DATAVIZ RESSOURCES

Université d'été 2023 - 29 Août 2023
Mathieu Rajerison - CEREMA

RÉPUBLIQUE FRANÇAISE
Liberté
Égalité
Fraternité

Cerema
CLIMAT & TERRITOIRES DE DEMAIN

GUIDES

GUIDE TOULOUSE

Nicole Oresme (1370)

Recommandation 4

Facilitez la lecture des différents éléments pour votre auditoire :

- Lorsque le label de vos barres est très large, privilégiez les diagrammes à barres horizontales.

- Plutôt qu'une échelle sur un axe, affichez les valeurs à l'extrémité des barres ou mettez les deux.

- Classez les valeurs des barres par ordre croissant ou décroissant ou par ordre alphabétique des noms des catégories suivant l'objectif du graphique.
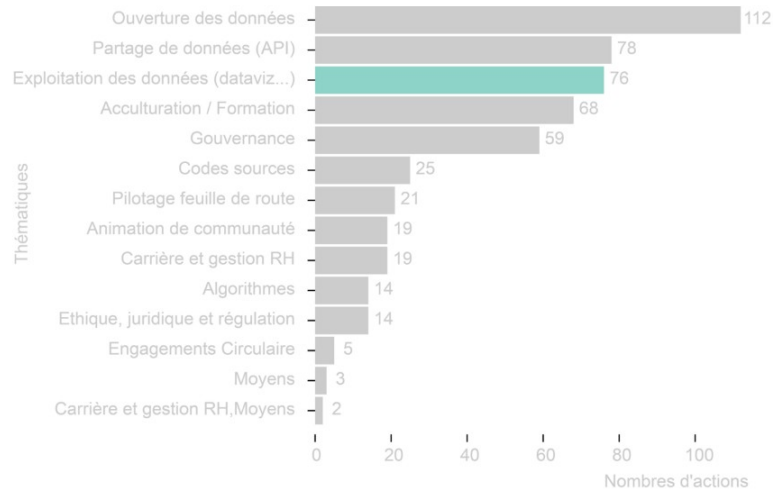
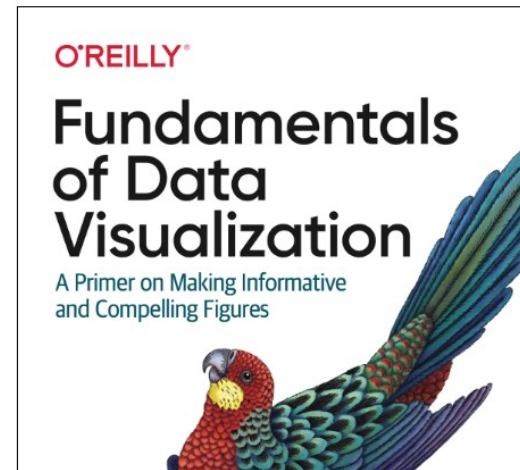https://toulousedataviz.github.io/guide.html

EBOOK GRATUIT

Fundamentals of Data Visualization

Claus O. Wilke

Welcome

This is the website for the book "Fundamentals of Data Visualization," published by O'Reilly Media, Inc. The website contains the complete author manuscript before final copy-editing and other quality control. If you would like to order an official hardcopy or ebook, you can do so at various resellers, including Amazon, Barnes and Noble, Google Play, or Powells.

The book is meant as a guide to making visualizations that accurately reflect the data, tell a story, and look professional. It has grown out of my experience of working with students

O'REILLY®

Fundamentals of Data Visualization

A Primer on Making Informative and Compelling Figures

https://clauswilke.com/dataviz/

I WANT HUE (SC. PO PARIS)

