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

#30DayChartChallenge

— April 2021 —

30 Days • 30 Charts • 5 Categories

comparisons

distributions

relationships

timeseries

uncertainties

A Data Visualization Challenge by Dominic Royé and Cédric Scherer

Cédric Scherer

cedricscherer.com

Scientist

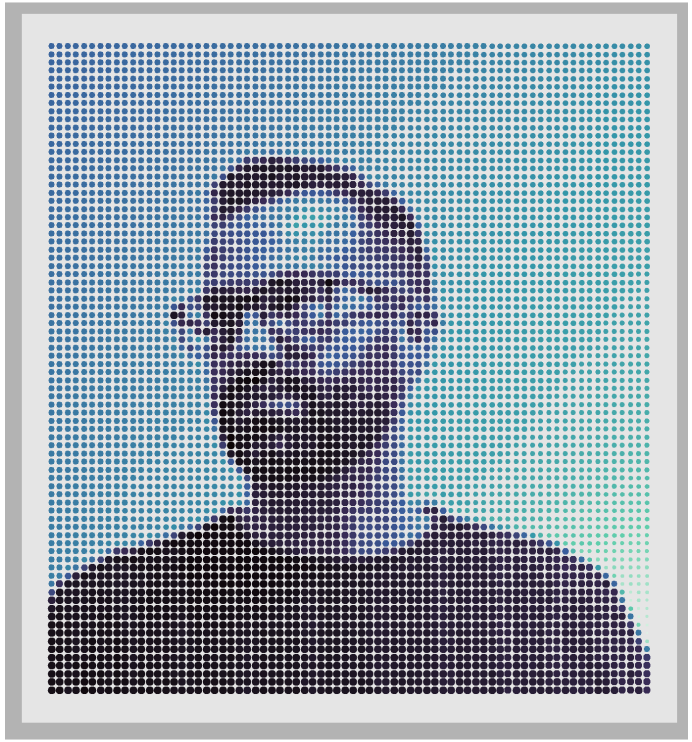
PostDoc in Computational Ecology
@ Leibniz Institute for Zoo and Wildlife Research

↠ *Analyses, visualization, geodata, reproducible workflows – all in R!*

DataViz Designer

Freelancing Data Visualization Specialist/Consultant/Instructor

↠ *Visualization, cartography, reproducible workflows, workshops*



Cédric Scherer

cedricscherer.com

Dominic Royé

dominicroye.github.io

#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

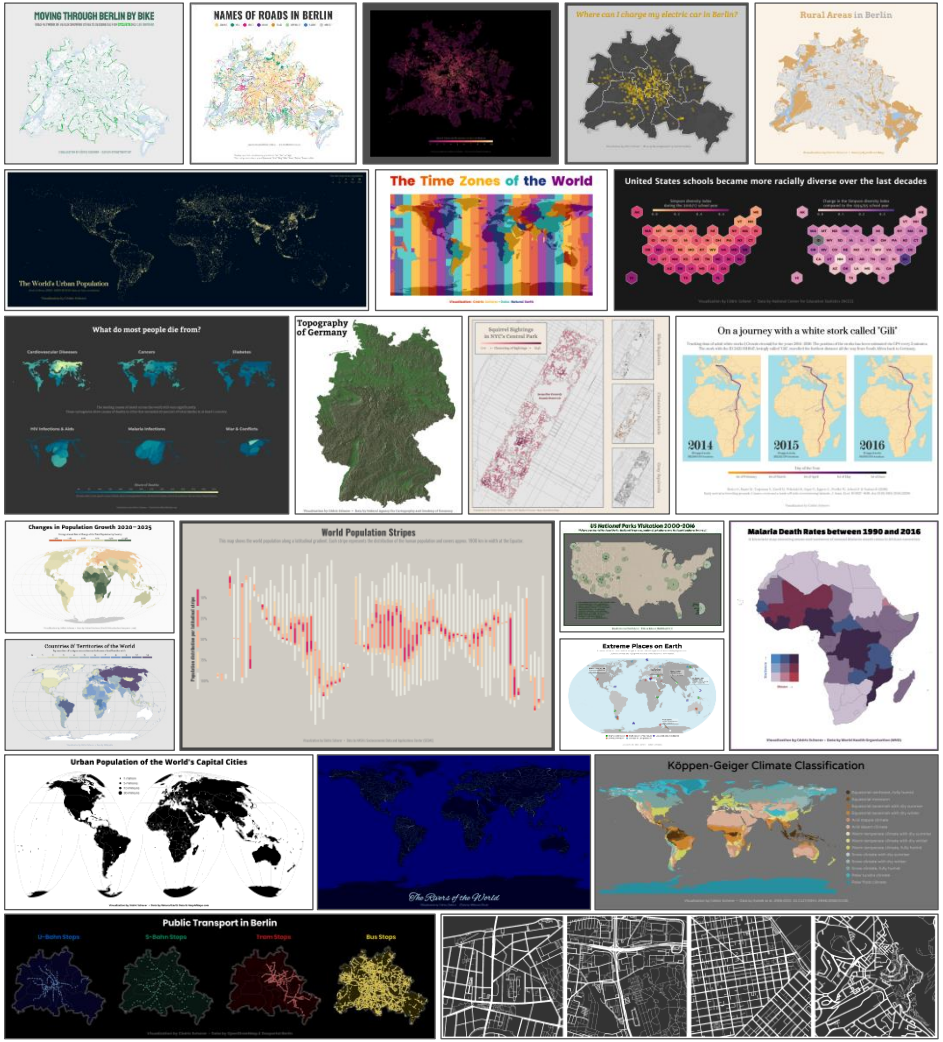
Announcing #30DayMapChallenge in November 2019! Create a map each day of the month with the following themes 🌍🌎🌏

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



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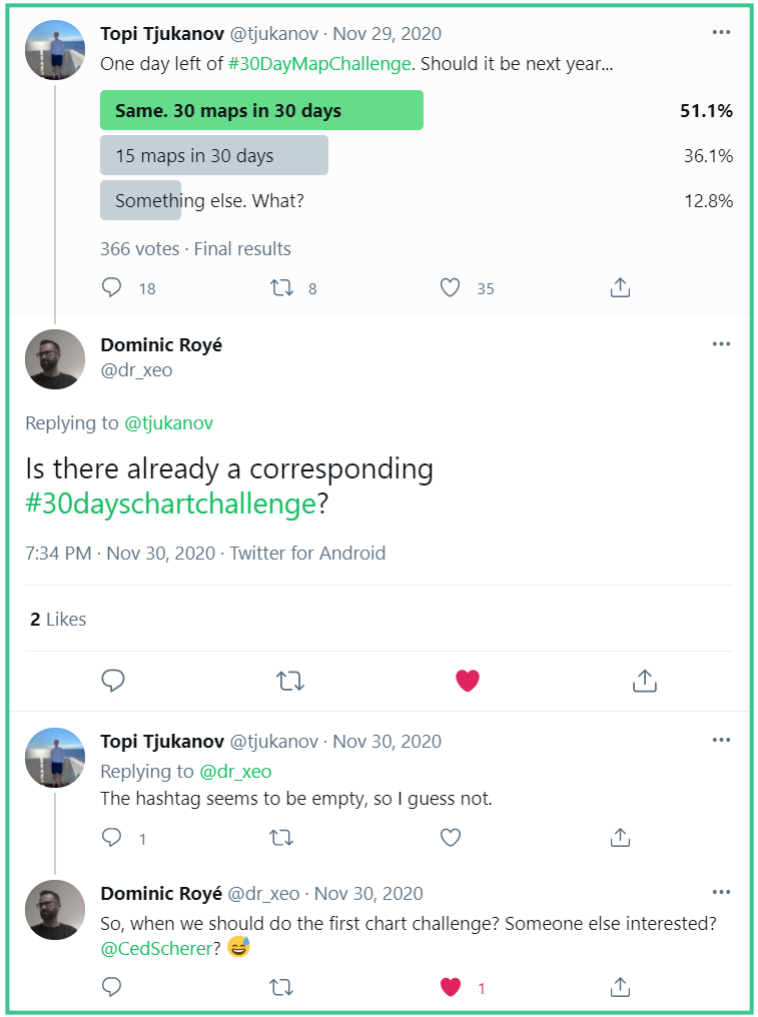
#30DayMapChallenge

November 2020

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



Deviation

Emphasise variations (+/-) from a fixed reference point. Typically the reference point is zero but it can also be a target or a long-term average. Can also be used to show sentiment (positive/neutral/negative).

Example FT uses
Trade surplus/deficit, climate change

Diverging bar
A simple standard bar chart that can handle both negative and positive magnitude values.

Diverging stacked bar
Perfect for presenting survey results which involve sentiment (eg disagree/neutral/agree).

Spine
Splits a single value into two contrasting components (eg male/female).

Surplus/deficit filled line
The shaded area of these charts allows a total to be clearly shown - either against a baseline or between two series.

Correlation

Show the relationship between two or more variables. Be mindful that, unless you tell them otherwise, many readers will assume the relationships you show them to be causal (ie. one causes the other).

Example FT uses
Inflation and unemployment, income and life expectancy

Scatterplot
The standard way to show the relationship between two continuous variables, each of which has its own axis.

Column + line timeline
A good way of showing the relationship between an amount (columns) and a rate (line).

Connected scatterplot
Usually used to show how the relationship between 2 variables has changed over time.

Bubble
Like a scatterplot but adds additional detail by sizing the circles according to a third variable.

XY heatmap
A good way of showing the patterns between 2 categories of data. Less effective at showing fine differences in amounts.

Ranking

Use where an item's position is an ordered list is more important than its absolute or relative value. Don't be afraid to highlight the points of interest.

Example FT uses
Wealth, deprivation, league tables, constituency election results

Ordered bar
Standard bar charts display the ranks of values much more easily when sorted into order.

Ordered column
See above.

Ordered proportional symbol
Use when there are big variations between values and/or seeing fine differences between data is not so important.

Dot strip plot
Dots placed in order on a strip are a space-efficient method of laying out ranks across multiple categories.

Slope
Perfect for showing how ranks have changed over time or vary between categories.

Lollipop
Lollipops draw more attention to the data value than standard bar/column and can also show rank and value effectively.

Bump
Effective for showing changing rankings across multiple dates. For large datasets, consider grouping lines using colour.

Distribution

Show values in a dataset and how often they occur. The shape (or 'skew') of a distribution can be a memorable way of highlighting the lack of uniformity or equality in the data.

Example FT uses
Income distribution, population (age/sex) distribution, revealing inequality

Histogram
The standard way to show a statistical distribution - keep the gaps between columns small to highlight the 'shape' of the data.

Dot plot
A simple way of showing the change or range (min/max) of data across multiple categories.

Dot strip plot
Good for showing individual values in a distribution, can be a problem when too many dots have the same value.

Barcode plot
Like dot strip plots, good for displaying all the data, but like they work best when highlighting individual values.

Boxplot
Summarise multiple distributions by showing the median (centre) and range of the data

Violin plot
Similar to a box plot but more effective with complex distributions (data that cannot be summarised with simple average).

Population pyramid
A standard way for showing the age and sex breakdown of a population distribution; effectively, back to back histograms.

Cumulative curve
A good way of showing how unequal a distribution is/ y axis is always cumulative frequency, x axis is always a measure.

Frequency polygons
For displaying multiple distributions of data. Like a regular line chart, best limited to a maximum of 3 or 4 datasets.

Beeswarm
Use to emphasise individual points in a distribution. Points can be sized to an additional variable. Best with medium-sized datasets

Change over Time

Give emphasis to changing trends. These can be short (intra-day) movements or extended series traversing decades or centuries. Choosing the correct time period is important to provide suitable context for the reader.

Example FT uses
Share price movements, economic time series, sectoral changes in a market

Line
The standard way to show a changing time series. If data are irregular, consider markers to represent data points.

Column
Columns work well for showing change over time - but usually best with only one series of data at a time.

Column + line timeline
A good way of showing the relationship over time between an amount (columns) and a rate (line).

Slope
Good for showing changing data as long as there are only a simplified into 2 or 3 points without missing a key part of story.

Area chart
Use with care - these are good at showing change over time total, but seeing change in component parts can be very difficult.

Candlestick
Usually focused on day-to-day activity, these charts show opening/closing and high/low points of each day.

Fan chart (projections)
Use to show the uncertainty in future projections - usually this grows the further forward to projection.

Connected scatterplot
A good way of showing changing data for two variables whenever there is a relatively clear pattern of progression.

Calendar heatmap
A great way of showing temporal patterns (daily, weekly, monthly) - at the expense of showing precision in quantity.

Priestley timeline
Great when date and duration are key elements of the story in the data.

Circle timeline
Good for showing discrete values of varying size across multiple categories (eg earthquakes by continent).

Vertical timeline
Presents time on the Y axis. Good for displaying detailed time series that work especially well when scrolling on mobile.

Seismogram
Another alternative to the circle timeline for showing series where there are big variations in the data.

Streamgraph
A type of area chart: use when seeing changes in proportions over time is more important than individual values

Magnitude

Show size comparisons. These can be relative (just being able to see larger/bigger) or absolute (need to see fine differences). Usually these show a 'counted' number (for example, barrels, dollars or people) rather than a calculated rate or per cent.

Example FT uses
Commodity production, market capitalisation, volumes in general

Column
The standard way to compare the size of things. Must always start at 0 on the axis.

Bar
See above. Good when the data are not time series and labels have long category names.

Paired column
As per standard column, but allows for multiple series. Can become tricky to read with more than 2 series.

Paired bar
See above.

Marimekko
A good way of showing the size and composition of data in the same time - as long as the data are not too complicated.

Proportional symbol
Use when there are big variations between values and/or seeing fine differences between data is not so important.

Isotype (pictogram)
Excellent solution in some instances – use only with whole numbers (do not slice off an arm to represent a decimal).

Lollipop
Lollipop charts draw more attention to the data value than standard bar/column – does not have to start at zero (but preferable).

Radar
A space-efficient way of showing value of multiple variables - but make sure they are organised in a way that makes sense to reader.

Parallel coordinates
An alternative to radar charts – again, the arrangement of the variables is important. Usually benefits from highlighting values.

Bullet
Good for showing a measurement against the context of a target or performance range.

Grouped symbol
An alternative to bar/column charts when being able to count data or highlight individual elements is useful.

Part-to-whole

Show how a single entity can be broken down into its component elements. If the reader's interest is solely in the size of the components, consider a magnitude-type chart instead.

Example FT uses
Population breakdowns, government budgets, company structures, national election results

Stacked column/bar
A simple way of showing part-to-whole relationships but can be difficult to read with more than a few components.

Marimekko
A good way of showing the size and proportion of data at the same time – as long as the data are not too complicated.

Pie
A common way of showing part-to-whole data - but be aware that it's difficult to accurately compare the size of the segments.

Donut
Similar to a pie chart – but the centre can be a useful way of making space to include more information about the data (eg total).

Treemap
Use for hierarchical part-to-whole relationships can be difficult to read when there are many small segments.

Voronoi
A way of turning points into areas – any point within each area is closer to the central point than are other centroid.

Arc
A semicircle, often used for visualising parliamentary composition by number of seats.

Gridplot
Good for showing % information. Hey work best when used on whole numbers and work well in small multiple layout form.

Venn
Generally only used for schematic representation.

Waterfall
Can be useful for showing part-to-whole relationships where some of the components are negative.

Spatial

Aside from locator maps only used when precise locations or geographical patterns in data are more important to the reader than anything else.

Example FT uses
Population density, natural resource locations, natural disaster risk/impact, catchment areas, variation in election results

Basic choropleth (rate/ratio)
The standard approach for putting data on a map – should always be rates rather than totals and use a sensible base geography.

Proportional symbol (count/magnitude)
Use for totals rather than rates – be wary that small differences in data will be hard to see.

Flow map
For showing unambiguous movement across a map.

Contour map
For showing areas of equal value on a map. Can use shading or colour gradients for showing +/- values

Equalised cartogram
Converting each unit on a map to a regular and equal shape – good for representing voting regions with equal value.

Scaled cartogram (value)
Stretching and shrinking a map so that each area is sized according to a particular value.

Dot density
Used to show the location of individual events/locations – make sure to annotate any patterns the reader should see.

Heat map
Grid-based data values mapped with an intensity colour scale. An choropleth map – but not snapped to an administrative unit.

Flow

Show the reader volumes or intensity of movement between two or more states or conditions. These might be logical sequences or geographical locations.

Example FT uses
Movement of funds, trade, migrants, lawsuits, information, relationship graphs.

Sankey
Shows changes in flows from one condition to at least one other; good for tracing the eventual outcome of a complex process.

Waterfall
Designed to show the sequencing of data through a flow process, typically budgets. Can include +/- components.

Chord
A complex but powerful diagram (which can illustrate cross flows (and net winner) in a matrix.

Network
Used for showing the strength and connectedness of relationships of varying types.

Visual vocabulary

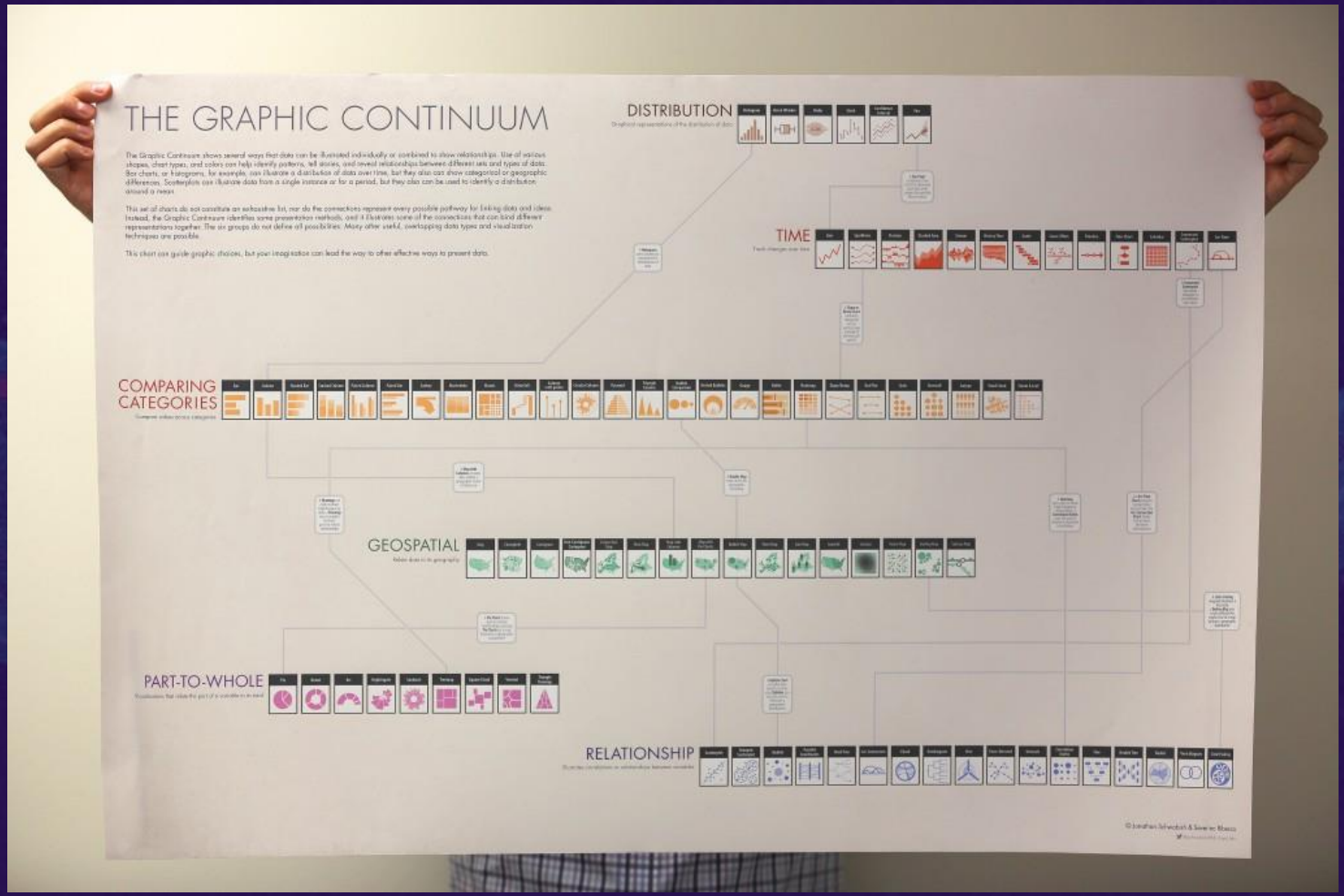
Designing with data

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: Alan Smith, Chris Campbell, Ian Bott, Liz Faunce, Graham Parrish, Billy Ehrenberg-Shannon, Paul McCallum, Martin Stabe
Inspired by the Graphic Continuum by Jon Schwabish and Severino Ribecca

ft.com/vocabulary

"Visual Vocabulary" by Alan Smith, Chris Campbell, Ian Bott, Liz Faunce, Graham Parrish, Billy Ehrenberg-Shannon, Paul McCallum, and Martin Stabe



"The Graphic Continuum" by Jonathan Schwabisch and Severino Ribecca

#30DayChartChallenge

April 2021 • 30 Days • 30 Charts • 5 Categories

comparisons

1. part-to-whole
2. pictogram
3. historical
4. magical
5. slope
6. experimental

distributions

7. physical
8. animals
9. statistics
10. abstract
11. circular
12. strips

relationships

13. correlation
14. space
15. multivariate
16. trees
17. pop culture
18. connections

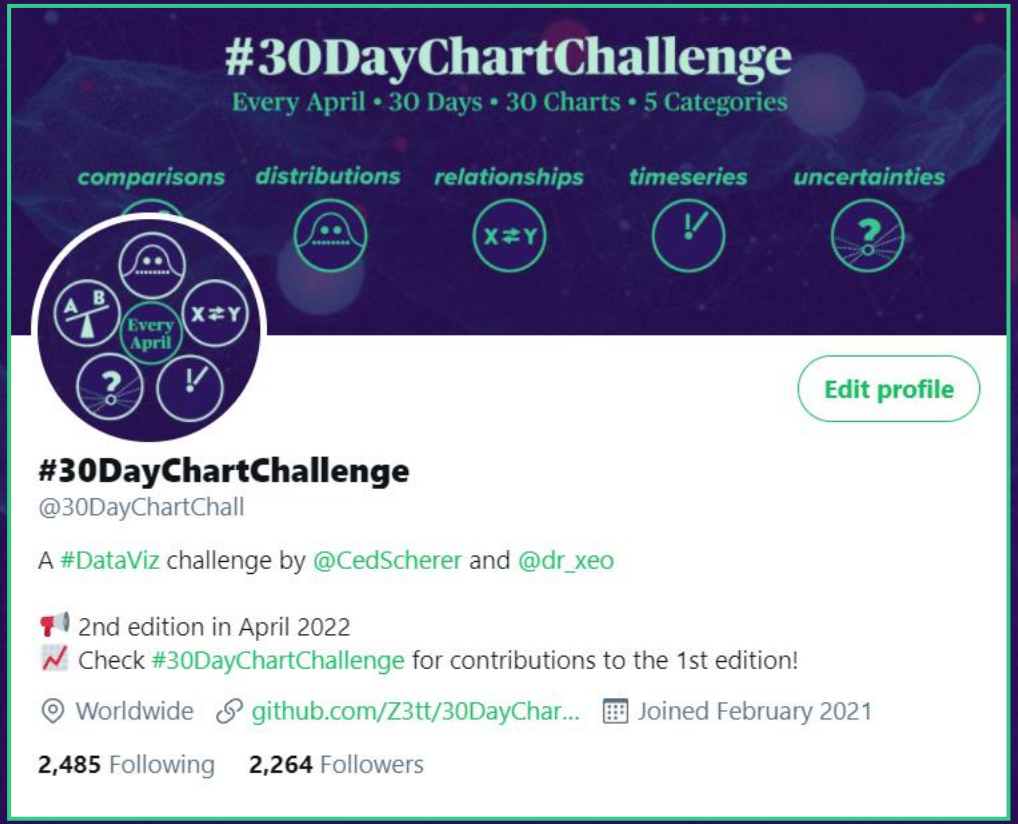
timeseries

19. global change
20. upwards
21. downwards
22. animation
23. tiles
24. monochrome

uncertainties

25. demographic
26. trends
27. educational
28. future
29. deviations
30. 3D

Follow @30DayChartChall for more!


#30DayChartChallenge
Every April • 30 Days • 30 Charts • 5 Categories
comparisons
distributions
relationships
timeseries
uncertainties
Edit profile
#30DayChartChallenge
@30DayChartChall
A #DataViz challenge by @CedScherer and @dr_xeo
2nd edition in April 2022
Check #30DayChartChallenge for contributions to the 1st edition!
Worldwide
github.com/Z3tt/30DayChar...
Joined February 2021
2,485 Following
2,264 Followers


#30DayChartChallenge
@30DayChartChall
Hello World
We are excited to announce the first #30DayChartChallenge, happening in April 2021!
Stay tuned for more information about our inspiration and categories later!
#30DayChartChallenge
April 2021 • 30 Days • 30 Charts • 5 Categories
comparisons
distributions
relationships
timeseries
uncertainities
Join us during April 2021 and follow @30DayChartChall for more!
Dominic Royé and Cédric Scherer
5:26 PM · Feb 21, 2021 · Twitter Web App

#30DayChartChallenge
@30DayChartChall

The challenge has started!

