

Interactive graphs

What is interactive?

- To be interactive means that there must be a human input
 - Clicking on a button
 - Moving a slider
 - Scrolling
 - Inputting some data



**Dynamic, interactive visualisations can empower
people to explore the data for themselves**

Mike Boston

When to use?

Exploration of large data

- Filtering
- Sorting
- Zooming

Example: <https://pudding.cool/2017/03/timeless/>

Biggie or Tupac...

MOST-PLAYED RAP HITS* ON SPOTIFY (1986 - 1999)

SPOTIFY PLAYCOUNTS IN 2014

SEARCH:

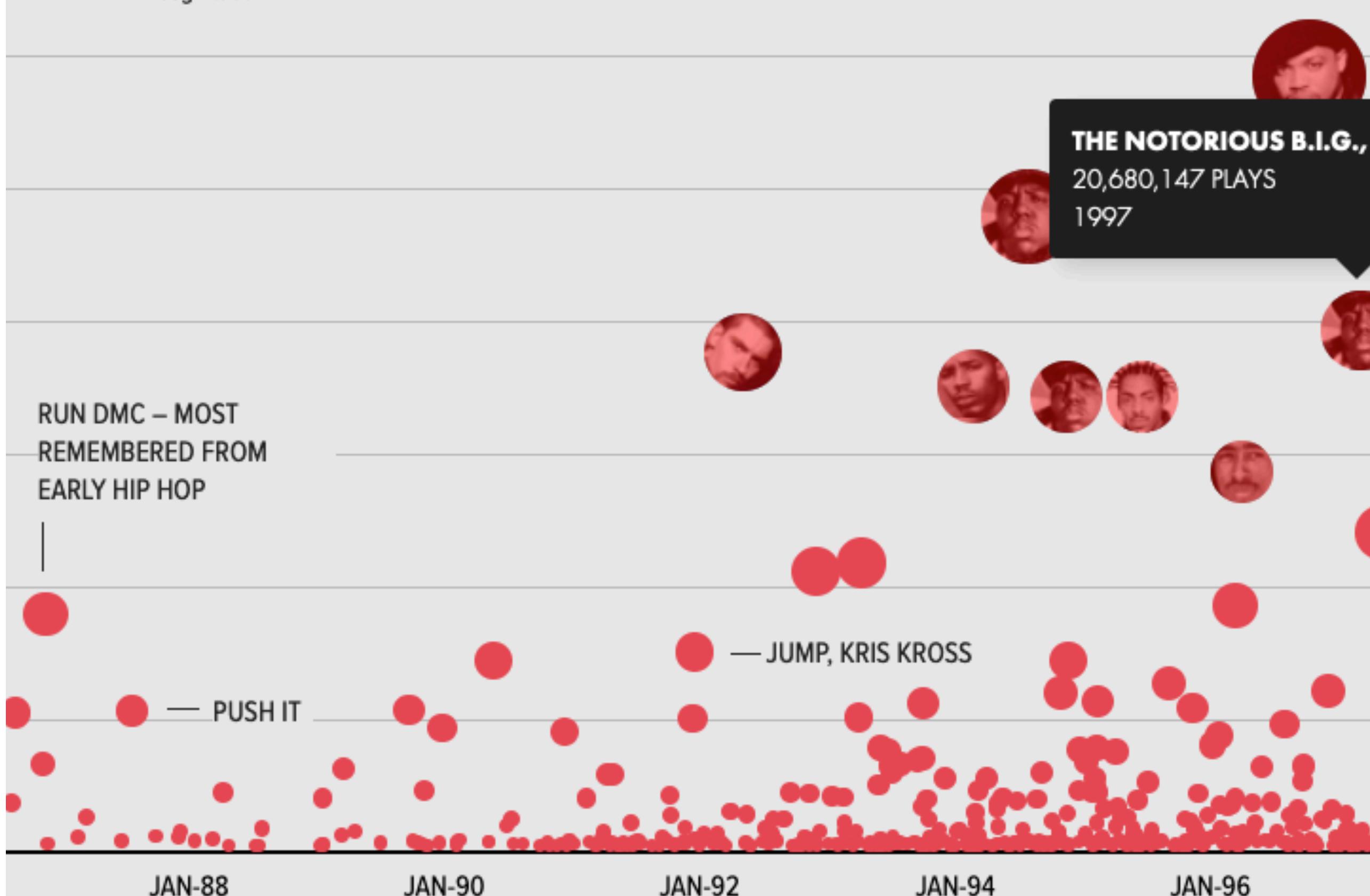
Find an artist or track...