DATA TO VIZ

Variables numériques et **continues**

Variables de **catégories**

Variables de **temps**

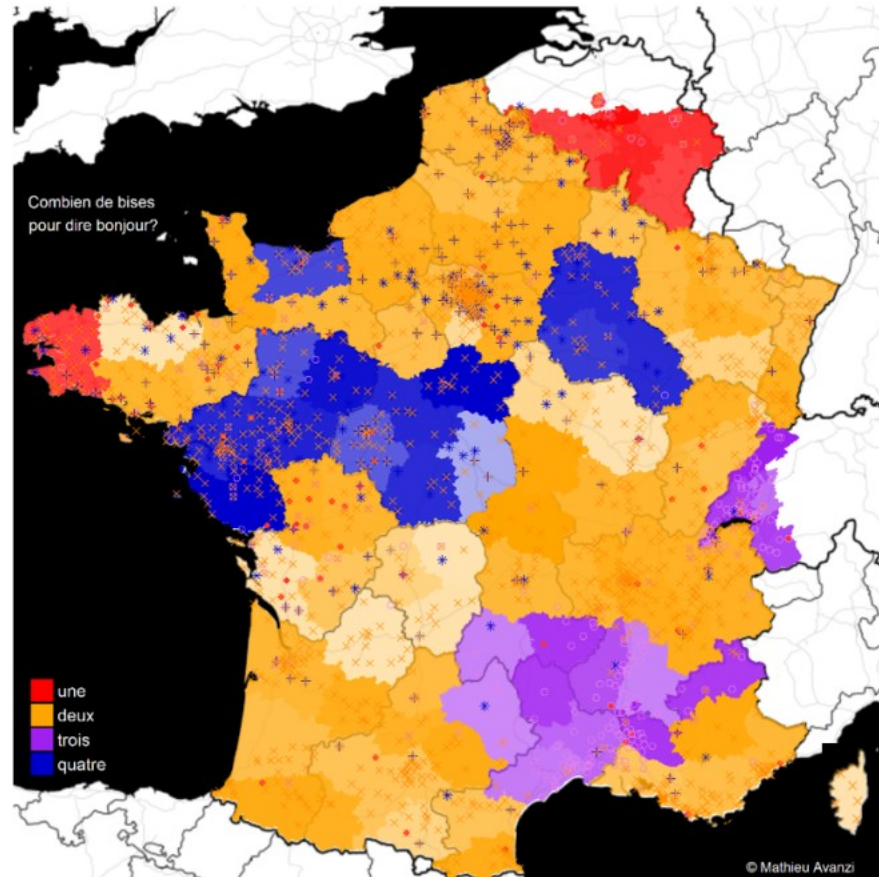**Position dans l'espace**

Position + Catégorie
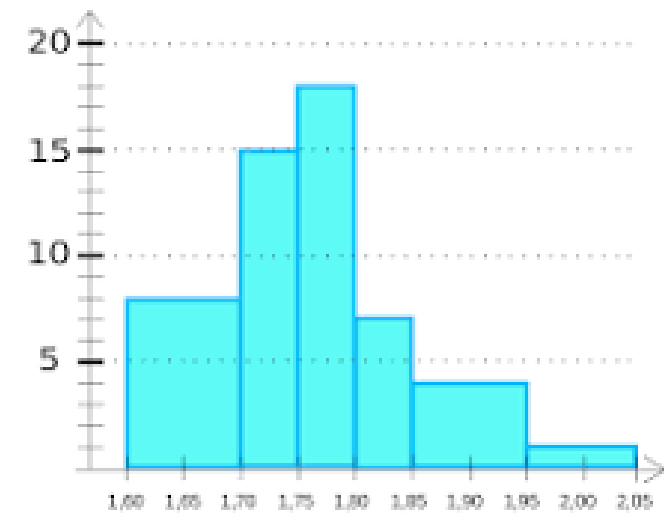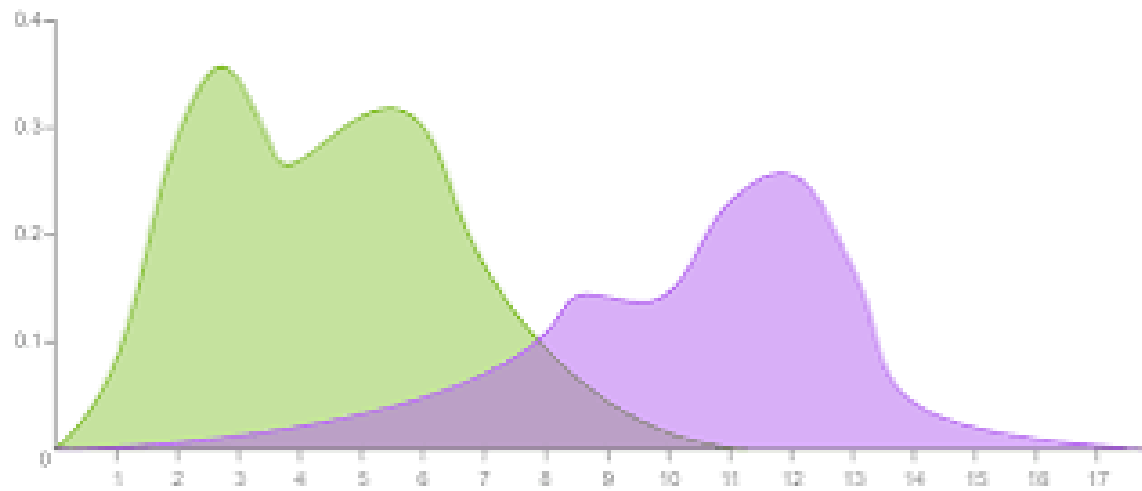
Combien de bises pour dire bonjour?

