

#30DayChartChallenge

April 2022 • 30 Days • 30 Charts • 5 Categories



Comparisons



Distributions



Relationships



Timeseries



Uncertainties

Cédric Scherer & Marco Sciaini

Observable Special Event | May 2nd 2022

Follow @30DayChartChall for more!

Dominic Royé
@dr_xeo
Initiator



Cédric Scherer
@CedScherer
Initiator

Wendy Shijia
@ShijiaWendy
Support



Marco Sciaiani
@shinysci
Support

#30DayMapChallenge

- 
- 1. Points
 - 2. Lines
 - 3. Polygons
 - 4. Hexagons(!)
 - 5. Raster
 - 6. Blue
 - 7. Red
 - 8. Green
 - 9. Yellow
 - 10. Black and white
 - 11. Elevation
 - 12. Movement
 - 13. Tracks
 - 14. Boundaries
 - 15. Names
 - 16. Places
 - 17. Zones
 - 18. Globe
 - 19. Urban
 - 20. Rural
 - 21. Environment
 - 22. Built environment
 - 23. Population
 - 24. Statistics
 - 25. Climate
 - 26. Hydrology
 - 27. Resources
 - 28. Funny
 - 29. Experimental
 - 30. Home

...



Topi Tjukanov
@tjukanov

Announcing #30DayMapChallenge in November 2019!
Create a map each day of the month with the following
themes



No restriction on tools. All maps should be created by
you. Doing less than 30 maps is fine.

#gischat #geography #cartography #dataviz

2:53 PM · Oct 25, 2019 · Twitter Web App

309 Retweets 117 Quote Tweets 820 Likes

#30DayMapChallenge

- 1. Points
- 2. Lines
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- 4. Hexagons(!)
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- 1. Points
- 2. Lines
- 3. Polygons
- 4. Hexagons
- 5. Blue
- 6. Red
- 7. Green
- 8. Yellow
- 9. Monochrome
- 10. Grid

- 11. Elevation
- 12. Movement
- 13. Tracks
- 14. Boundaries
- 15. Names
- 16. Places
- 17. Zones
- 18. Globe
- 19. Urban
- 20. Rural

- 21. Environment
- 22. Built environment
- 23. Population
- 24. Statistics
- 25. Climate
- 26. Hydrology
- 27. Resources
- 28. Funny
- 29. Experimental
- 30. Home

#30DayMapChallenge

November 2020

- 11. 3D
- 12. Map not made with GIS software
- 13. Raster
- 14. Climate change
- 15. Connections
- 16. Island(s)
- 17. Historical map
- 18. Landuse
- 19. NULL
- 20. Population

- 21. Water
- 22. Movement
- 23. Boundaries
- 24. Elevation
- 25. COVID-19
- 26. Map with a new tool
- 27. Big or small data
- 28. Non-geographic map
- 29. Globe
- 30. A map



Topi Tjukanov @tjukanov · Nov 29, 2020

One day left of #30DayMapChallenge. Should it be next year...

Same. 30 maps in 30 days

51.1%

15 maps in 30 days

36.1%

Something else. What?

12.8%

366 votes · Final results



18



8



35



Dominic Royé

@dr_xeo

Replying to @tjukanov

Is there already a corresponding
#30dayschartchallenge?

7:34 PM · Nov 30, 2020 · Twitter for Android

2 Likes



Topi Tjukanov @tjukanov · Nov 30, 2020

Replying to @dr_xeo

The hashtag seems to be empty, so I guess not.



1



1



1



Dominic Royé @dr_xeo · Nov 30, 2020

So, when should we do the first chart challenge? Someone else interested?
@CedScherer? 😊



Visual vocabulary

Designing with data

There are so many ways to visualise data - how do we know which one to pick? Use the categories across the top to decide which data relationship is most important in your story, then look at the different types of chart within the category to form some initial ideas about what might work best. This list is not meant to be exhaustive, nor a wizard, but is a useful starting point for making informative and meaningful data visualisations.

FT graphic design team. © The Financial Times Ltd. 2013. Liz Faunce, Graham Parrish, Billy Ehrenberg-Shannon, Paul McCallum, and Martin Stabe