❓ How to participate? Tag #30DayChartChallenge when sharing your contribution.

📚 Resources + Collection of Contributions per day: github.com/Z3tt/30DayChar...

Ⓡ Dedicated #Rstats Collection: github.com/dominicroye/rs...

🗓️ Daily Challenge Topics 👇

4:58 PM · Apr 1, 2021 · Twitter Web App

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github.com/z3tt/30DayChartChallenge_Collection2021

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How to contribute?

Anyone is welcome to contribute, no matter which data source or tool you use.
If you share your contributions on Twitter, please use the hashtag #30DayChartChallenge and/or tag the @30DayChartCall account.

Data

You are free to pick whatever data you want—we do not provide any particular dataset for each challenge. Either use the same dataset for all or different datasets each day, as you like! Search the internet, collect your own, visualize daily experiences or funny stats. Nevertheless, we would like to provide a starter kit of possible data sources:

- Google dataset search
- data.world
- kaggle
- Data Is Plural
- OurWorldInData
- Eurostats
- UN Stats
- WHO
- OECD Stats
- Socioeconomic Data and Applications Center (NASA)
- MakeoverMonday
- TidyTuesday (search through old datasets here, here and here)
- IMDB datasets
- Free GIS data
- WorldClim — maps, graphs, tables, and data of the global climate
- Rdatasets — over 1300 datasets originally distributed in R packages
- List of R packages to import data

Chart Type Selection

There are many great selection helpers out there, guiding you through the many different boxes you can fit the endless number of (sub)chart types in. Here is a non-exhaustive list:

- Chart Suggestions—A Thought-Starter by Andrew Abela — an all-time classic (latest version)
- Graphic Continuum by Jon Schwabish and Severino Ribecca — the main source for the five categories
- Visual Vocabulary by the Financial Times Visual Journalism — chart choice helpers with lots of further links
  - interactive version
  - static version
- From Data to Viz by Yan Holtz — interactive, with information and codes for each chart type
  - R code collection
  - Python code collection
  - D3js code collection
- DataVizProject by ferdio — interactive with lots of examples
- Visualization Universe by Adioma and Google News Lab
- How to Choose the Right Chart Type — another, very compact, decision tree to help you

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Contributions

Collection of all contributions per day (shared on Twitter with the hashtag and/or mentioning @30DayChartChall account). For now just named images in a folder—hopefully going to clean it up once the challenge is over.

Comparisons:

- Day 1: Part-to-Whole
- Day 2: Pictorgram
- Day 3: Historical
- Day 4: Magical
- Day 5: Slope
- Day 6: Experimental

Distributions:

- Day 7: Physical
- Day 8: Animals
- Day 9: Statistics
- Day 10: Abstract
- Day 11: Circular
- Day 12: Strips

Relationships:

- Day 13: Correlation
- Day 14: Space
- Day 15: Multivariate
- Day 16: Trees
- Day 17: Pop Culture
- Day 18: Connections

Timeseries:

- Day 19: Global Change
- Day 20: Upwards
- Day 21: Downwards
- Day 22: Animation
- Day 23: Tiles
- Day 24: Monochrome

Uncertainties:

- Day 25: Demographic
- Day 26: Trends
- Day 27: Educational
- Day 28: Future
- Day 29: Deviations
- Day 30: 3D

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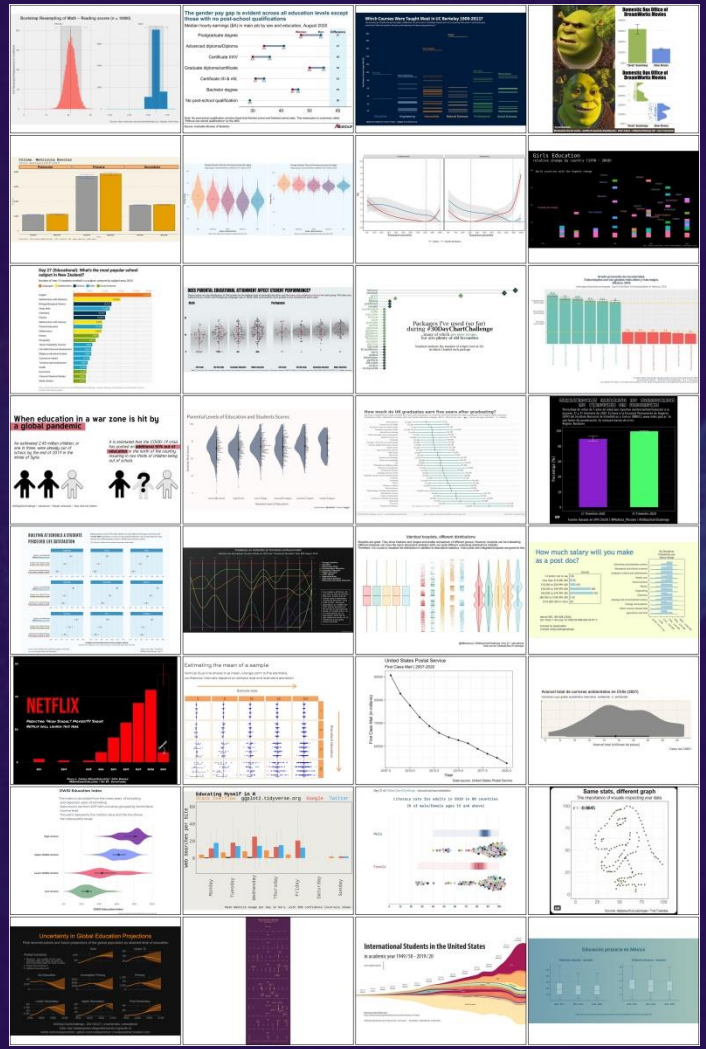


SHOWCASE

All **1,960** Contributions to the 30DayChartChallenge

— April 2021 —

Day 1*: *Part-to-Whole

Overwhelming start with **135** contributions

Day 28*: *Future

Lowest number towards the end with **27** contributions

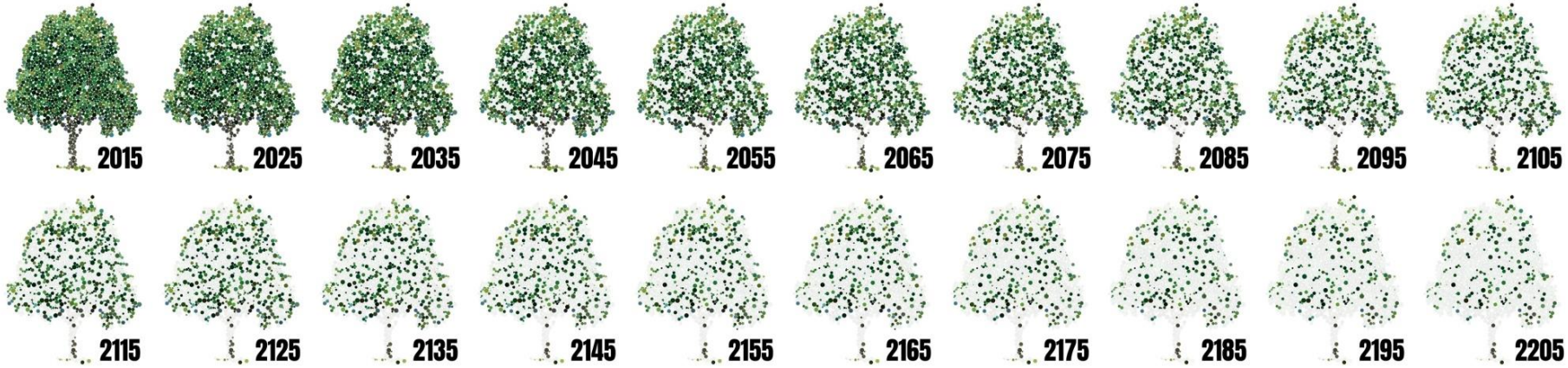
Visualization: Cedric Scherer

My Personal

Favorites

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 forrests will evaporate within 200 years.



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

Day 6: Experimental | @jakekaupp

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

94% of

BLACK LIVES MATTER

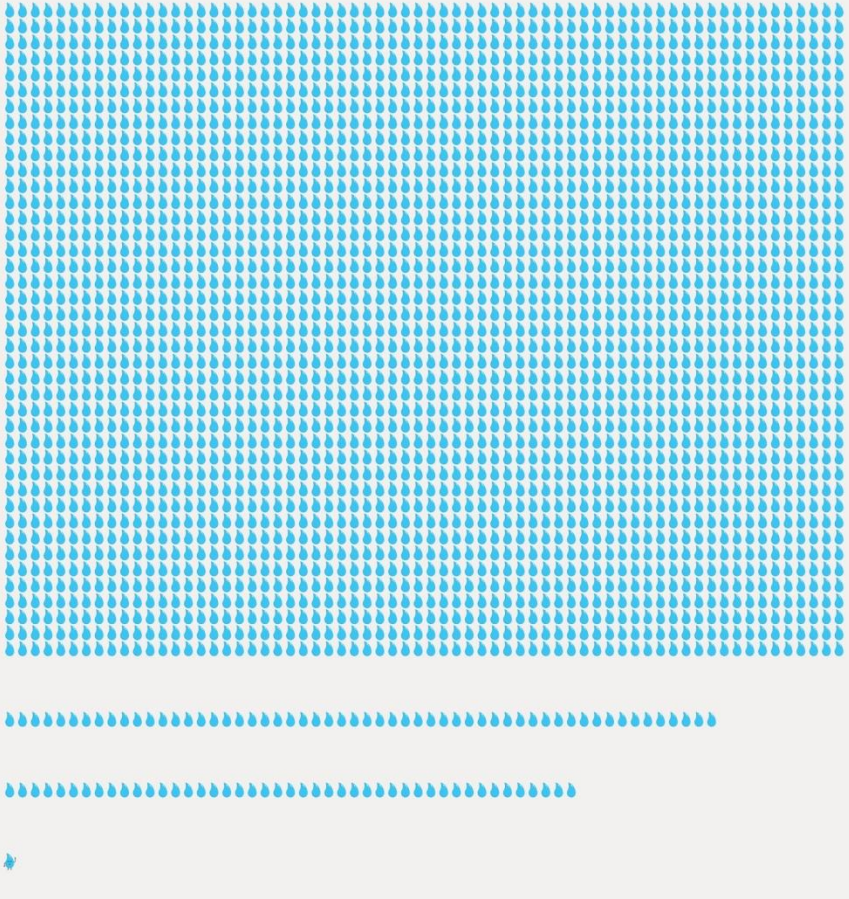
demonstrations involved no violent or destructive activity

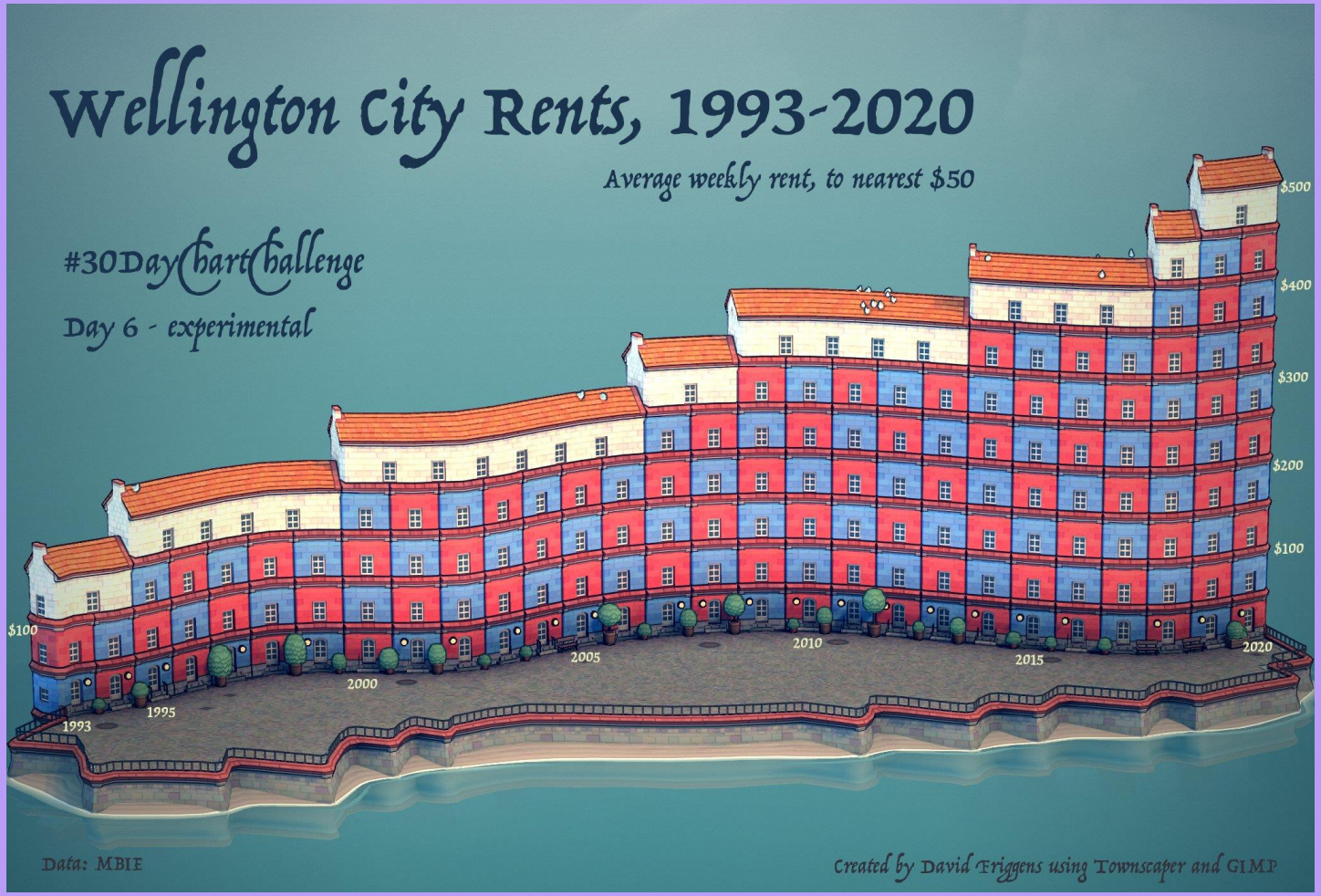
data : ACLED, 2021 | @j_marlier

Data from Abbott et al 2019,
Chart by E. Bechtel & M. Wernimont, USGS

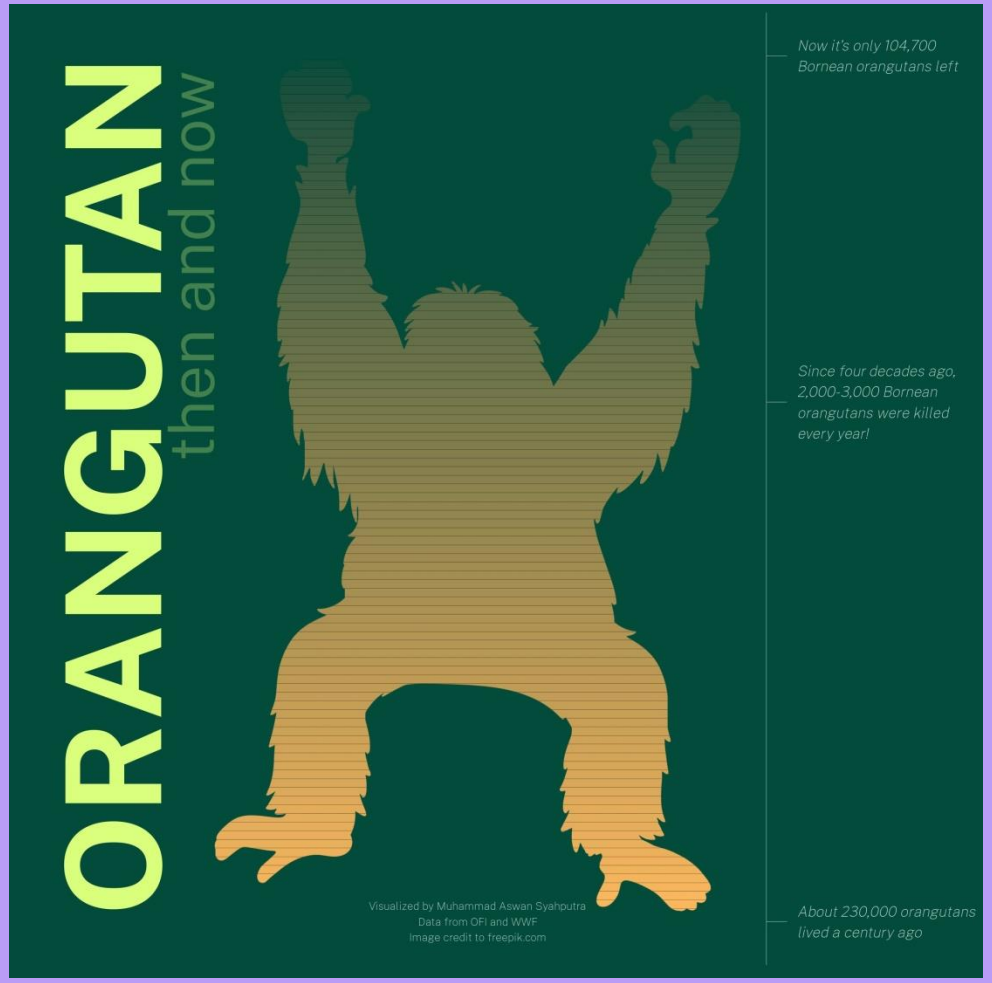
Volume of All Water on Earth

"Everything else" includes water in the atmosphere, permafrost, lakes, rivers, wetlands, artificial reservoirs, seasonal snowpack, and biological water stored in living creatures.





Day 6: Experimental | @InfometricsNZ

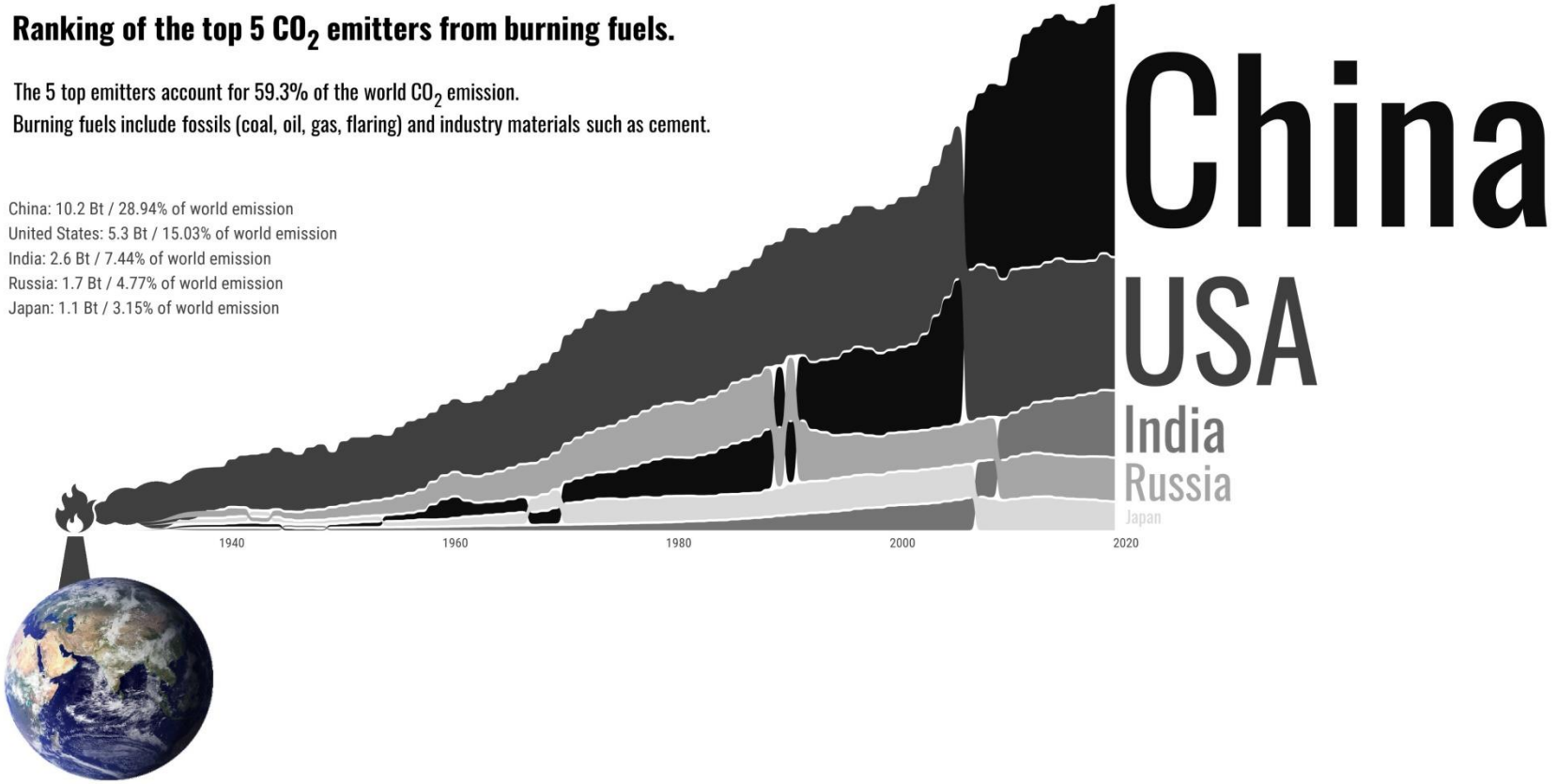


Day 8: Animals | @aswansyahputra_

Ranking of the top 5 CO_2 emitters from burning fuels.

The 5 top emitters account for 59.3% of the world CO_2 emission.
Burning fuels include fossils (coal, oil, gas, flaring) and industry materials such as cement.

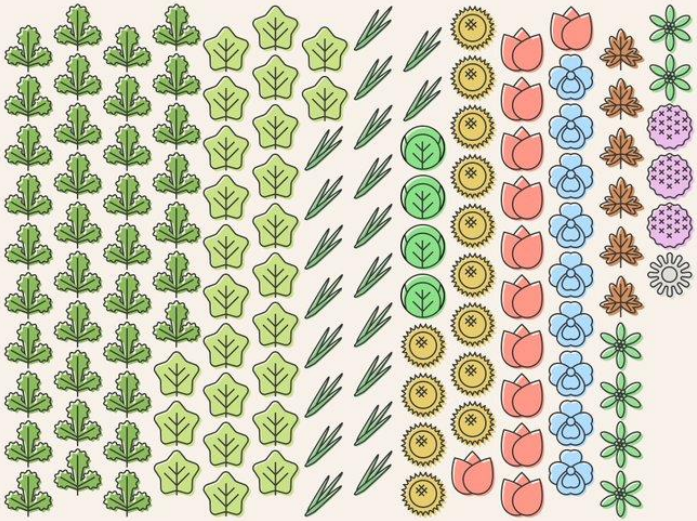
China: 10.2 Bt / 28.94% of world emission
United States: 5.3 Bt / 15.03% of world emission
India: 2.6 Bt / 7.44% of world emission
Russia: 1.7 Bt / 4.77% of world emission
Japan: 1.1 Bt / 3.15% of world emission



#30DayChartChallenge Day 24 | Viz: Christophe Nicault | Data: Our World in Data

#30DayChartChallenge - Day2: Pictogram

This Spring, in My Garden



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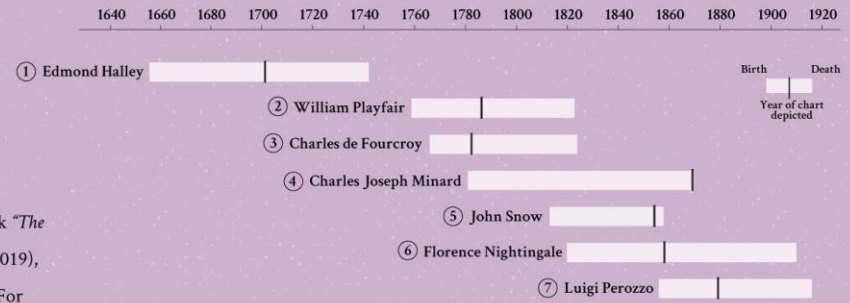
Data and icons: by myself

Wendy Shijia @ShijiaWendy 2 Apr 2021

Day 2: Pictogram | @ShijiaWendy

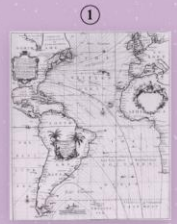
DataViz History

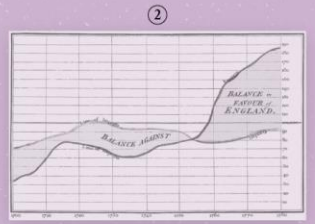
Visualizations that made history

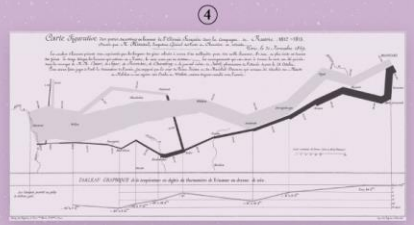


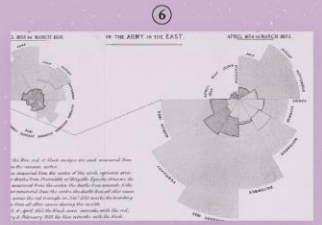
As Sandra Rendgen documents in her book *"The History of Information Graphics"* (Taschen, 2019), data visualization is a long-standing field. For centuries men and women have turned to visual communication to understand the world in a deeper way.