une
deux
trois
quatre

© Mathieu Avanzi

https://francaisdenosregions.com/2016/12/21/la-carte-des-bises/

Occurrences

Nombre + Temps
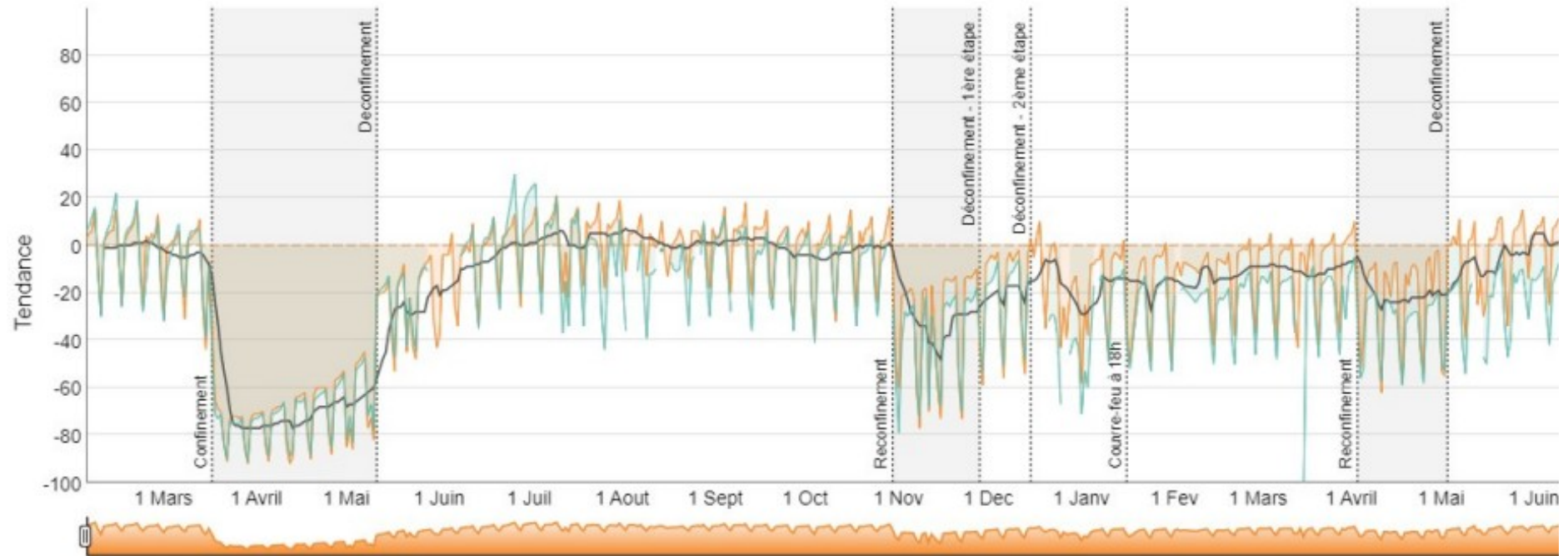
DATA TO VIZ

decision tree guide you toward your graphic possibilities.