ALL RAPPERS

JUST BIGGIE AND TUPAC

JUST JAY-Z

Examples: Tribe Called Quest, Beastie Boys, Rakim, Ja Rule, Nas, Mobb Deep, Missy Elliot



*Songs that

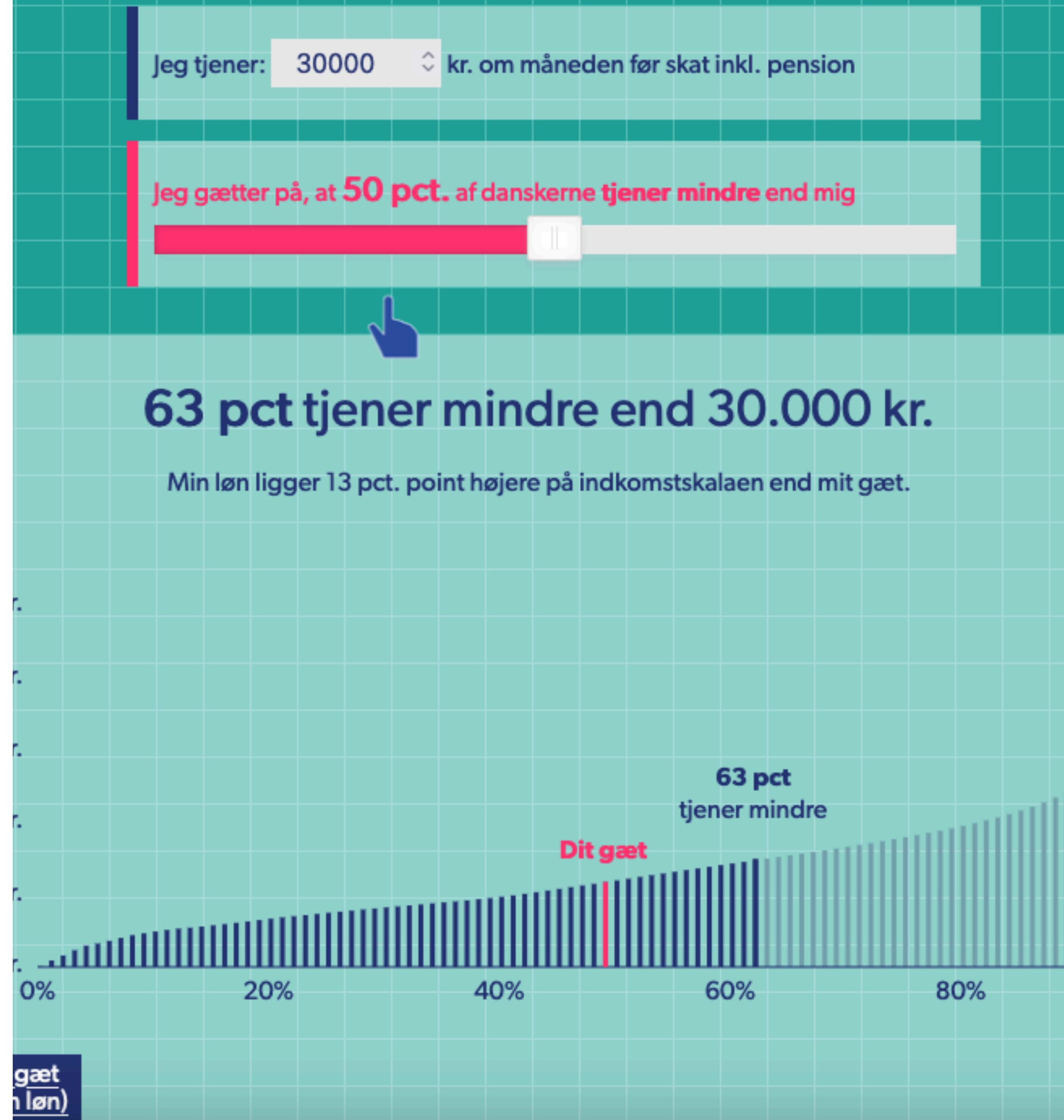
10

Comparison

- How do I relate to this data?
- Put in height, age, post number, salary, etc

Examples

- <https://www.dr.dk/nyheder/indland/interaktiv-grafik-hvor-mange-tjener-mindre-end-dig>
- <https://benna100.github.io/birthday-weather/dist/>

