

Lisa Charlotte Rost / Visualizing Knowledge 2019

A Datapoint walks into a Bar

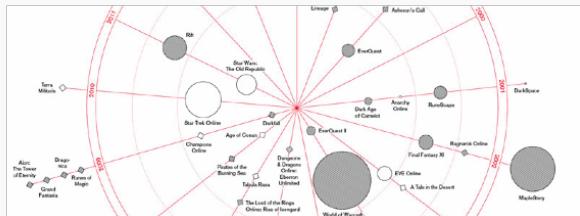
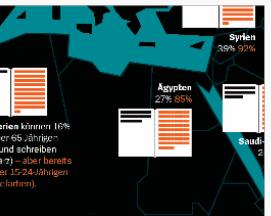
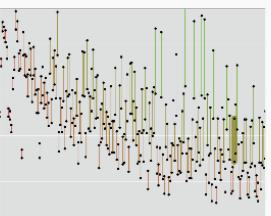
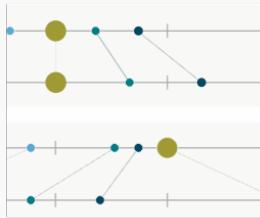
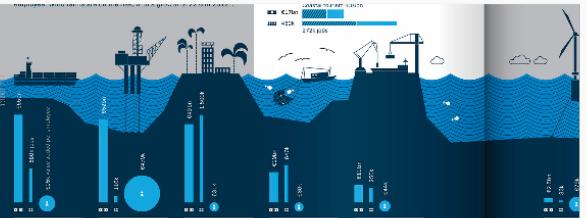
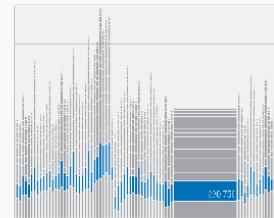
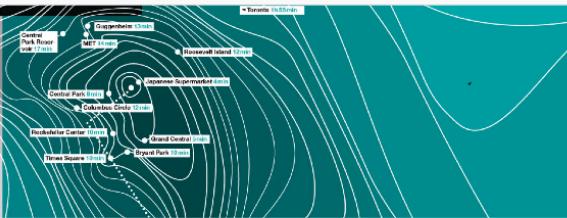
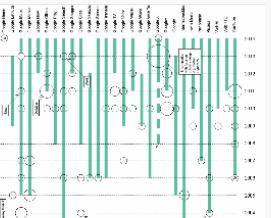
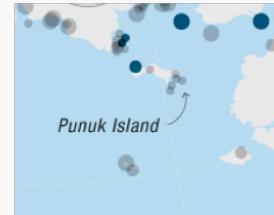
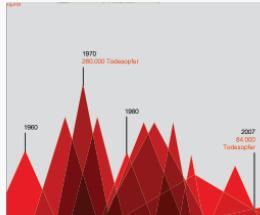
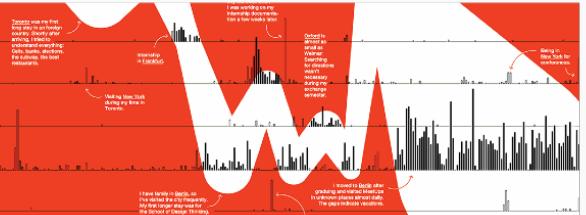
Content warning: Picture of dead child; mentions of holocaust

@lisacrost

Lisa Charlotte Rost

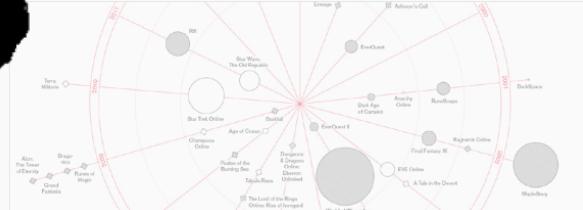
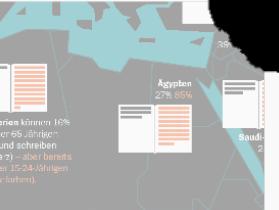
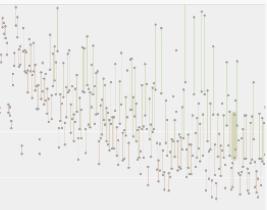
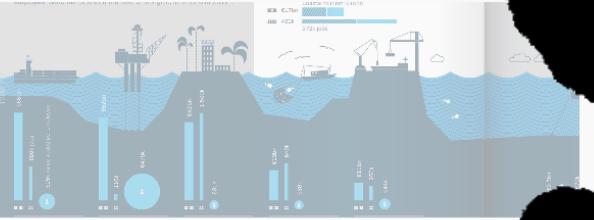
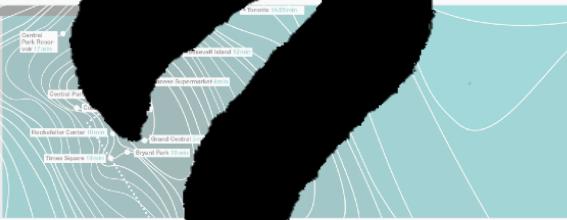
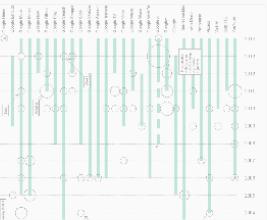
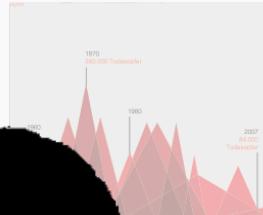
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SPIEGEL
Bloomberg
ZEIT Online
Tagesspiegel
NPR



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SPIEGEL
Bloomberg
ZEIT Online
Tagesspiegel
NPR



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SPIEGEL
Bloomberg
ZEIT Online
Tagesspiegel
NPR

now:
Datawrapper <3

The last four publications have been covered. Surprisingly many big projects in the last four years used these colors to convey information about men and women, e.g. the New York Times, Bloomberg and the Wall Street Journal. Two “The Pudding” projects from 2017 that ended up gendered in male-coded red/pinkish hue, a chart project in 2017, “Gender Representation in Crime News Coverage”, a chart that has for men and gold for women.

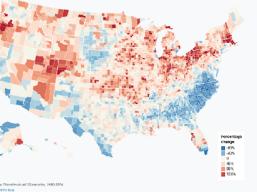
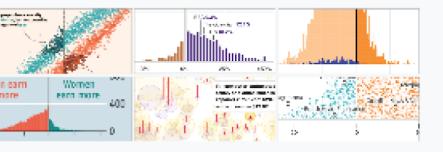
| | | |
|-----|-------|--|
| USA | Women | The Pudding, 2017: “I’m Dukakis” |
| USA | Women | The Pudding, 2017: “She Cigars, He Cigars” |
| USA | Women | Bloomberg, 2016: “The First Gentleman Mentors Girls, Teachers, Girls and Boys” |
| USA | Women | NYT, 2017: “The Changing Nature of Middle Class Jobs” |
| USA | Women | NYT, 2017: “The Words Men and Women Use When They Write About Love” |
| USA | Women | Wall Street Journal, 2016: “Women Wear Pay Gap?” |
| USA | Women | Bloomberg, 2018 |
| USA | Women | ZBT 2016 |
| USA | Women | ZBT 2018 |

Why? Well, there’s an argument to be made for using pink & blue. Readers will be able to decipher charts with these stereotypical colors faster. It is not even necessary to explain the colors first. Financial Times’ Alan Smith wrote about this in FT’s column “Glam Doctor”. After creating a chart about body names in pink & blue:

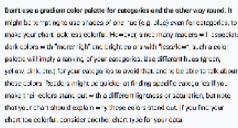
“I justified it because the strong cultural association of the colors meant I didn’t need to pen a separate legend for the chart. This, in turn, meant my graphics would be ‘easier’, something to which a dashboard designer – Alan Smith

So what’s the problem with pink & blue? Our western culture, these colors come with the same gender stereotypes. Logically, pink means more “feminine” = a play to soft and delicate, too much for boys. But sounds for boys = “we need to sound strong & rough”. When we create a chart with pink & blue, we endorse gender stereotypes.¹ Especially when we don’t consider gender, that often the opposite of what we want to achieve.

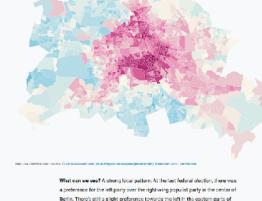
2 Many newsrooms stay away from pink & blue



Representation of women in state legislatures



Representation of women in state legislatures



Representation of women in state legislatures

What can we do? Color blind posters. For the last federal election, there was a poster for the majority over the right-wing party in the center of Berlin. There’s still a right-wing preference towards the western parts of Berlin, which is why the right-wing party got more votes than the left-wing party.



Representation of women in state legislatures

This map shows us that both parties wanted to highlight who did best in the west, but that also reflects their own polarization. The 2016 election was a clear win for Donald Trump in the West, but he lost the Midwest. And we can see that in this map, “Red” means more districts in which those were won by Trump compared to Clinton. (The map is oriented with the map of the US at the top, so the West is on the left and the East is on the right.)