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 ft.com/vocabulary

Deviation	Correlation	Ranking	Distribution	Change over Time	Magnitude	Part-to-whole	Spatial	Flow
Deviation Emphasise deviations or to have a fixed reference point. Typically the spread between two values or the difference in a long-term average. Can also be used to highlight outliers.	Correlation Show the relationship between two or more variables that aren't causally related. The methods to show correlation can also be used to highlight the points of interest.	Ranking Use when there are no variables in an ordered list. In order to express that something is better than another, you will reverse the order of the ranking to highlight the points of interest.	Distribution Show values in a dataset and how often they occur. The shape (or 'bias') of a distribution can be used to highlight the lack of uniformity or regularity in the data.	Change over Time Give attention to changing trends. There can be a single trend or multiple trends. Paying attention to changing trends is especially important to highlight subtle content like seasonal trends.	Magnitude Show large differences. These can be either large gaps between individual data points or large differences between the total (or 'sum') of all components. Usually these have a massive impact on the total value, so it's often better to consider the magnitude type than chart.	Part-to-whole Show how a single entity can be broken down into its component parts. The size of each component part depends on the size of the whole entity.	Spatial Audit from location to area, used when precise location information is important to the reader than anything else.	Flow Show the linear sequence or intensity of movement between three nodes or locations. Used when the sequence or path is more important than geographical locations.
Example FT uses Influence of climate change	Example FT uses Influence and unemployment, income and expenditure	Example FT uses Incomes, luxury, luxury tables, commodity export results	Example FT uses Income distribution, population distribution, existing inequality	Example FT uses Share price movements, economic time series, financial managers in market	Example FT uses Commodity production, market concentration, variation in demand	Example FT uses Natural resources, national election results	Example FT uses Population density, natural resource distribution, variation in election results	Example FT uses However of funds, trade migrants, international remittance graphs
Dotting bar  A simple standard bar chart that can handle categorical and numerical values.	Scatterplot  Show the relationship between two variables that are measured on their own axes.	Ordered bar  Standard bar charts display the ranks of variables in an ordered list, such as a ranking of countries by GDP.	Histogram  The standard way to show a distribution of data. The bars represent bins of data, with the height of each bar signifying the range of the data.	Line  The standard way to show a changing trend over time. The line segments represent data points.	Calipers  Calipers work well for showing change over time, especially if data across multiple categories.	Stacked bar  A simple way of showing the relative contribution of multiple components to the same total.	Bar  See above. Good when data are not time dependent and when categories names are short.	Basic choropleth (material)  The standard approach for publishing data on a map. It's good for highlighting areas that are more than a few components.
Emerging stacked bar  Perfect for presenting survey results which include both categorical and geographical data.	Column + Size timeline  A good way of showing the relationship between an amount (represented by the size of the column) and time.	Ordered columns  See above.	Dot year  A simple way of showing the change of a variable over time across multiple categories.	Dot strip plot  Good for showing data that is relatively small, such as a problem when the data is too large to fit on the same scale.	Dot chart  Dot plots are a great method of showing data across multiple categories.	Calipers  The standard way to compare the size of two or more components of the same total.	Marimekko  A good way of showing the size and proportion of two or more components of the same total.	Waterfall  Designed to show the sequence of data flows from one condition to another, particularly for complex processes.
Spine  Spines are a great way of showing the relationship between two variables.	Connected scatterplot  Used to show how the relationship between two variables has changed over time.	Column + Size  Like a scatterplot, but adds another detail dimension by adding a third variable.	Surfaces/filter  The standard way of showing data that has a third dimension, after a scatter plot, between two series.	Bubble  Like a scatterplot, but adds another detail dimension by adding a third variable.	XY heatmap  A good way of showing the patterns between two variables. This is especially effective at showing the differences in amounts.	Dot above  Like dot year, but for showing the change of a variable over time.	Dot line  A great way of showing a changing trend over time, especially if data across multiple categories.	Dot chart (material)  The standard approach for publishing data on a map. It's good for highlighting areas that are more than a few components.
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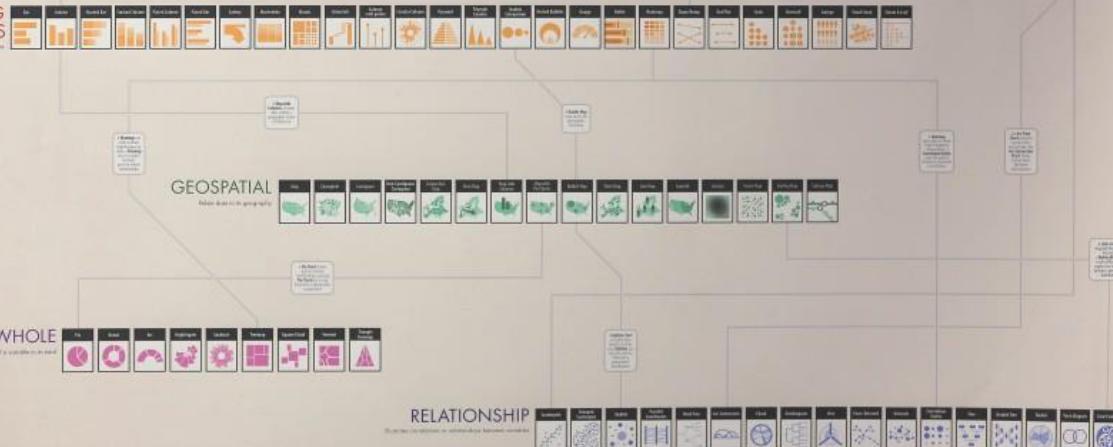
THE GRAPHIC CONTINUUM

The Graphic Continuum shows several ways that data can be illustrated individually or combined to show relationships. Use of various shapes, chart types, and colors can help identify patterns, tell stories, and reveal relationships between different sets and types of data. Box charts, or histograms, for example, can illustrate a distribution of data over time, but they also can show categorical or geographic distributions. Box charts can also show data from a single dimension or, for a period, but they also can be used to identify a distribution, around a mean.

This is not a chart or exhaustive list, nor do the connections represent every possible pathway for linking data and ideas. Instead, The Graphic Continuum identifies seven presentation methods, and it illustrates some of the connections that can link different representations together. The six groups do not define all possibilities. Many other useful, overlapping data types and visualization techniques are possible.

This chart can guide graphic choices, but your imagination can lead the way to other effective ways to present data.