Numeric | Categoric | **Num & Cat** | Maps | Network | Time series

https://www.data-to-viz.com
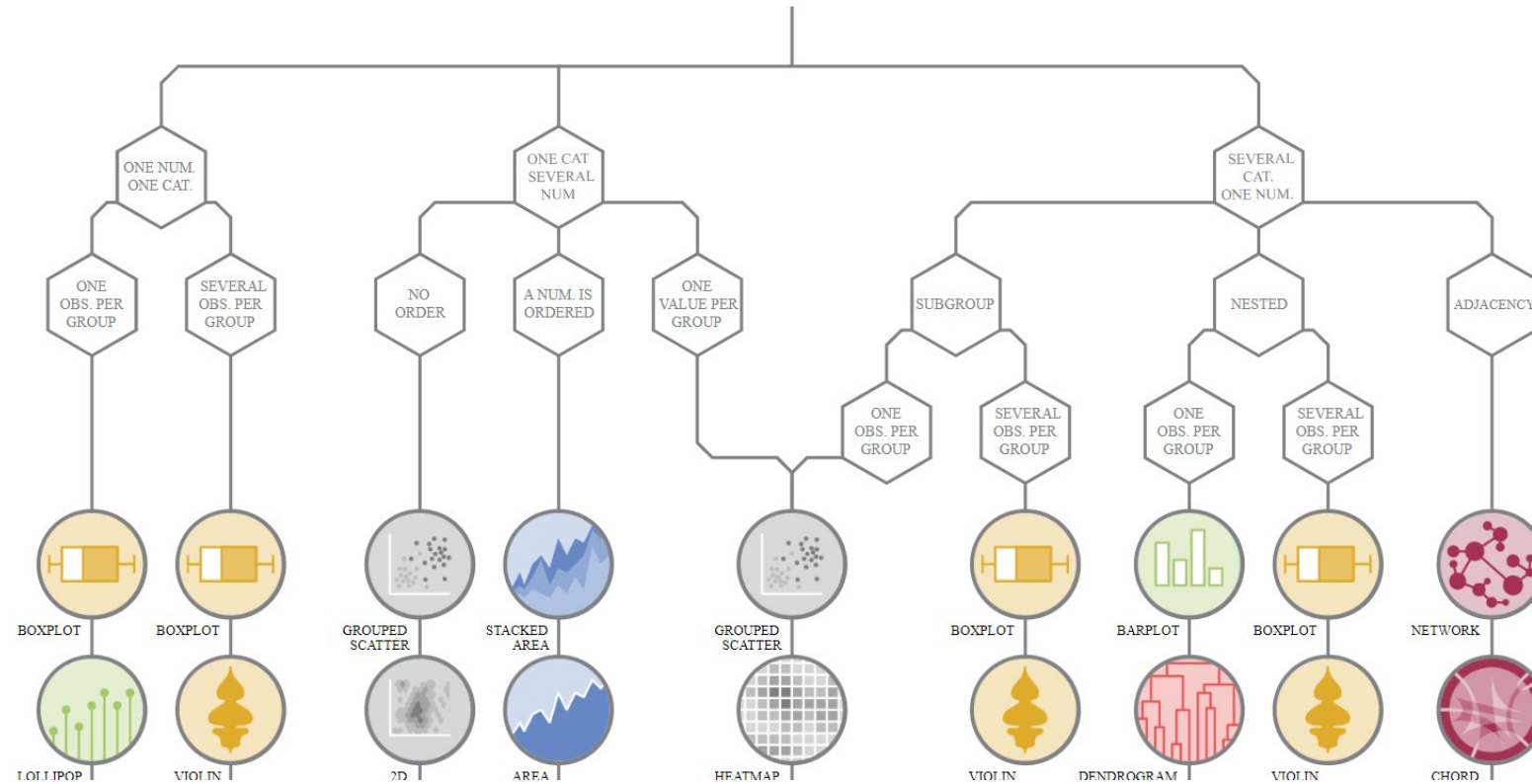
A set of several numeric variables giving features for each sample. One of the variable is ordered and will be used for the X axis most of the time.

Group	Var 1	Var 2	...
A	1	1.1	...
A	2	4.3	...
A	3	2.1	...
B	1	9.4	...
B	2	9.4	...
...	...	...	...

ONE CAT
SEVERAL
NUM

A NUM. IS
ORDERED

STACKED AREA

A stacked version of the area chart to compare several groups.

A stacked area chart is the extension of a basic area chart which displays the evolution of the value of several groups on the same graphic. The values of each group are displayed on top of each other, what allows to check on the same figure the evolution of both the total of a numeric variable, and the importance of each group.

If only the relative importance of each group interests you, you should probably draw a percent stacked area chart. It is the same thing, but proportion of each group are represented instead of absolute value.

Stacked area chart are criticized. Indeed, it can be hard to read the evolution of a specific group, since the reader has to substract the other groups in his mind. It is often better to use small multiple or line plot instead.