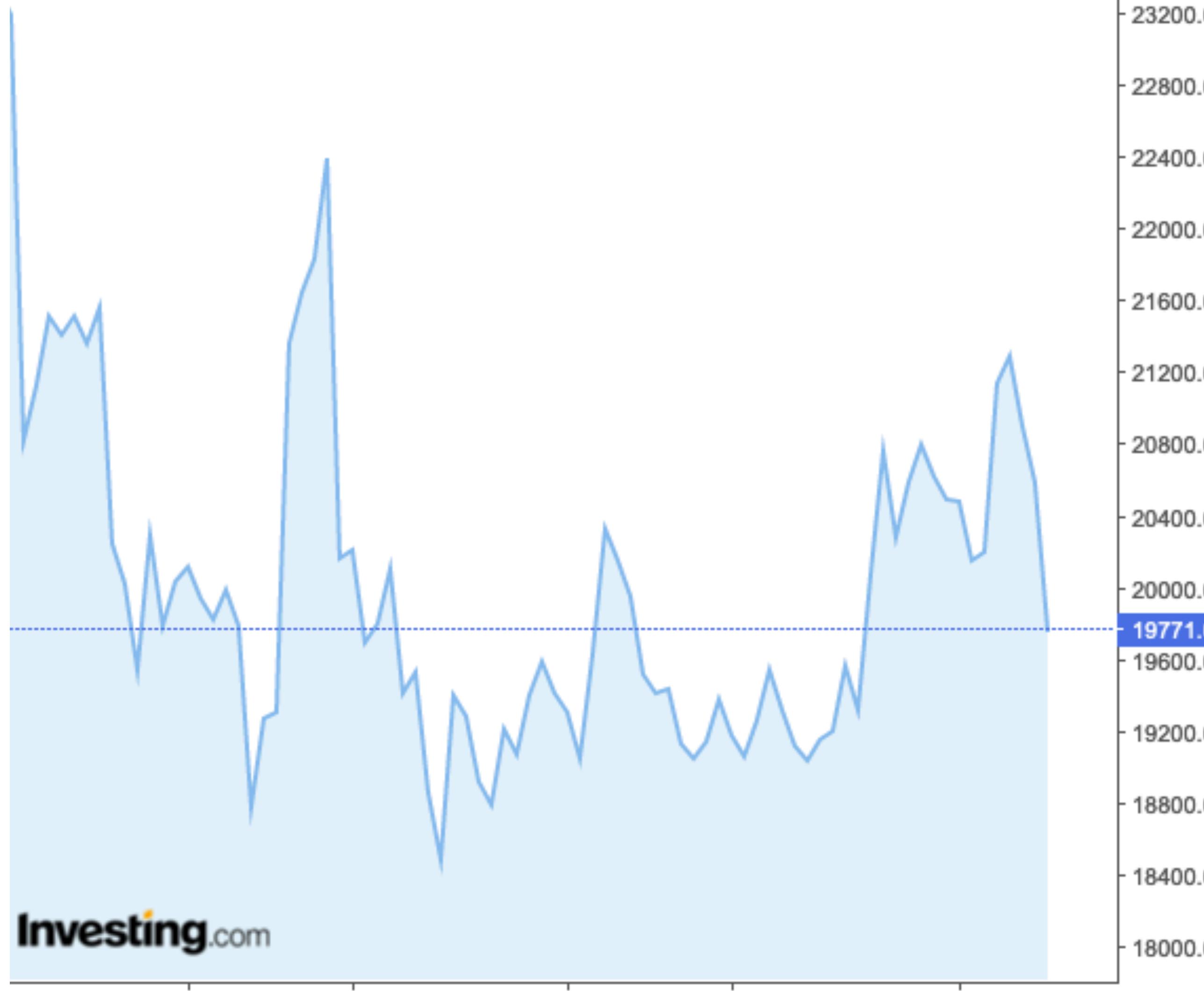


Other

- Dynamic data
- Timeline

[https://www.dr.dk/nyheder/
webfeature/holmbladsgaderuten](https://www.dr.dk/nyheder/webfeature/holmbladsgaderuten)

[https://www.investing.com/crypto/
bitcoin/chart](https://www.investing.com/crypto/bitcoin/chart)



When to be cautious

Will it add value by making it
interactive?