There is another region where we could show the gendered difference between two charts. In this chart, we determine the values from the color scale. The darker the color, the higher the value. This is especially nice in the West, where we can see that the gender gap is the largest.

When I looked at the map above to show the ratio between Ad and Link ratios, we do it with the values of Ad ratios or Link ratios. And again, we can see that the gender gap is the largest in the West.



Ad to Link ratio



Ad to Link ratio



Ad to Link ratio



Ad to Link ratio

“**FEELINGS**”

A Why feelings are **good** and
why they are **bad**

B Why we **should** make
feelings with data vis

C How we **can** make
feelings with data vis

FEELINGS



A Why feelings are **good** and
why they are **bad**

B Why we **should** make
feelings with data vis

C How we **can** make
feelings with data vis

WHY FEELINGS ARE **GOOD** AND WHY THEY ARE **BAD**

A

B Why we **should** make
feelings with data vis

C How we **can** make
feelings with data vis

Happiness

Anger

Confusion

Helplessness

Fear

Peacefulness

Gratitude

Pain

...

Empathy

Compassion

Happiness

Anger

Confusion

Helplessness

Fear

Peacefulness

Gratitude

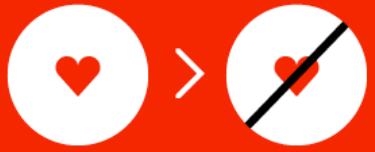
Pain

...

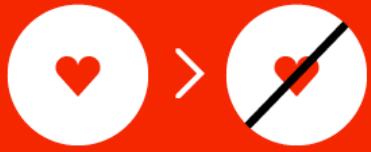
Empathy

Compassion





Empathy
Compassion



“the only way we will
survive war”

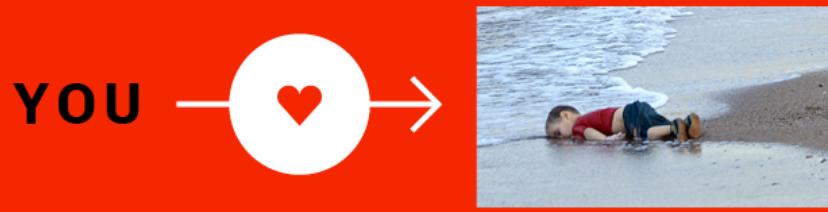
“good people, good societies”

“it becomes harder not to act,
harder not to help.”

Empathy
Compassion



Alan Kurdi,
September 2015



“European leaders [...] have been shocked into forming more compassionate policies, while previously hostile media outlets took a more conciliatory tone.”



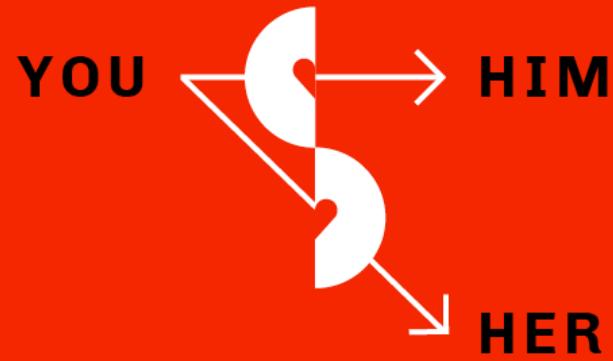
The death of Alan Kurdi: one year on, compassion towards refugees fades.
Guardian, 2016

The death of Alan Kurdi: one year on, compassion towards refugees fades, Guardian, 2016

“European leaders [...] have been **shocked into** forming more compassionate policies, while previously hostile media outlets took a more conciliatory tone.”







YOU

HER
HIM
HIM
HER
THEY
HIM
HER
HIM
HER
HER
THEY
HER

YOU

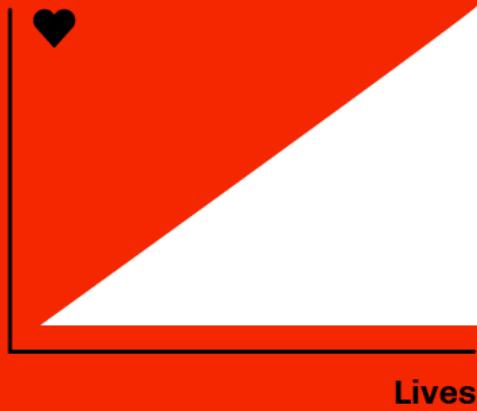


YOU

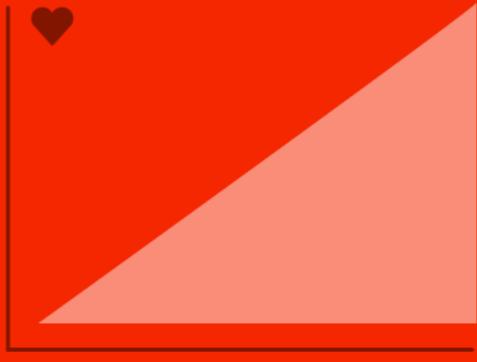


3,771

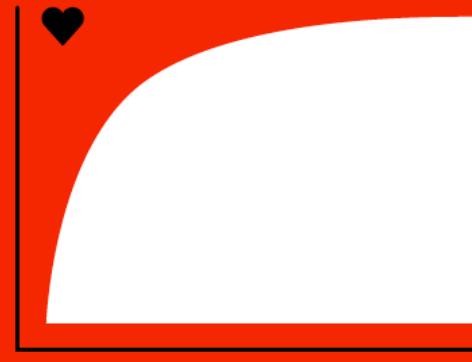
deaths of refugees and
migrants crossing the
Mediterranean, 2015



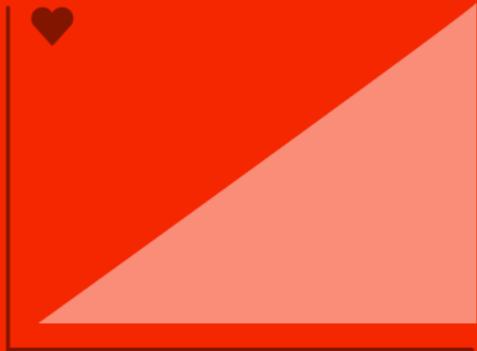
How it should be



How it should be

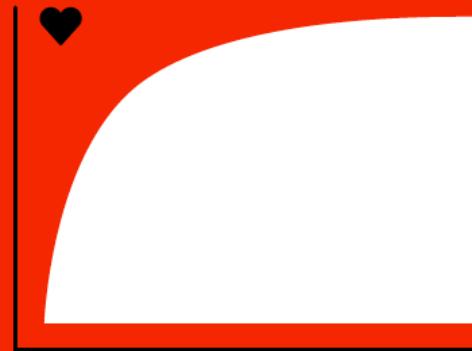


How it is



How it should be

$$1+1=2$$



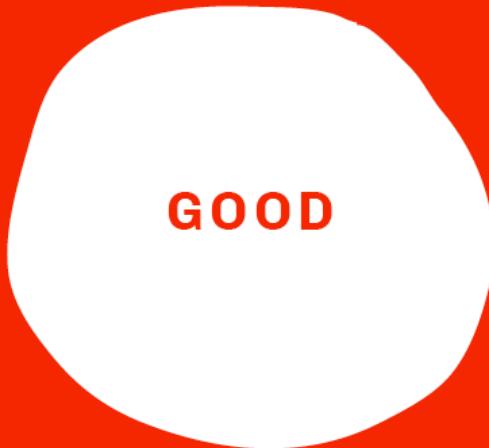
How it is

$$1+1<2$$

SUCKS.



not
articulate



GOOD



BAD



@lisacroft



@lisacroft



@lisacrost



Daniel Västfjäll,
Paul Slovic
and Marcus
Mayorga

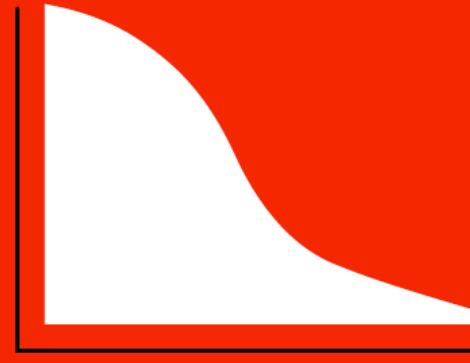
Pseudoinefficacy
– negative
feelings from
children who
cannot be helped
reduce warm
glow for children
who can be
helped

