



“Where do you find the time to do all this?”

My personal experience with dataviz challenges



BIO

- 2008-2010
MZES, University of Mannheim
- 2010-2014
nurago / GfK nurago
- 2015-2018
GfK
- Since 2018
 KAISER X LABS

Tools

R / ggplot2

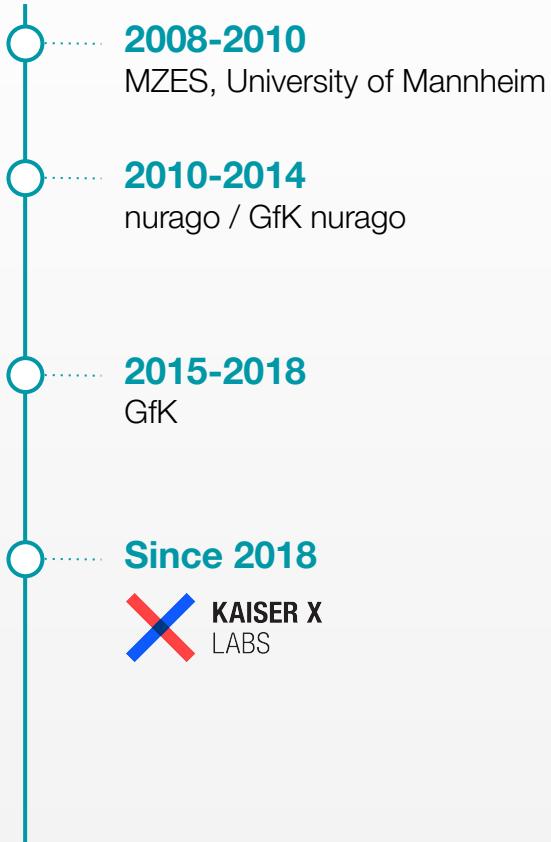
Datawrapper

PowerPoint

Tableau

Flou-
rish

BIO



Tools

R / ggplot2

Datawrapper

PowerPoint

Tableau

Flou-
rish

POWERPOINT BY DAY, **GGPLOT** BY NIGHT

DATAVIZ CHALLENGES

Social Dataviz Challenge

A **community-driven** event where people create and share data visualizations on **social media** in response to **specific prompts** or themes. Participants engage in collaborative **learning**, **feedback**, and **networking** within the community.

Industry Awards

Industry awards recognize **outstanding achievements and innovations** in the field of data visualization. They acknowledge individuals, teams, or organizations for their exemplary work in creating visually compelling and informative data visualizations.

SOCIAL DATAVIZ CHALLENGES

There are more

	#30DayChart Challenge	#30DayMap Challenge	#Makeover Monday	#SWD Challenge	#Tidy Tuesday
Frequency	daily (30 days)	daily (30 days)	weekly	monthly	weekly
Theme	prompt	prompt	chart	topic given	topic given
Data	✗	✗	✓	✗	✓
Tool focus	✗	✗	Tableau	✗	R

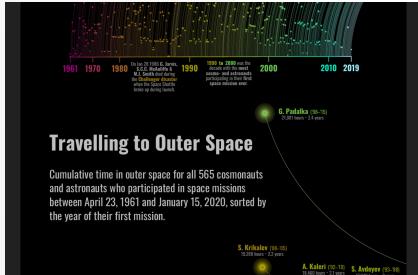
WHAT I APPRECIATE IN DATAVIZ CHALLENGES

Inspiration

Be inspired by what others share

Learn tricks from others

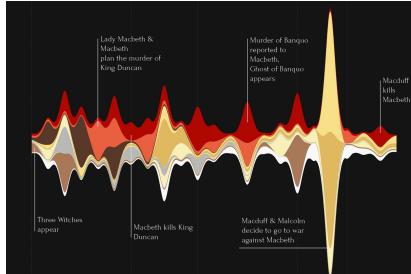
Improve your skills



Experimentation

Get out of your comfort zone, but in a safe way

New chart types, tools, topics



Connections

Connect with like-minded people from across the globe

Exposure & recognition

Feedback & support

#30DayChartChallenge

April 2023 • 30 Days • 30 Charts • 5 Categories

Type of information

Topic

Shape

Data source

Style/CI



Comparisons

1. part-to-whole
2. waffle
3. fauna/flora
4. historical
5. slope
6. data day:
OWID
7. hazards
8. humans
9. high/low
10. hybrid
11. circular
12. theme day:
BBC News
13. pop culture
14. new tool
15. positive/negative
16. family
17. networks
18. data day:
EuroStat
19. anthropocene
20. correlation
21. down/upwards
22. green energy
23. tiles
24. theme day:
UN Woman
25. global change
26. local change
27. good/bad
28. trend
29. monochrome
30. data day:
Worldbank