COMPARING CATEGORIES



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www.jonathanschwabisch.com

"The Graphic Continuum" by Jonathan Schwabisch and Severino Ribecca

#30DayChartChallenge

April 2022 • 30 Days • 30 Charts • 5 Categories



Comparisons

Distributions

Relationships

Timeseries

Uncertainties

- | | | | | |
|----------------------|---------------------------------|-----------------------|-----------------------------------|--------------------------------|
| 1. part-to-whole | 7. physical | 13. correlation | 19. global change | 25. trend |
| 2. pictogram | 8. mountains | 14. 3-dimensional | 20. new tool | 26. interactive |
| 3. historical | 9. statistics | 15. multivariate | 21. down/upwards | 27. future |
| 4. flora | 10. experimental | 16. environment | 22. animation | 28. deviations |
| 5. slope | 11. circular | 17. connections | 23. tiles | 29. storytelling |
| 6. data day:
OWID | 12. theme day:
The Economist | 18. data day:
OECD | 24. theme day:
Financial Times | 30. data day:
UN Population |

Follow @30DayChartChall for more!

30DayChartChallenge.org

The **#30DayChartChallenge** is a community-driven event with the goal to create a data visualization on a certain topic each day of April.

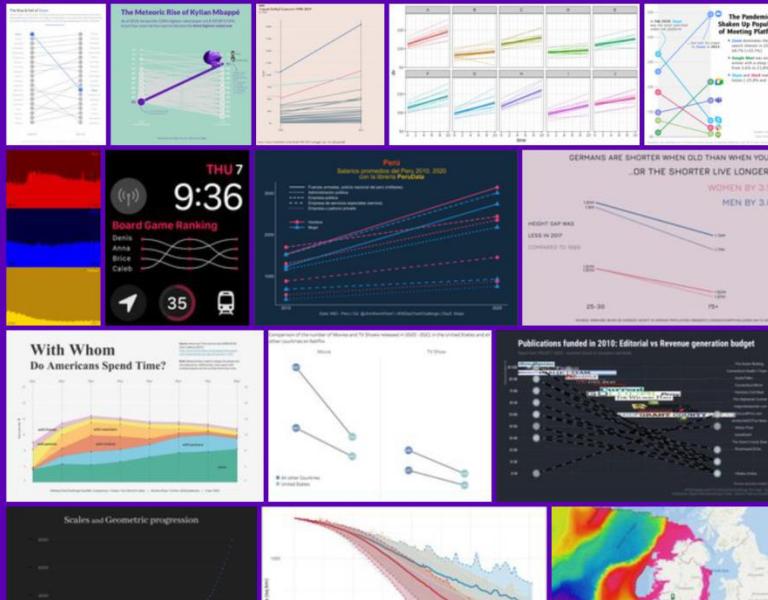
2022

About

30DayChartChallenge.org

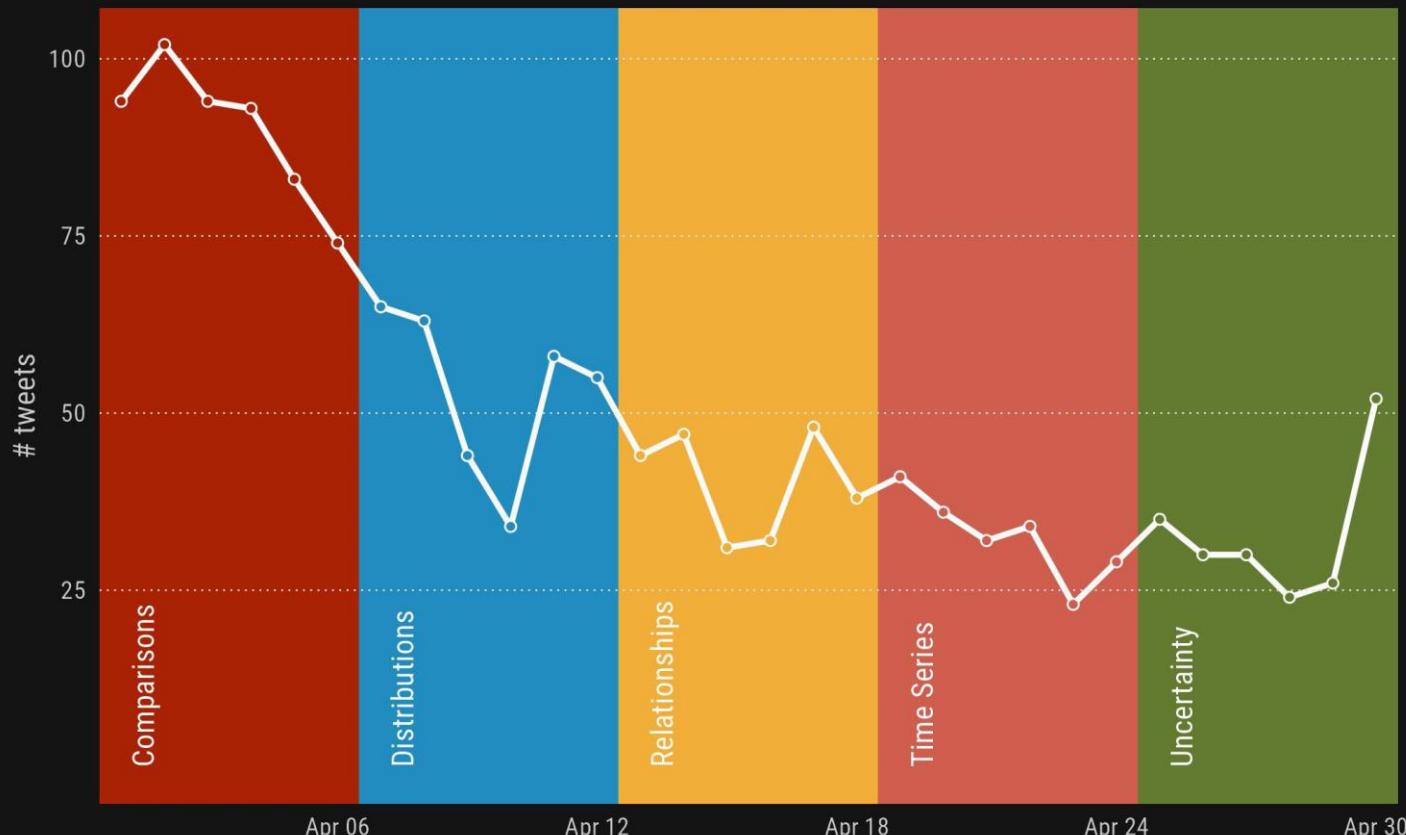
2022

All contributions to the 2nd edition shared on Twitter with #30DayChartChallenge.



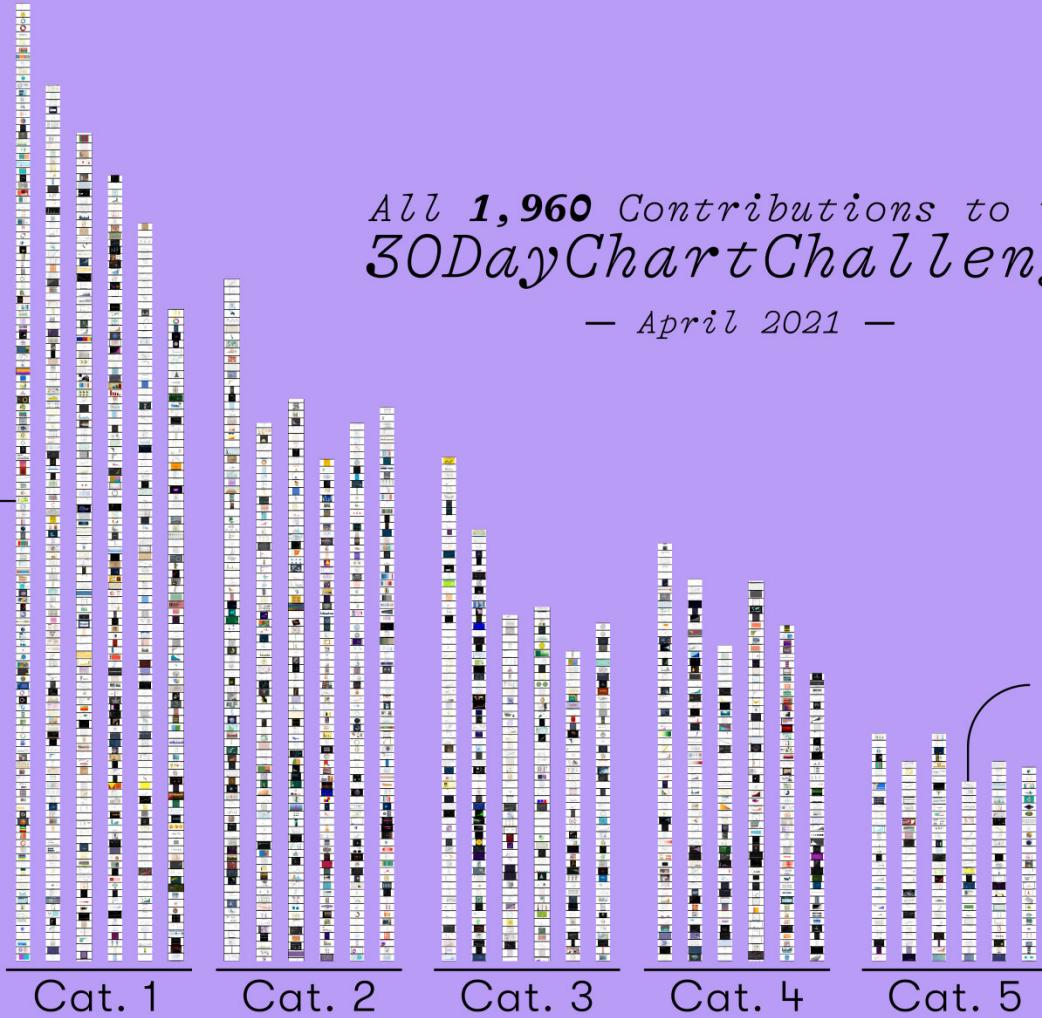
Contributions to #30DayChartChallenge 2022