-40%
drop in donations



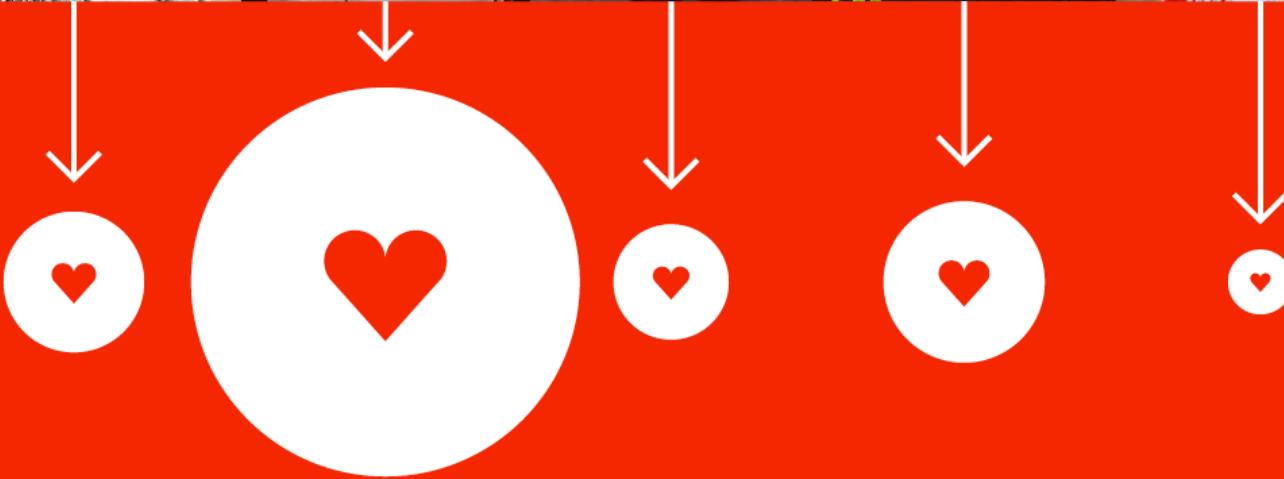
How it should be

$$1+1=2$$



How it might be

$$1+1<1$$



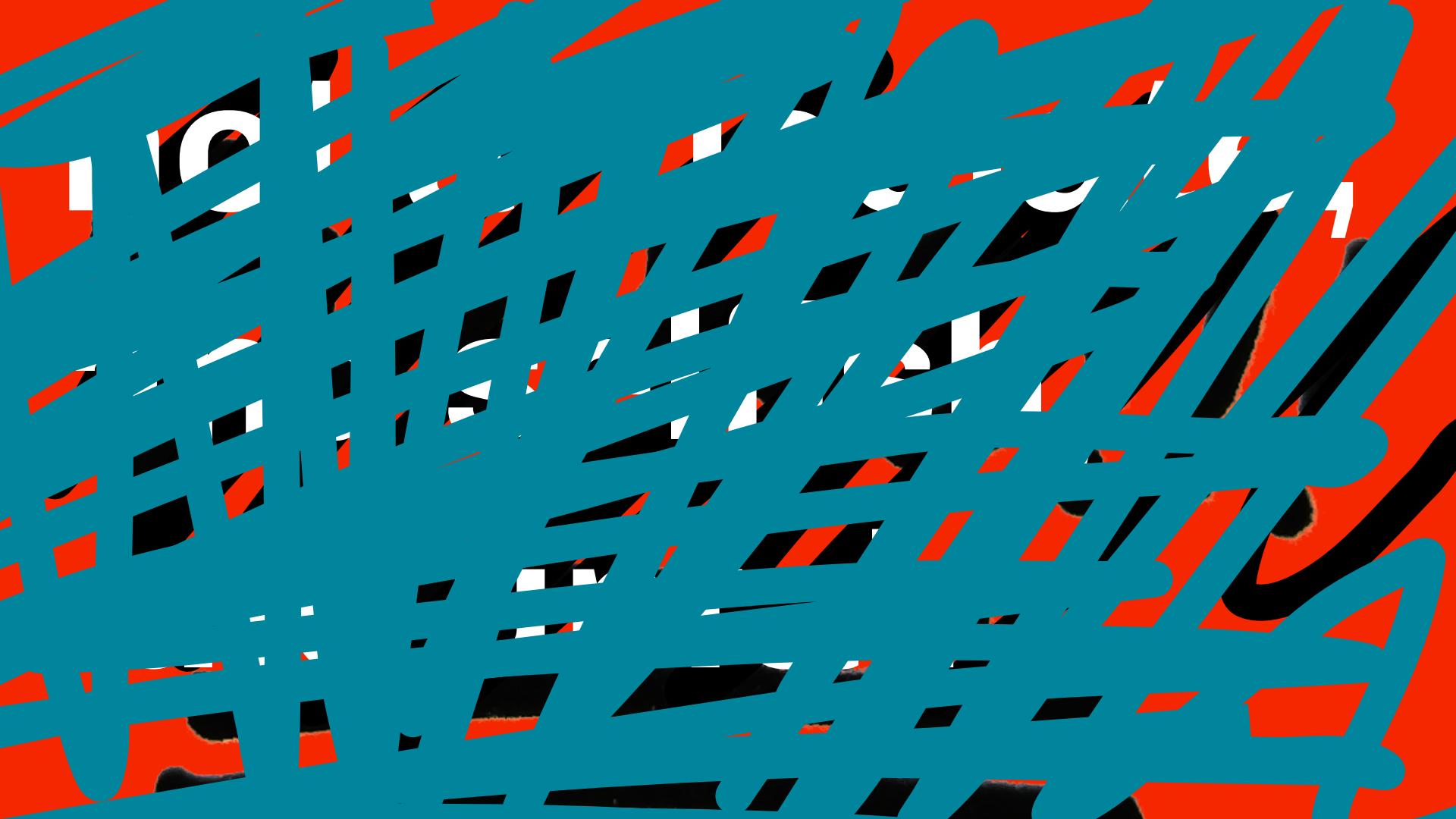
SUCKS!!!

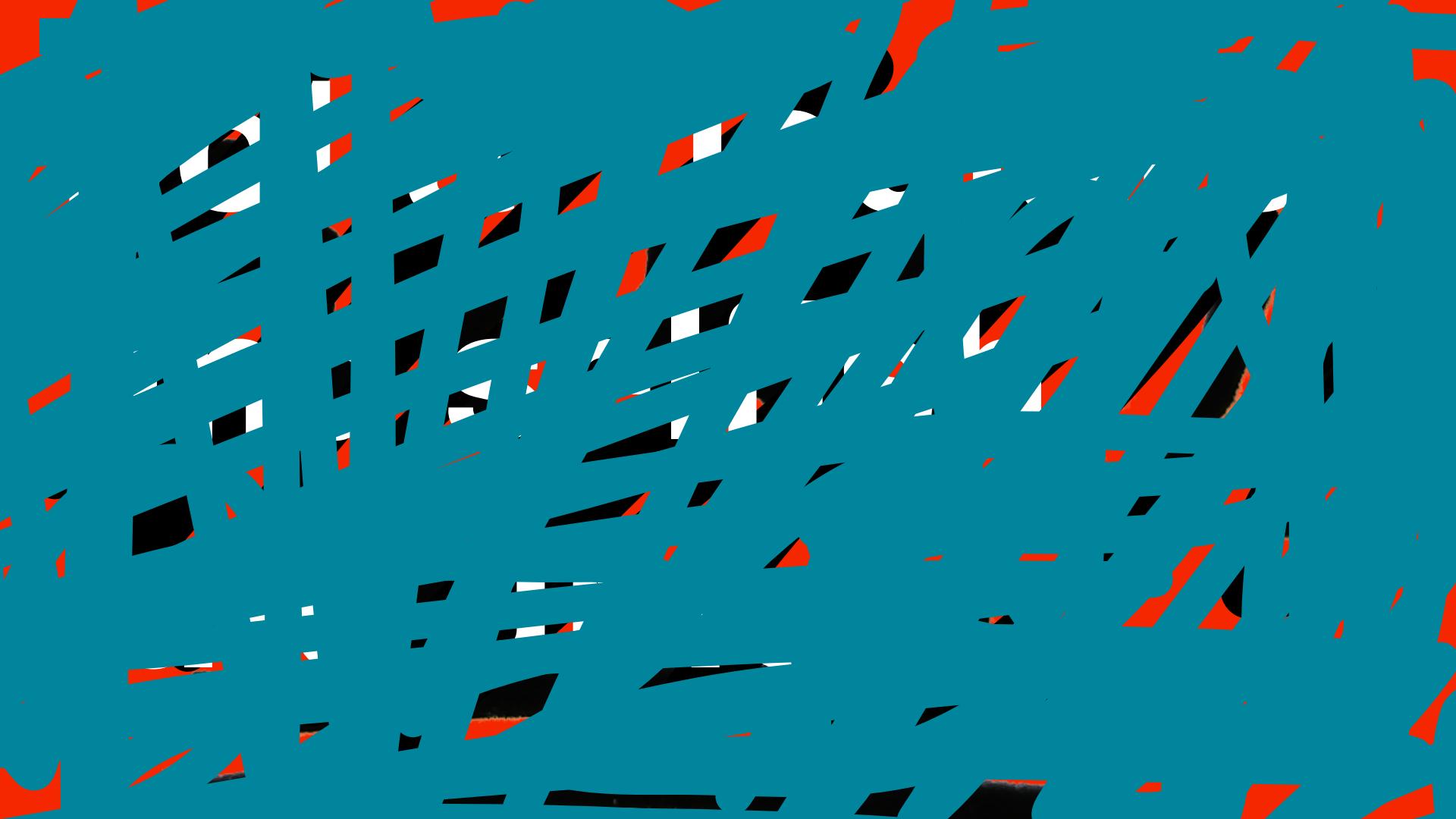




not articulate,
and selfish,
and unfair





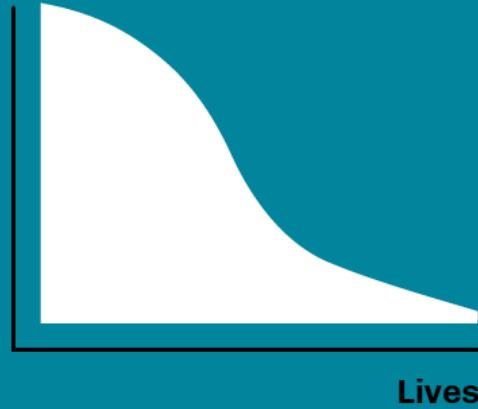




“If you want to
be good and do
good, empathy
is a poor guide.”