This chart shows the work of seven authors who defined the development of data visualization with their contributions.





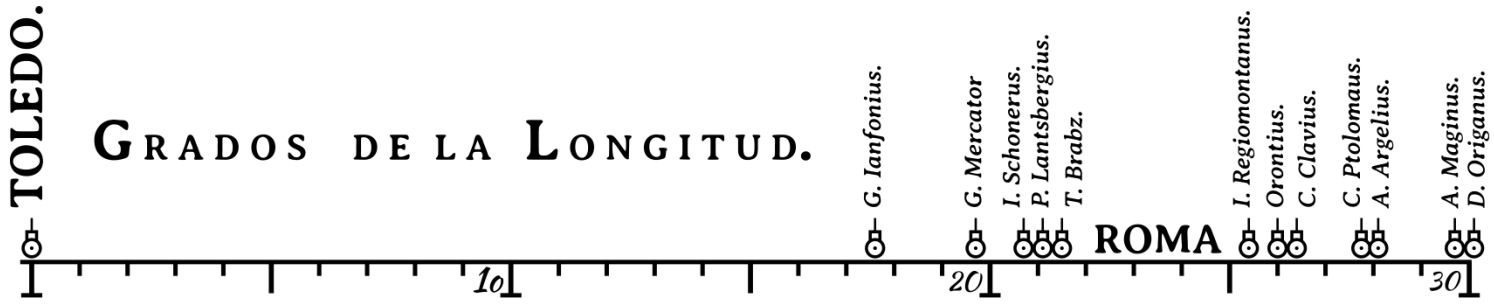




Sources: Infogram (2016). Key Figures in the History of Data Visualization | Wikipedia

Design: Max Tham | #30DayChartChallenge 2021 | Day 3: Historical

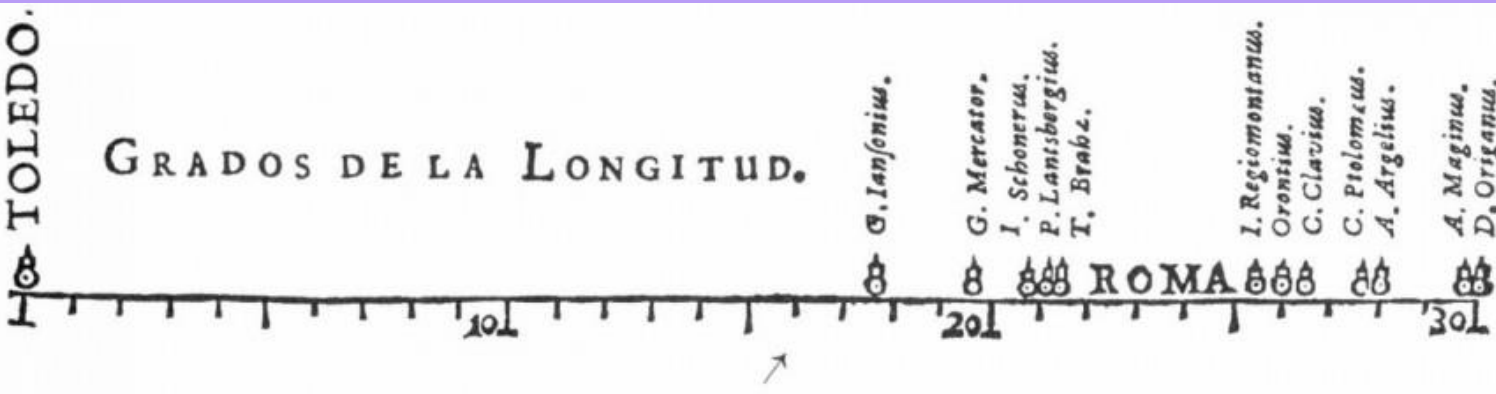
Day 3: Historical | @maxthamt



Remake of (one of?) the first visual representation of statistical data by Michael Florent Van Langren, drawn in 1644. The Flemish astronomer illustrated the twelve known estimates in longitude between Toledo and Rome at that time.

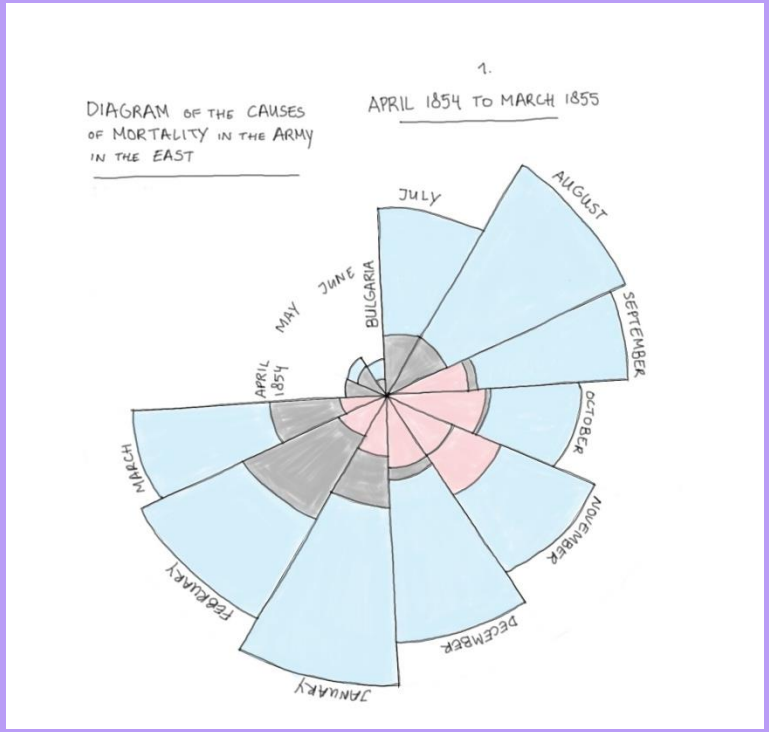
Created with ggplot2 by Cédric Scherer | #30DayChartChallenge 2021 | Day 3: Historical

Day 3: Historical | @CedScherer

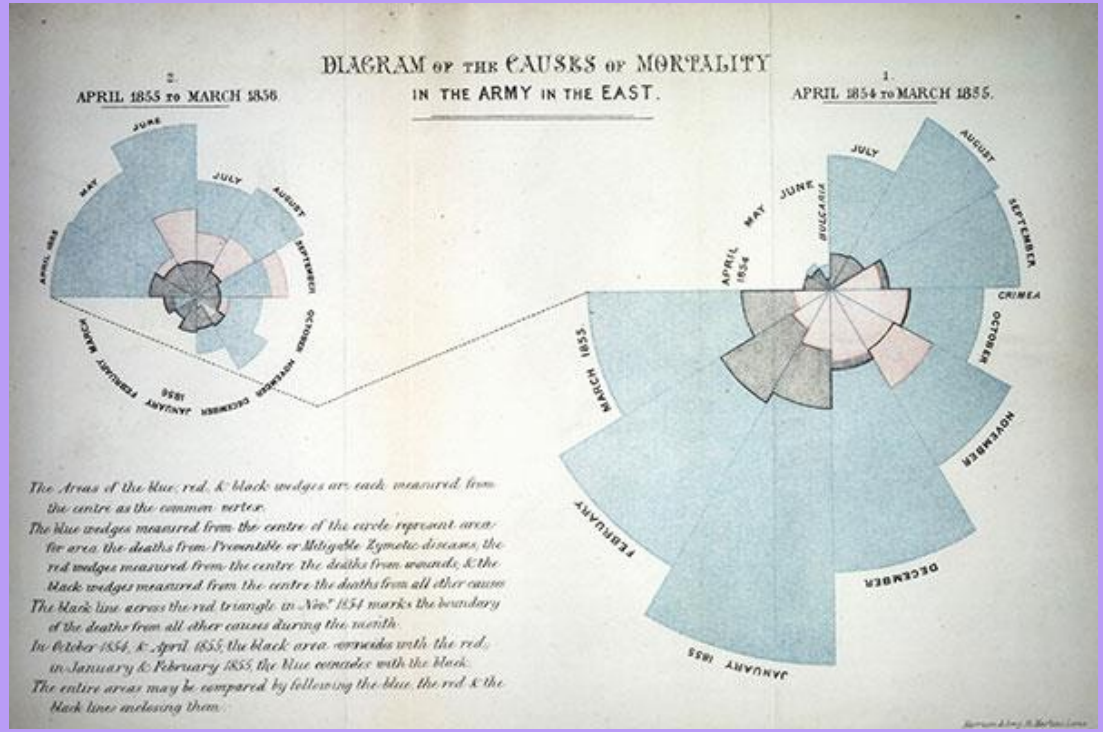


Michael Florent van Langren

The First (Known) Statistical Graph



Day 11: Circular | @drtimschoof

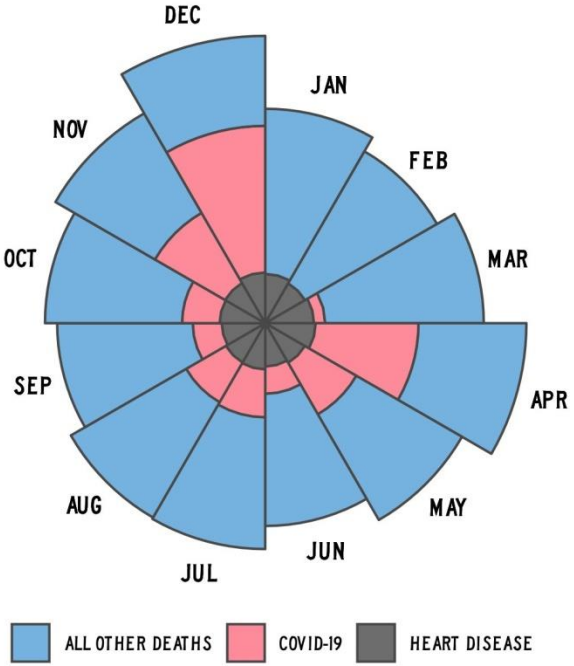


Florence Nightingale (Florence Nightingale Museum Collection)

The famous 'Coxcomb' Diagram, known as rose diagram, from 1858

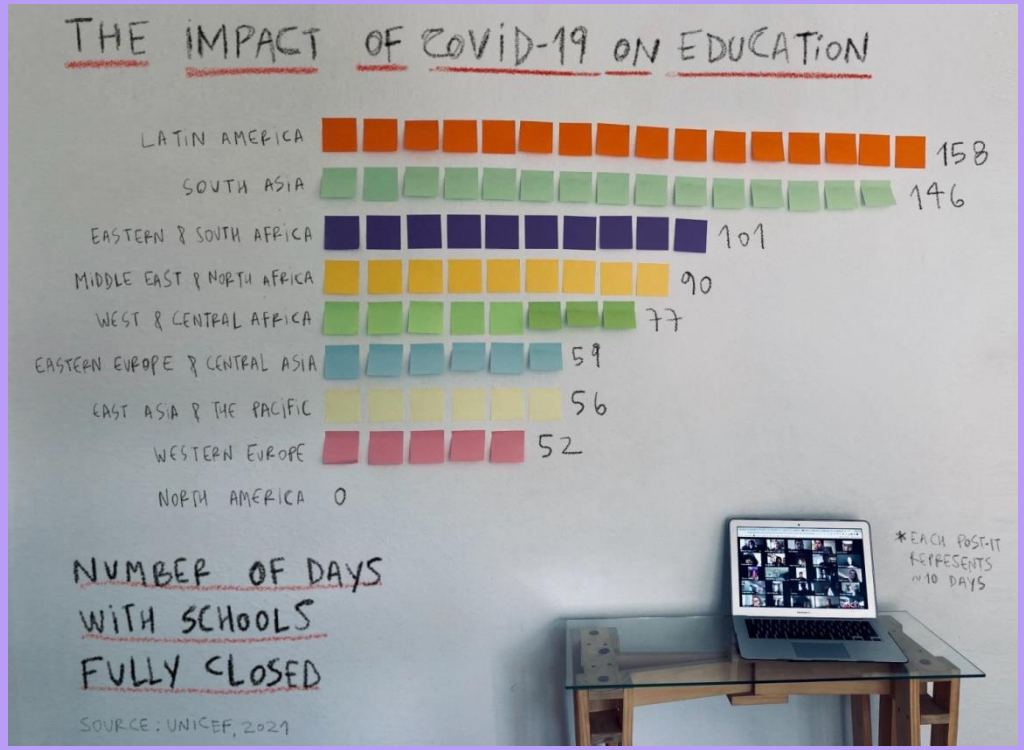
Diagram of the Causes of Mortality

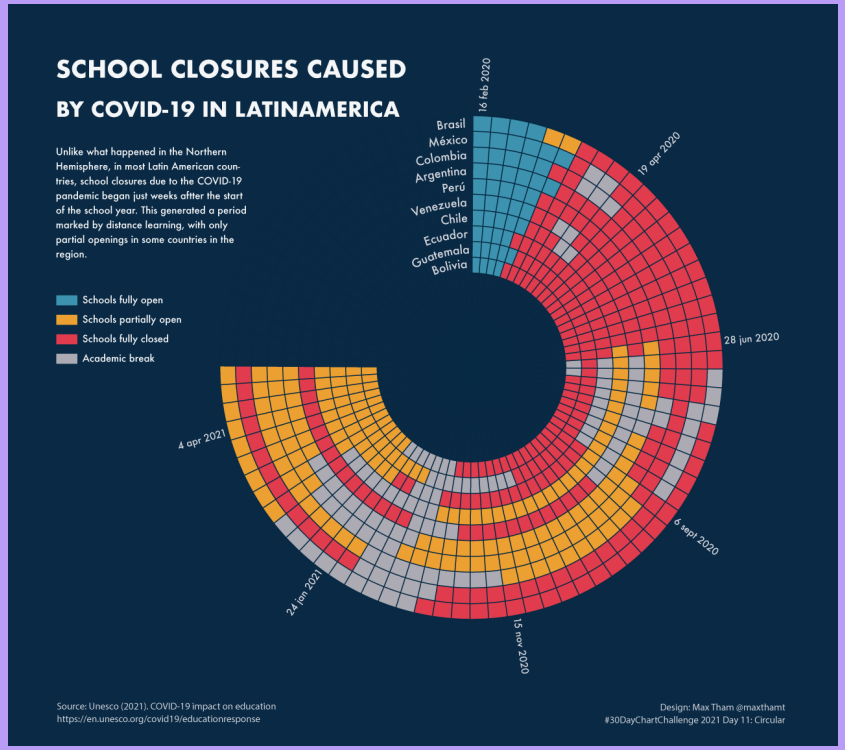
IN THE UNITED STATES IN 2020.
DESIGN INSPIRED BY FLORENCE NIGHTINGALE'S "ROSE" DIAGRAM.



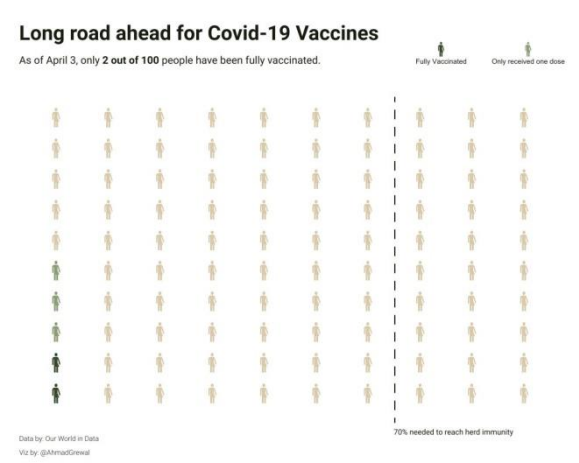
Created by @kllycttn | Data from CDC

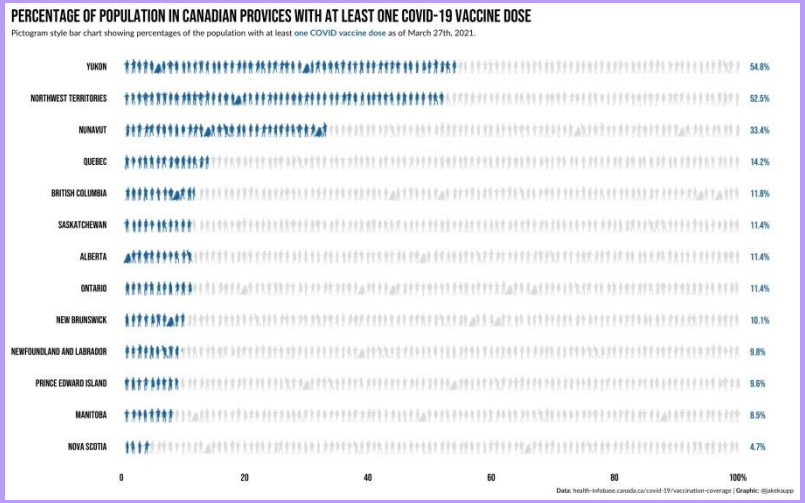
COVID-19

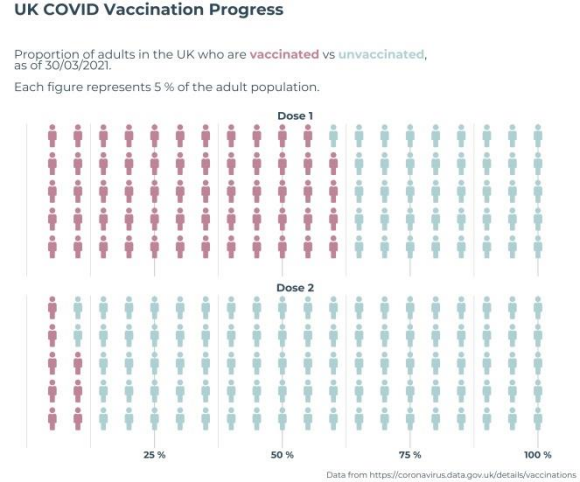


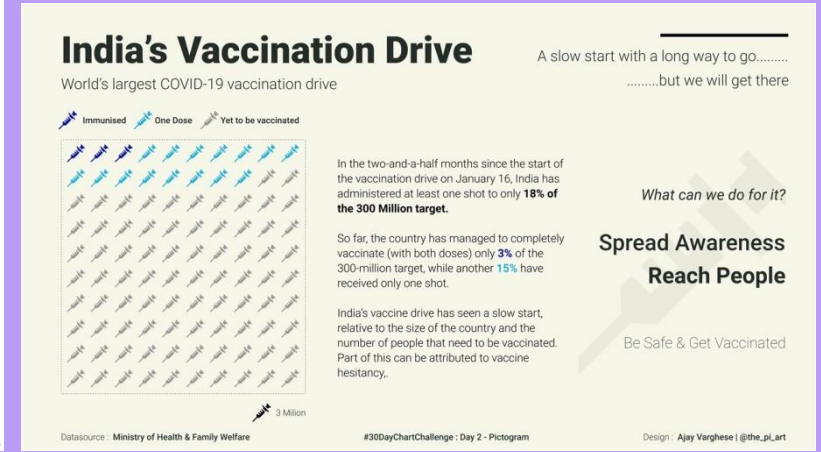


Day 7: Physical + Day 11: Circular | @maxthamt

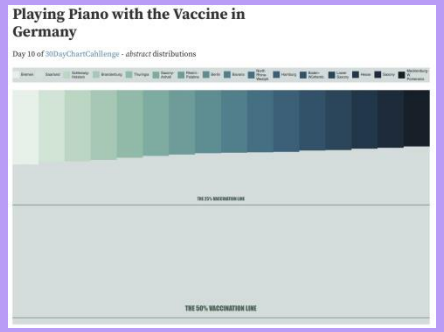


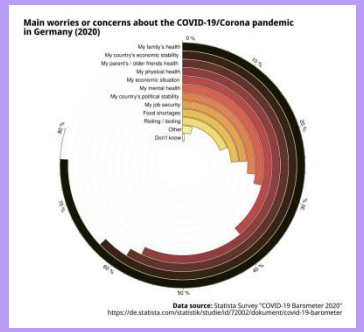


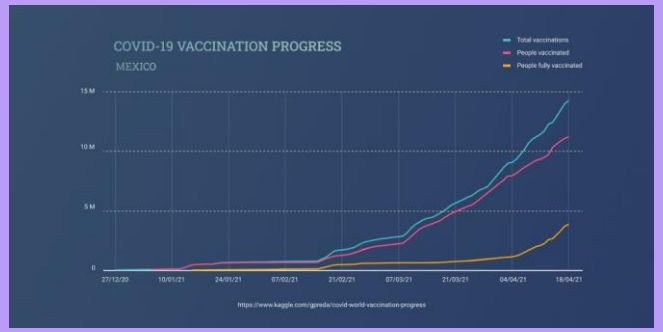


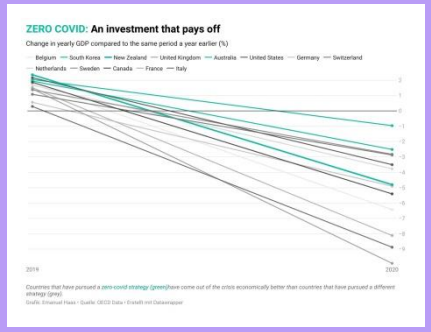


Day 1: Part-to-Whole | @AhmadGrewal
Day 2: Pictogram | @jakekaupp + @sianbladon + @the_pi_art

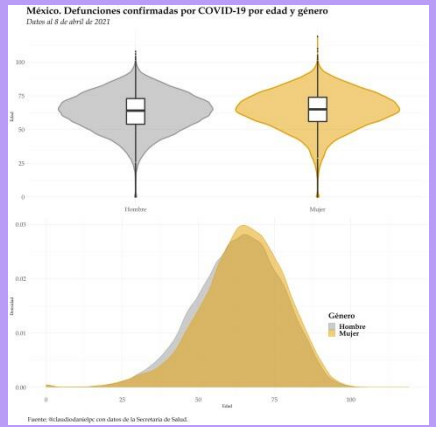


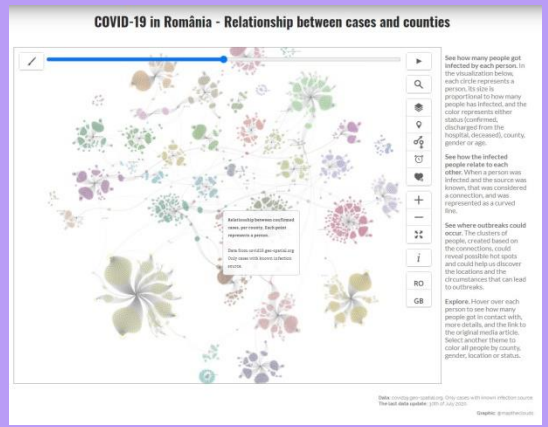


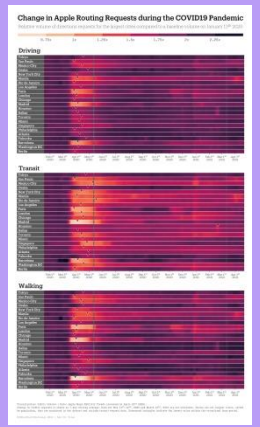




Day 10: Abstract | @terezaif + Day 11: Circular | @varaktor + Day 20: Upwards | @whiterabbit_sci + Day 5: Slope | @dermanuskript





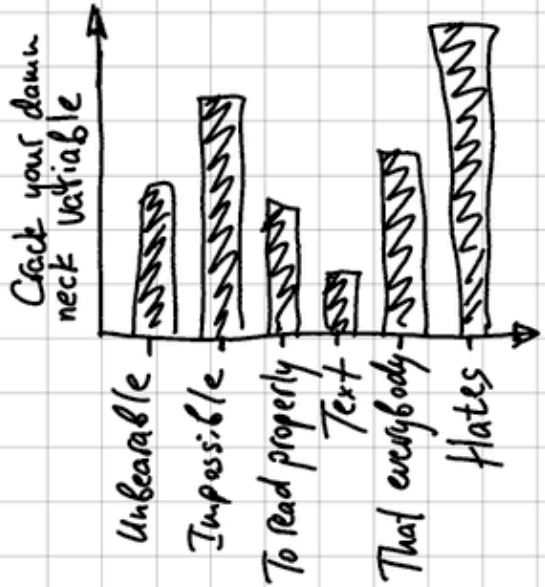


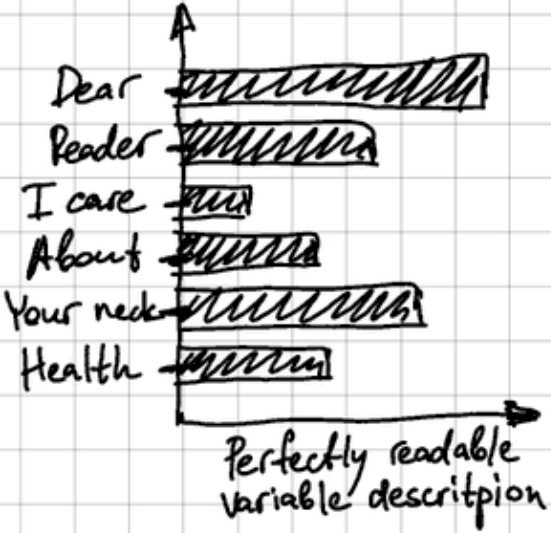
Day 9: Circular | @claudiodanielpc + Day 18: Connections | @maptheclouds + Day 23: Tiles | @CedScherer + Day 30: 3D | @VictimOfMaths