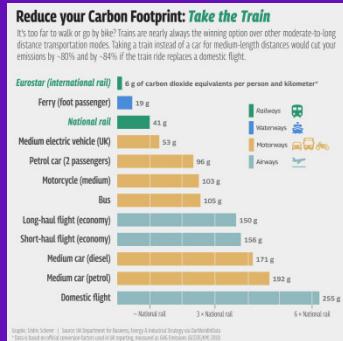
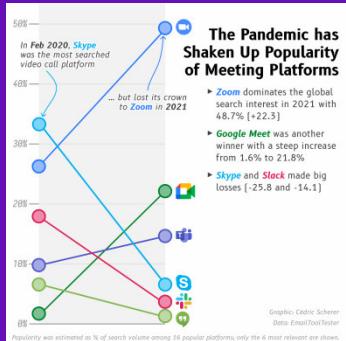
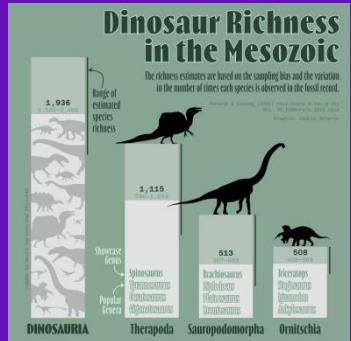
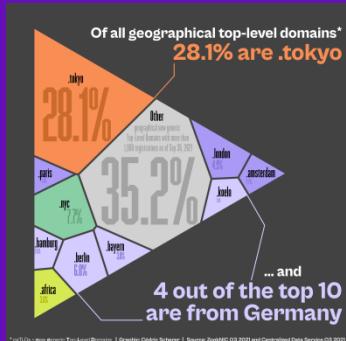
Number of tweets per day with a media URL (excl. retweets)



Source: Twitter Search API | Visualization: Ansgar Wolsing

Day 1: Part-to-Whole
Overwhelming start with
135 contributions





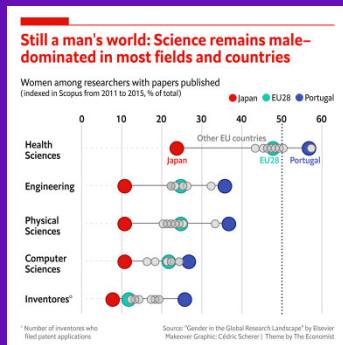
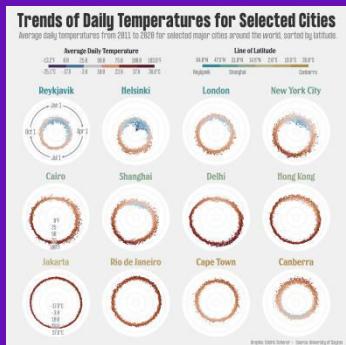
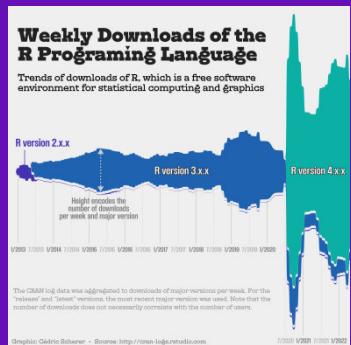
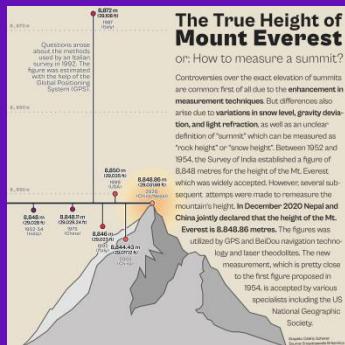
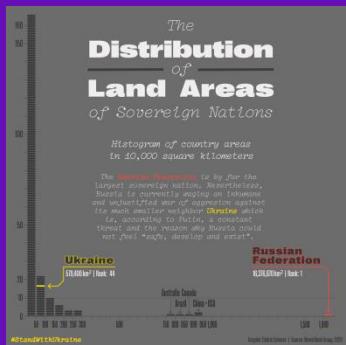
Part-to-Whole