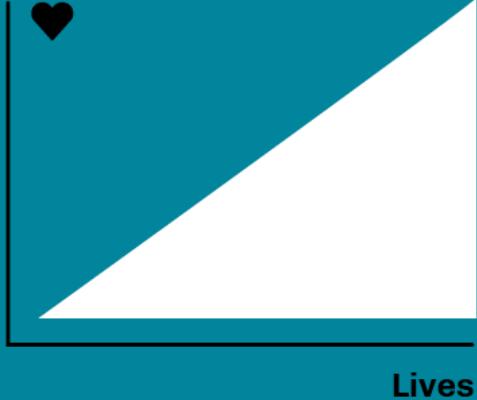
–Paul Bloom

Against Empathy,
Paul Bloom,
2014



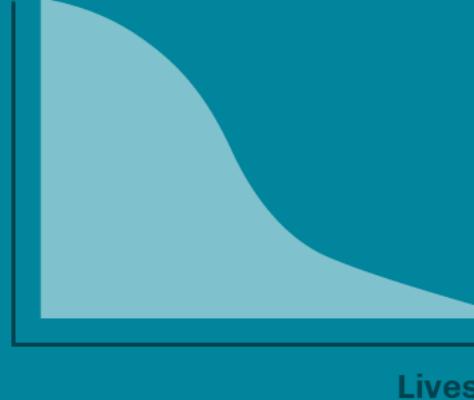
Feelings crap (Empathy)

$$1+1 < 1$$



Rationality

$$1+1=2$$



Feelings crap (Empathy)

$$1+1<1$$





✗

✗

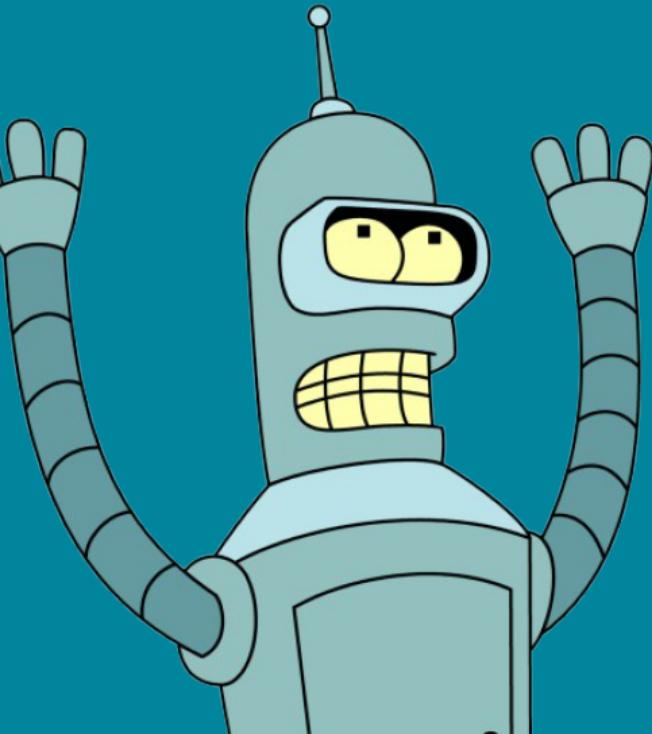
✗

✗

✗

“Kill all humans
for a better tomorrow!”

–Bender



Hence it is that the rabble are ever the prey of quacks and impudent pretenders of every denomination.

On the contrary, when the other end alone is attained, the rational without the pathetic, the speaker is as far from his purpose as before. You have proved, beyond contradiction, that acting thus is the sure way to procure such an object. I perceive that your reasoning is conclusive: but I am not affected by it. Why? I have no passion for the object. I am indifferent whether I procure it or not. You have demonstrated that such a step will mortify my enemy. I believe it; but I have no resentment, and will not trouble myself to give pain to another. Your arguments evince that it would gratify my vanity. But I prefer my ease. Thus passion is the mover to action, reason is the guide. Good is the object of the will, truth is the object of the understanding.⁷

—George Campbell, 1776

The Philosophy
of Rhetoric,
George
Campbell, 1776

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—George Campbell, 1776

The Philosophy
of Rhetoric,
George
Campbell, 1776

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We need both.

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The Philosophy
of Rhetoric,
George
Campbell, 1776

—George Campbell, 1776



PASSION

FAST
SYSTEM 1

NARRATIVES

PATHOS



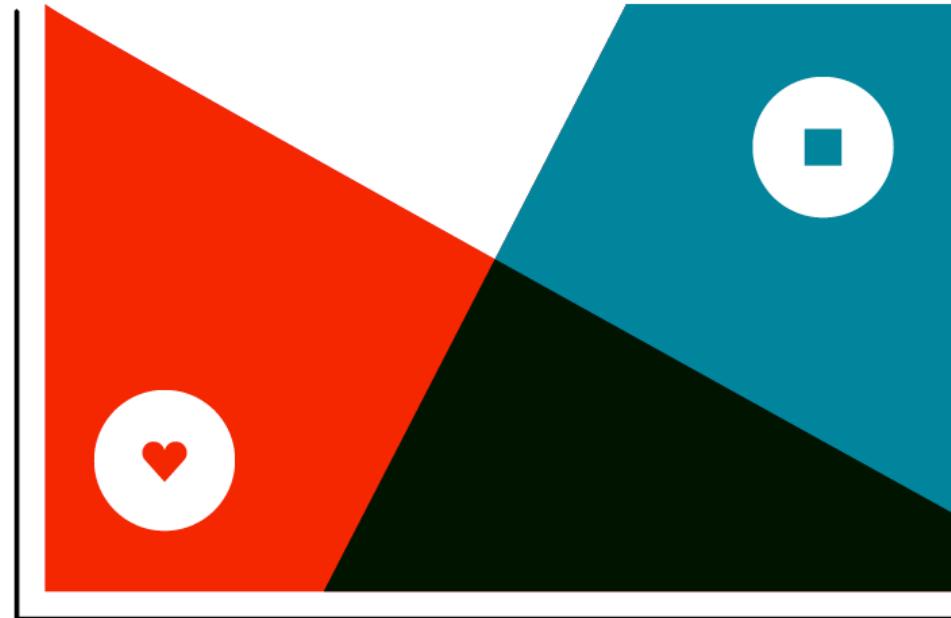
REASON

SLOW
SYSTEM 2

NUMBERS

LOGOS

**Appeal
to...**



Time spent

A Why feelings are **good** and
why they are **bad**

B Why we **should** make
feelings with data vis

C How we **can** make
feelings with data vis

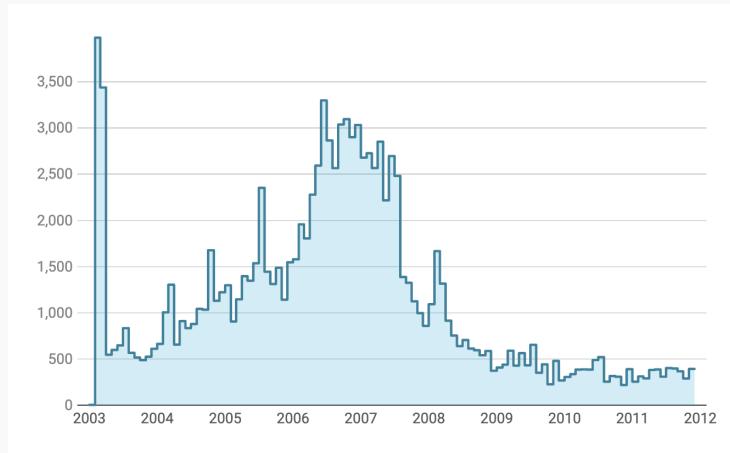
A Why feelings are **good** and
why they are **bad**