Distributions



Relationships



Timeseries



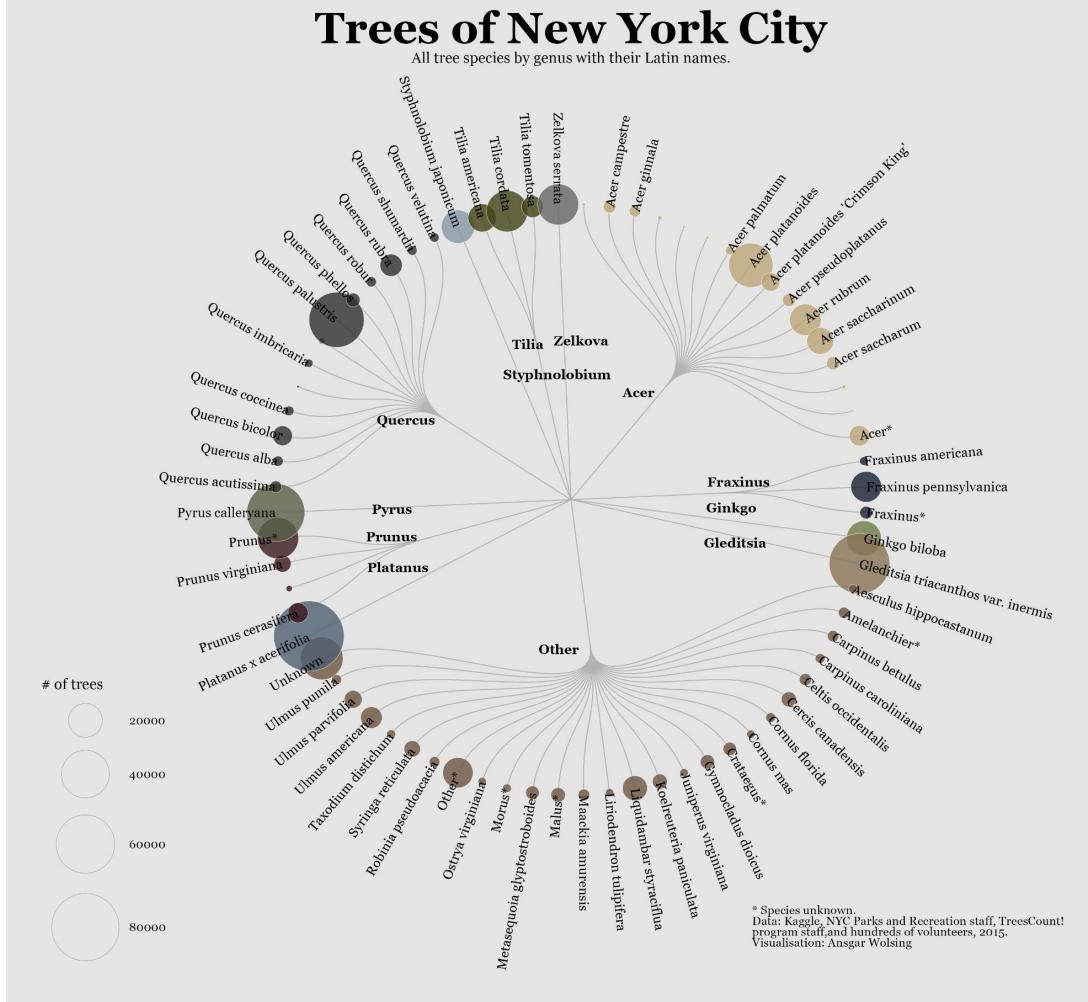
Uncertainties

Follow @30DayChartChall for more!

#30DayChartChallenge 2023

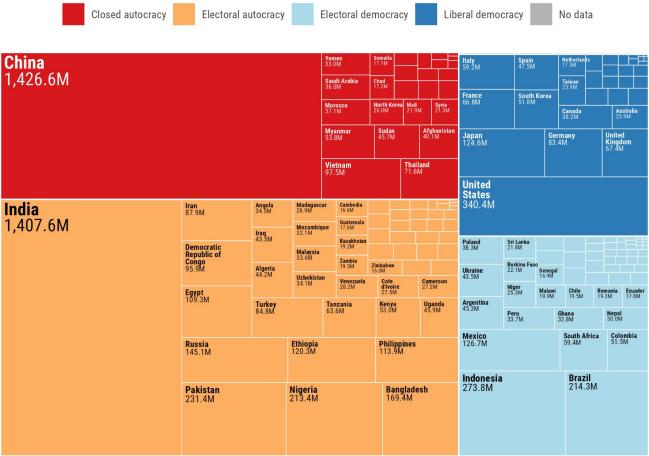
Day 03 | Fauna/Flora

R / ggplot2



Share of people living in autocracies and democracies

Sizes of the tiles proportional to the countries' population. Classification of political regimes based on the criteria by Lührmann et al. (2018) and the assessment by V-Dem's experts. Classification and population data from 2021.



Source: OWID based on Lührmann et al. (2018); V-Dem (v13). Visualisation: Ansgar Wolsing