Pictogram

Historical

Slope

OWID Data



Physical

Mountains

Statistical

Circular

Economist Theme

State Soils of the USA

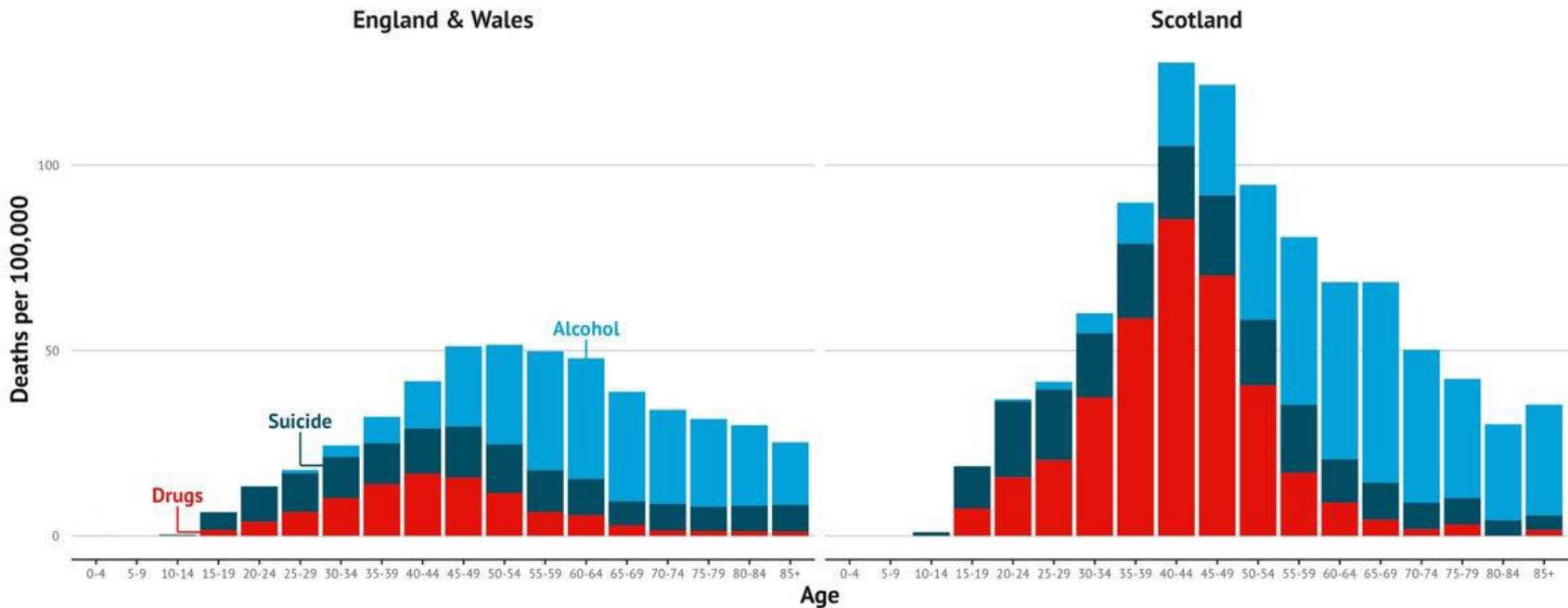


@priyamisner

Comparisons: Mountains by Priya Misner | [Observable Notebook](#) | 595 Likes + 131 Retweets

Scotland has a drug deaths problem

Deaths from alcohol, suicide and drugs in 2019



Source: ONS & NRS

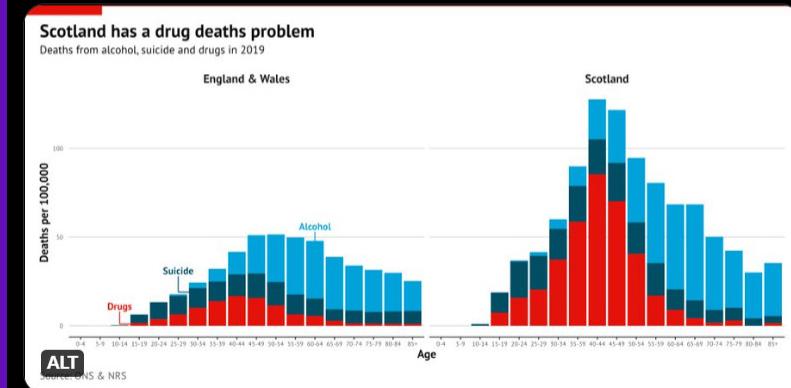


Colin Angus
@VictimOfMaths

...

I posted this graph yesterday as part of the #30DayChartChallenge and a few people have asked some reasonable questions about why I chose to present this data in this way.

So I thought I'd write a thread to explain my thought process...



2:35 PM · Apr 13, 2022 · Twitter Web App

100 Retweets 47 Quote Tweets 565 Likes

Distributions: The Economist Theme by Colin Angus | [Thread](#) | 565 Likes + 147 Retweets

Days it Rained in 2020



@priyamisner

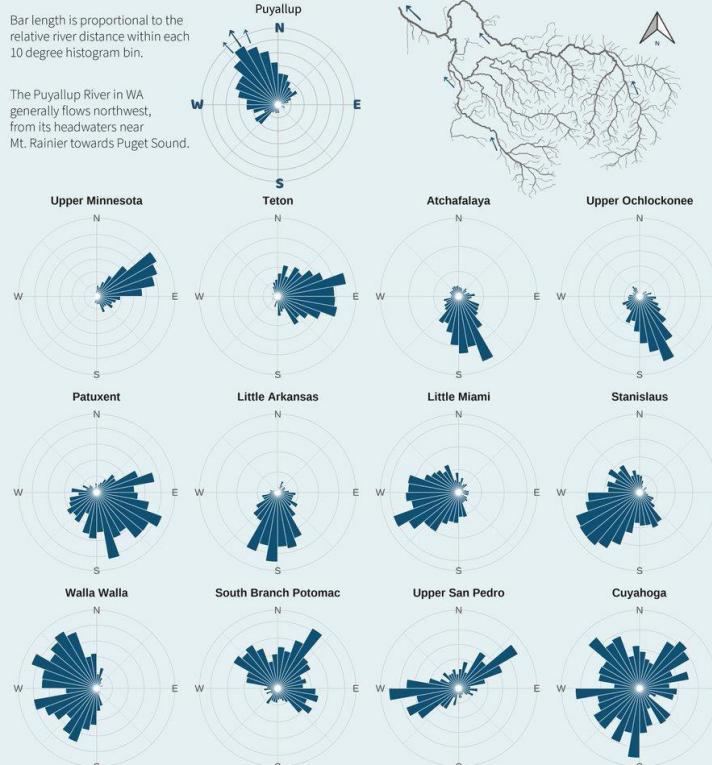
Distributions: Physical by Priya Misner | Knitting | 551 Likes + 73 Retweets

The way the river flows

The relative distance travelled by flow direction across select U.S. watersheds.

Bar length is proportional to the relative river distance within each 10 degree histogram bin.

The Puyallup River in WA generally flows northwest, from its headwaters near Mt. Rainier towards Puget Sound.