WHY WE SHOULD MAKE FEELINGS WITH DATA VIZ

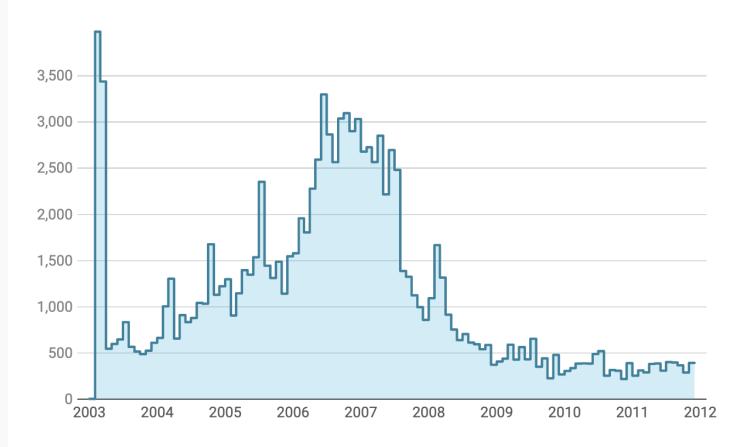
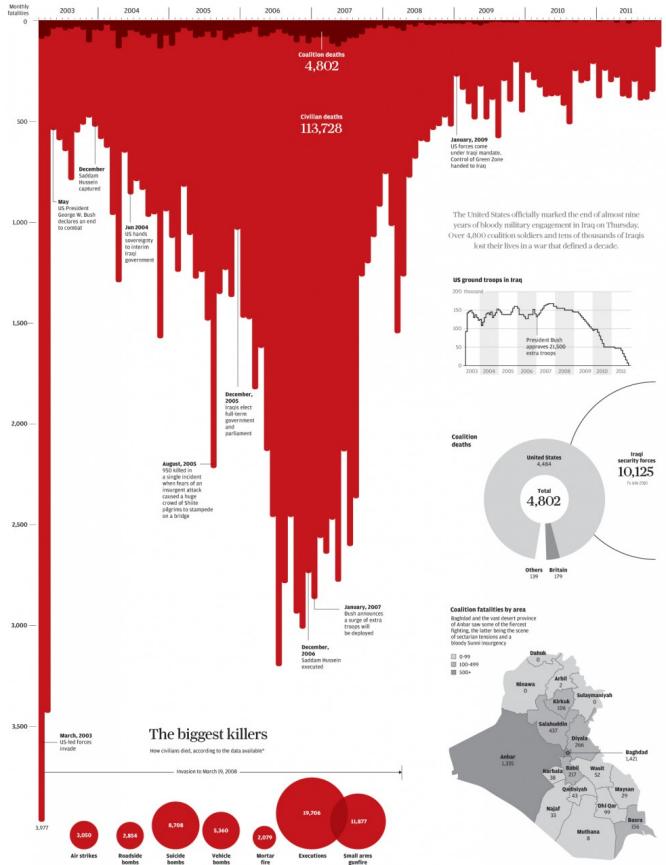
B

C How we **can** make
feelings with data vis





Iraq's bloody toll



left: Iraq's bloody toll, Simon Scarr (South China Morning Post), 2011

Coalition deaths
4,802

Civilian deaths
113,728

January, 2009
US forces come
under Iraqi mandate.
Control of Green Zone
handed to Iraq

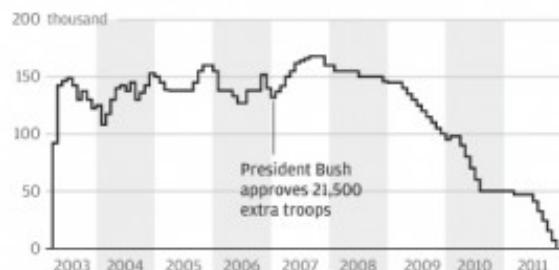
December
Saddam
Hussein
captured

May
US President
George W. Bush
declares an end
to combat

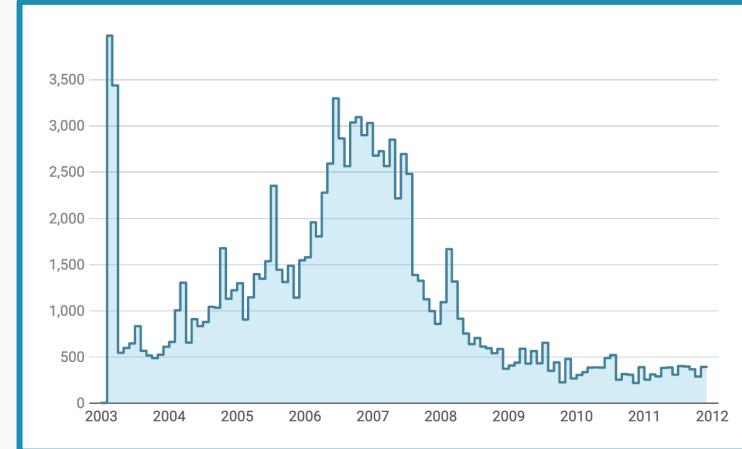
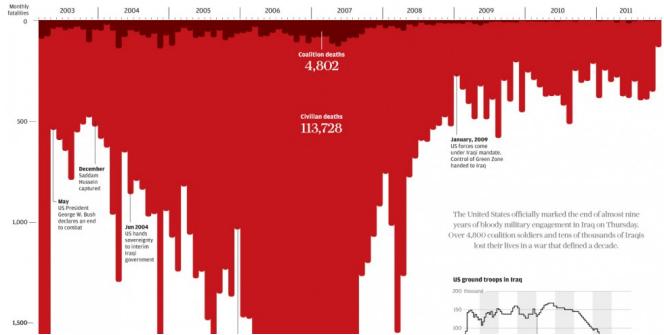
Jun 2004
US hands
sovereignty
to interim
Iraqi
government

The United States officially marked the end of almost nine years of bloody military engagement in Iraq on Thursday. Over 4,800 coalition soldiers and tens of thousands of Iraqis lost their lives in a war that defined a decade.

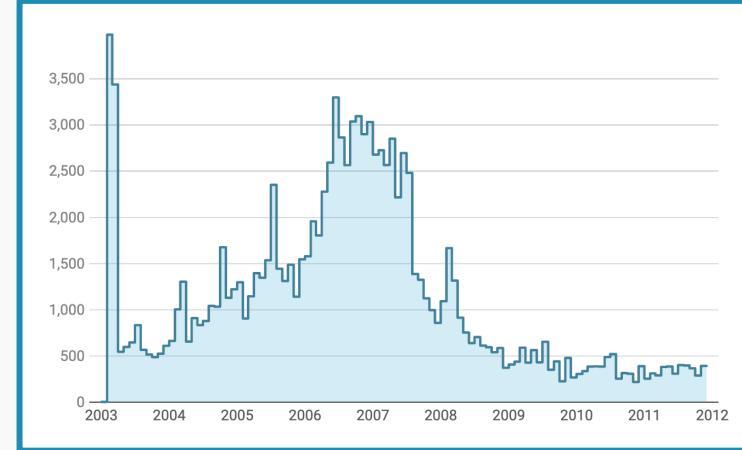
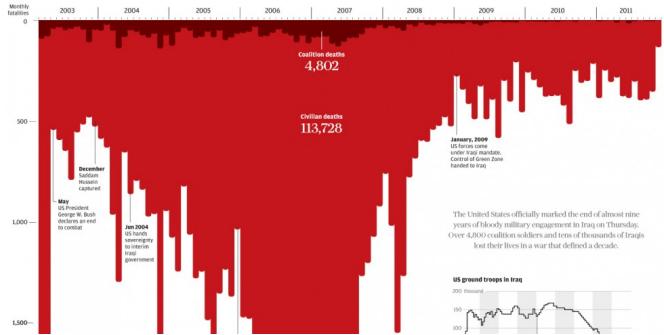
US ground troops in Iraq



Iraq's bloody toll



Iraq's bloody toll



"they kneel in the sand
kiss the unending horror
stroke the disheveled hair
clutch the limp bodies"



"The Iraq War was a
protracted armed conflict
that began with the 2003
invasion of Iraq by ..."



“That looks interesting...”

“WOAH.”

“Remember that
vis where...”