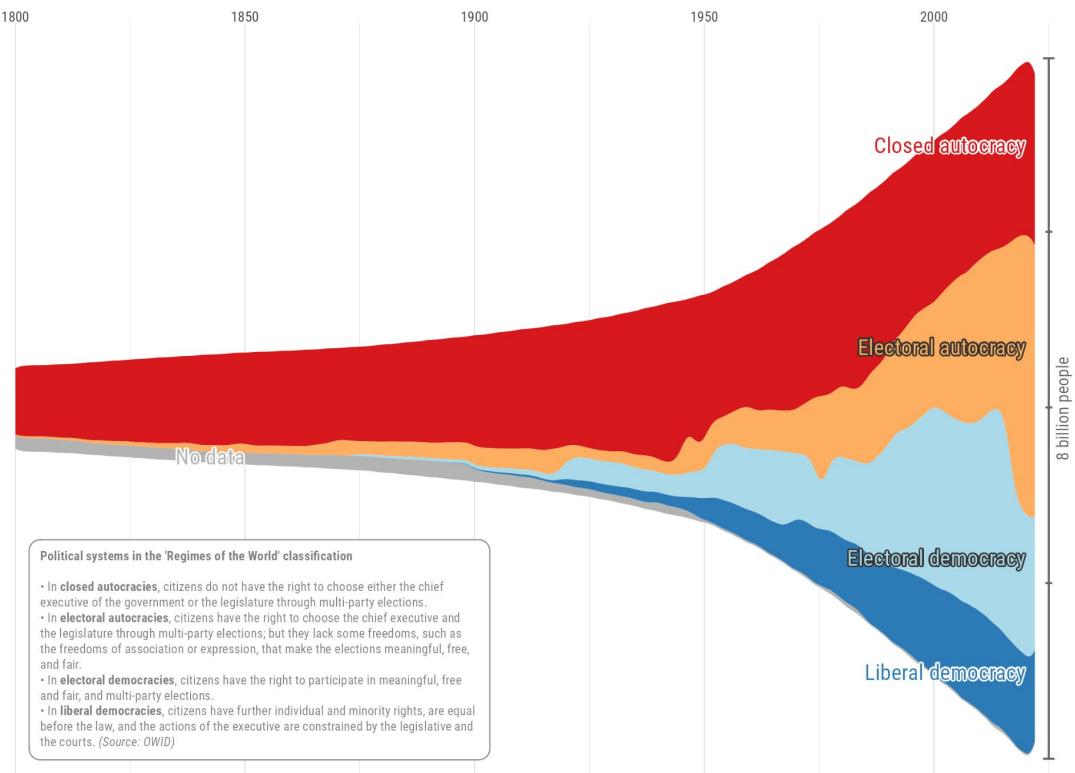
#30DayChartChallenge 2023

Day 06 | Data Day: Our World in Data

R / ggplot2

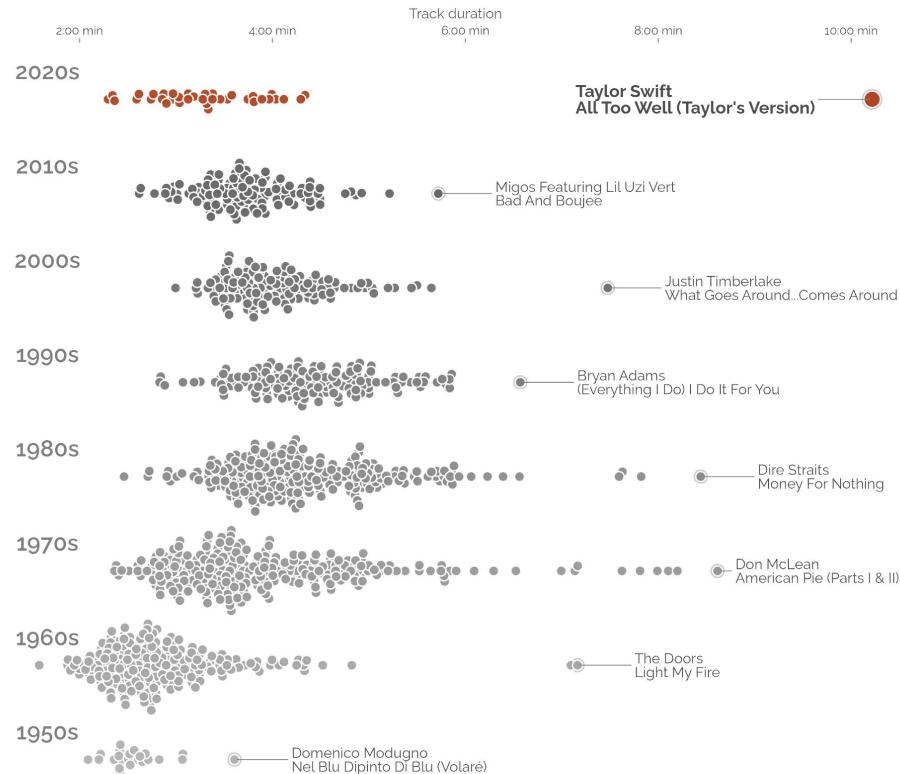
Number of people living in **autocracies** and **democracies**

Classification of political regimes based on the criteria by Lührmann et al. (2018) and the assessment by V-Dem's experts.



"All Too Well" is the Longest Song in U.S. Chart History

Taylor Swift's new version of "All Too Well" is the longest track to ever top the Billboard Hot 100 with a duration of 10 minutes and 13 seconds. The song replaces Don McLean's song "American Pie" (8 minutes and 36 seconds), which became no. 1 on 15 January 1972, after nearly 50 years. Each no. 1 song is a dot. The longest no. 1 song in each decade is highlighted.



#30DayChartChallenge 2022

Day 09 | Statistics

R / ggplot2

#30DayMapChallenge 2022

Day 03 | Polygons

R / ggplot2

Figma

Easy way out for the
text annotations

What if everybody supported the football club which is closest to their location?

German Bundesliga and 2nd Bundesliga



Shapefile: Natural Earth, stadium locations: Wikidata. Visualisation: Ansgar Wolsing (adapted from @VictimOfMaths).

#30DayMapChallenge 2023

Day 08 | Africa

R / ggplot2

Africa

The size of the flags indicates the population of the countries (2021)



Source: GISCO, Worldbank. Visualization: Ansgar Wolsing

How many times does Saarland fit into the other German federal states?

Saarland is the smallest of German federal states (excluding city-states). In German news media, the size of the Saarland often serves as a reference for comparing larger areas. Common examples are areas affected by wildfires, ocean plastic pollution, or oil spill in the sea. The search query "so groß wie das Saarland" (engl.: "as big as Saarland") returns over 13 million results on Google web search.



Nordrhein-Westfalen has an area
13 times as big as Saarland



Germany city-states Berlin, Bremen, and Hamburg excluded. Geometry of Saarland and state areas: NaturalEarth data. Google Web Search results retrieved April 2, 2022. Visualization: Ansgar Wolsing

#30DayChartChallenge 2022

Day 02 | Pictogram

R / ggplot2

Figma

#30DayChartChallenge 2022

Day 21 | Up/Down

R / ggplot2

Bloc Party
BLOC PARTY
@BlocParty

...

Is that a fact?



Ansgar Wolsing @_ansgar · 21. Apr. 2022

The Price of Gasoline.

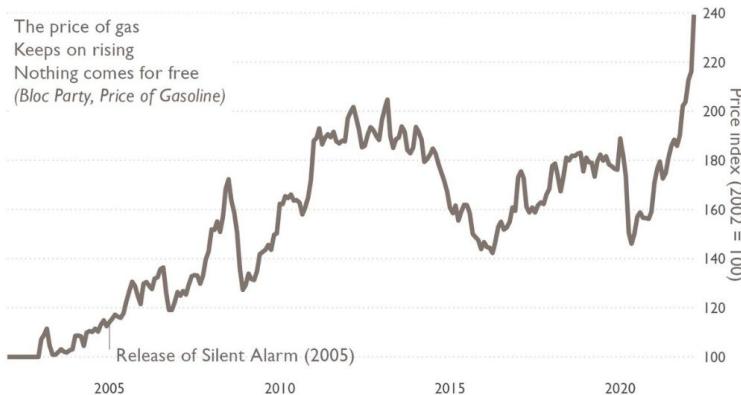
Source: Percentage change over 12 months - Petrol and Oil incl Fuel Oil, National Office for Statistics, UK (definitely an upward trend)

...

[Mehr anzeigen](#)

PRICE OF GASOLINE.