HAND DRAWN

ROTATE THE DAMN PLOT

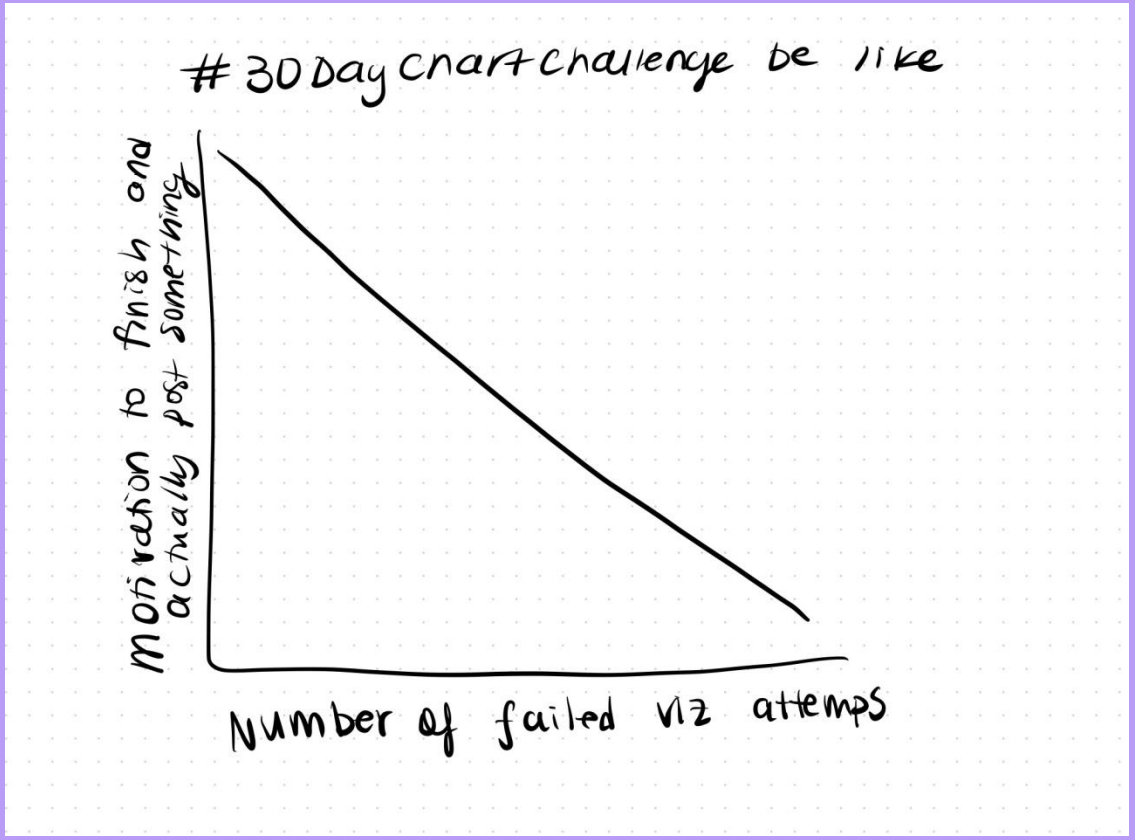
THE SINGLE EASIEST AND MOST USEFUL DATAVIZ TRICK





Data: quasi-random mind walk
Tools: reMarkable 2

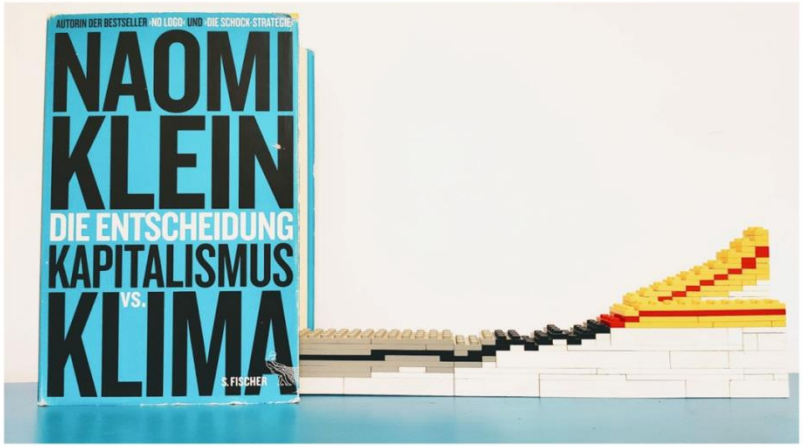
@ikashnitsky
#30DayChartChallenge

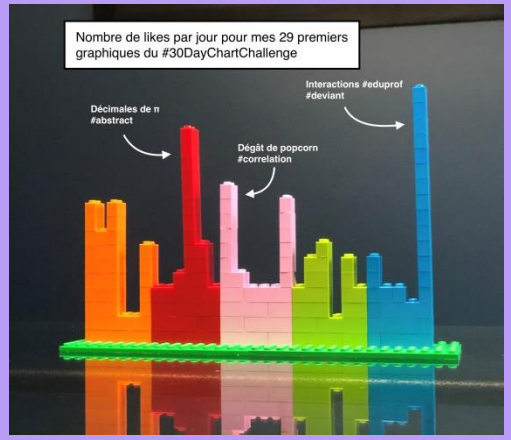


Day 1: Part-to-Whole | @jakekaupp + Day 13: Correlation | @sharlagelfand

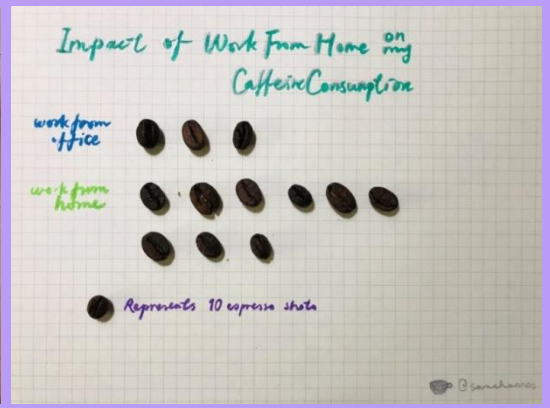
HAND MADE

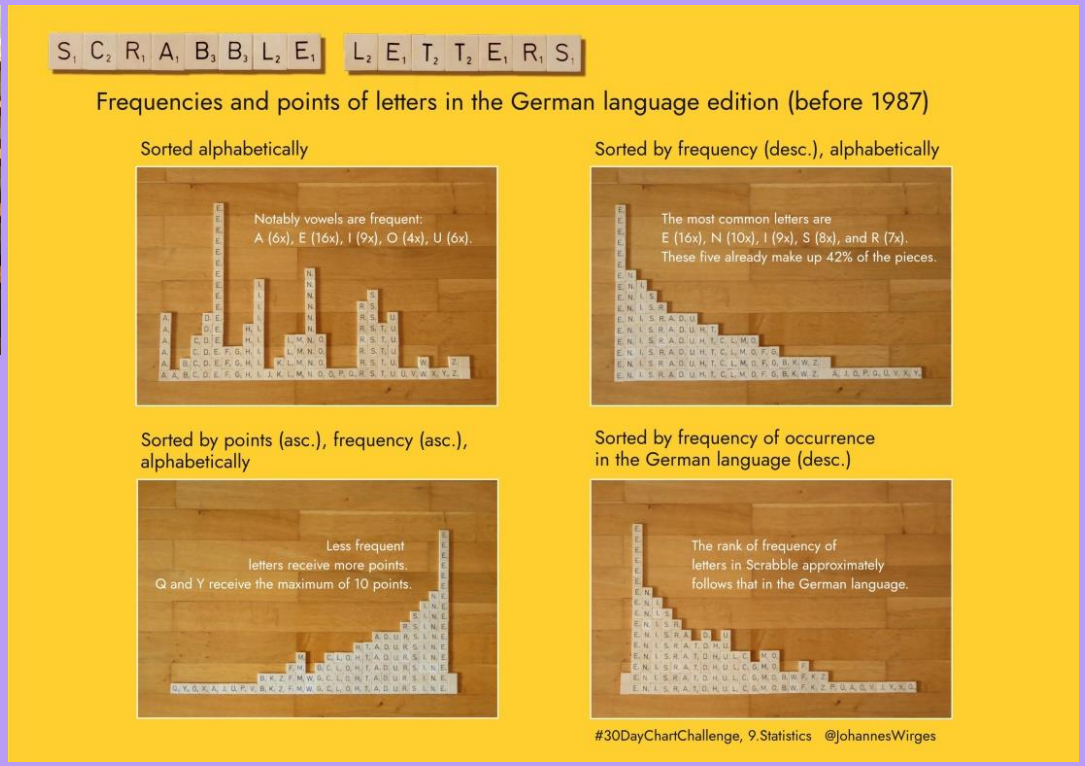
Day 12: Strips | @BecViv





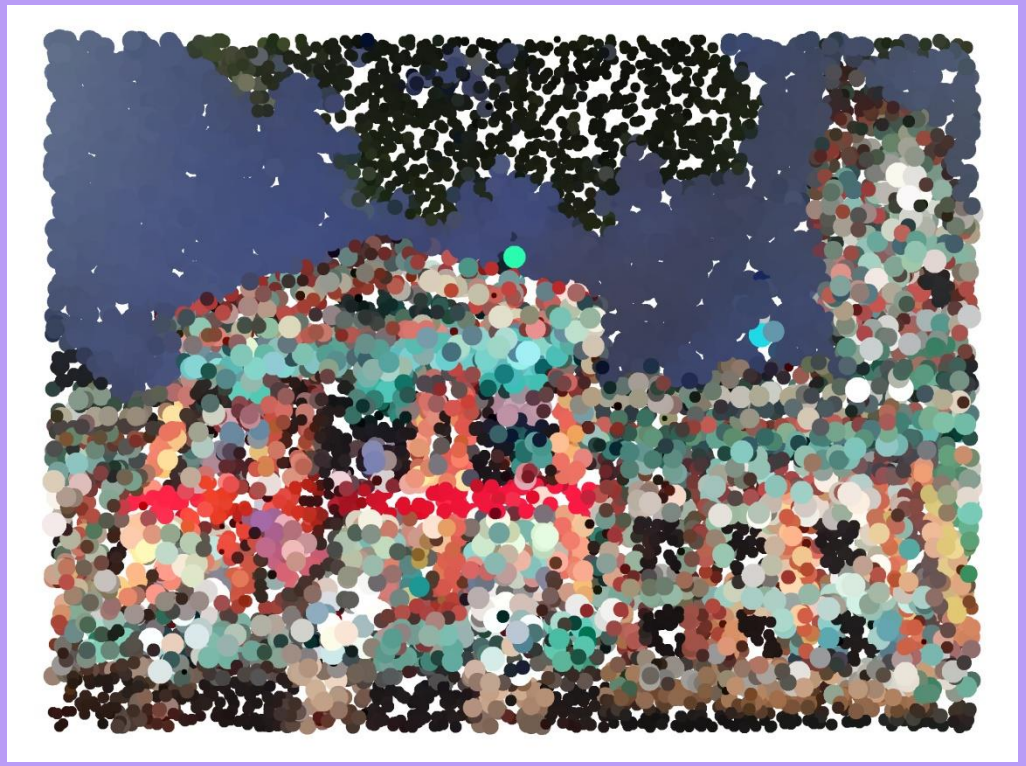
Day 30: 3D | @CedScherer + @mideschenes
Day 7: Physical | @alenka_gucek



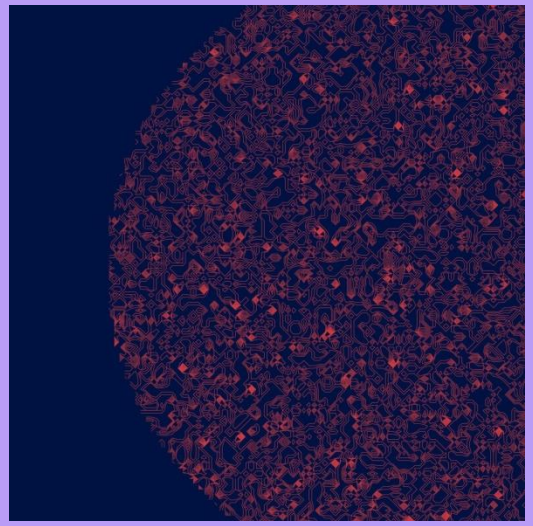


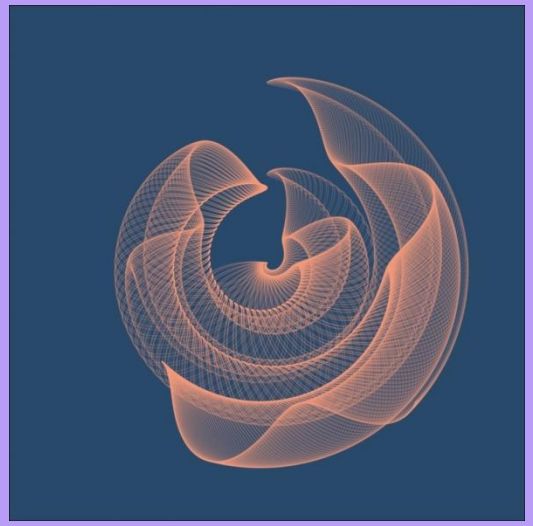
Day 7: Physical | @Mbozukova + @ikashnitsky + @shijiawendy + @sarahannes (right)
Day 9: Statistics | @JohannesWirges (left)

Art



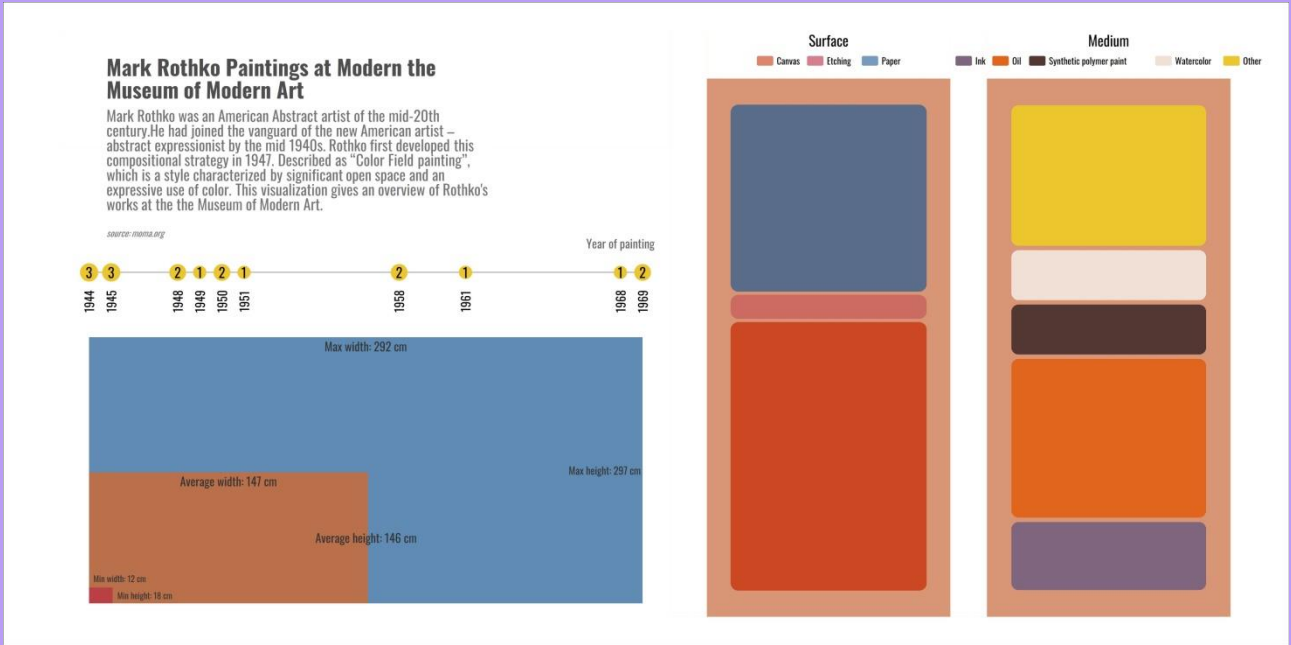
Day 10: Abstract | @CSHoggard + @dosullivan019

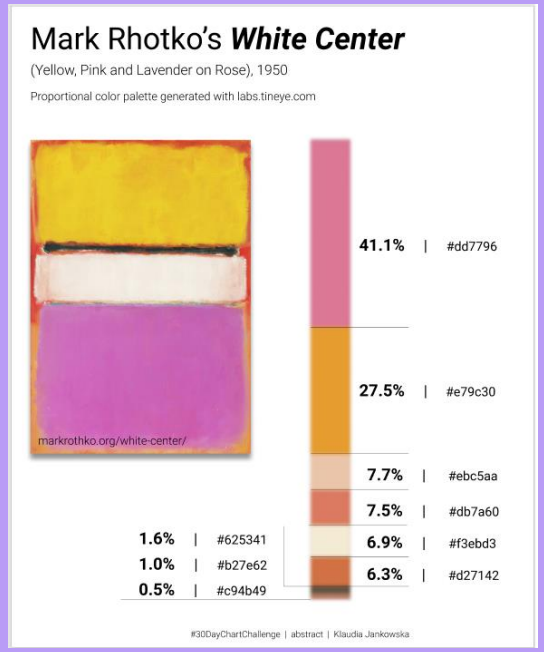




Day 10: Abstract | @ijeamaka_a + @ingrid_zoll + @kkakey_ + @luisfreii

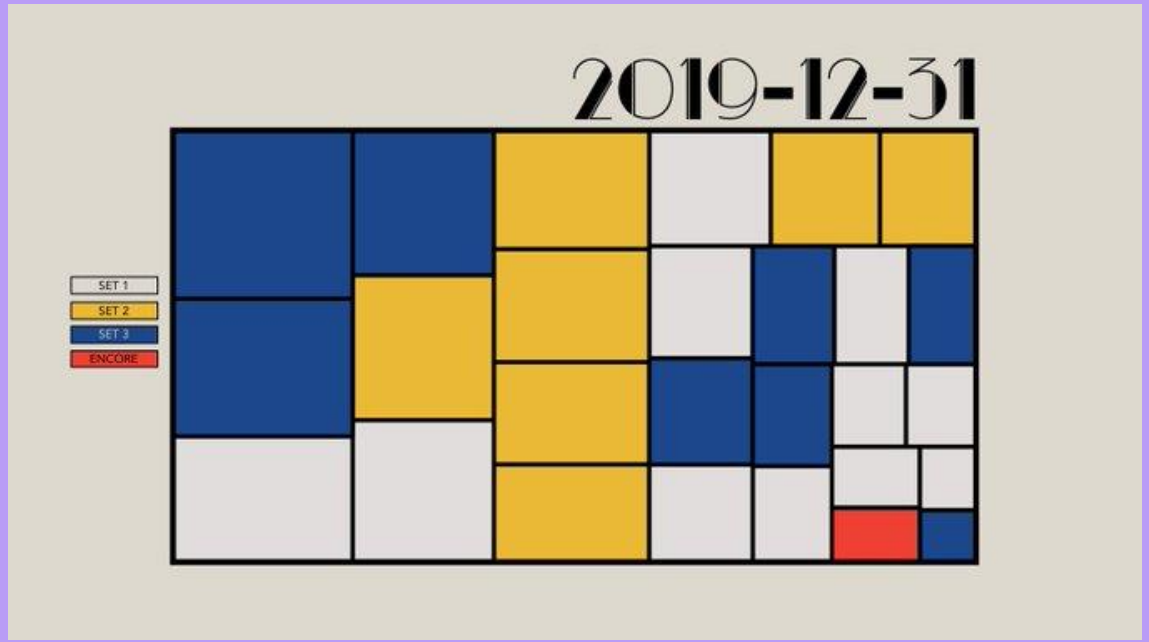
Mark Rothko

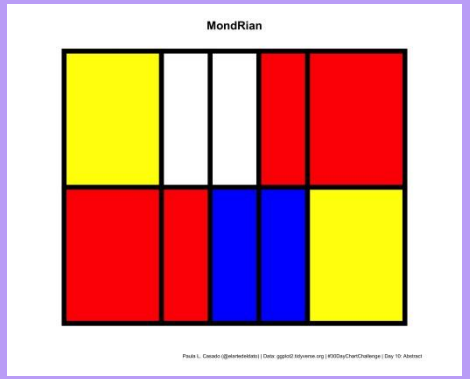


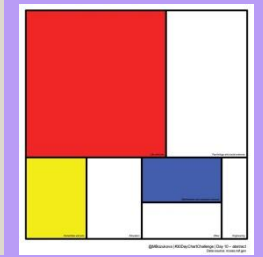


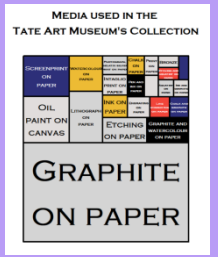
Day 10: Abstract | @m_cnakhaee + @ K_Jankowska_

Piet Mondrian



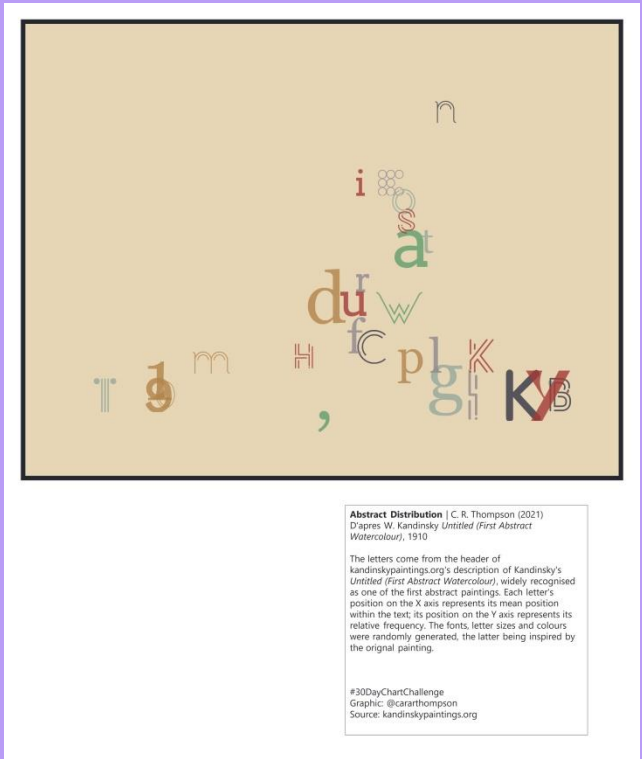


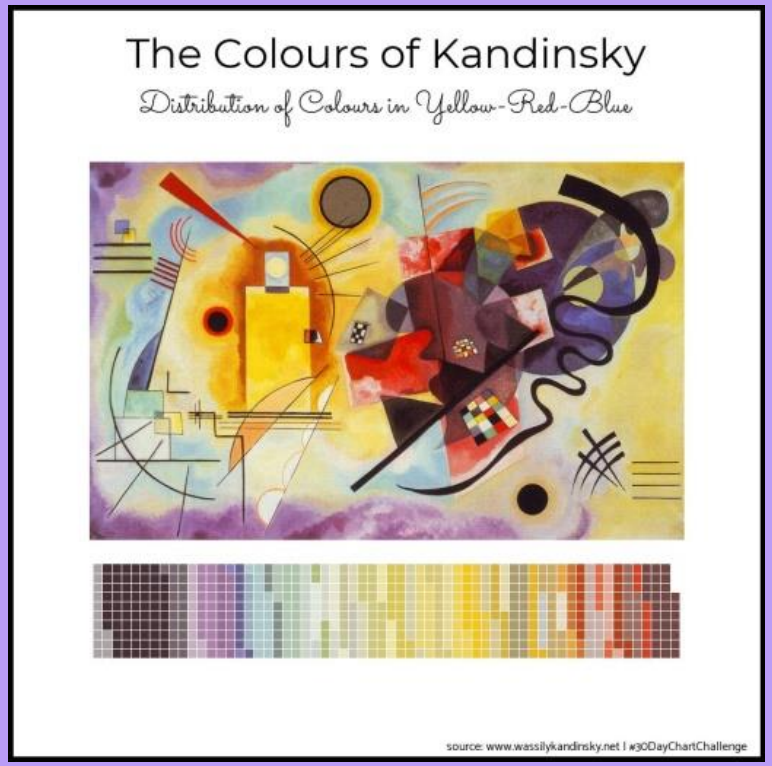




Day 10: Abstract | @Mayacelium + @elartedeldato + @Mbozukova + @JuliaMuellerFr

Wassily Kandinsky

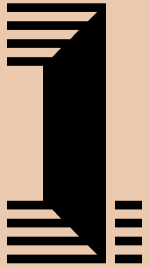




Day 10: Abstract | @cararthompson + @li_bennett_

VALUES

CHALLENGES



GET OUT OF YOUR COMFORT ZONE

Learnings

"**The uncertainty category was the most challenging** as I rarely have a need to create charts with features such as prediction intervals and confidence bands etc. That said, it was **a good opportunity to learn** more about these features and the types of data they best work with."