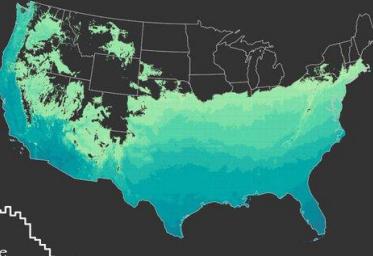
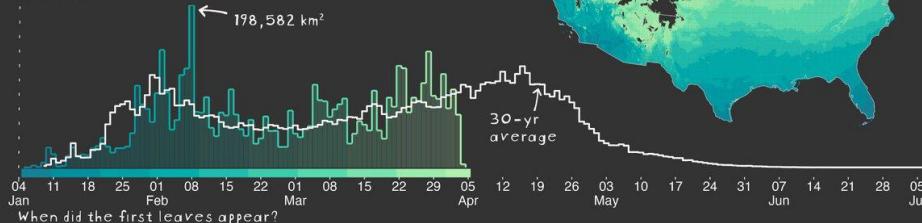
Lauren Koenig, USGS
Data: USGS National Hydrography Dataset

Distributions: Circular by USGS Data Science (Lauren Koenig) | [Rstats](#) | 532 Likes + 137 Retweets

Spring has sprung

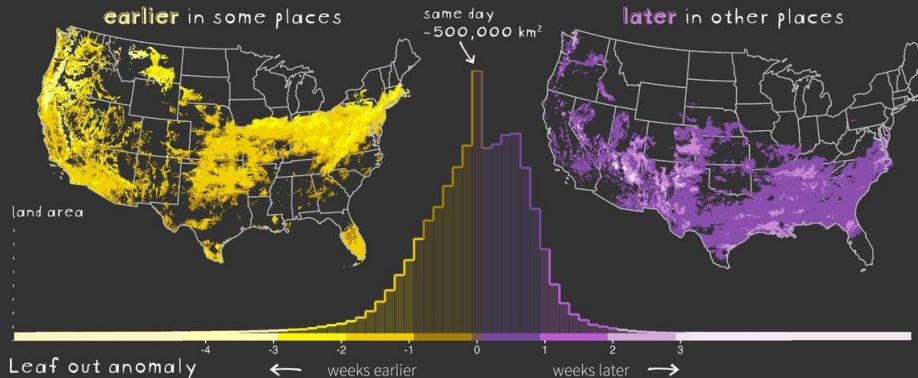
Timing of spring leaf out in the contiguous U.S.
as of April 4th, 2022

land area



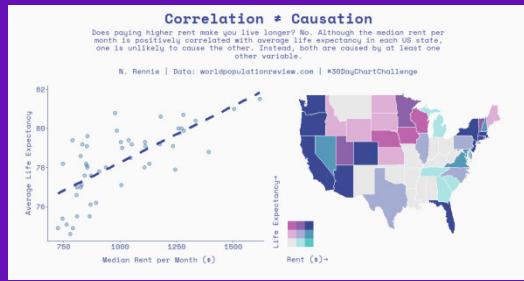
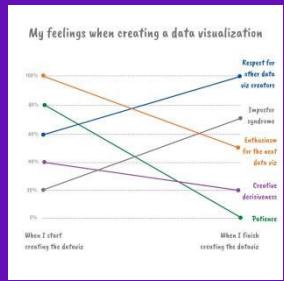
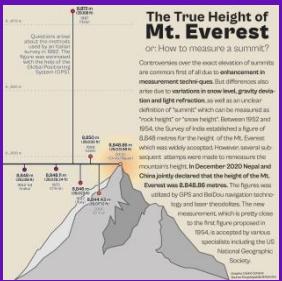
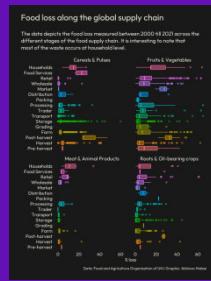
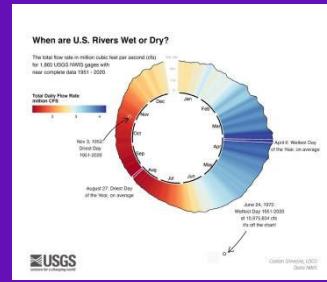
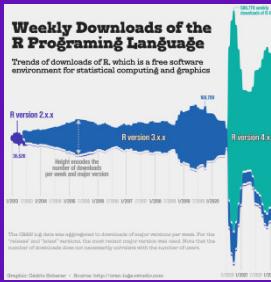
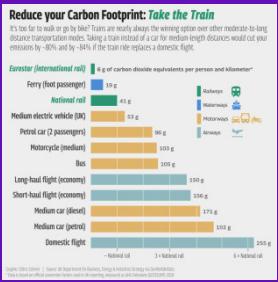
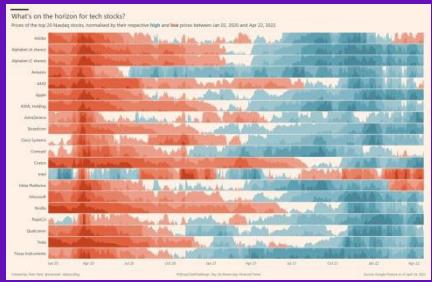
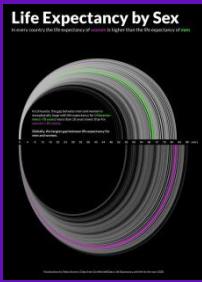
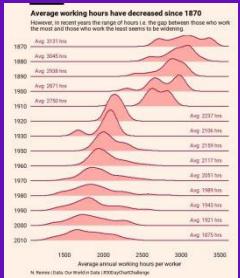
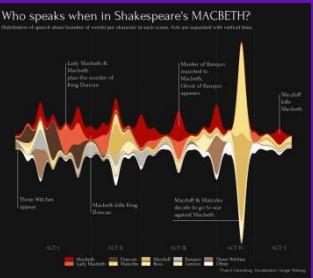
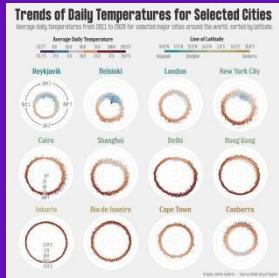
Compared to the 30-year average (1991-2020), **2022 spring leaf out** has been