The price of gas
Keeps on rising
Nothing comes for free
(Bloc Party, Price of Gasoline)



SOURCE: Own calculations based on Percentage change over 12 months - Petrol and Oil incl Fuel Oil, National Office for Statistics, UK
VISUALIZATION: Ansgar Wolsing

4:03 nachm. · 21. Apr. 2022

12

57

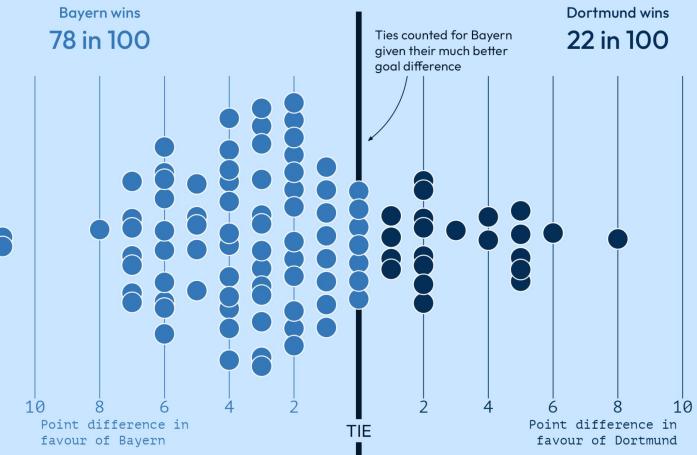
395

3

↑

Bayern is favoured to win the Bundesliga title

I simulated the remaining 5 Bundesliga match weeks 10,000 times to see who wins most often.
The sample of 100 outcomes below provides an indication of the range of scenarios.



#30DayChartChallenge 2023

Day 29 | Monochrome

R / ggplot2

spiegel.de
Matthias Stahl
(13.05.2023)

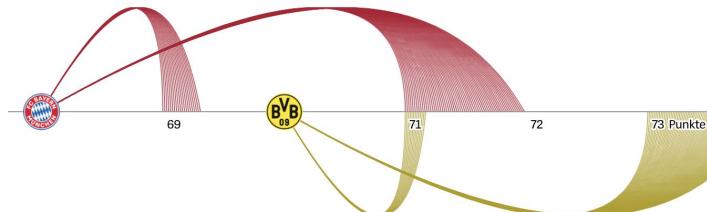
≡ SPIEGEL Sport



Knappes Rennen

100 Simulationen: So viele Punkte können die Vereine am letzten Spieltag noch erreichen – und so wahrscheinlich ist die Meisterschaft für sie.

Der FC Bayern wird in 18 von 100 Simulationen Meister.



5 Quelle: »FiveThirtyEight«, eigene Berechnungen adaptiert von Ansgar Wolsing; bei Punktegleichheit wird die Meisterschaft aufgrund des besseren Torverhältnis dem FC Bayern zugeschlagen; Stand: 21. Mai

A	B	C	D	E	F
Day	Category	Idea 1	Idea 2		
<input checked="" type="checkbox"/>	1 Points	Weather stations in Germany as points on a map, coloured by the monthly temperature records broken			
<input checked="" type="checkbox"/>	2 Lines	London Underground map - with glow.	"The Northern Line is the loudest" - Air pollution in London, Rail: Noise Pollution in London - London Datastore		
<input checked="" type="checkbox"/>	3 Polygons	Buildings in Cologne, colored by build year, facet			
<input checked="" type="checkbox"/>	4 A bad map	A map of Germany with all settlements named "Bad...". Data source: German accidents (e.g. air traffic) names at https://www.kaggle.com/datasets/alexiswilson/bad-map-names . Code: random-data-viz/palindrome-places			
<input checked="" type="checkbox"/>	5 Analog map	Brötchen			
<input checked="" type="checkbox"/>	6 Asia	Dorling cartogram of countries, area by population			
<input checked="" type="checkbox"/>	7 Navigation	Clubs in Bundesliga travelling, who has the longest and the shortest total travel distance			
<input checked="" type="checkbox"/>	8 Africa	Dorling cartogram of countries, area by population			
<input checked="" type="checkbox"/>	9 Hexagons	Steuern https://regionalatlas.statistikportal.de/	ThemenGebiet und FlächeFlächennutzung nach ALB https://regionalatlas.statistikportal.de/		
<input checked="" type="checkbox"/>	10 North America	Population density of Canada --> Kontur	Dorling cartogram FIFA World Cup 2026 - USA, Canada, Mexico - number of matches played in World Cups. Dataset: https://github.com/jfjelstul/worldcup		
<input checked="" type="checkbox"/>	11 Retro	Miami Vice colours, Bertin style using the {bertin} package			
<input checked="" type="checkbox"/>	12 South America	Brazil population density	Dorling cartogram of countries, area by population		

COLLECT IDEAS
& PLAN AHEAD

KINDERGARDENS IN COLOGNE, GERMANY

Locations of private and public kindergartens and day care centers



Data: Open Data Cologne | last update: 2022-10-29 | OpenStreetMap | Visualization: Ansgar Wolsing | Image credit: Cologne Cathedral John3 hopping.com

BUILDINGS OF COLOGNE

50°56'24"N, 6°57'36"E



Data: Open Data Cologne | last update: 2022-10-29 | OpenStreetMap contributors | Visualization: Ansgar Wolsing

Housing space in Cologne

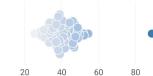
Average floor area per person (m^2)

30 40 50 60 70 80

The floor area per person is a key indicator of dwelling comfort. The average housing space in Cologne is **39.6 m^2** per person, but varies a lot between districts.

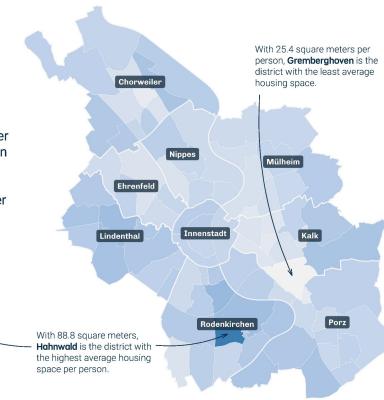
Boroughs are labelled for better orientation.

Distribution



Data: Stadt Köln (Shapes; Stadtteilinformation 2020, pp. 52-53) | Visualization: Ansgar Wolsing

With 25.4 square meters per person, **Gremberghoven** is the district with the least average housing space.



With 88.8 square meters, **Höhenwald** is the district with the highest average housing space per person.

A zoning plan is issued by the municipal authorities and provides guidelines on how a particular area can be used. It determines where housing, businesses, agricultural and commercial uses may be established. This plot shows selected land use categories.