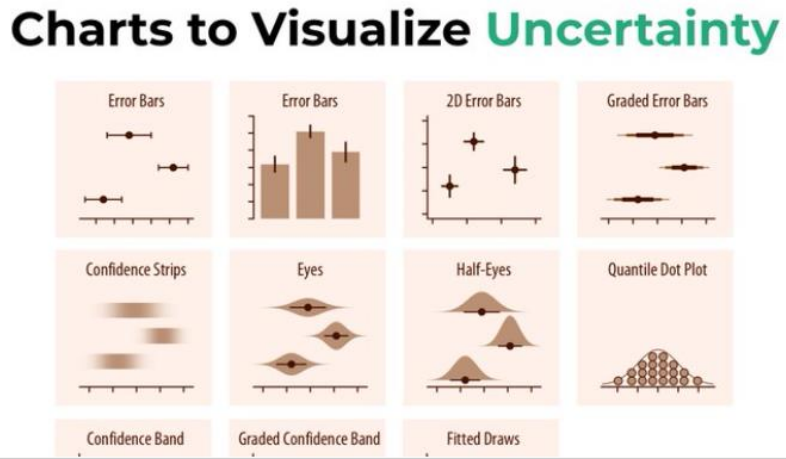
— Marc Reid

https://datavis.blog/2021/05/02/30daychartchallenge/

Tereza Iofciu
@terezaif

This is by far the hardest topic to date in the #30DayChartChallenge .. #uncertainty .. learning so much 👩‍💻

> **#30DayChartChallenge** @30DayChartChall · Apr 26
> Welcome to the last category: UNCERTAINTY ❓
>
> The last six topics and we're done with the first edition of the #30DayChartChallenge 🎉 Heads up to everyone who's still participating and following along!
>
> Show this thread



10:10 AM · Apr 27, 2021 · Twitter for iPhone

Mihaela Bozukova
@MBozukova

Replying to @MBozukova

I wanted to expand my #Rstats and #dataviz skills, so I set myself the following goals:
1. post a chart every single day for 30 days, and
2. explore either one new dataset or one new #Rstats package every day.
2/

12:05 PM · May 1, 2021 · Twitter Web App

1 Retweet **4** Likes

Mihaela Bozukova @MBozukova · May 1

Replying to @MBozukova

Looking back, I am extremely happy to have pushed myself out of my comfort zone every single day.
3/

1 2

GET OUT OF YOUR COMFORT ZONE

- Skillset
- Tool
- Topic
- Chart Type
- SHARE IT!

GET INSPIRED, GET CREATIVE

Mick
@jacnah63

The data viz skills of some people are just off the charts awesome. I'm inspired to learn more and practice more. #30DayChartChallenge

10:16 AM · May 2, 2021 · Twitter Web App

Community

"During the challenge **I also learned many tricks by looking at other participants' submissions and codes**. The creativity and visualization capabilities of the others for each one of these topics was outstanding and looking for #30DayChartChallenge on Twitter will be worth a visit."

— Richard Vogg

https://r-vogg-blog.netlify.app/posts/2021-04-30-30daychartchallenge/

judkacag @juditbekker · Apr 28

Do you know any good courses / resources for learning R?
I started it a few years back, but I'm looking for something that is well-structured and practice oriented.

25 4 29

Fred Najjar @FredrickNajjar · Apr 28

ooo! new toy! me want to learn R too

1 1

judkacag
@juditbekker

Replying to @FredrickNajjar

yeah, I saw all the great submissions in rstats for the #30DayChartChallenge and I thought learning R might drag me out of feeling stuck 🚀

12:55 PM · Apr 28, 2021 · Twitter Web App

6 Likes

akomissaroff @anakomissarof · Apr 28

Replying to @juditbekker and @FredrickNajjar

Yes, me the same! Looking at so many brilliant works made for 30DayChartChallenge I started learning R. I mainly use CodeAcademy courses. But it depends on what type of studying you prefer: books, videos, or interactive platforms

1

judkacag @juditbekker · Apr 28

Do you know any good courses / resources for learning R?
I started it a few years back, but I'm looking for something that is well-structured and practice oriented.

25 4 29

Klaudia Jankowska (she/her)
@K_Jankowska_

Replying to @juditbekker

Planned to ask the same!🙌 The challenge is real fun but also made me realise that R for data viz is something I'll need to look into rather sooner than later, as right now I feel like a total outcast...

1:37 PM · Apr 28, 2021 · Twitter Web App

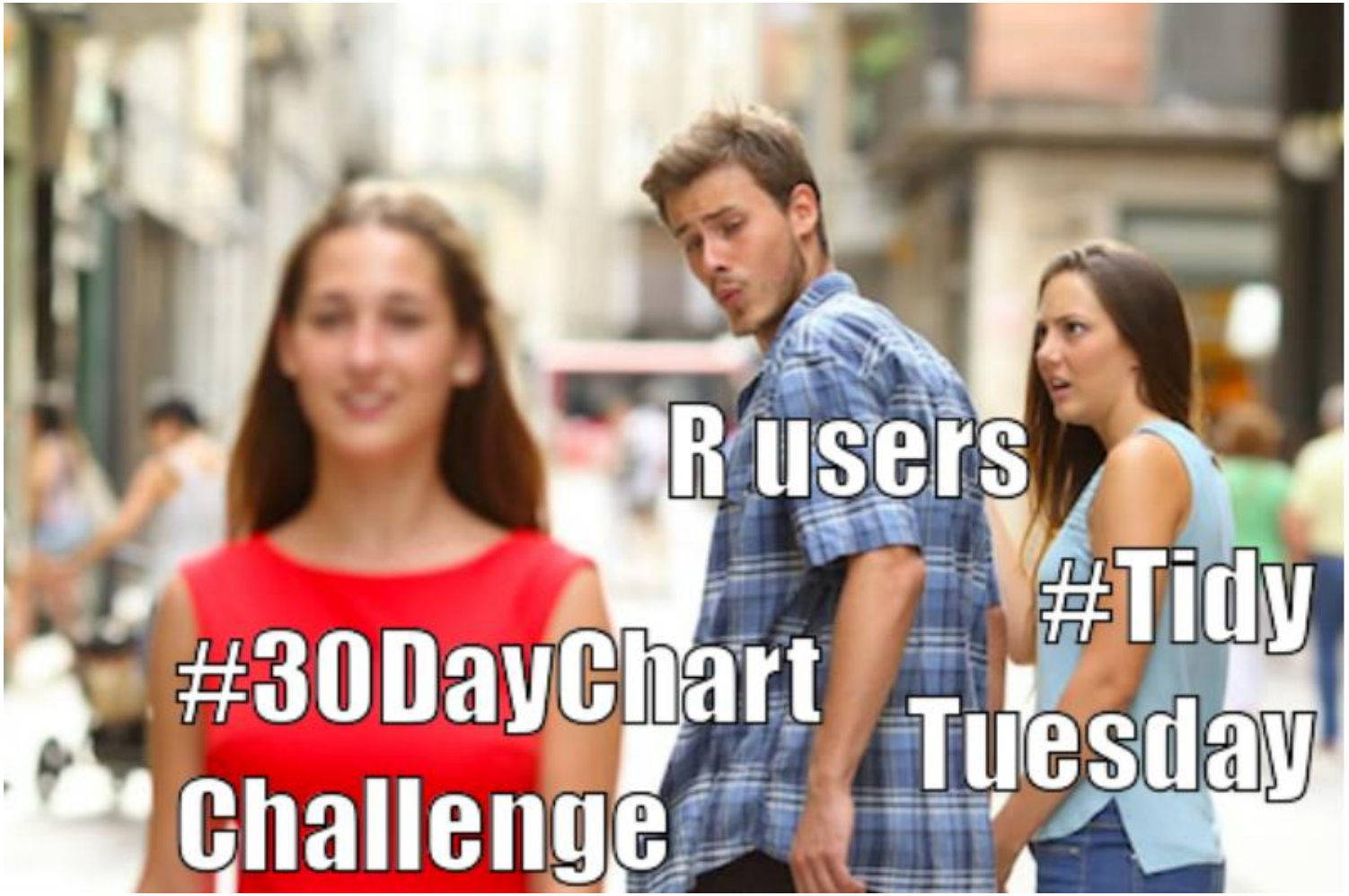
2 Likes

Cédric Scherer @CedScherer · Apr 28

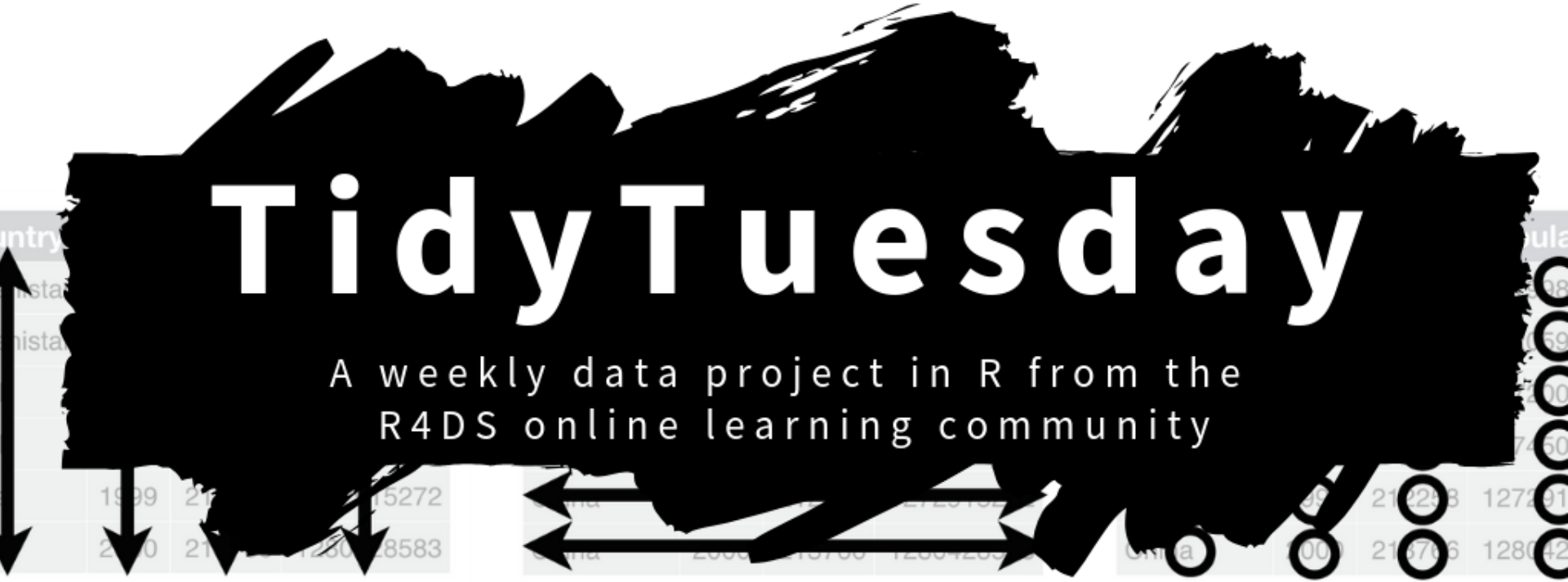
Replying to @K_Jankowska_ and @juditbekker

Whatever tools make you feel confident and productive are good tools! There is, definitely a bias towards #rstats among participants in the #30DayChartChallege because the two who initiated it are working with R 👨‍🦲

1 5


R users
#Tidy
Tuesday
#30DayChart
Challenge

#TIDYTUESDAY on Twitter • RFORDATASCIENCE/TIDYTUESDAY on GitHub • R4DS on Slack



Nischal Shrestha, Titus Barik, and Chris Parnin (2021)
Remote, but Connected: How #TidyTuesday Provides an Online Community of Practice for Data Scientists.
Proc. ACM Hum.–Comput. Interact. 5, CSCW1, Article 52

“I’m not looking to necessarily practice my skills as much as I am **to be inspired and know what I can do** based on what other people share.”

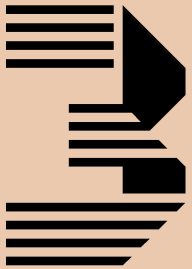
P3 in *Proc. ACM Hum.–Comput. Interact. 5, CSCW1, Article 52*

"#TidyTuesday became a 'choose your own adventure game', which allowed participants **to 'pursue something really weird' beyond traditional visualizations**."

[illegible] and [illegible] *Proc. ACM Hum.-Comput. Interact.* 7, CSCW, *Article 52*

GET INSPIRED, GET CREATIVE

- Prompt → Topic and/or Design
- New Datasets
- New Tools
- Inspiring Contributions
- Playground to “pursue something weird”



GET FEEDBACK AND SUPPORT

Mihaela Bozukova @MBozukova · May 1

Thank you @CedScherer and @dr_xeo for organising the #30DayChartChallenge. The prompts were creative and stimulating and helped me grow and expand my #dataviz skillset.
4/

1 3 8

Mihaela Bozukova
@MBozukova

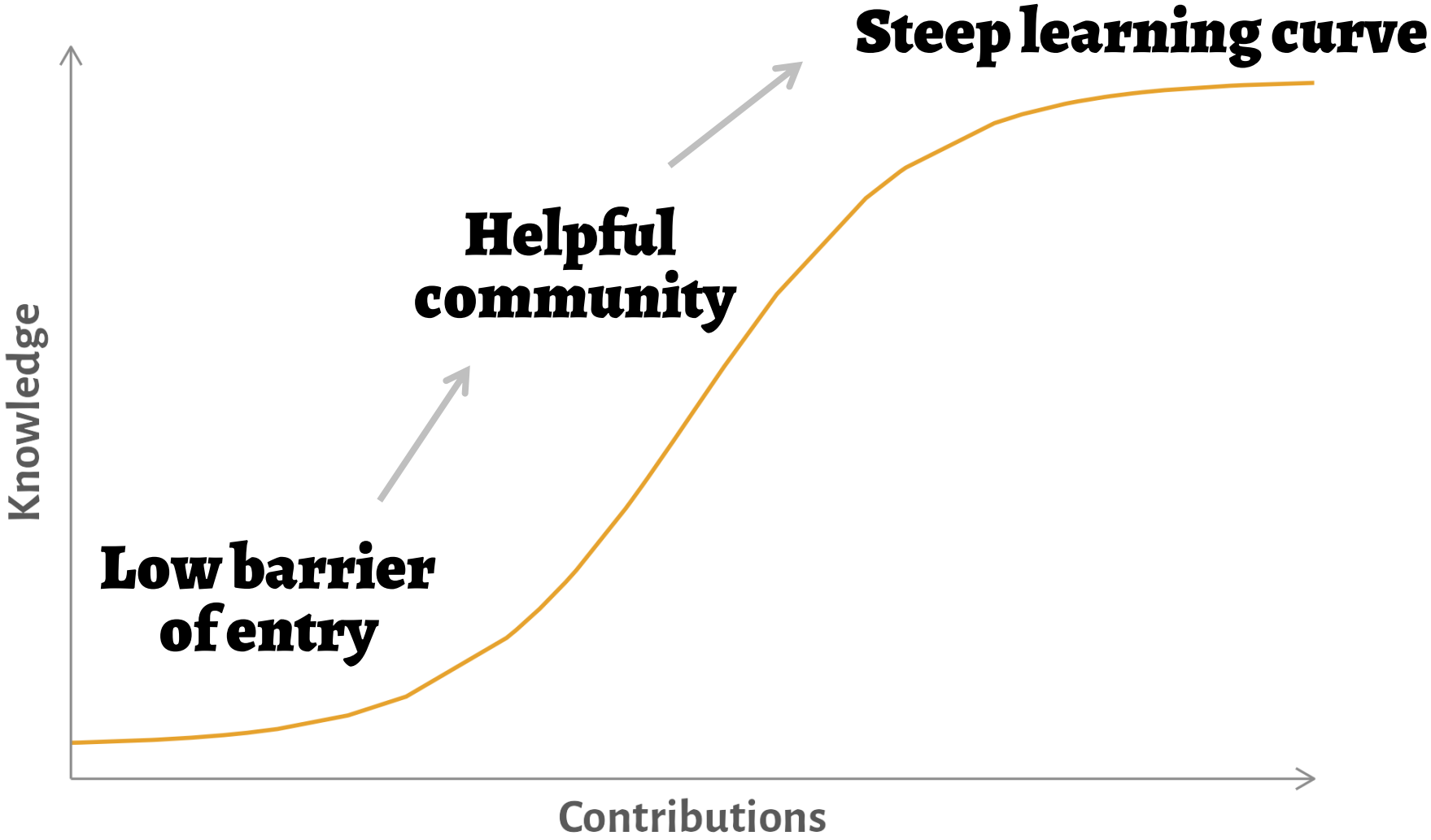
Replying to @MBozukova

Thanks also to the incredibly supportive and helpful #30DayChartChallenge community. I am in awe of all the beautiful #dataviz you all created.
5/

12:06 PM · May 1, 2021 · Twitter Web App

“On Twitter I’ve kind of had to come out of my shell to post stuff but every time I posted things or interacted with people, **they’ve just been so wonderful and supportive**.”

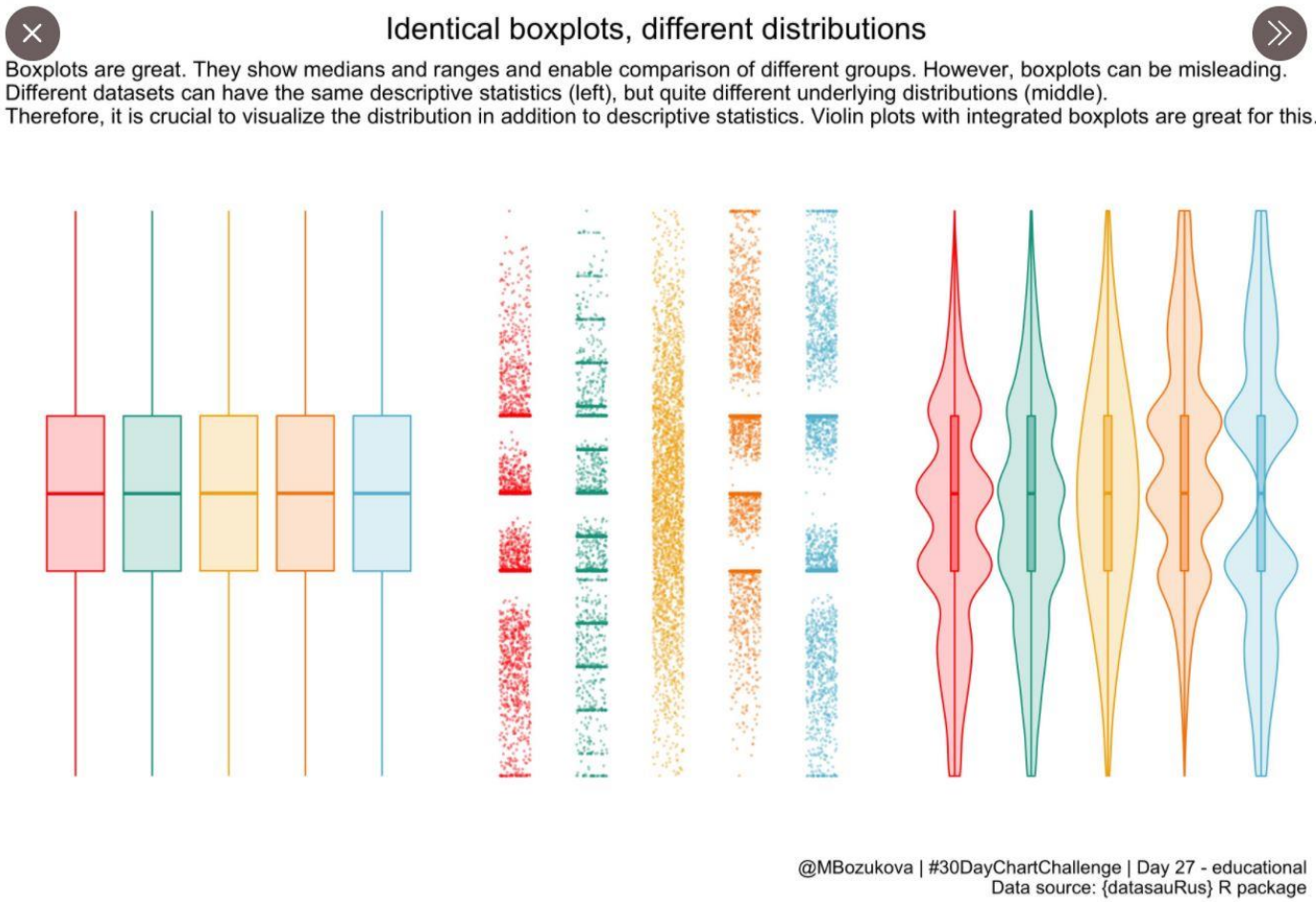
C19 in *Proc. ACM Hum.–Comput. Interact. 5, CSCW1, Article 52*


Steep learning curve
Helpful community
Low barrier of entry
Knowledge
Contributions

GET NEW FRIENDS AND CONNECTIONS

Data scientists can get socially isolated in their efforts for practice without a community of practice, which can negatively impact motivation for consistent practice.

Proc. ACM Hum.–Comput. Interact. 5, CSCW1, Article 52



Mihaela Bozukova
@MBozukova

Visualizing summary statistics in a #boxplot is great. But don't forget to explore the underlying data distribution.

Thanks to @JustinMatejka for this great educational dataset.

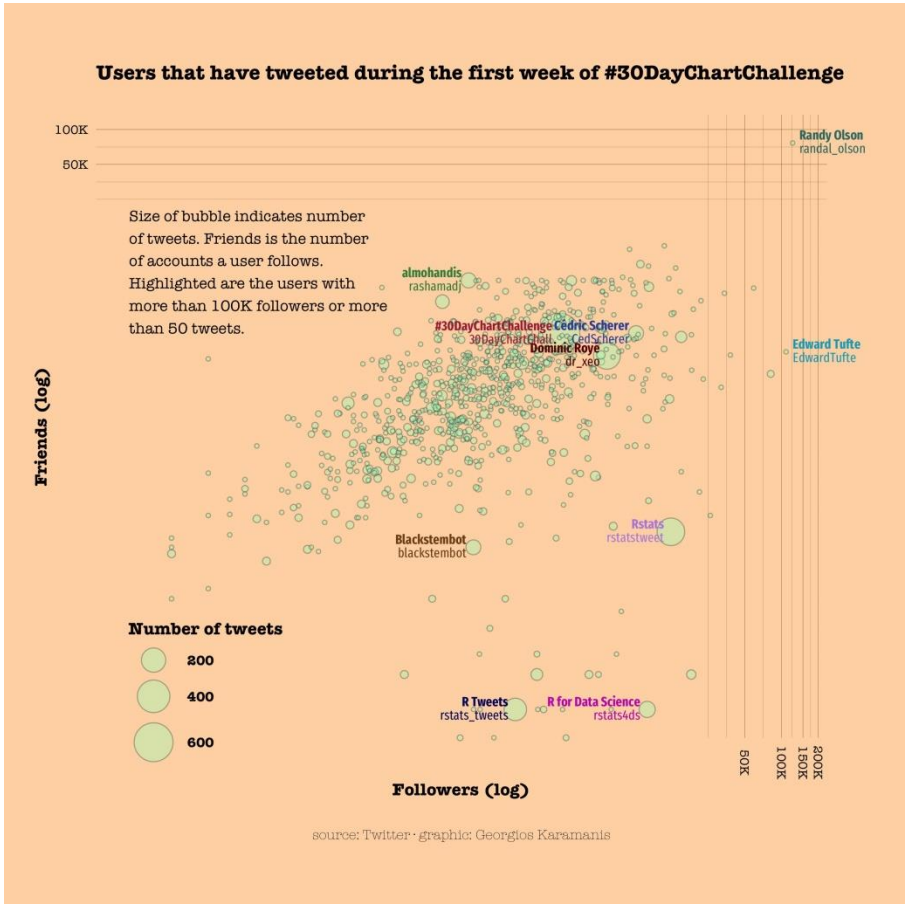
#30DayChartChallenge | #Day27 | #educational

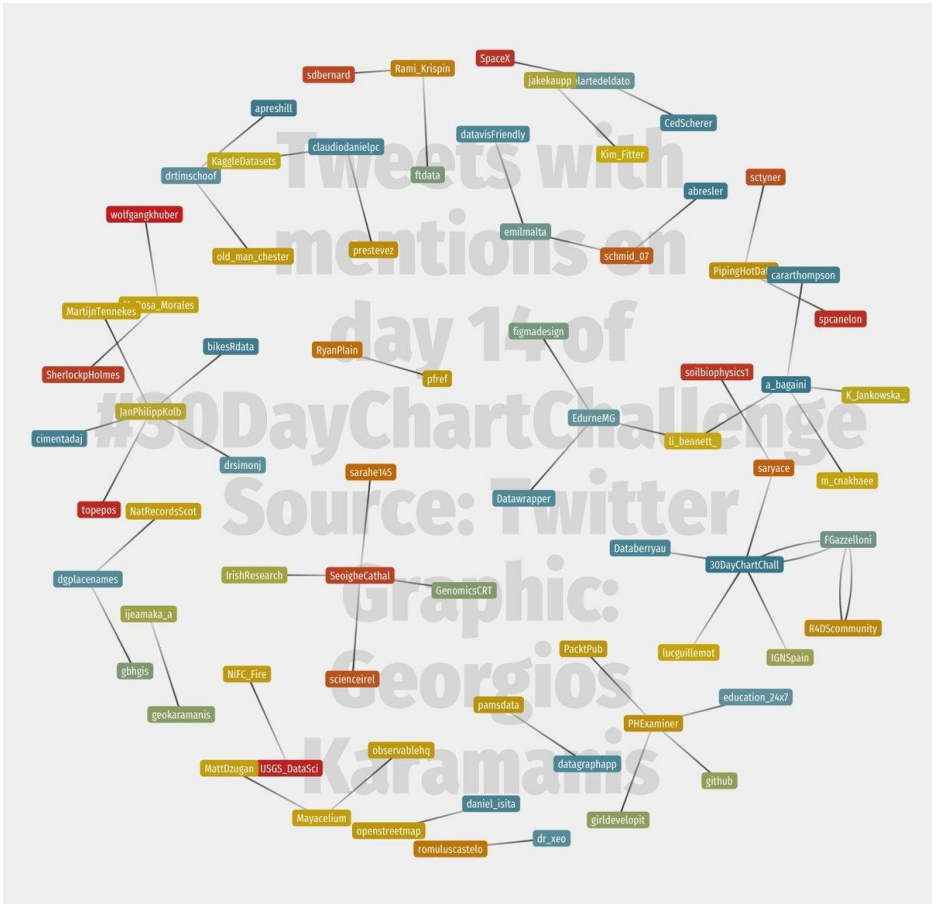
#dataviz #Rstats #ggplot2 #statistics #violinplot

7:22 PM · Apr 27, 2021 · Twitter Web App

124 Retweets **15** Quote Tweets

684 Likes





Day 13: Correlation + Day 18: Connections | @geokaramanis

GET THE DATA (READY)

Learnings

"I found that **locating a suitable data source and enriching it, if needed, and cleaning it took the most time**. This wasn't too surprising as I often find this to be the case, but with the daily cadence, this became a challenge and sometimes I ended up using a data source which I wasn't totally happy with due to time."