“Unbiased”

“I can trust that”

A Why feelings are **good** and
why they are **bad**

B Why we **should** make
feelings with data vis

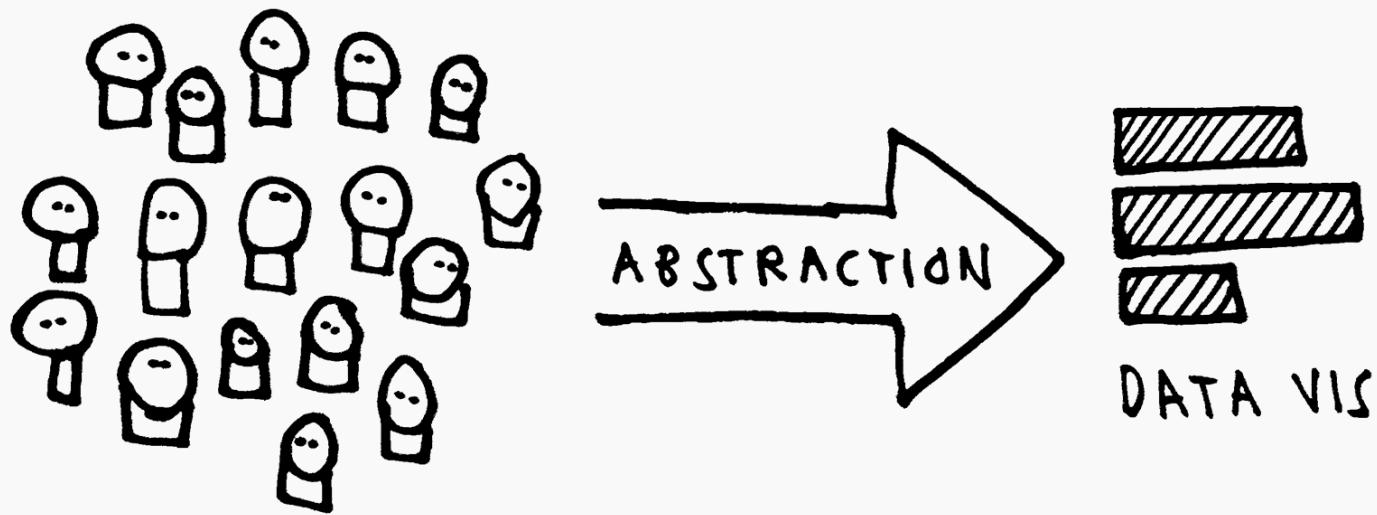
C How we **can** make
feelings with data vis

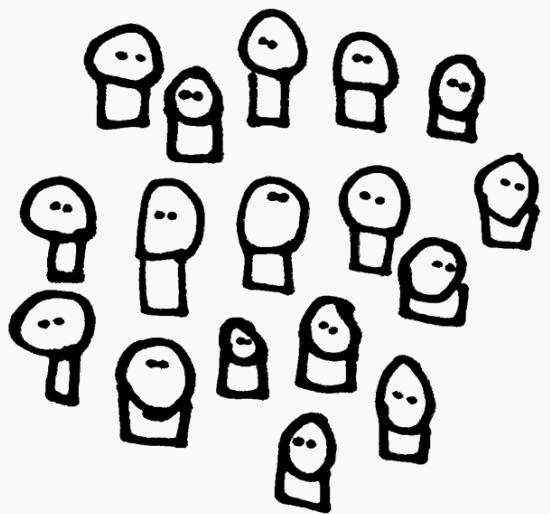
A Why feelings are **good** and
why they are **bad**

B Why we **should** make
feelings with data vis

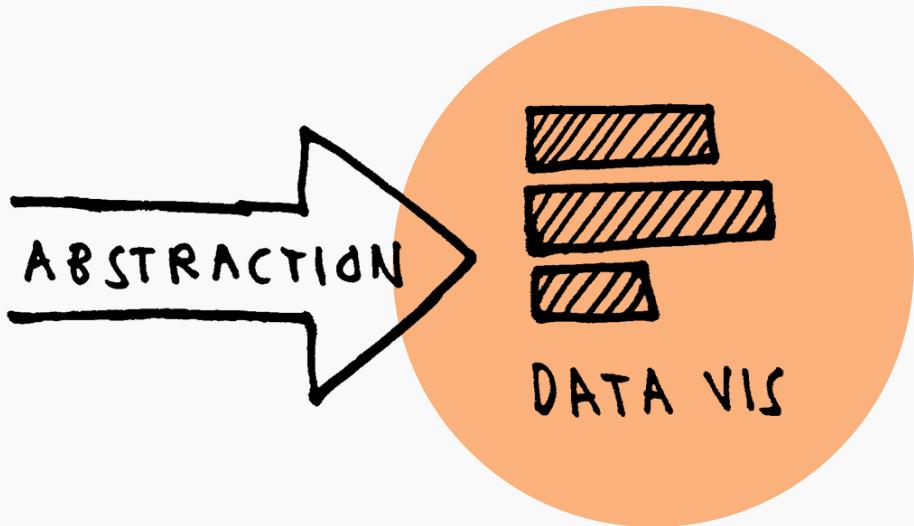
C

HOW WE CAN MAKE
FEELINGS WITH
DATA VIZ





DATA POINTS



1 Make use
of **color**.

Make use
of color.

223,161 Syrian civilians had been killed between March 2011 and March 2019

According to the pro-opposition Syrian Network for Human Rights

- Syrian government forces ■ Russian forces ■ Islamic State
- Other unnamed parties ■ Other rebel forces
- International Coalition Forces ■ Syrian Democratic Forces
- Hayat Tahrir al Sham

180000 Men

164,213

28500 Children

22,488

15400 Women



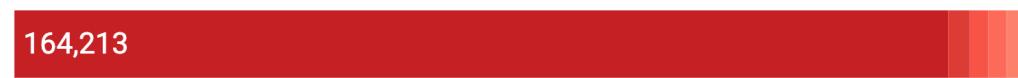
Make use
of color.

223,161 Syrian civilians had been killed between March 2011 and March 2019

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180000 Men



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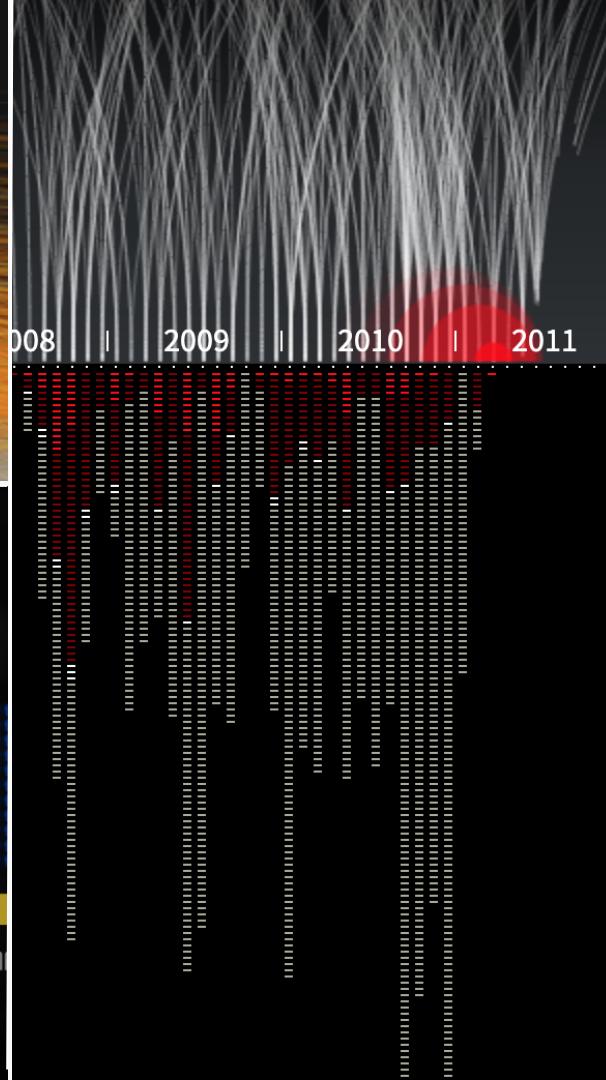
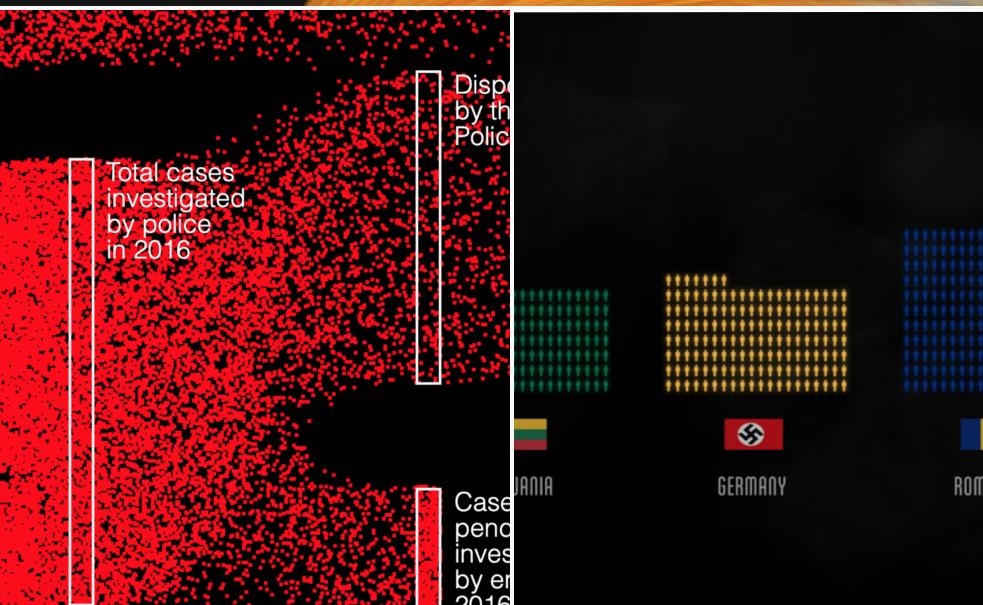


15400 Women



4,705

PEOPLE KILLED



Make use
of color.