Common Mistakes

- Use it with care, try using small multiple or line chart instead.
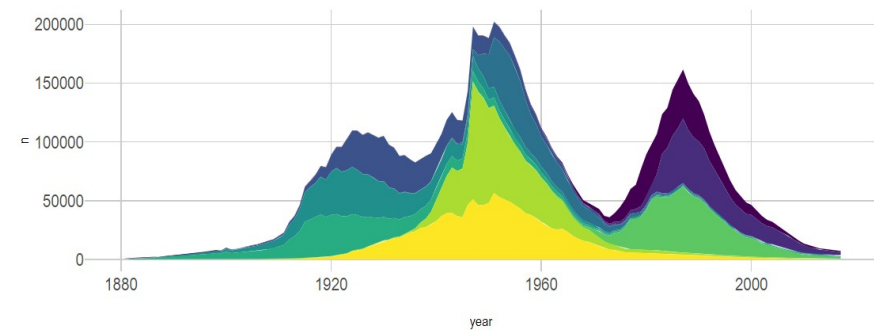- The group order (from bottom to top) can have an influence, try several orders.

Code

| R graph gallery | Python gallery | D3.js gallery |

Read More

See the dedicated page.

GET CODE

Popularity of American names in the previous 30 years

SHINY

MASTERCLASS SHINY

https://datagistips.github.io/dataviz-masterclass

Old Faithful Geyser Data

Number of bins:

Histogram of x
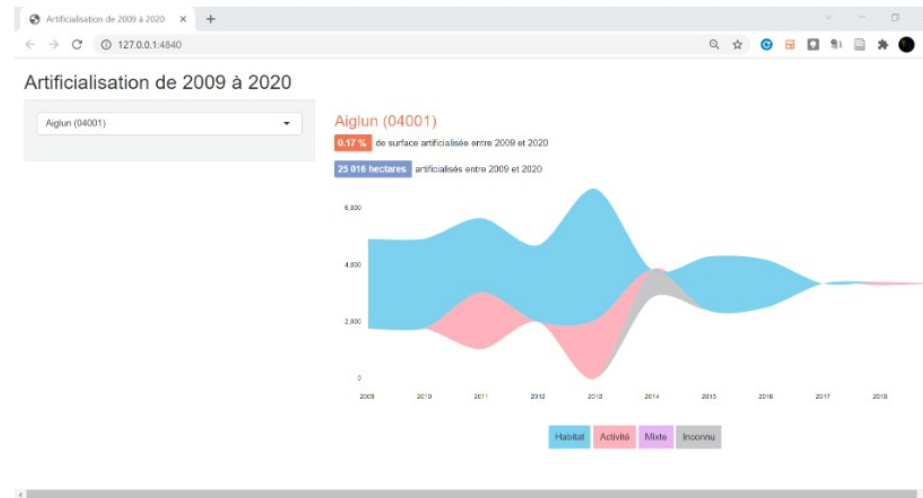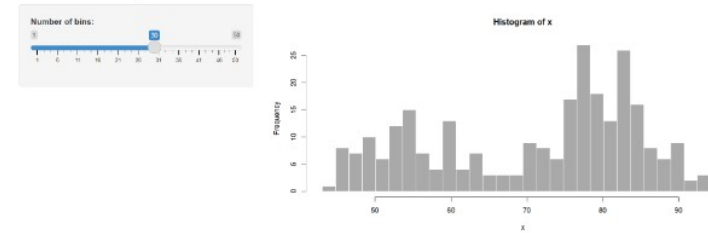
```r
library(shiny)

ui <- fluidPage(

    # Application title
    titlePanel("Old Faithful Geyser Data"), # on changera le nom de l'appli plus tard

    sidebarLayout(
        sidebarPanel(
            "liste"
        ),
        mainPanel(
            "résultats"
        )
    )
)

server <- function(input, output) {
  # vide pour le moment
}

# Run the application
shinyApp(ui = ui, server = server)
```
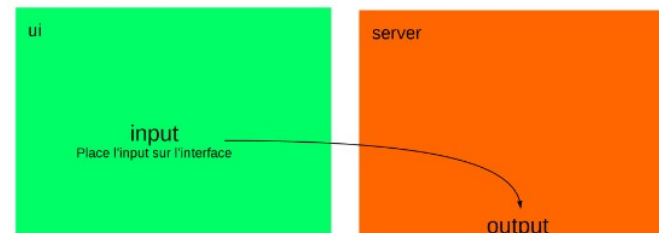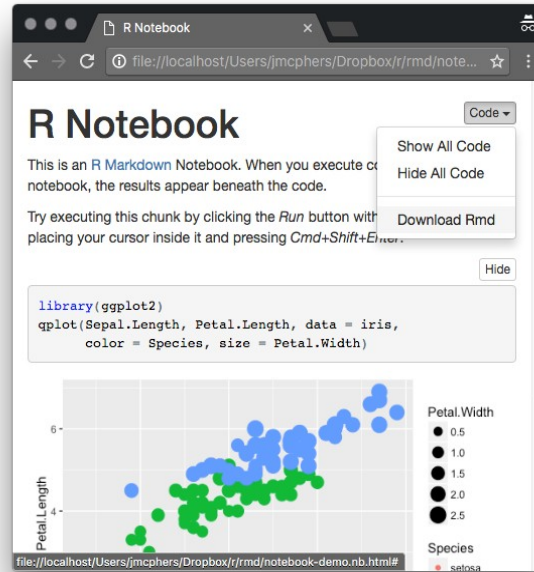
- `ui` est la partie destinée à accueillir les éléments d'interface (esthétique)
- `server` est la partie dans laquelle seront définis les mécanismes d'interaction, d'interrogation et de représentation des données. La partie `server` réagit aux contrôles (slider, boutons, ...) définis dans `ui`