— Marc Reid

https://datavis.blog/2021/05/02/30daychartchallenge/

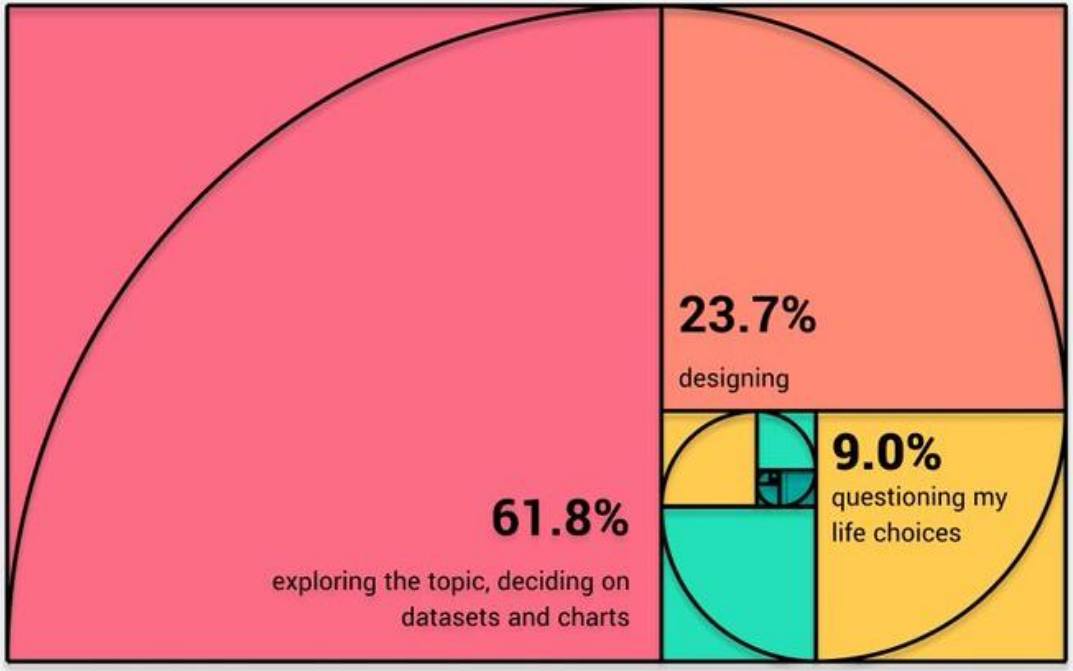
Data Sources

"**The only few frustrating moments were almost all related to datasets.** Sometimes I did not have a great inspiration or a dataset at hand, so I spent a lot of time browsing through Kaggle and looking on Google for interesting datasets, while I felt that I was using the time I should actually spend on the visualization."

— Richard Vogg

https://r-vogg-blog.netlify.app/posts/2021-04-30-30daychartchallenge/

Golden ratio of shaping a viz



3.5%

checking #30DayChartChallenge updates

1.3%

refilling my water bottle

0.6%

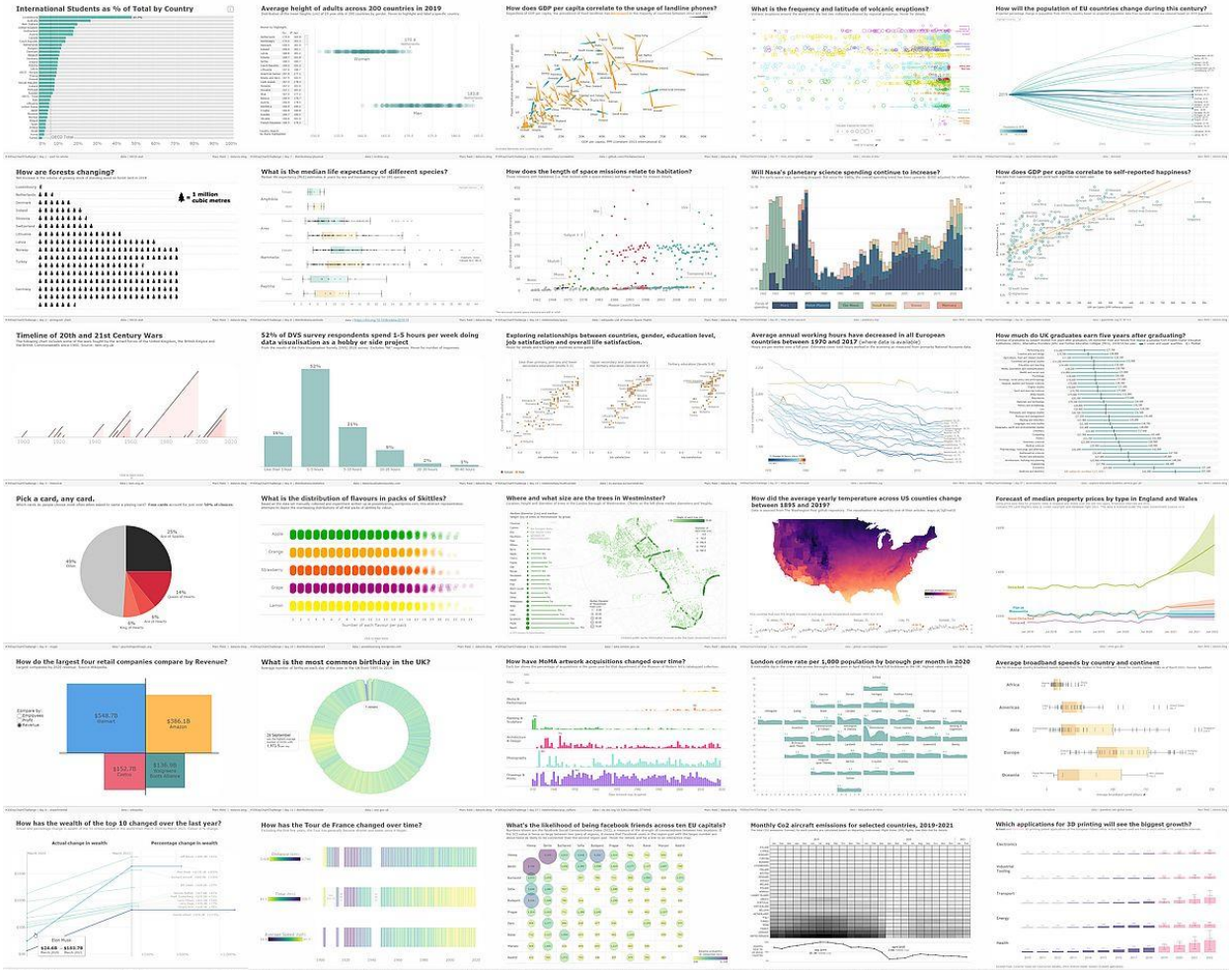
dealing with the consequences of drinking that much

0.1%

making tea

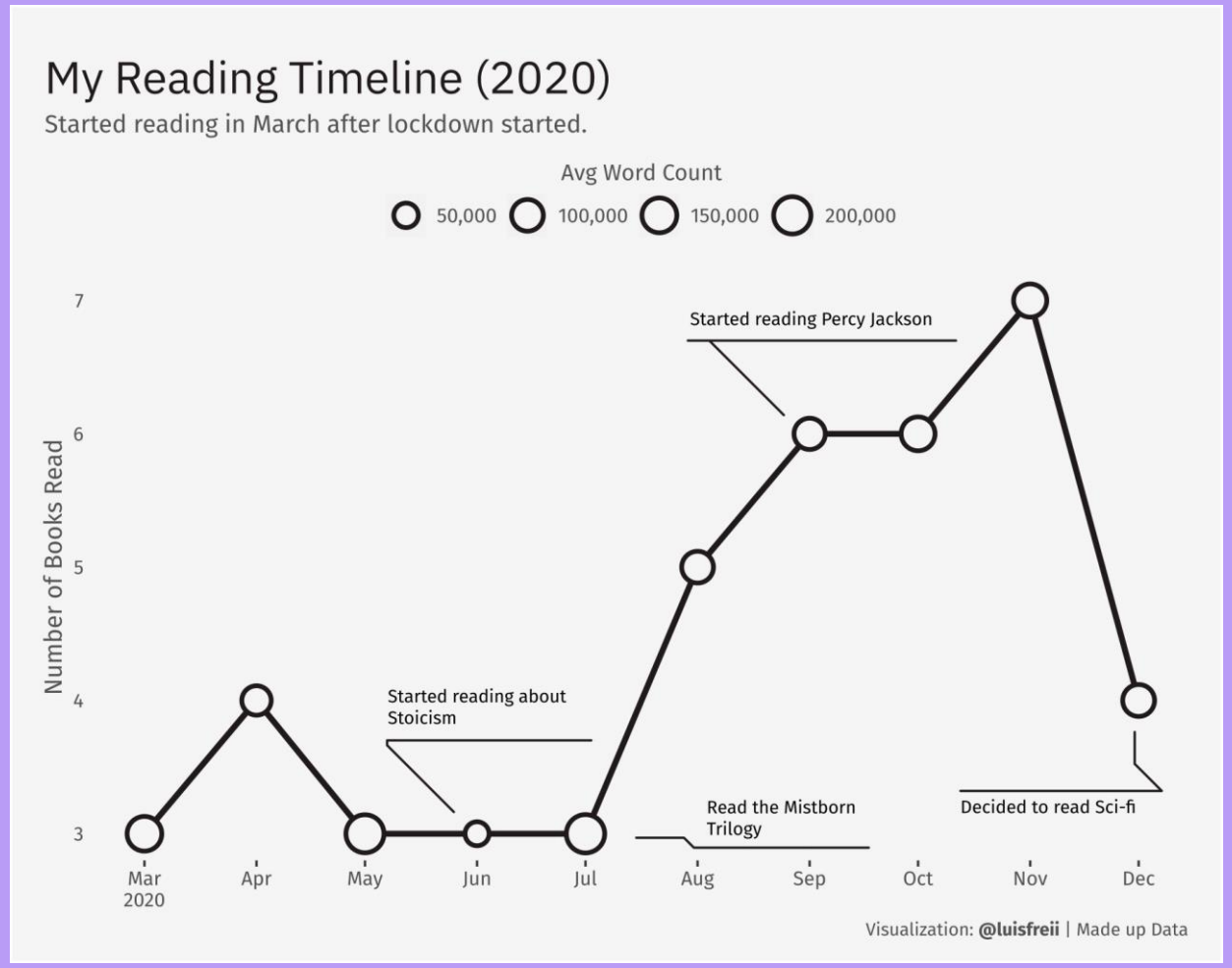
<0.1%

re-wrapping myself in a blanket

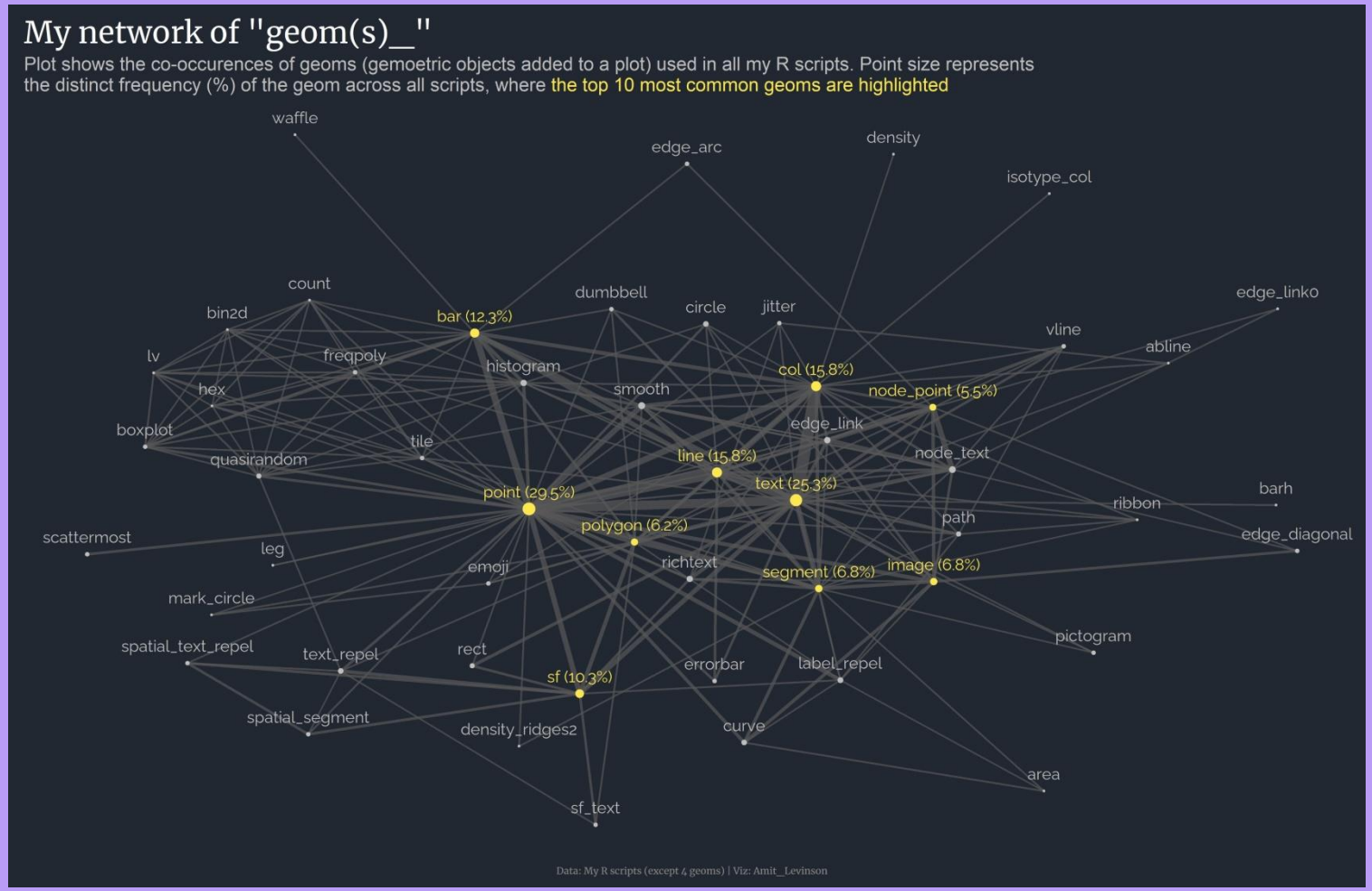


Marc Reid — datavis.blog/2021/05/02/30daychartchallenge

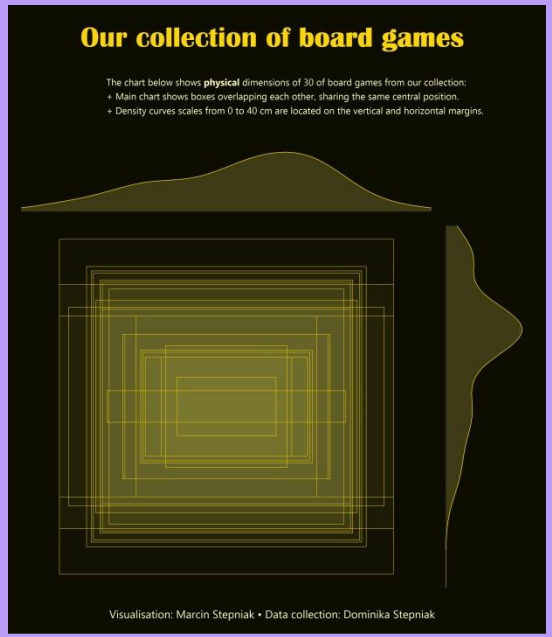
PERSONAL DATA

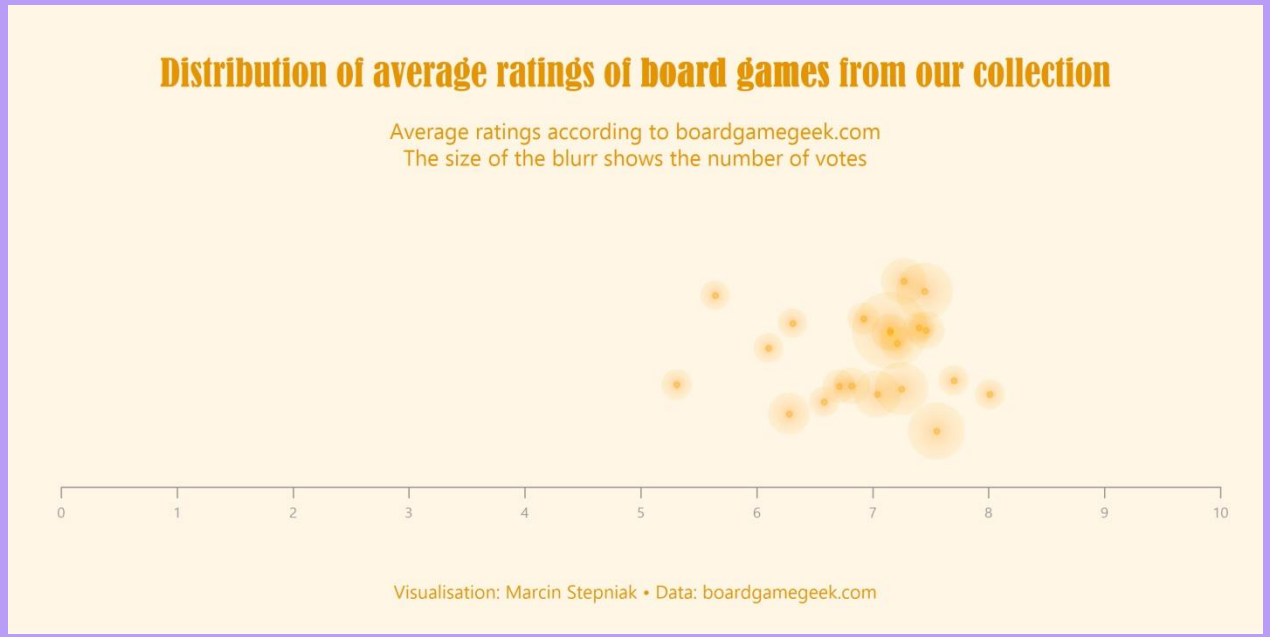


Day 24: Monochrome | @luisfreii



Day 18: Connections | @Amit_Levinson

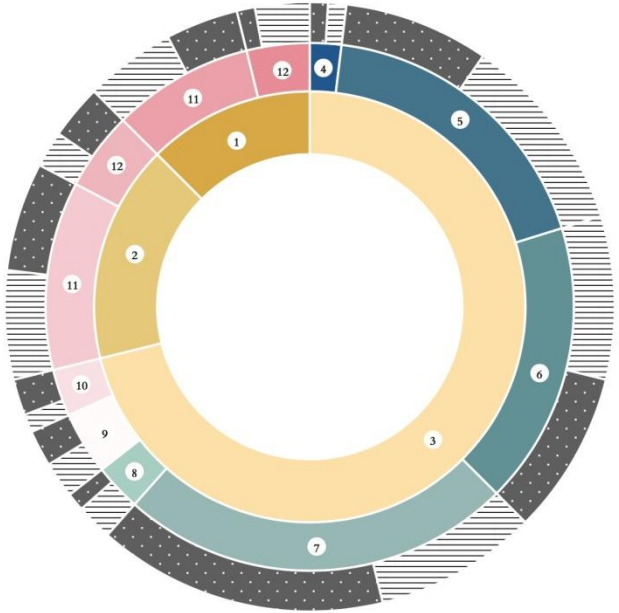




Day 7: Physical + Day 9: Statistics | @marcin_stepniak

Schön,

DASS DU DA BIST.



Du bist

1. verwandt mit Maria
2. verwandt mit Manu
3. befreundet

Wir kennen uns von

4. Hamburg
5. Schiedlberg
6. Graz
7. Saulgau
8. Hagenberg
9. München
10. Feldbach

Die Verwandtschaft ist

11. direkt / nah
12. verschwägert

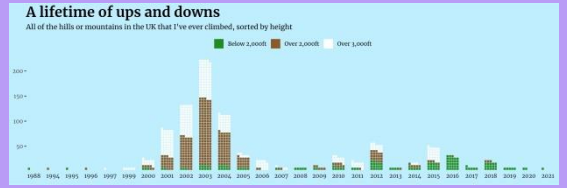
Du bist

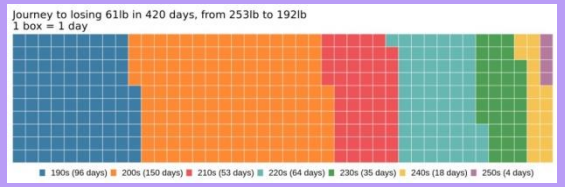
♂

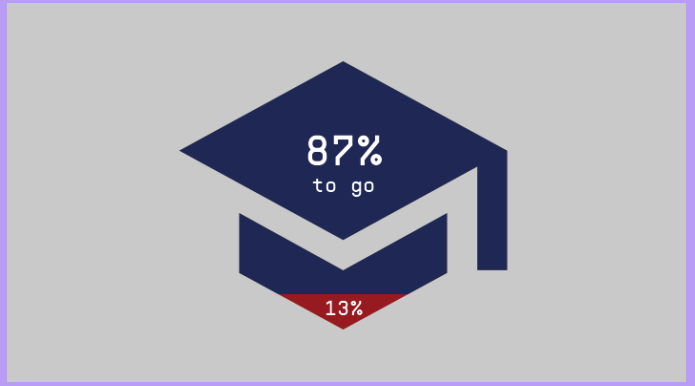
♀

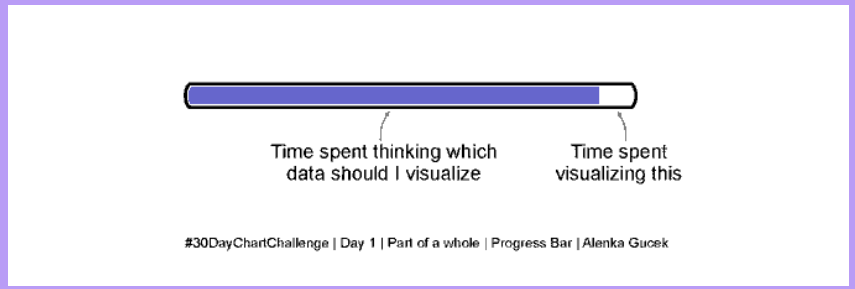
Day 1: Part-to-Whole | @dermanuskript


Fruitables Whole Jerky Bites Purchases
for my dog, Waffles


A lifetime of ups and downs
All of the hills or mountains in the UK that I've ever climbed, sorted by height
Below 2,000ft
Over 2,000ft
Over 3,000ft

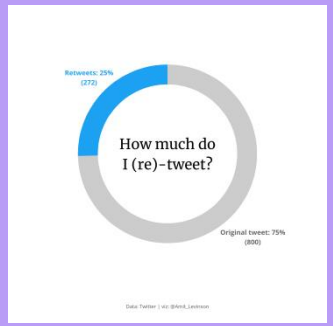

Journey to losing 61lb in 420 days, from 253lb to 192lb
1 box = 1 day
190s (96 days)
200s (150 days)
210s (53 days)
220s (64 days)
230s (35 days)
240s (18 days)
250s (4 days)

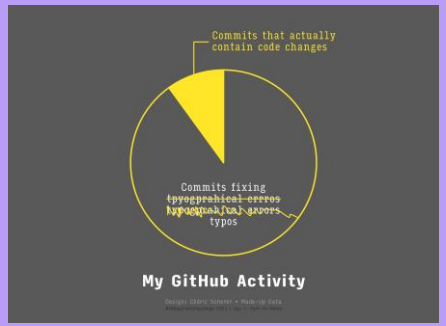

87%
to go
13%

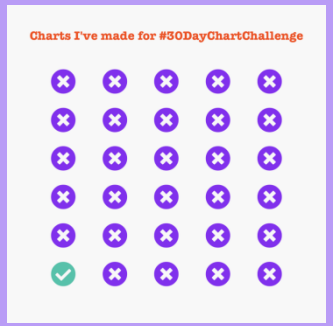

Time spent thinking which data should I visualize
Time spent visualizing this
#30DayChartChallenge | Day 1 | Part of a whole | Progress Bar | Alenka Gucek


My Weight Loss Journey: Eat Clean, Workout, Sleep, Repeat!
A smooth slide...
~ Holiday season ~
Back on track!