AGRICULTURE

TRANSPORT

INDUSTRY

FORESTRY

GREEN URBAN AREA

RESIDENTIAL



Residential area
Social residential area
Railroad facilities
Airport
Green urban area
Forestry, recreational forest
Forestry with special use
Business park

Source: Municipality of Cologne, released 2016, last update 2021 | Visualization: Ansgar Wolsing

Mer stonn zo dir, FC Kölle*

Nearest (semi)-professional football teams' grounds to every point in Cologne



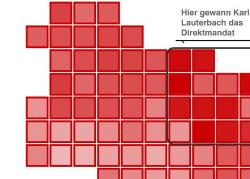
*Translation: We stand by you, FC Kölle.

Data: OpenStreetMap | Visualization: Ansgar Wolsing | Images credits: Wikipedia, the respective clubs

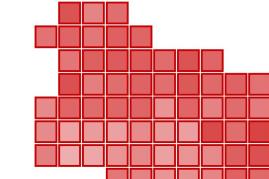
Stimmenanteile der SPD in den Kölner Stadtteilen bei der Bundestagswahl 2021

Jede Kachel repräsentiert einen Kölner Stadtteil. Je stärker die Färbung einer Kachel, desto höher der Stimmenanteil der SPD in diesem Stadtteil.

Erststimmen



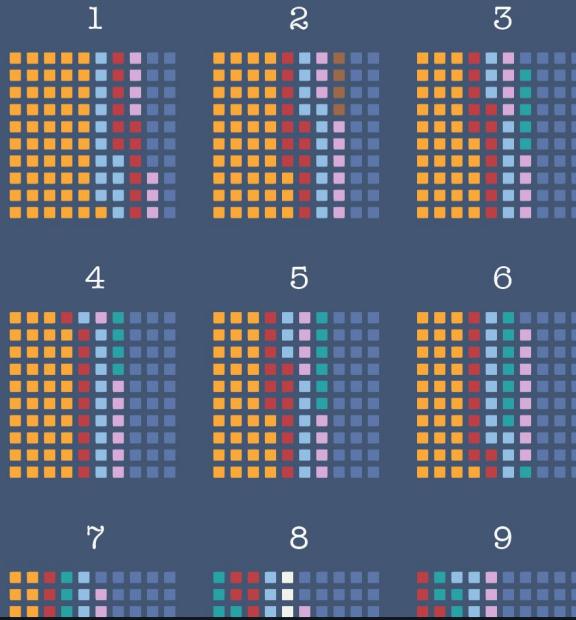
Zweitstimmen



FOCUS ON A TOPIC

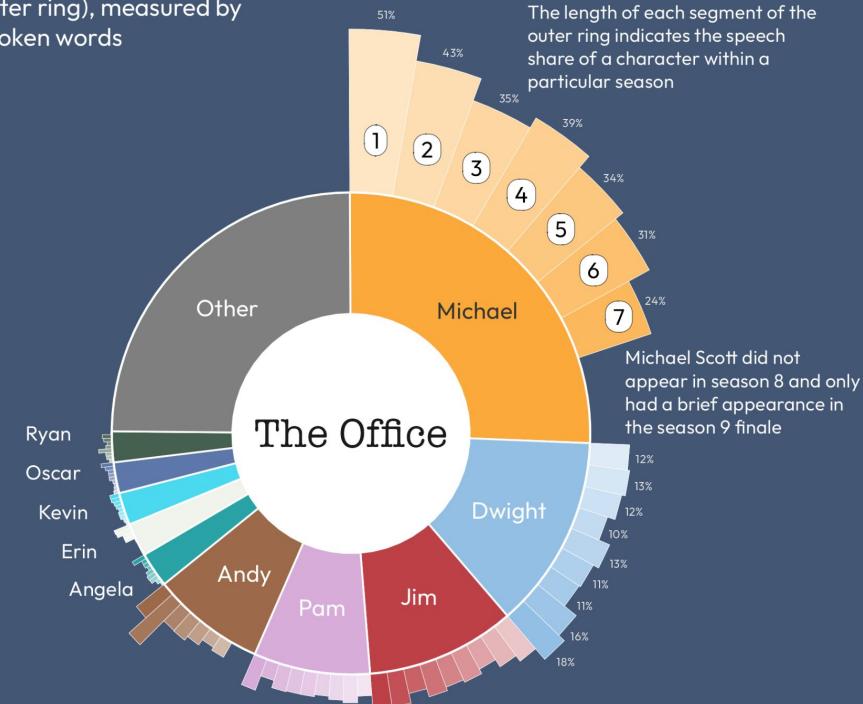
Who speaks in The Office?

The proportion of words spoken by characters in The Office by season (word count). Characters with the highest proportion of words per season are shown.



Who speaks in The Office?

Speech share by character (inner ring) and season (outer ring), measured by the share of spoken words



Source: {schrute} R package. Visualisation: Ansgar Wolsing

RE-USE DATASETS

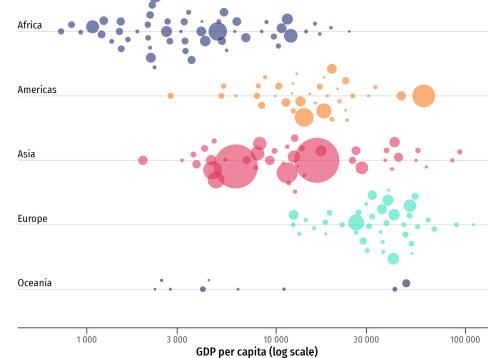
Data: {schrute} R package. Visualisation: Ansgar Wolsing

RE-USE THEMES & COLOURS

Day 12

Theme Day: The Economist

GDP per capita varies between and within continents
Measured in constant international US-\$ (logarithmic scale).
The size of the bubbles indicates population. Data from 2020



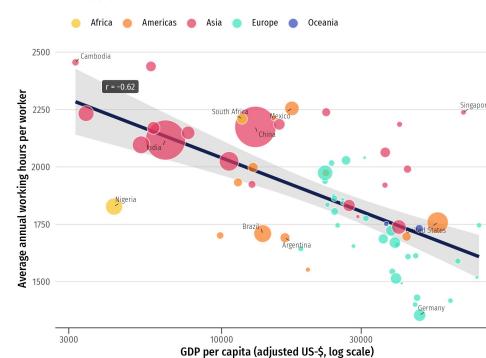
Source: Our World in Data, Worldbank. Theme: The Economist.