ui

server

input
Place l'input sur l'interface

output

https://datagistips.github.io/dataviz-masterclass/8-notebook-shiny.html
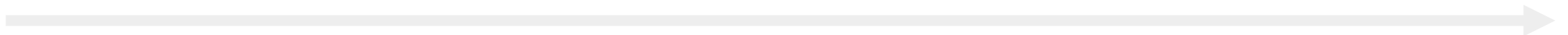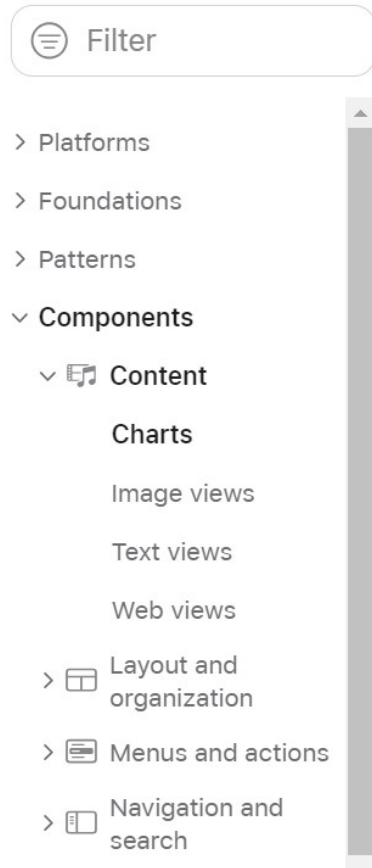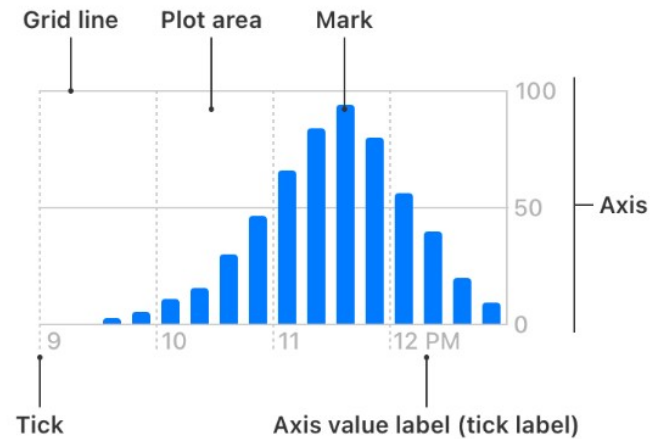
Donnée   Notebook   Appli

GUIDELINES APPLE

Charting data; for developer guidance, see Creating a chart using Swift Charts.

