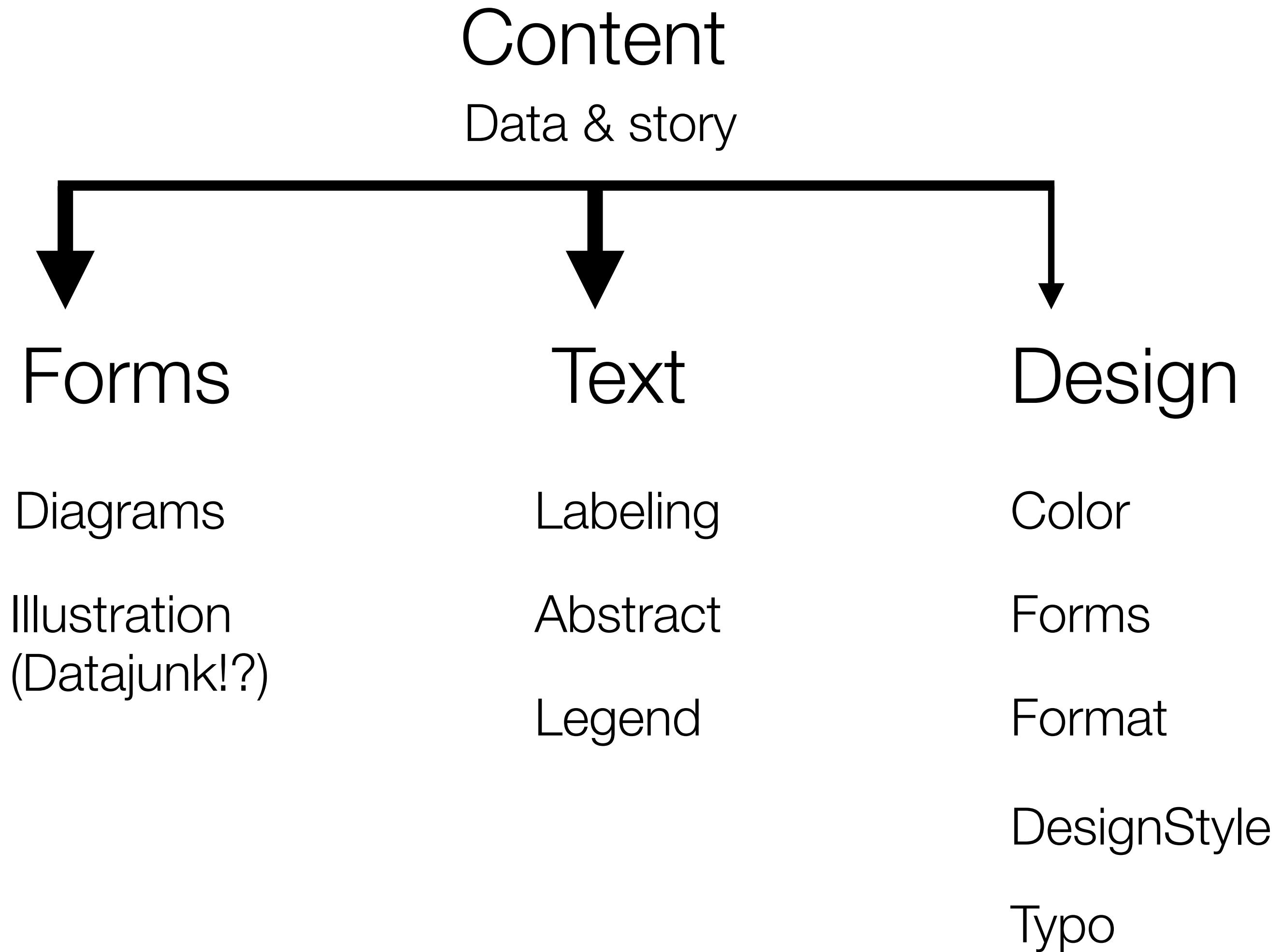
Elements of an infographic

Form + Text + Values = Infographic
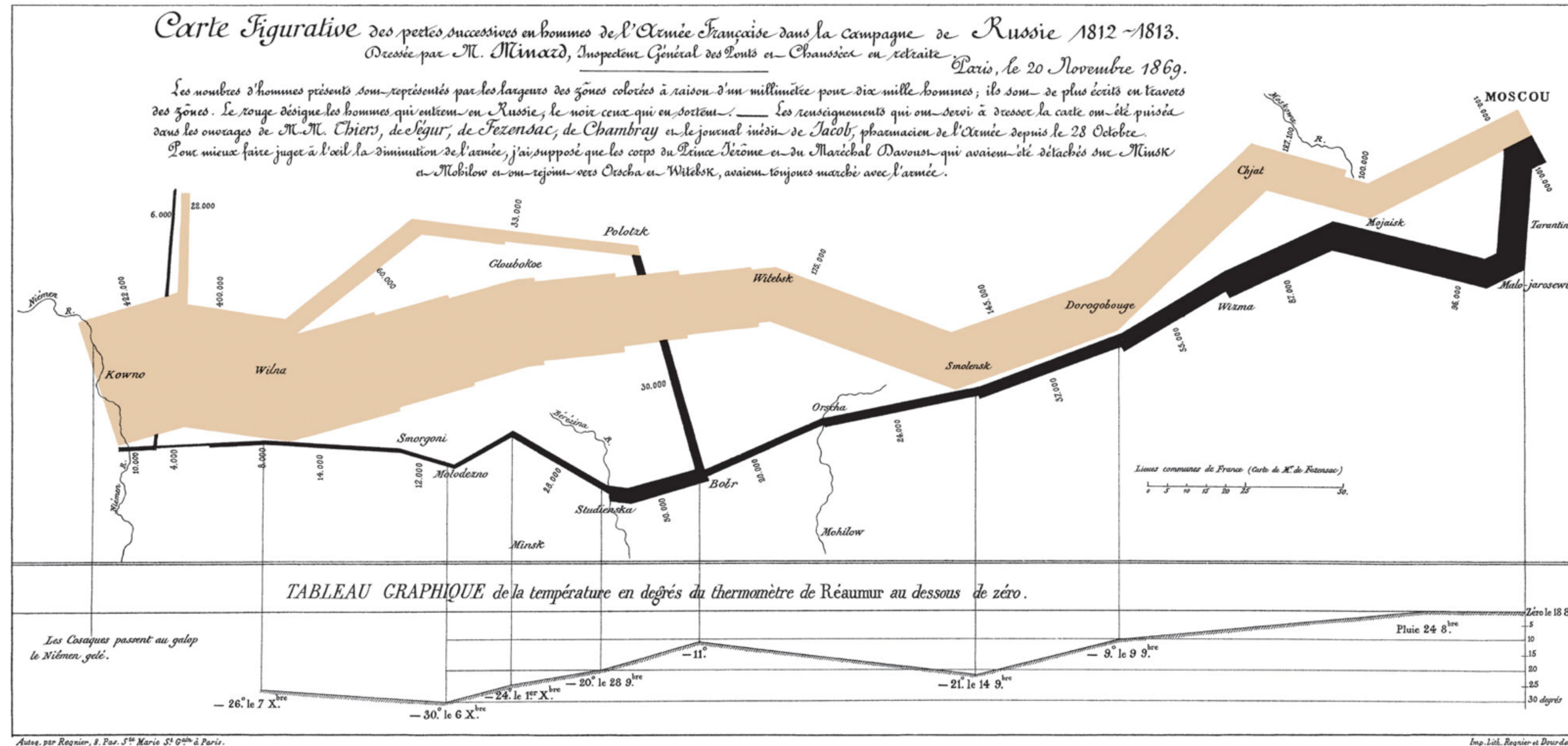
Only Forms = Illustration