Day 13

Correlation

Workers in poorer countries tend to work more

Average working hours are 40 % higher in Cambodia than in the U.S., with the U.S.'s GDP per capita 17 times larger than Cambodia's.
Bubbles sized by population



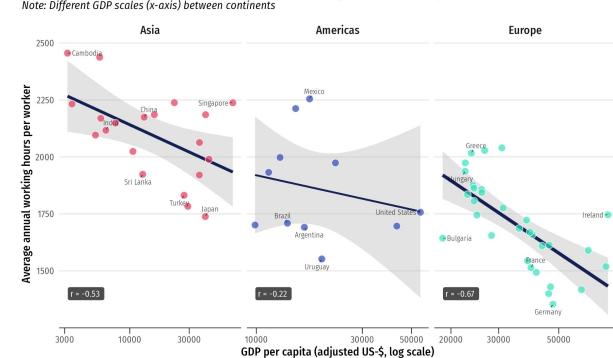
Source: Our World in Data, Feenstra et al. (2015). Theme: The Economist. Visualization: Ansgar Wölsing

Day 14

3-dimensional

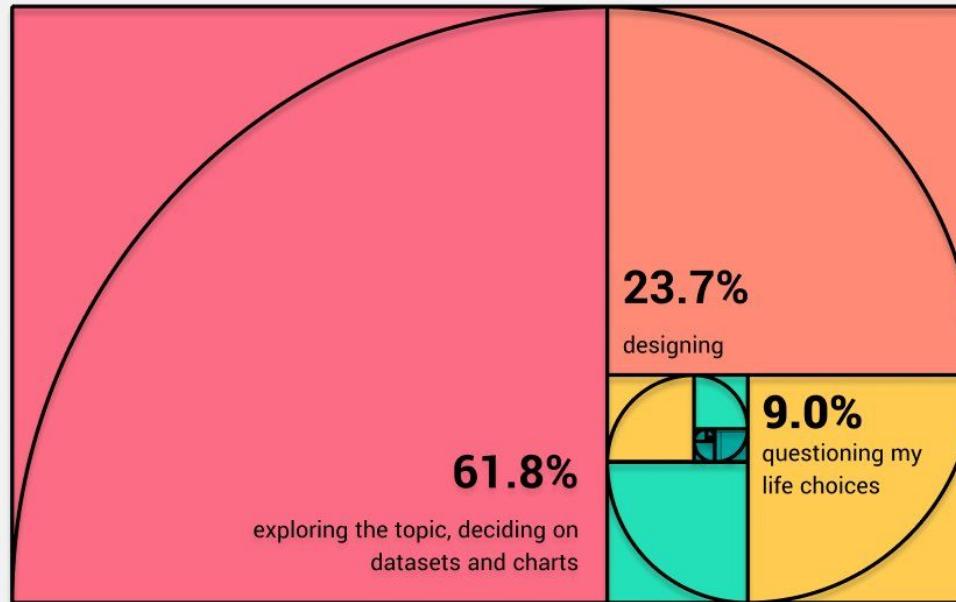
Workers in poorer countries tend to work more

But the relationship between GDP per capita and annual average working hours is stronger in Europe than in Asia and very weak in the Americas.
Trend lines indicate the direction, the thickness indicates the strength of the relationship.
Note: Different GDP scales (x-axis) between continents



Source: Our World in Data, Feenstra et al. (2015). Theme: The Economist. Visualization: Ansgar Wölsing

Golden ratio of shaping a viz

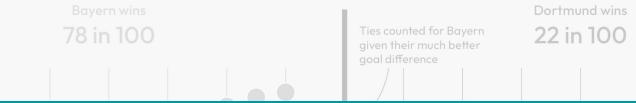


Klaudia Jankowska
#30DayChartChallenge 2021
([Twitter](#))

MAKE THE MOST OF YOUR PARTICIPATION



Bayern is favoured to win the Bundesliga title
mulated the remaining 5 Bundesliga match weeks 10,000 times to see who wins most often.
The sample of 100 outcomes below provides an indication of the range of scenarios.