[https://www.dr.dk/nyheder/
indland/interaktiv-grafik-se-
alle-jaegernes-rejser](https://www.dr.dk/nyheder/indland/interaktiv-grafik-se-alle-jaegernes-rejser)



Datavis is typically more showing/exploration

We can loose control as communicators



Please dont just make a
dashboard 🙏



Examples

- <https://www.dr.dk/feature/folketingsvalg-2022-overblik>
- <https://pudding.cool/2017/03/bechdel/> (<https://www.youtube.com/watch?v=7fshOP7x0GM>)
- <https://www.dr.dk/nyheder/webfeature/kandidaterne>

User Interaction and Experience

Hallway user testing

- Grab someone in the hallway
- Write down the most important tasks for your website
- Ask a user to do these tasks on your website one at a time
 - Ask and encourage the user to **think out loud** when they are silent
 - **DON'T** solve the task for the user. **Keep quiet!**
 - Take notes!

Datajournalistik - Overblik

1. **Skaffe data:** Det kan være fra offentlig tilgængelige kilder, aktindsigter, scraping, samarbejdspartnere og fysiske kilder
2. **Cleane data:** Data er tit i svingende kvalitet. Det skal renses så man kan arbejde med det
3. “**Interviewe” data:** Her skal data interviewes. Sortering, pivot, min max, udvikling, vær nysgerrig. Hvad er interessant i data? Er der en nyhedskrog ind i den aktuelle diskurs?
4. **Sådan analyserer du data:** Her går man dybere ind i analysens styrker og faldgruber. Her kan man se på validitet, observationer, kildekritik og bias
5. **Sådan forklarer du data:** Hvordan laver man en god journalistisk historie med en data visualisering, historie, artikel, interviews etc.

Datajournalistik - Skaffe data

- Offentligt data - <https://www.opendata.dk/>
- Web scraping - eksempel - kode eksempel
- <https://github.com/awesomedata/awesome-public-datasets>

Data journalism - Clean data

- Dataforståelse

Data journalism - Interviewe data

- Lad nysgerrigheden være driveren
- Min and Max
- Mean, median
- Compare different attributes. Size vs price, height vs income
- Development over time
- Hvad passer ind i diskursen?

Datajournalistik - Sådan analyserer du data

- Bias - hvem er afsenderen af data
- Kildekritik
- Hvor er fordel/ulempe ved en specifik form for analyse
- I skal kunne stå på mål for jeres analyse!
- Er der noget i har overset?

Datajournalistik - Forklaring af data

- Her er vi på hjemmebane
- Hvem skal vi kommunikere til
- Hvad vil vi sige?
- Hvilken graf type?
- Skal det være interaktivt?
- Skal vi bruge storytelling?
- Ift. Datajournalistik skal der typisk produceres en artikel/explainer/video

Bringing it all together

- Context
 - Who are the users?
 - What is the message? What do you want to say with the visualisation?
- Choose the right graph
- Design
- Focused graphs
- Storytelling
- Interactivity

Visualisation checklist

- Are the users defined?
- Is there a clear message?
- Has the right graph been chosen that supports the message and users?
- Is the visualisation clear and focused?
- Does the design support the message and the users?
- Does the text support the message and the users?
- Has storytelling been used to improve the message?
- Has interactivity been used to improve the message?

Examples

How should we visualise this data?

Data to Visualize: National health survey data focusing on the prevalence of obesity and diabetes in different age groups and their correlation with exercise frequency

What We Want to Communicate: The relationship between low exercise frequency and high rates of obesity and diabetes, particularly in middle-aged demographics

Who We Should Communicate To: Healthcare NGOs focusing on lifestyle diseases

Examples

How should we visualise this data?

Data to Visualize: Historical temperature data over the past 100 years, focusing on average annual temperatures and the number of extreme weather events per decade

What We Want to Communicate: A clear illustration of the increase in average temperatures over the last century and a distinct rise in extreme weather events in the past 30 years

Who We Should Communicate To: Environmental scientists specializing in climate change, and government agencies responsible for environmental policy and climate change mitigation strategies

Examples

How should we visualise this data?

Data to Visualize: Data on plastic pollution in oceans, detailing types of plastic waste, their sources, and impacted marine life over the last decade.

What We Want to Communicate: The scale of plastic pollution in different ocean regions and its impact on marine ecosystems.

Who We Should Communicate To: Environmental protection agencies, marine conservation groups, and policy makers in environmental regulation.

Exercise

Create a data visualisation using the following dataset

[Link to dataset](#)

[Link til Tableau](#)

Feedback til datavisualiseringskurset: <https://forms.gle/XWS7qMKD11c3mCTu6>