U.S. Gun
Deaths,
Periscope

Rape in India,
Aditya Jain

Fallen.io, Neil
Halloran

Out of Sight,
Out of Mind,
Pitch
Interactive

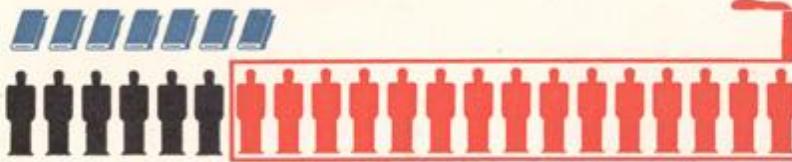
@lisacroft

2 Show what
you're talking
about.

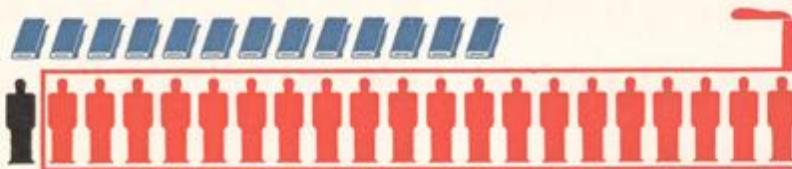


Show what
you're talking
about.

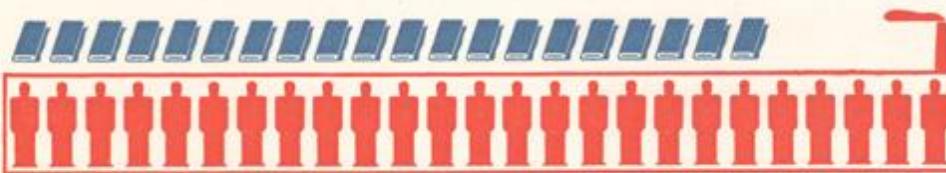
1845



1860



1880



Each blue symbol represents 50 million pounds total production

Each black man symbol represents 10,000 home weavers

Each red man symbol represents 10,000 factory weavers

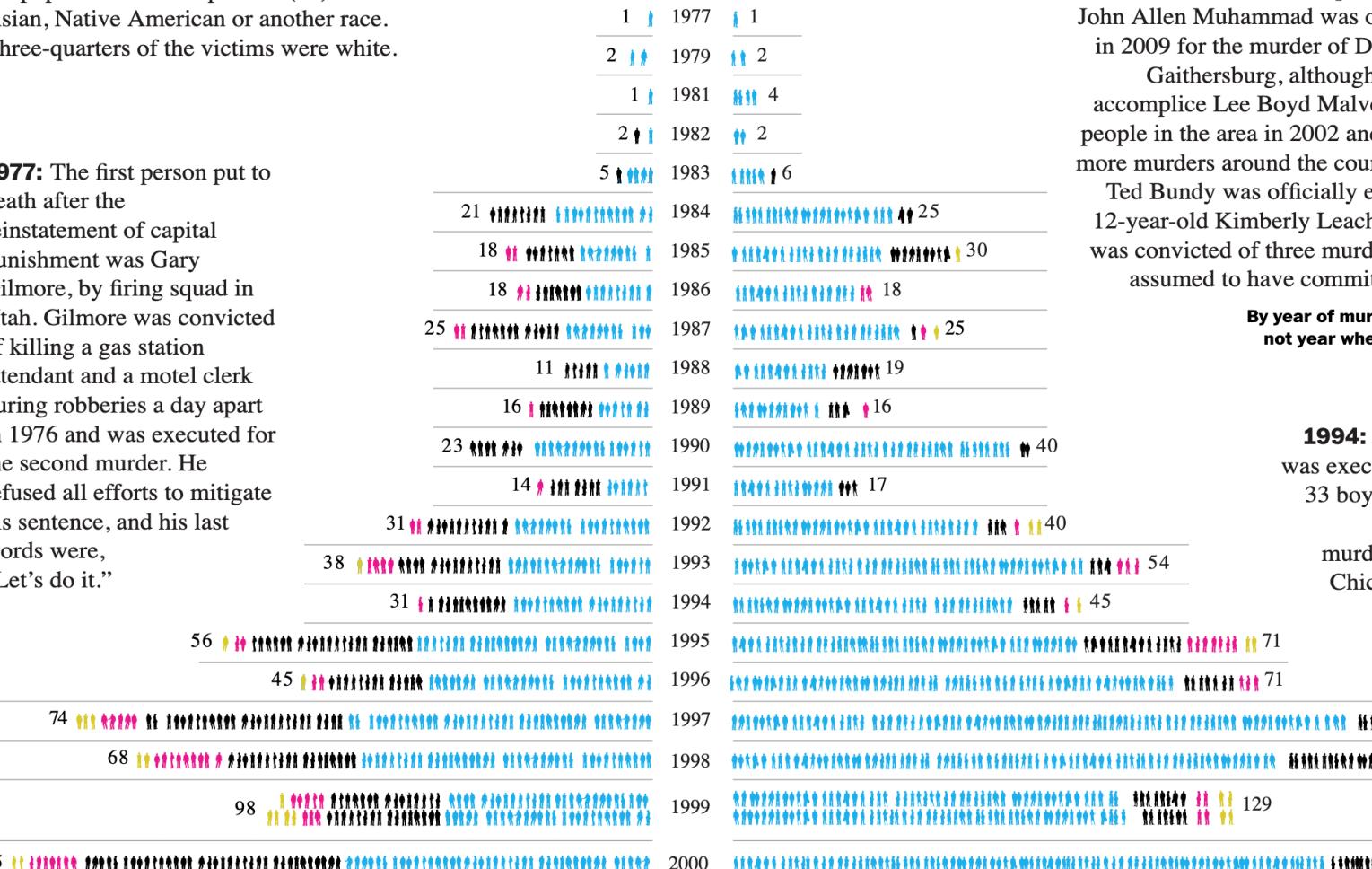


By this separation of home and place of work the burden of labour grew much heavier. Moreover, the industrial revolution started by lengthening the working time; machinery created a new type of oppression instead of freeing men from the necessity of long hours of slow hand-work. The machine, which should be the best

Otto Neurath:
Home and
Favory Weaving
in England;
from: Modern
Man in the
Making, 1939

compared with 63 percent of the population. Eight percent (110) were Hispanic, compared with 17 percent of the population. And 2 percent (24) were Asian, Native American or another race. Three-quarters of the victims were white.

1977: The first person put to death after the reinstatement of capital punishment was Gary Gilmore, by firing squad in Utah. Gilmore was convicted of killing a gas station attendant and a motel clerk during robberies a day apart in 1976 and was executed for the second murder. He refused all efforts to mitigate his sentence, and his last words were, "Let's do it."



death in multiple cases is often only one. Also, prosecutors often additional cases after a death sentence is handed down. For example, I

John Allen Muhammad was sentenced to death in 2009 for the murder of Debra Sue Dinkins in Gaithersburg, although he was not the primary killer. Lee Boyd Malvo was convicted of killing four people in the area in 2002 and was sentenced to death for more murders around the country.

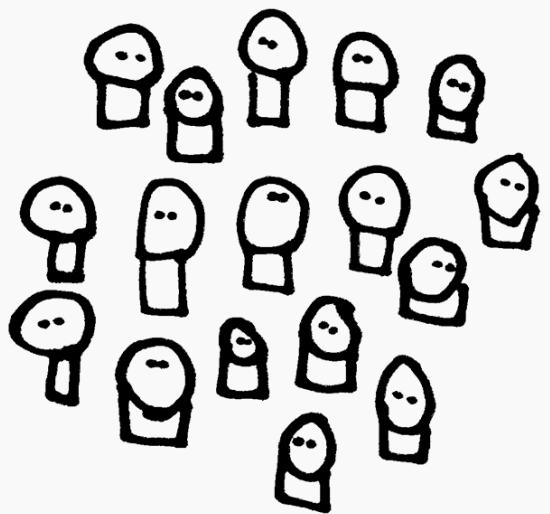
Ted Bundy was officially exonerated in 1998 for the 1978 murders of 12-year-old Kimberly Leach and 14-year-old Heather Donahue. He was convicted of three murders in 1989 and 1990, and was assumed to have committed many more.