Participate with your own tempo

Don't neglect data understanding and data integrity

**Share your work if you
feel comfortable with it**

Get inspired by the work of others



Write ALT texts

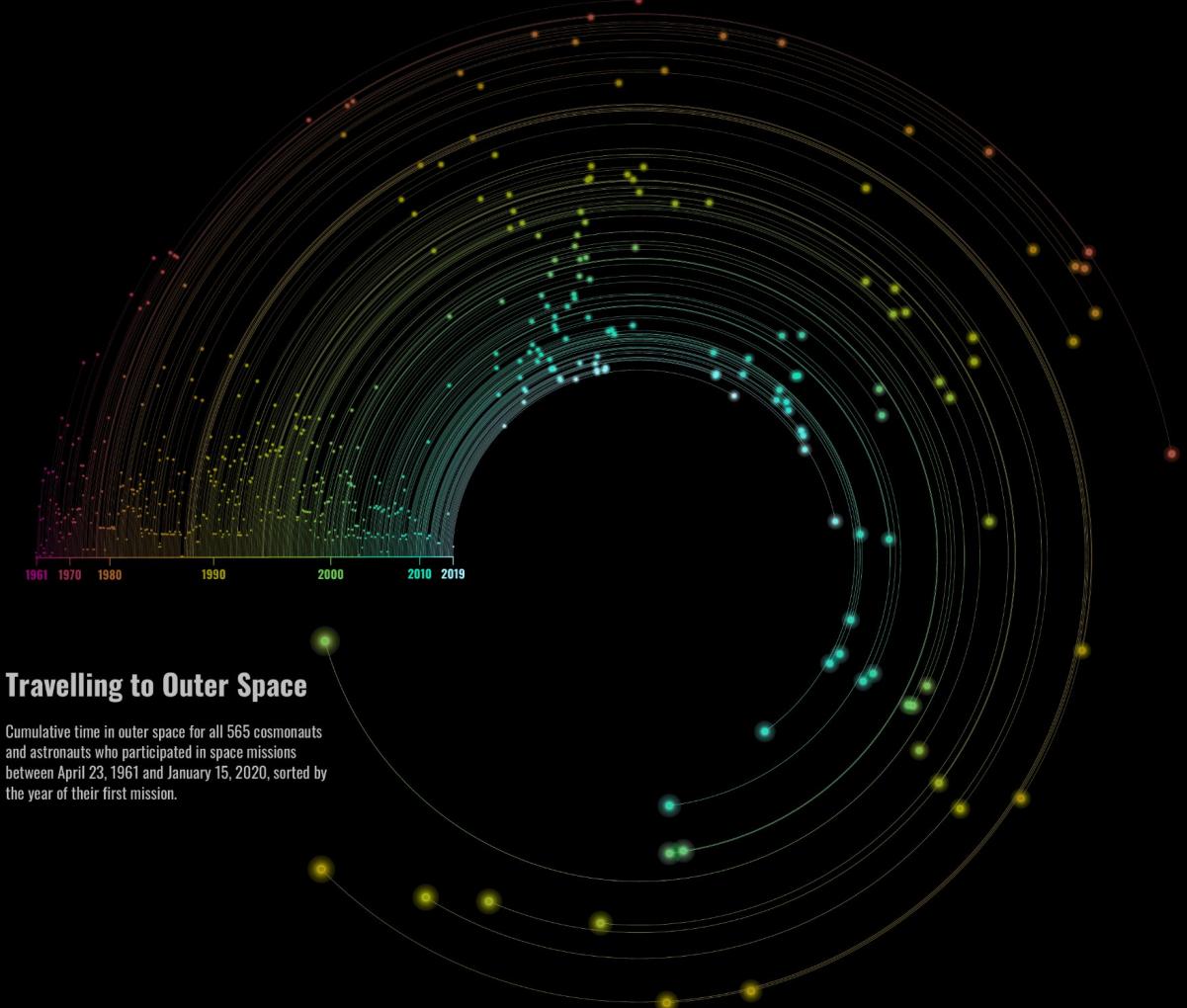
CONTRIBUTIONS FROM OTHER PEOPLE

Cédric Scherer

#TidyTuesday 2020
[\(Github\)](#)

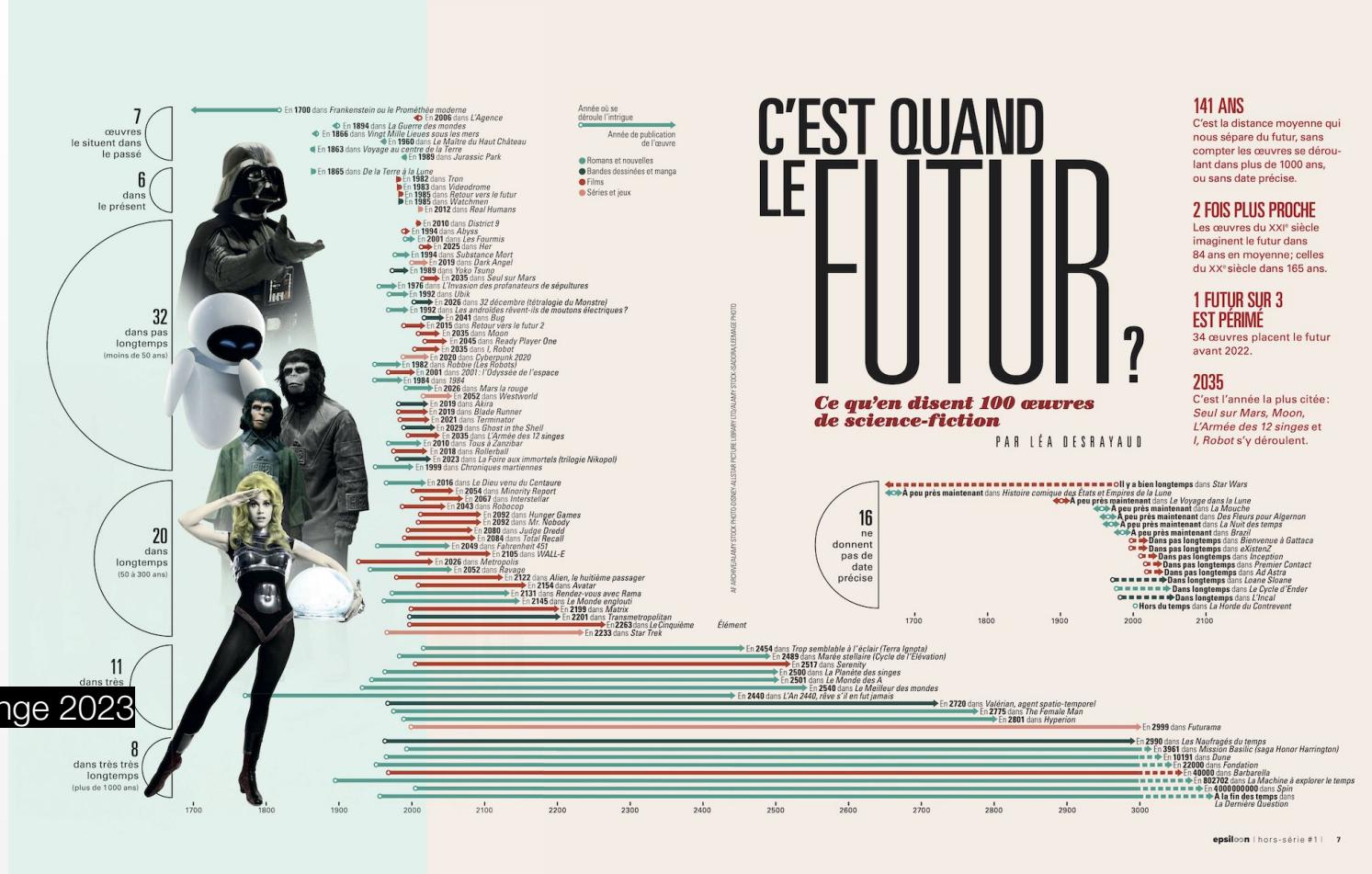
Travelling to Outer Space

Cumulative time in outer space for all 565 cosmonauts and astronauts who participated in space missions between April 23, 1961 and January 15, 2020, sorted by the year of their first mission.