Personal projects
Client work
Community
Prospective work
Admin
1 square is 1% of tracked time


Retweets: 25%
(272)
How much do I (re)-tweet?
Original tweet: 75%
(800)


Commits that actually contain code changes
Commits fixing typographical errors
typographical errors
typos
My GitHub Activity


Charts I've made for #30DayChartChallenge


My cat's the best!
Comparing Flocke's characteristics to other cat breeds
Tendency to Vocalise
Potential for Playfulness
Pet Friendly
Kid Friendly
Intelligence
General Health
Friendly Toward Strangers
Easy to Groom
Amount of Shedding
Affectionate with Family
Flocke
Bengal
Maine Coon
Norwegian Forest
Ragdoll
Scottish Fold

GET THE DATA (READY)

- Pick a topic you enjoy
- Build your own data sets
- Find an interesting story
- Pick a data set of other contributions

GET IT OUT!

Participants are engaged to share visualizations on a daily basis.

Motivation:

Daily rhythm helps to maintain engagement.

Responsibility:

Crafting visualizations takes time.

Participants might come up with a cool-looking chart without having time to understand the (meta)data and check their story.

No Data Provided

#SWDchallenge
monthly topic • all tools

#IronViz
yearly theme • Tableau

#IronQuest
monthly theme • Tableau

#30DayMapChallenge
daily theme • all tools

#30DayChartChallenge
daily theme • all tools

Data Provided

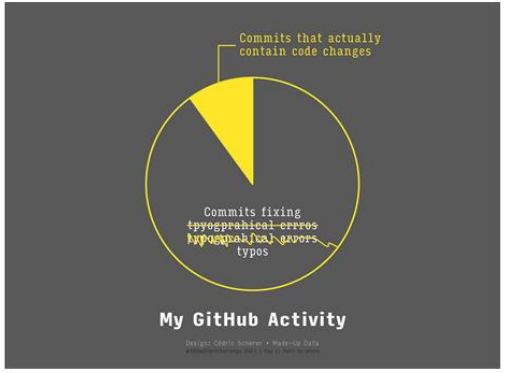
#MakeoverMonday
weekly dataset • Tableau

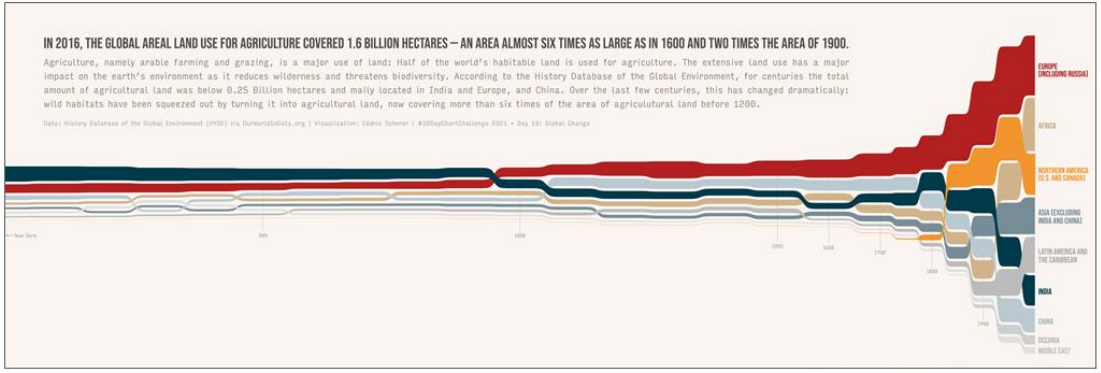
#TidyTuesday
weekly dataset • R (tidyverse)

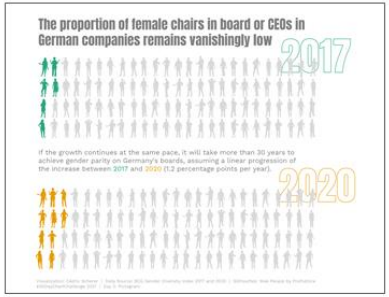
GET IT OUT!

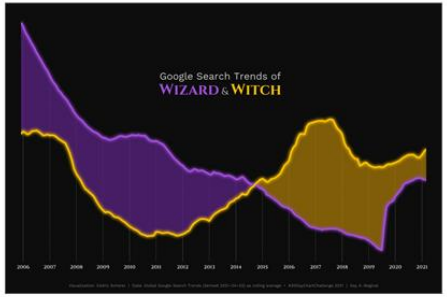
- Motivation to share a visualization with the community
- Time constraint problematic?
- Target data literacy and ethics?

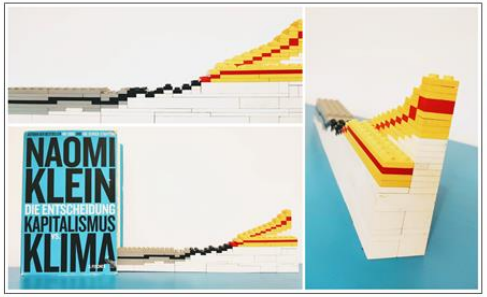
PERSONAL RECAP

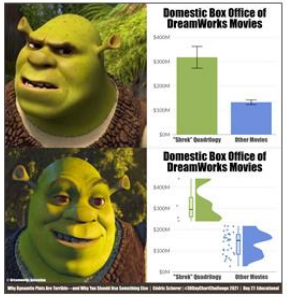


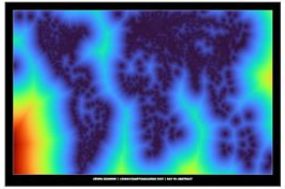


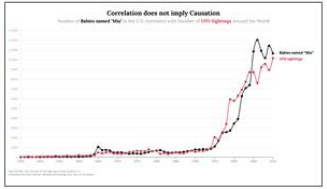


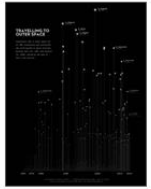


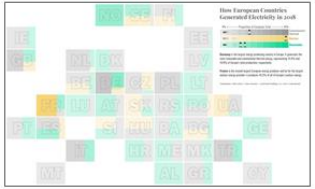


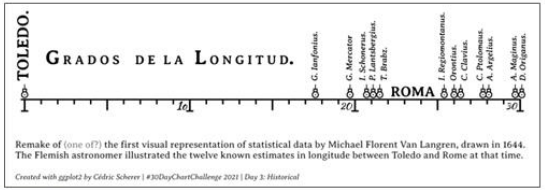


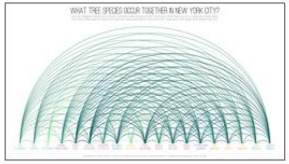


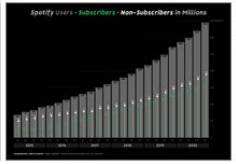


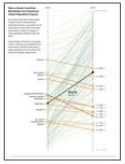


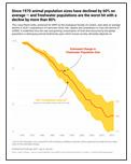


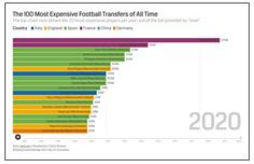


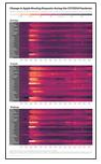












R
ggplot2
Figma
Datawrapper
Flourish
RAWGraphs
AMCHARTS
LEGO SYSTEM

PERSONAL RECAP

- *Automate things (or get some help)*
- *Prepare contributions (cheating?)*
- *Use platform to educate and raise awareness (diversity, accessibility)*

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!

Thank you!

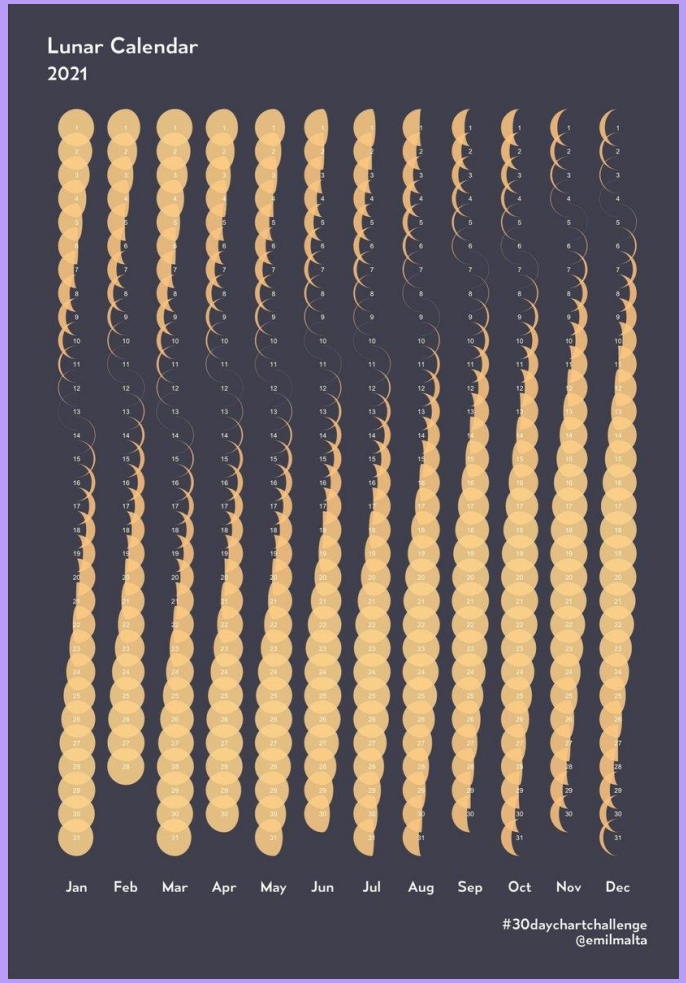
@CedScherer
cedricscherer.com

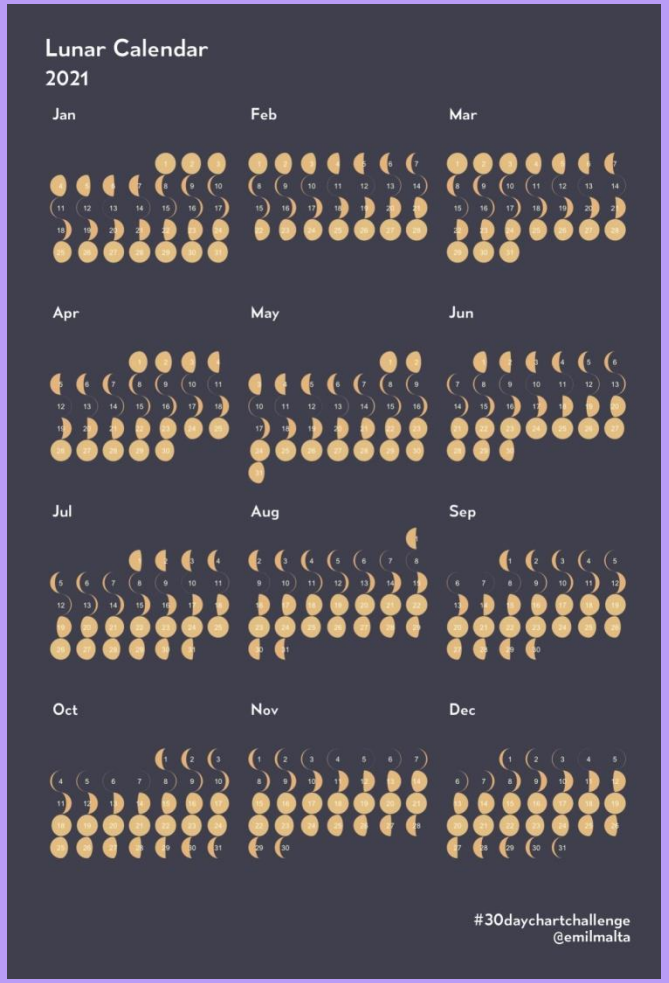
@30daychartchall
#30DayChartChallenge

Appendix

More Great Contributions

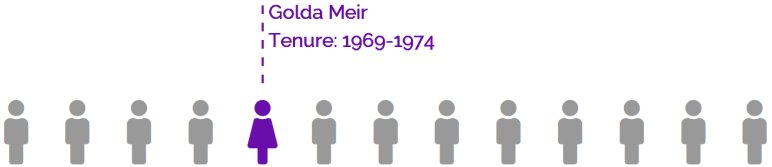
(sorted by day)





Day 2: Pictogram | @emilmalta

Israel has exprienced only one **female** prime minister



Viz: Amit_Levinson

The proportion of female chairs in board or CEOs in German companies remains vanishingly low

2017

If the growth continues at the same pace, it will take more than 30 years to achieve gender parity on Germany's boards, assuming a linear progression of the increase between 2017 and 2020 (1.2 percentage points per year).

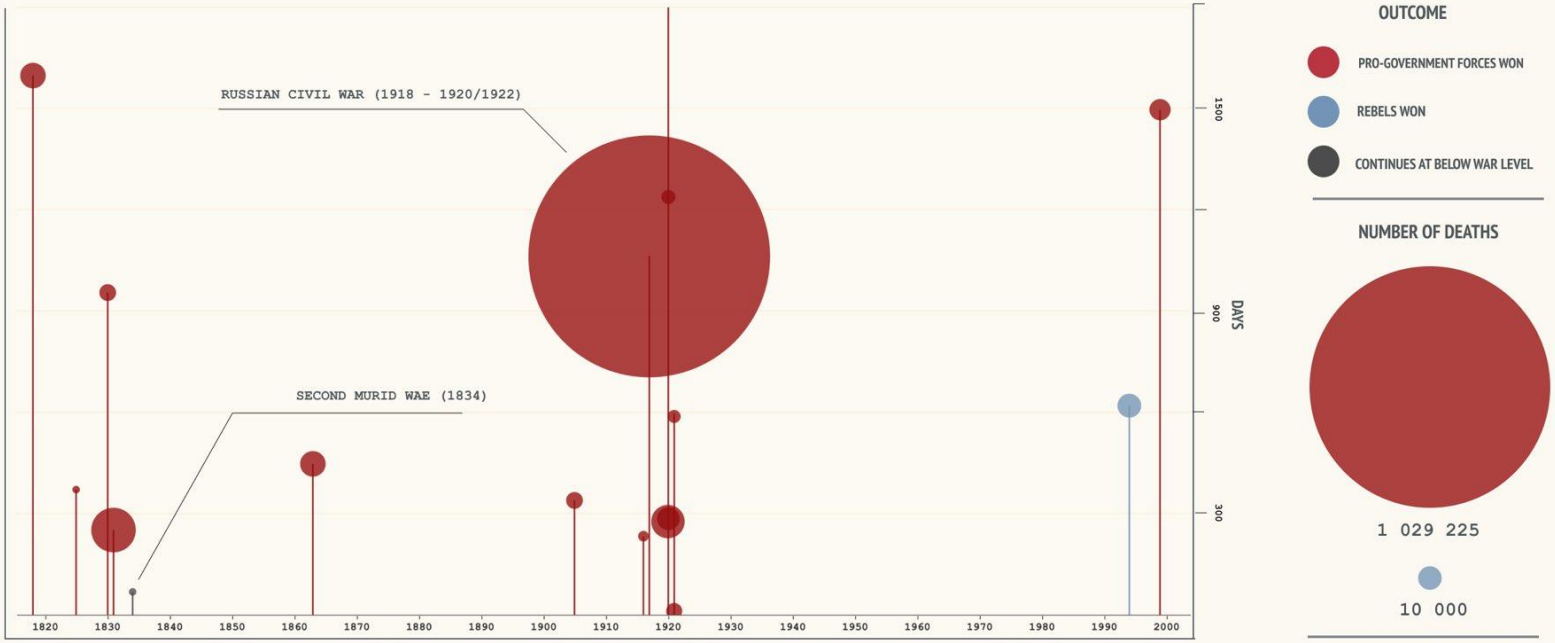
2020

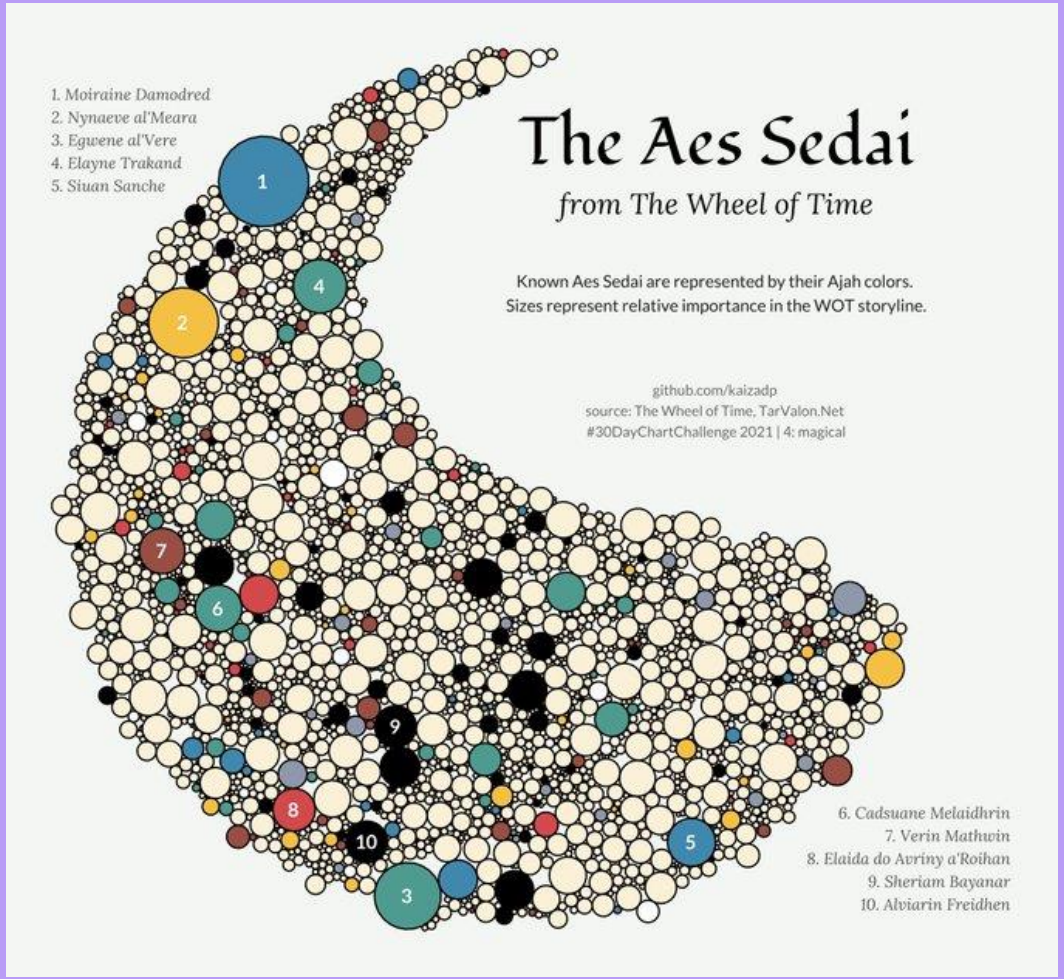
Visualization: Cédric Scherer | Data Source: BCG Gender Diversity Index 2017 and 2020 | Sillhouttes: Wee People by ProPublica
#30DayChartChallenge 2021 | Day 2: Pictogram

Day 2: Pictogram | @CedScherer

CIVIL WARS AND INTERNAL CONFLICTS IN RUSSIA

In a civil war the firing line is invisible, it passses through the hearts of men.
Antoine de Saint-Exupéry

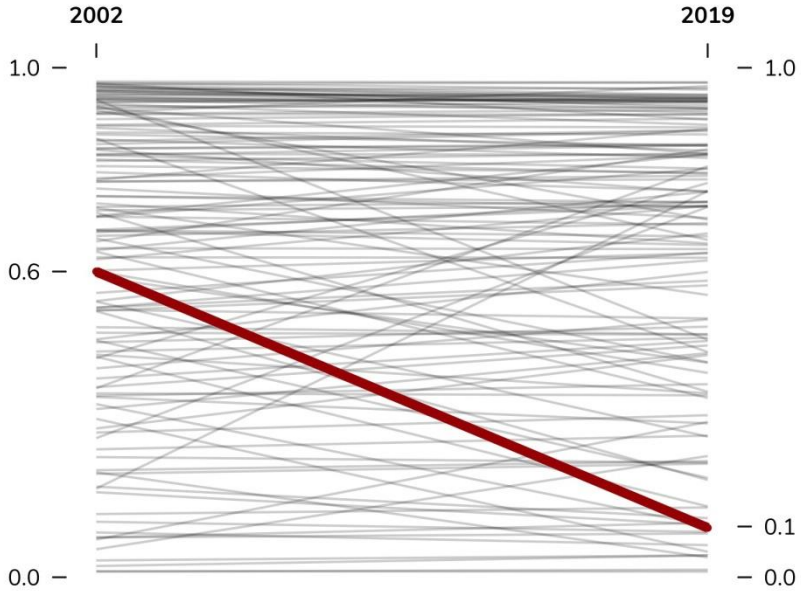




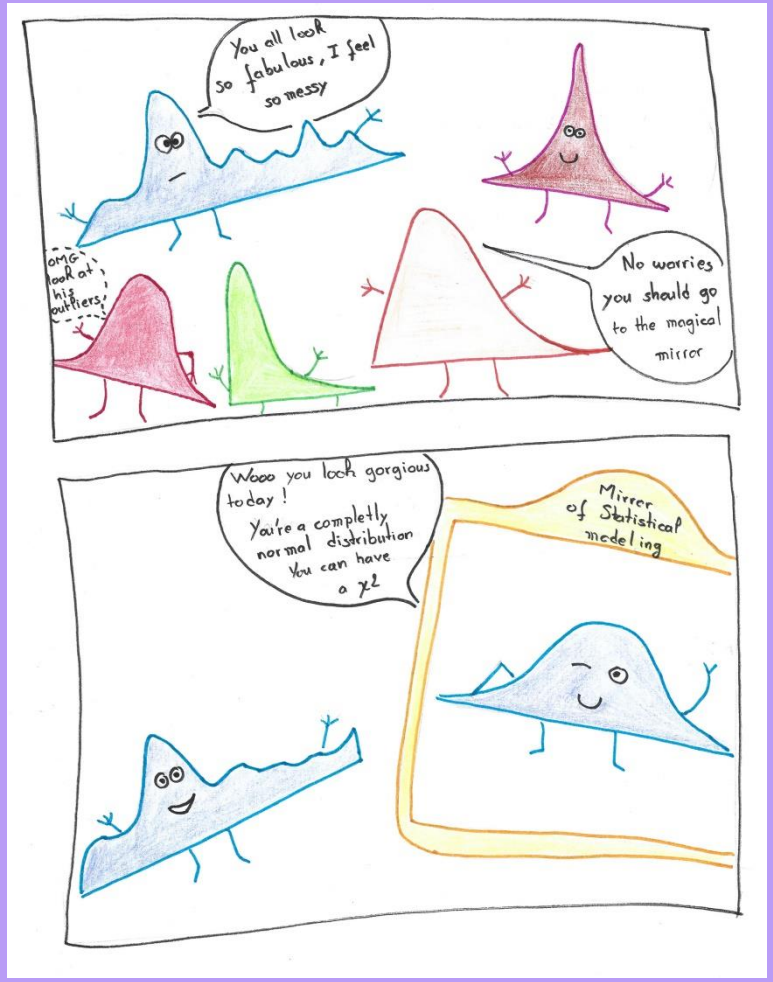
Day 4: Magical | @kaiz_p

Academic Freedom in Turkey

Turkey has been ruling by **Justice and Development Party** since 2002. The red slope shows how the academic freedom in Turkey changes 2002 to 2019 according to V-Dem academic freedom index. Grey lines represents the other countries in the world.