earlier in some places

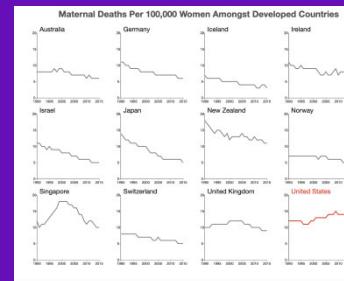
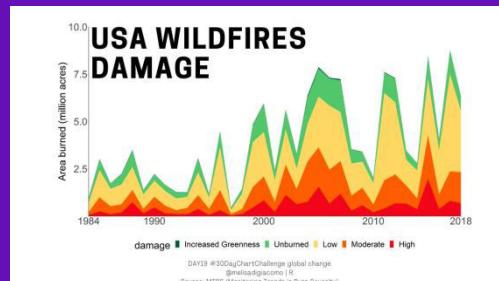
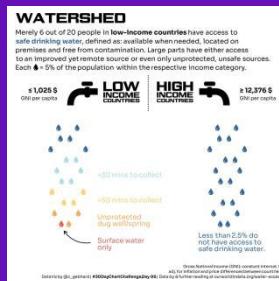
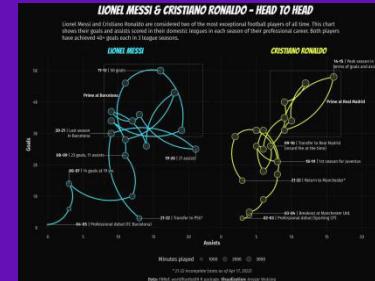
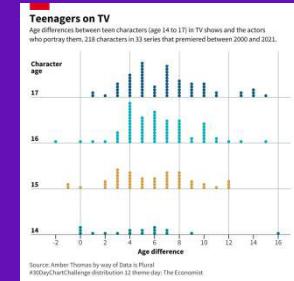
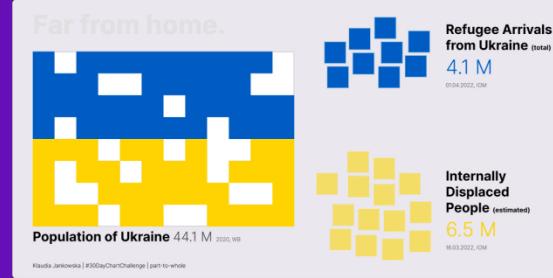
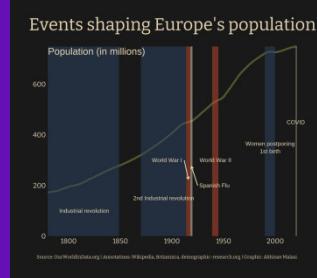
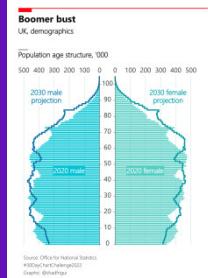


Data: USA National Phenology Network. 2022. First Leaf – Spring Index and Daily Spring Index Leaf Anomaly
as of 04/04/2022 for the contiguous U.S. USA-NPN, Tucson, Arizona, USA. <http://dx.doi.org/10.5066/F7SN0723>

Comparison: Flora by USGS Data Science (Cee Nell) | [Rstats](#) | 371 Likes + 105 Retweets



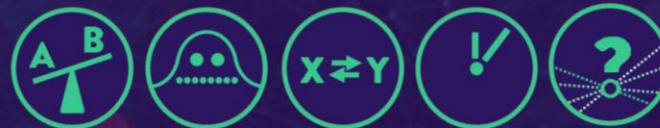
Ranks 6-20 by Likes



Some Favorite Picks from the #30DayChartChallenge Crew

The First #30DayChartChallenge

A Summary of Inspiring Contributions, Our Learnings,
and About the Value of Challenges in General



Dr. Cédric Scherer • Data Visualization Lisboa • May 20 2021

@CedScherer • @DatavisLisboa • #vislis

THE VALUES AND CHALLENGES OF DATA(VIZ) CHALLENGES

1

Get out of your comfort zone

2

Get inspired, get creative

3

Get feedback and support

4

Get new friends and connections

5

Get the data (ready)

6

Get it out!

@CedScherer
cedricscherer.com

@30daychartchall
#30DayChartChallenge

Thank you!



Slides:

cedricscherer.com/slides/

Oberservable_30DayChartChallenge2022.pdf