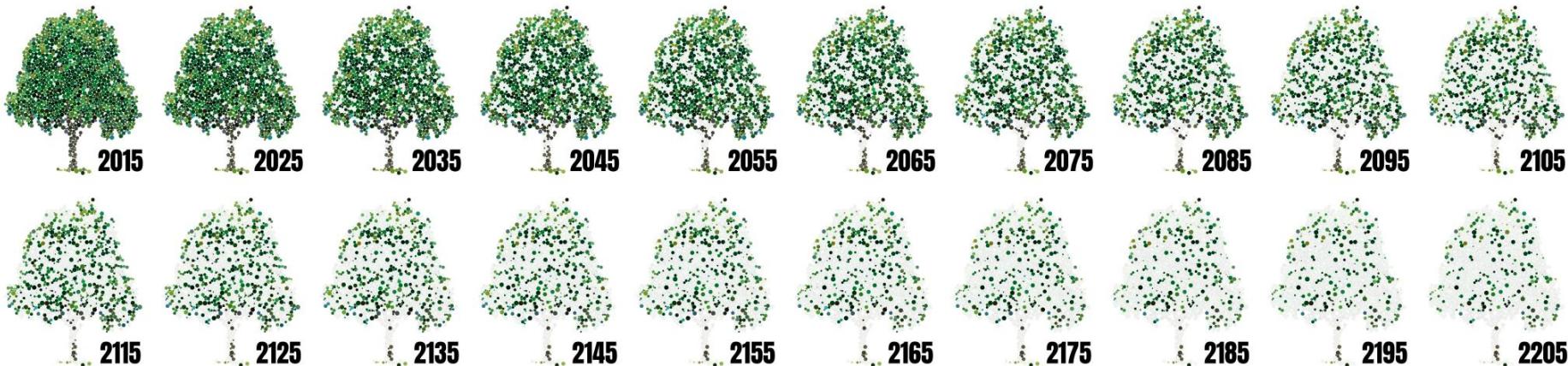
Léa Desrayaud

#30DayChartChallenge 2023
(Twitter)



Unless someone like you cares a whole awful lot, nothing is going to get better. It's not.

In a 2015 study, published in Nature, Thomas Crowther and colleagues mapped tree density across the world. They estimated that there were approximately 3.04 trillion trees in the world. The authors also estimated that over 15 billion trees are cut down each year, and the global number of trees has fallen by almost half (46%) since the start of human civilization. Each dot on the trees below represent one billion trees. Each year 15 dots are faded out to illustrate the progressive loss. At this rate, our forests will evaporate within 200 years.



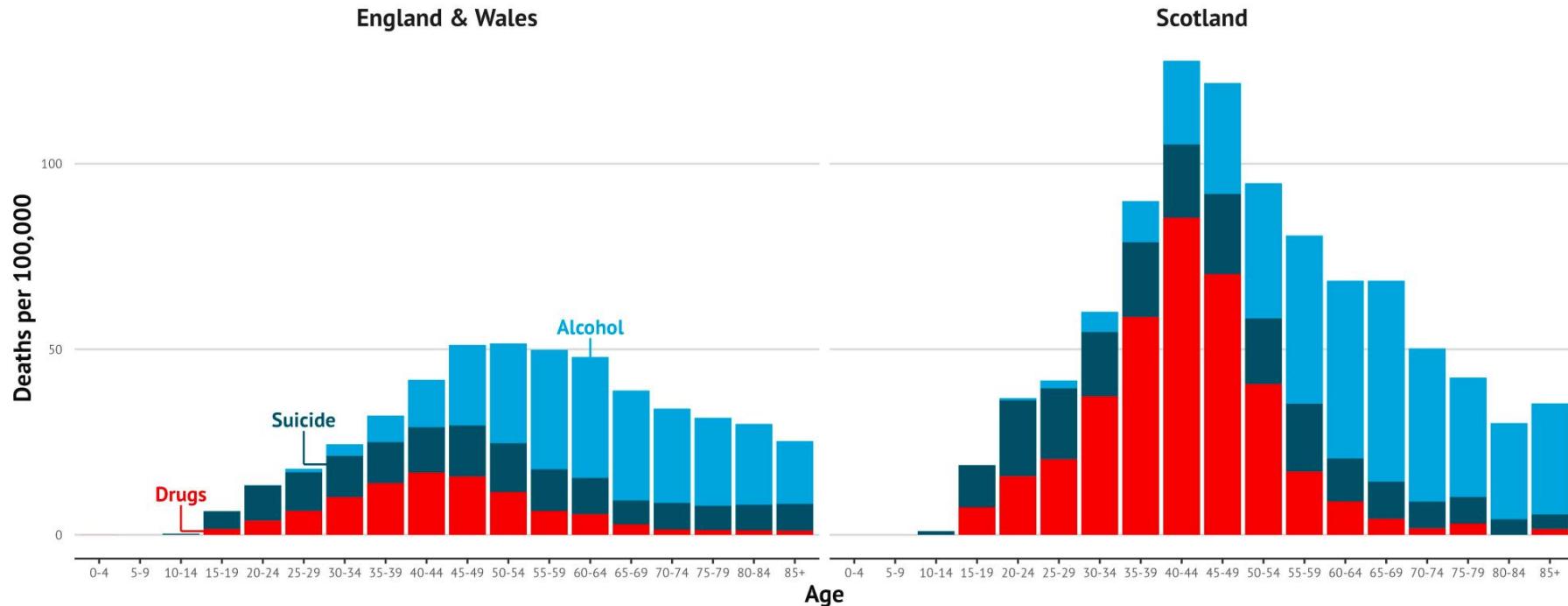
Data: ourworldindata.org/forests | Article: doi.org/10.1038/nature14967 | Graphic: @jakekaupp

Jake Kaub

#30DayChartChallenge 2021

Scotland has a drug deaths problem

Deaths from alcohol, suicide and drugs in 2019



Source: ONS & NRS

Colin Angus
#30DayChartChallenge 2022
([Twitter](#))

KAISER X LABS IS HIRING

Senior UX Researcher
(m/f/d)

Senior UX/UI Designer
(m/f/d)



**KAISER X
LABS**

kaiser-x.com/career

Talk to me

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<https://github.com/bydata>

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<https://www.linkedin.com/in/ansgar-wolsing/>