Anatomy

A chart comprises several graphical elements that depict the values in a dataset and convey information about them.
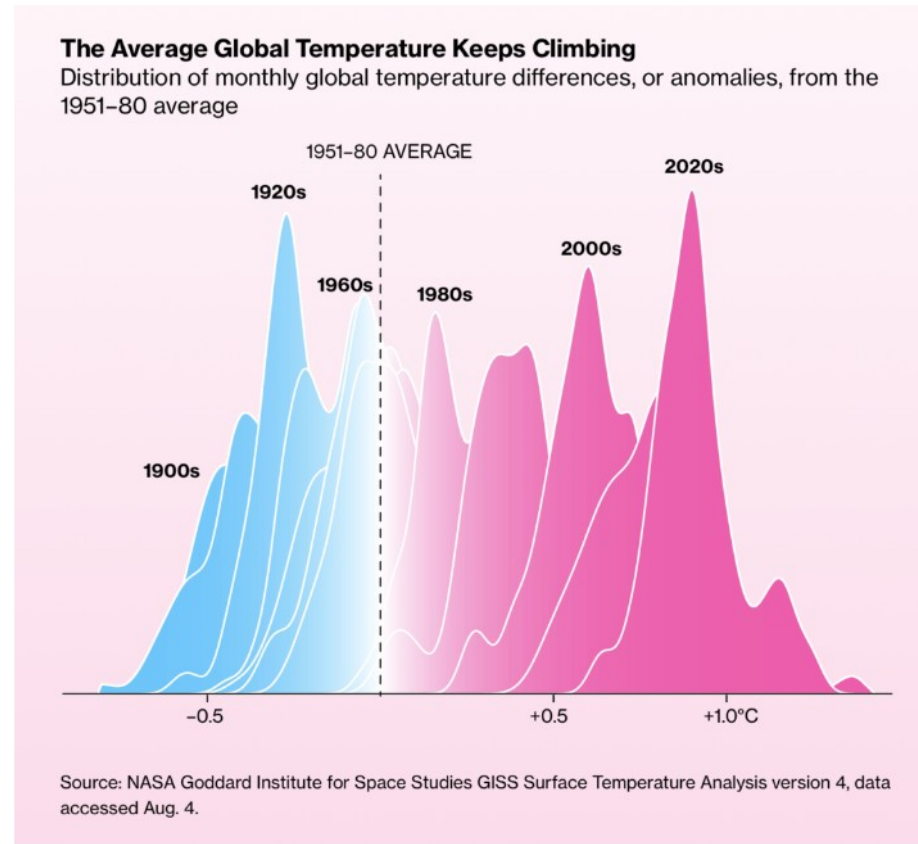

https://developer.apple.com/design/human-interface-guidelines/charts

INSPIRATIONS

FLOWING DATA

Shifting towards more hot days, fewer cold days

The Average Global Temperature Keeps Climbing
Distribution of monthly global temperature differences, or anomalies, from the 1951–80 average

1951–80 AVERAGE

1920s
1960s
1980s
2000s
2020s
1900s

−0.5   +0.5   +1.0°C

Source: NASA Goddard Institute for Space Studies GISS Surface Temperature Analysis version 4, data accessed Aug. 4.

It keeps getting hotter around the world. Not every single day. But over time, there are increasingly more hot days and fewer cold

https://flowingdata.com/

DATAGOUV

https://www.data.gouv.fr/fr/reuses

HACKVIZ TOULOUSE

Les gagnants et gagnantes

1er prix

Reunan Bellec

VOIR

2ème prix

Joachim Béaslas,
Guillaume Poullain
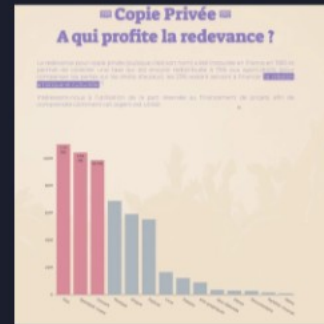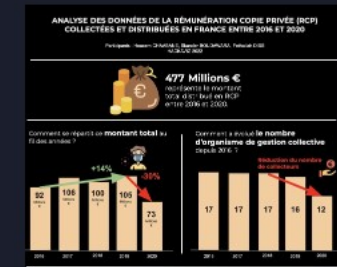(Vector France)