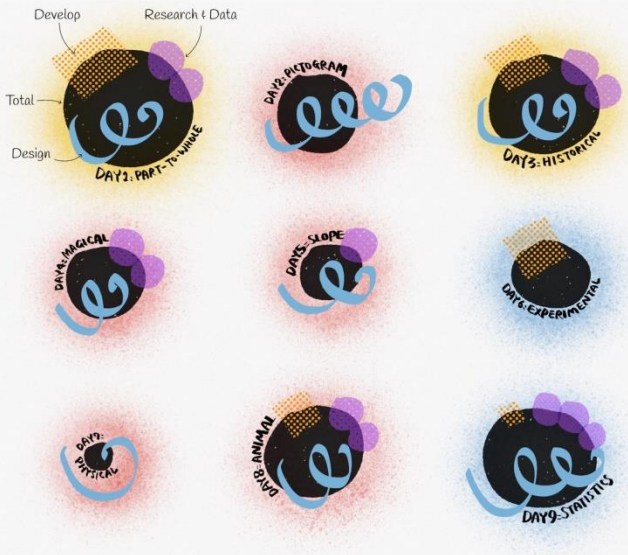
Data from V-Dem
Visualization by Botan Ağın
#30DayChartChallenge



Day 9: Statistics | @Melau_Yellau

A timesheet of my 30-Day Chart Challenge

Primary tools D3.js Figma Tableau



#30DayChartChallenge Day10: Distribution + Abstract Wendy Shijia @Shijia Wendy 11 April 2021

Day 10: Abstract | @ShijiaWendy

Sleep Patterns from Jan 2021 - April 2021

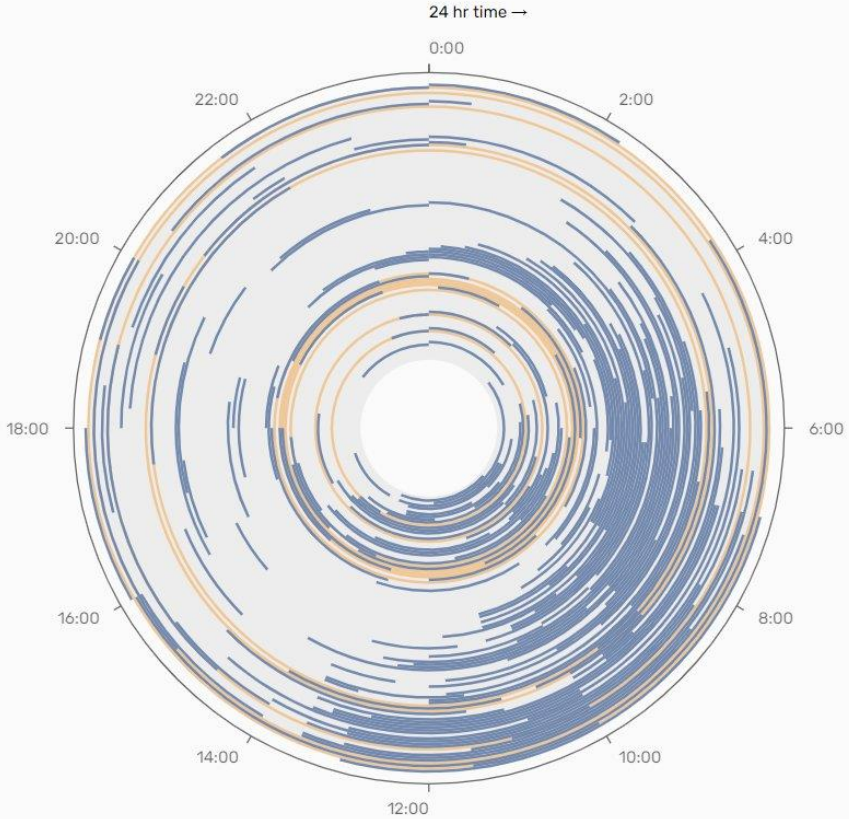
I have been recording my sleep schedule every day in a bullet journal and visualizing that data leads to some interesting patterns.

Although I sleep at strange times, I do get on average 6.84 hours of sleep per day.

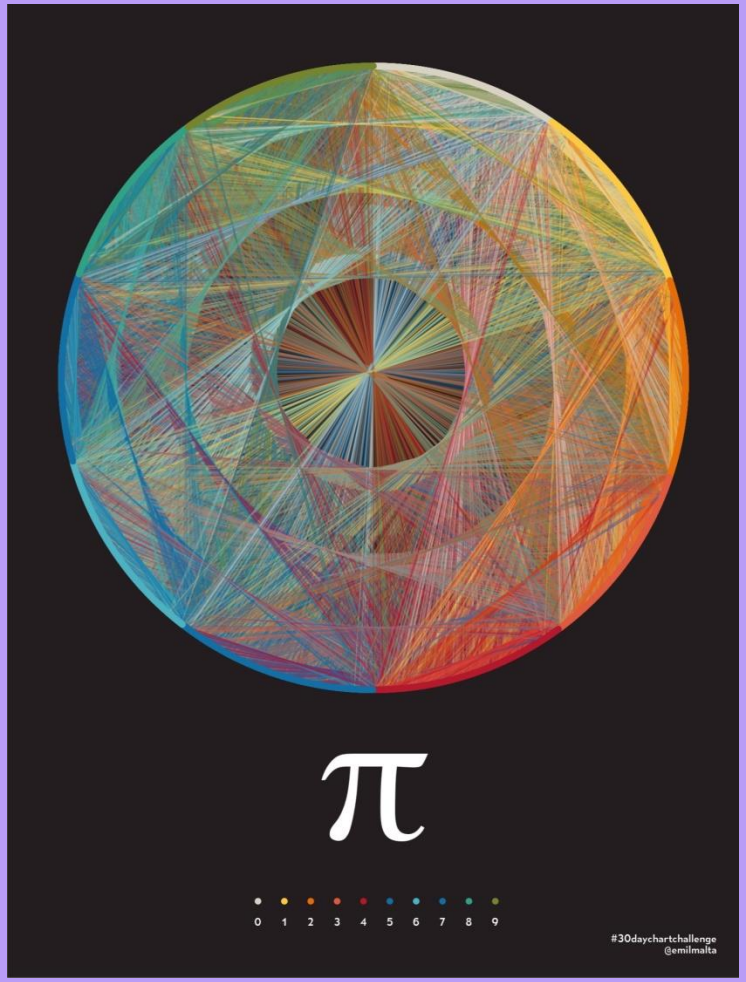
Blue arcs represent hours when I am asleep

One ring represents one day, with Jan 1st at the center and days progressing outward

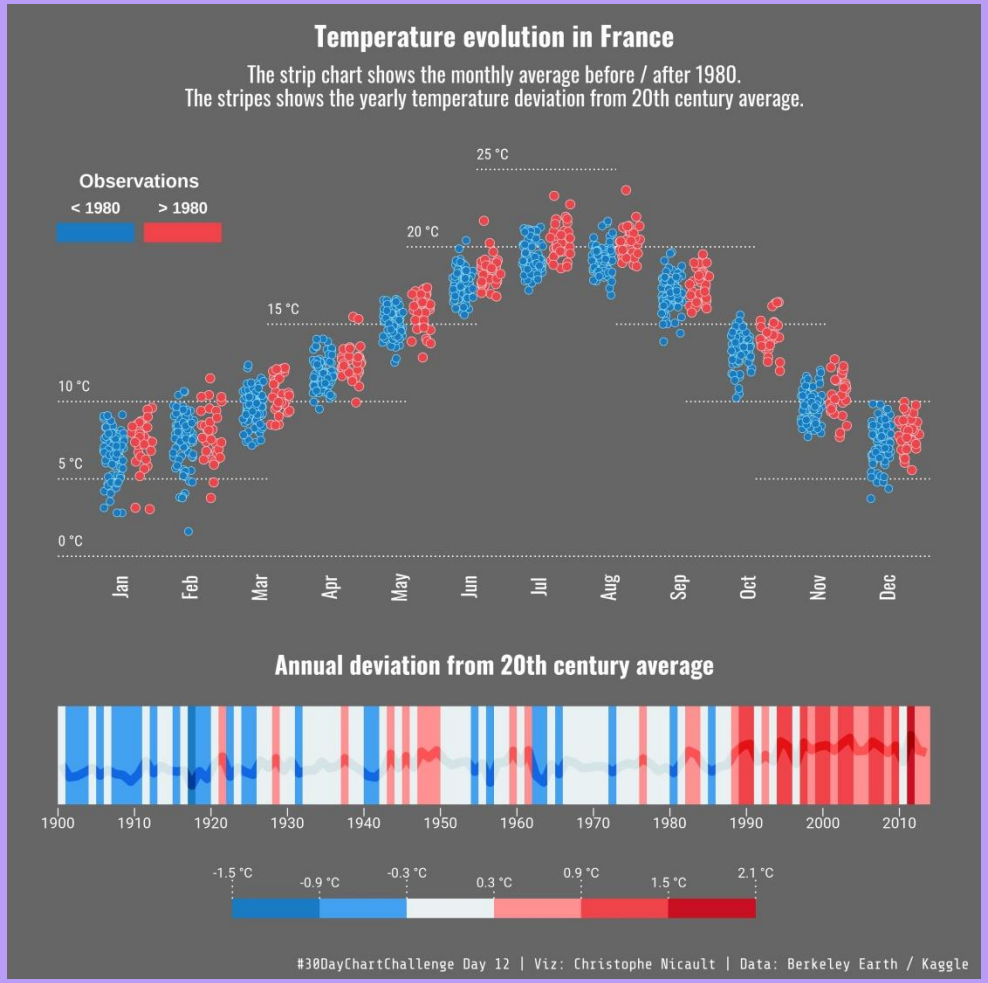
Orange rings represent days with an all nighter



@NINGN418|DAY 11|#30DAYCHARTCHALLENGE

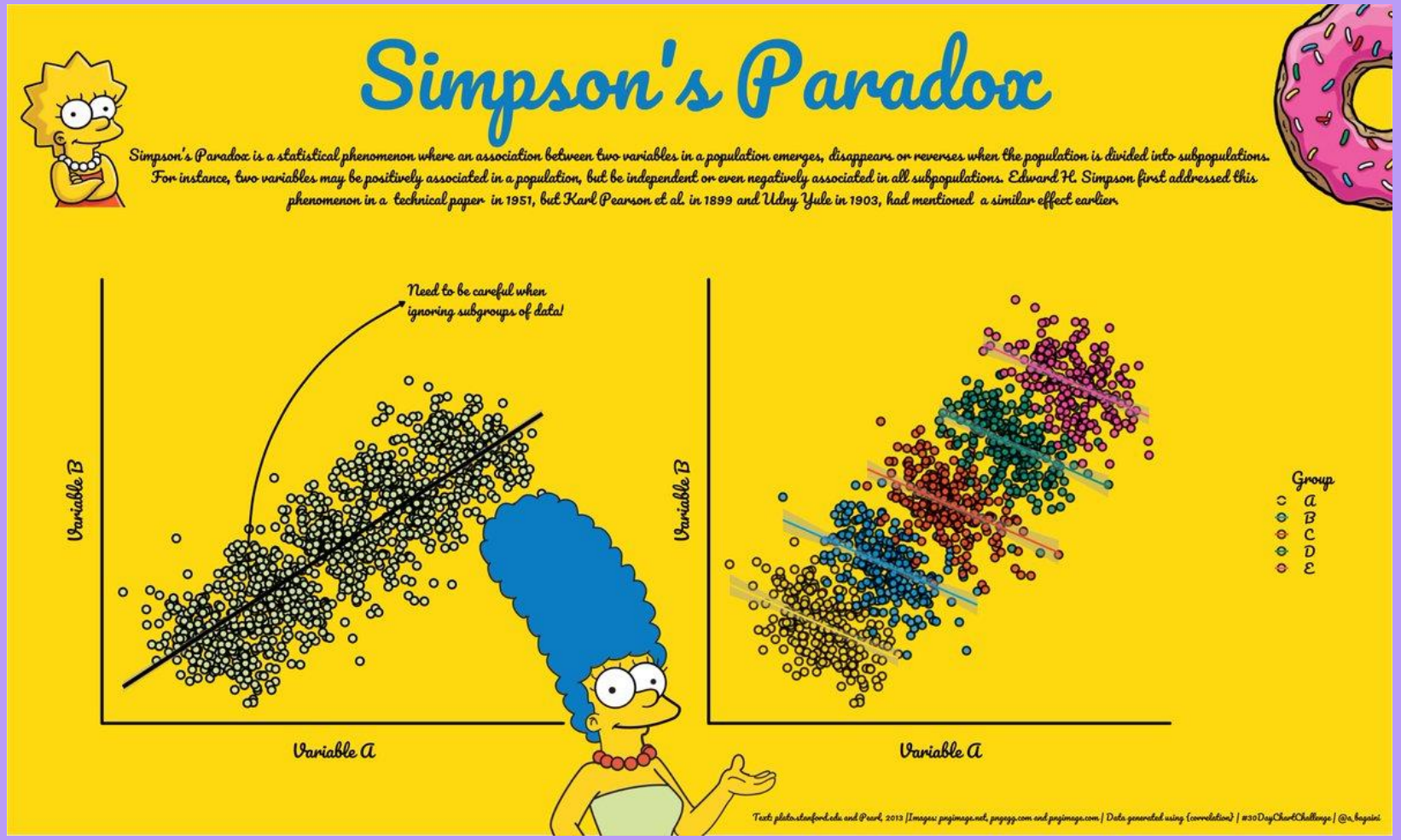


Day 11: Circular | @emilmalta



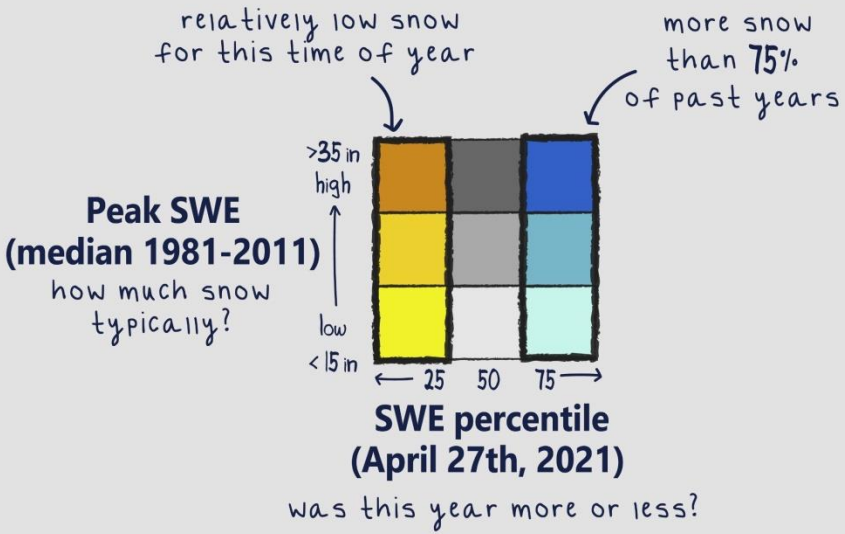
Day 12: Strips | @cnicault

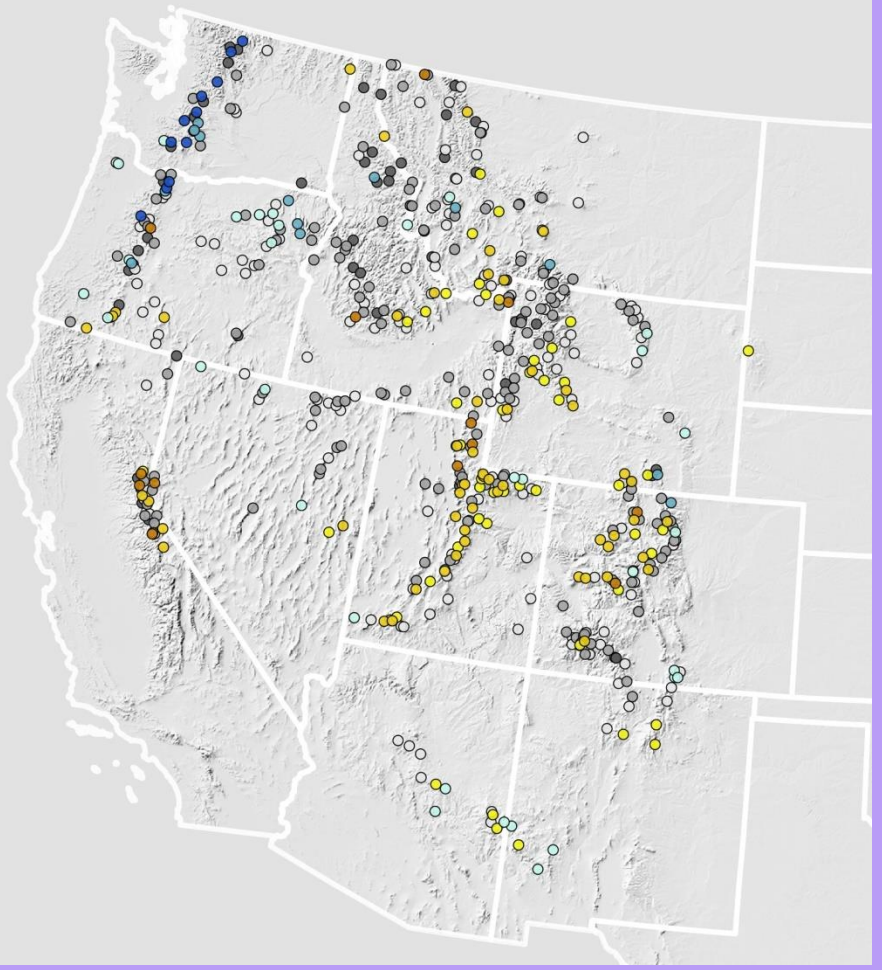
Day 12: Strips | @MaiaPelletier



Day 13: Correlation | @a_bagaini

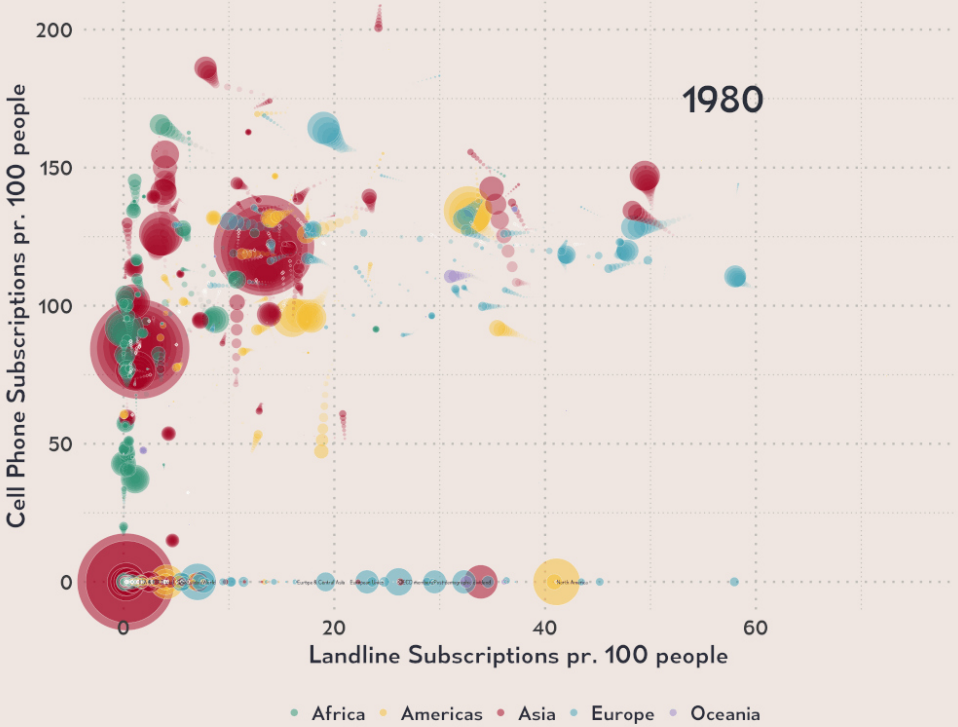
Are snowy places getting snowier?





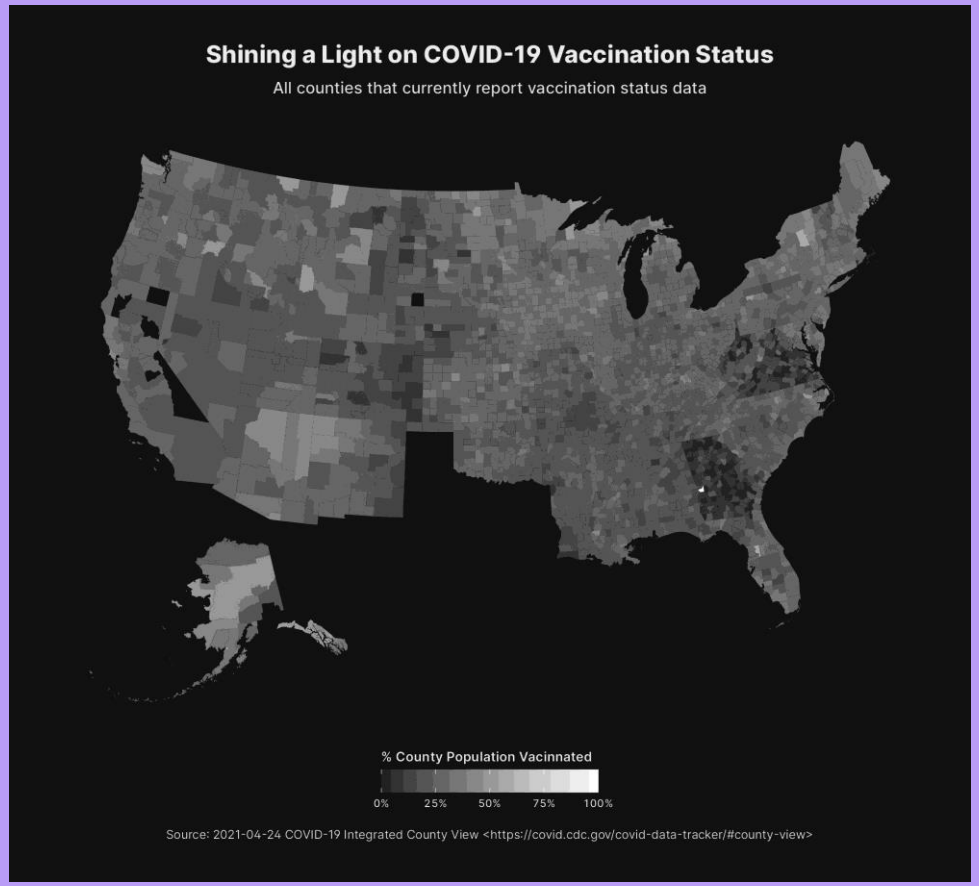
Rise of Cell Phones

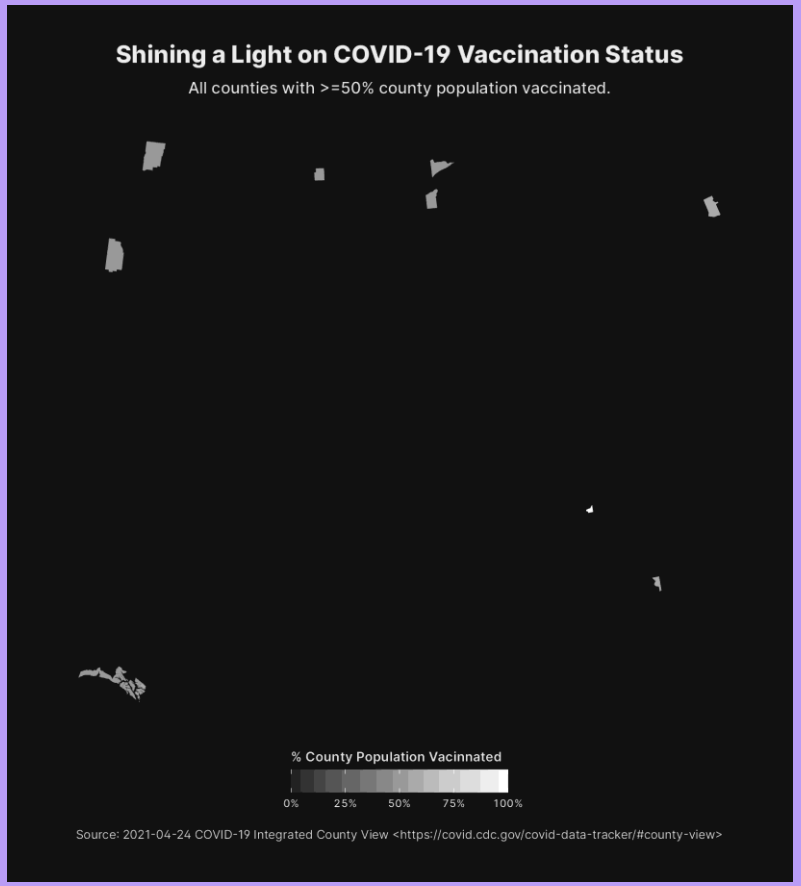
Cell phones are not only more convenient for the end user. They are also much easier to implement in regions with poor infrastructure. Countries with low income never saw the rise of landline phones, but achieved widespread use of cell phones within two decades



Data Source: World Bank | #30daychartchallenge
@emilmalta

Day 22: Animation | @emilmalta





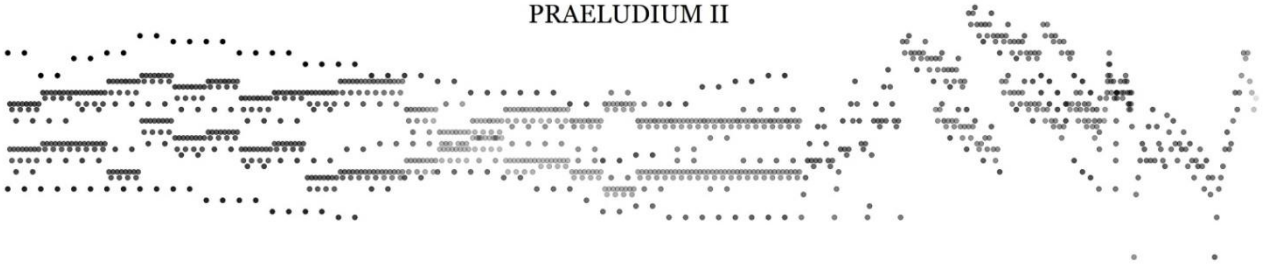
Day 24: Monochrome | @hrbrmstr

Johann Sebastian Bach.

BWV 847

~

PRAELUDIUM II



FUGA II

#30DayChartChallenge | Graphic: @carathompson | Source: www.piano-midi.de