VOIR

VOIR

3ème prix

Mickael Marchese

VOIR

Prix spécial
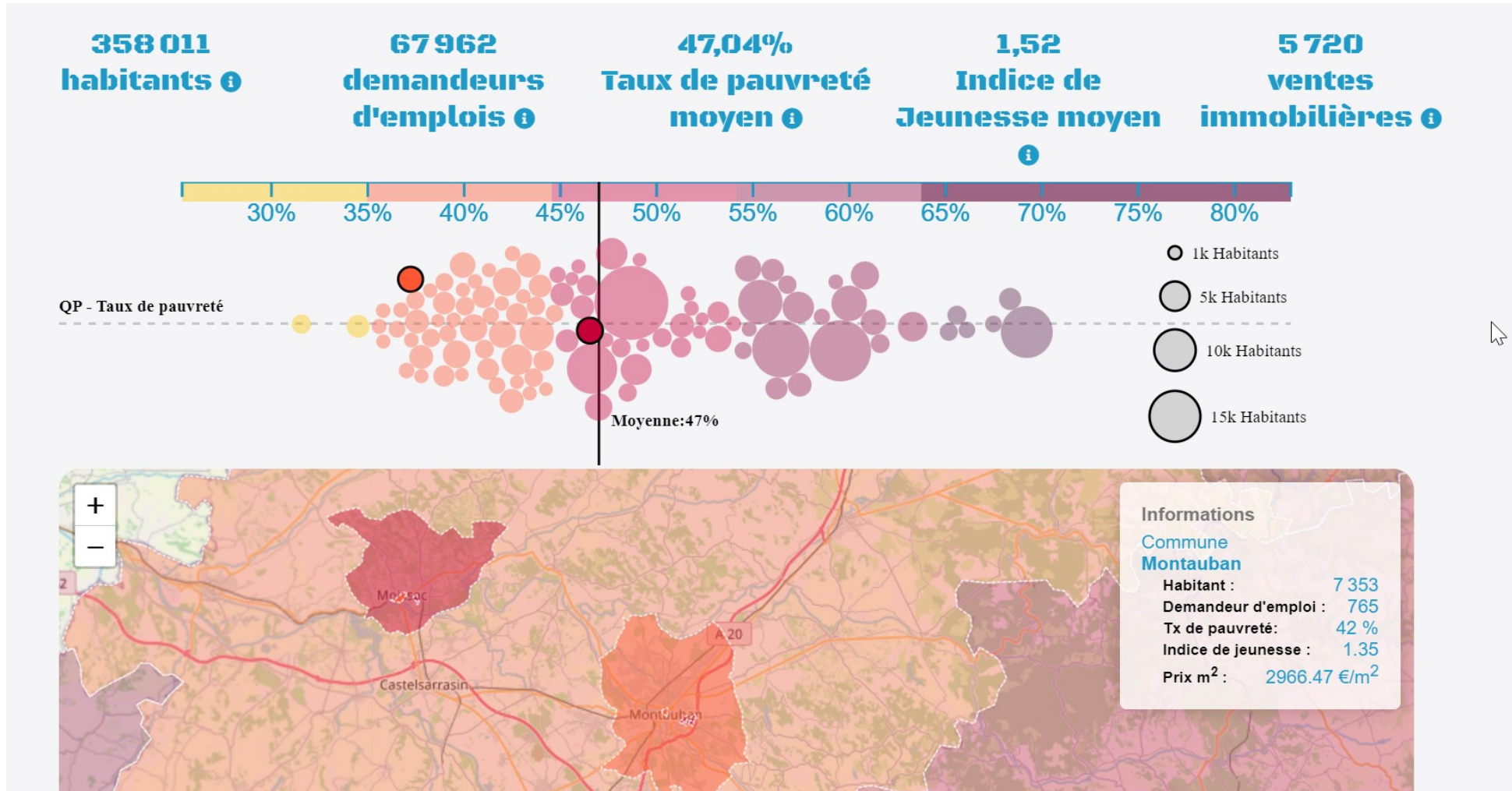
Brice Renouf

VOIR

Prix coup de pouce

Skander Boudawara,
Houcem Chaabane,
Fethallah Diss (Les
howmz)

VOIR

https://toulouse-dataviz.fr/hackaviz/editions-precedentes

1ᴱᴿ PRIX 2021 - QPV

https://pdeuxa.github.io/TeamOc_HackViz21/

1ᴱᴿ PRIX 2023 - IRVE

Hackaviz 2023
L'implantation des stations de recharge de véhicules électriques en France (limité aux stations publiques)
Un déploiement progressif basé sur une stratégie régionale vcire locale pour les principaux opérateurs du secteurs

https://toulouse-dataviz.fr/hackaviz/2023-rousse.pdf