By year of murder, not year when

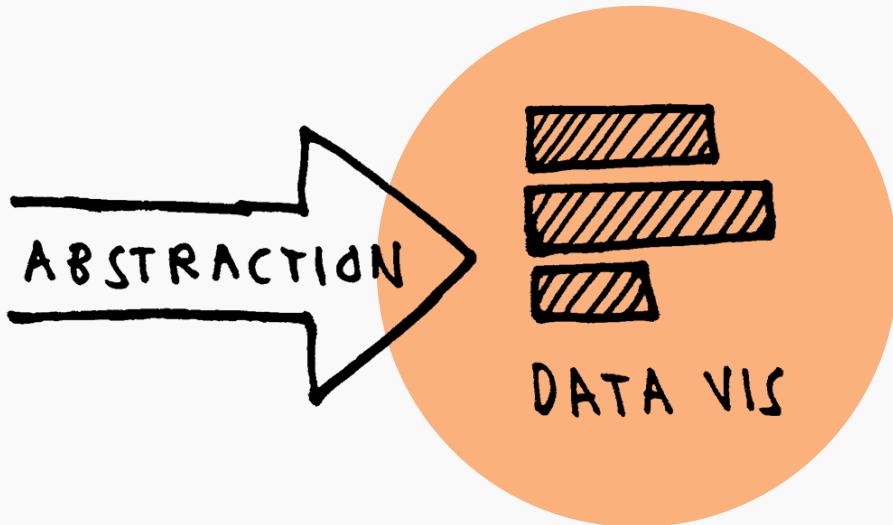
1994: John Elmer was executed for the murders of 33 boys and men in Chicago.

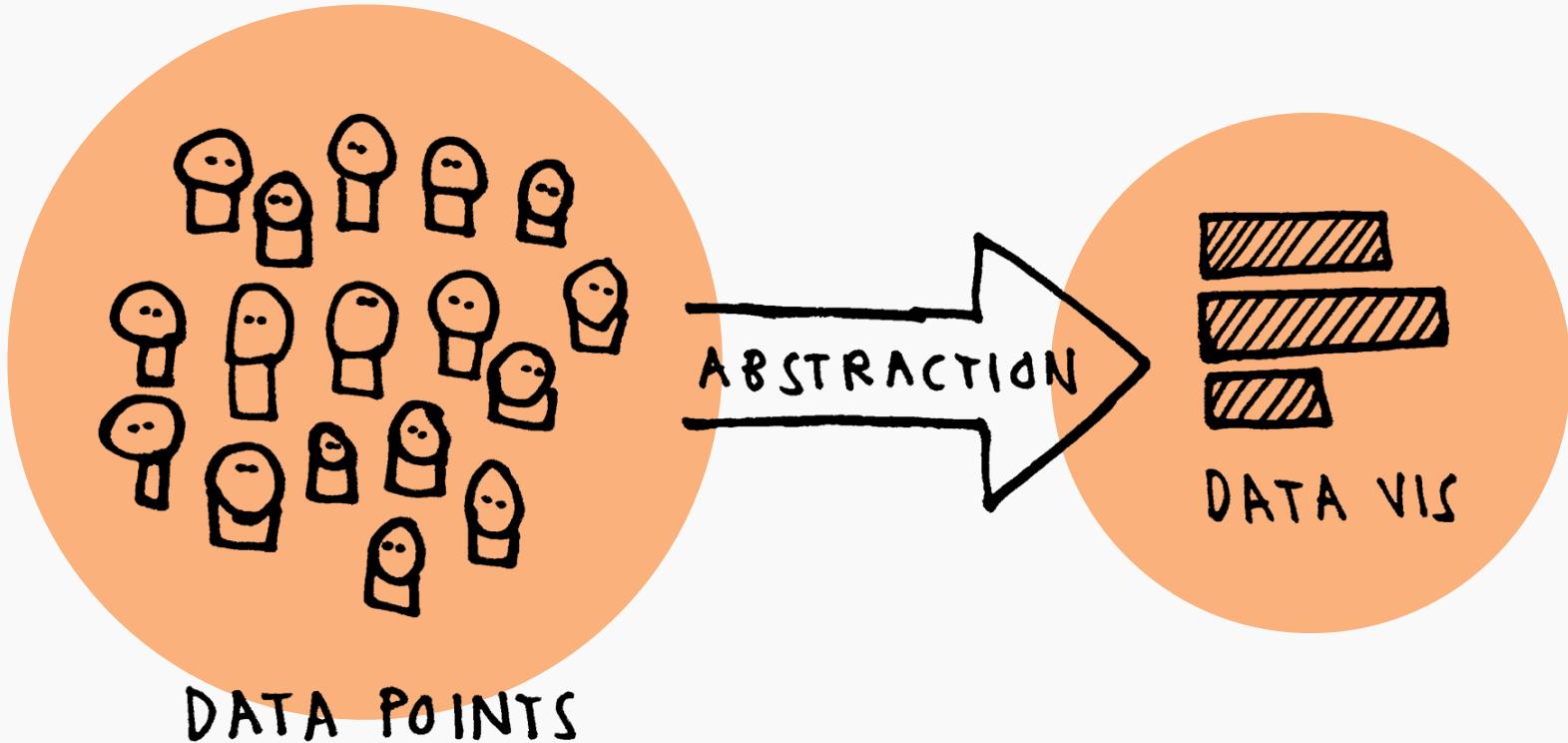
Show what you're talking about.

An eye for an eye?
Washington Post, 2014



DATA POINTS





3 Show what the
data means
for you.

Show what the
data means
for you.

The Jobless Rate for People Like You

Not all groups have felt the recession equally.

All races
White
Black ➔
Hispanic
All other races

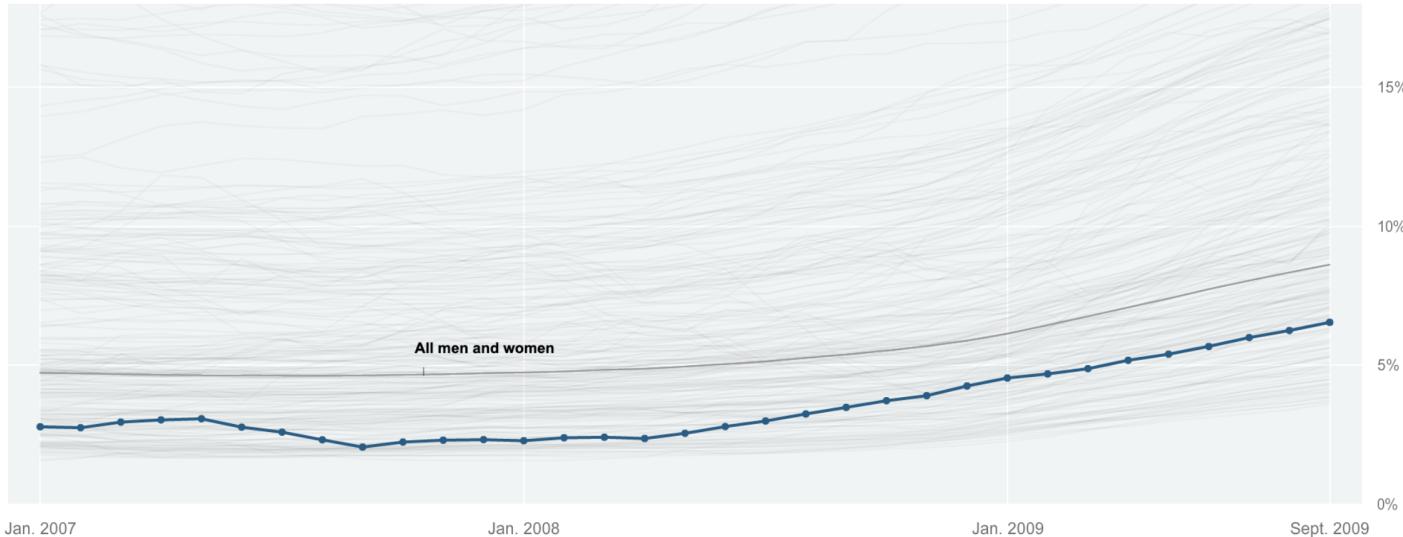
Men and Women
Men
Women ➔

All ages
Ages 15 to 24
Ages 25 to 44
Age 45 and older ➔
All education levels
Not a high school graduate
High school graduate
College graduate ➔

UNEMPLOYMENT RATE,
12 MONTH AVG. ENDING SEPT. '09

6.5%

For black women age 45 and older
with a college degree



The Jobless
Rate for People
Like You, New
York Times,
2009



Show what the data **would** mean for you.

Syrian Journey:
Choose your
own escape
route, BBC,
2015

The flights from Beirut to Istanbul have taken a large chunk of your money.

After a week in Istanbul, you meet Abu Hassan, a smuggler. He takes you to a busy cafe in the centre of town. He says he can get you to Greece for an initial \$3,000 deposit per person.

Do you pay him the deposit?

The week you've just spent in Turkey has already drained a lot of your resources.

Pay him the deposit

You know that there are many fraudsters and don't want to lose your money.

Refuse to pay him the deposit

A close-up photograph of a young girl with shoulder-length brown hair, wearing a blue shirt. She is looking down at a yellow pencil she is holding in her hands. In the background, another person is sitting on a couch reading a newspaper. The newspaper has a large headline that appears to be about child labor. The setting is an indoor room with a window and some furniture visible.

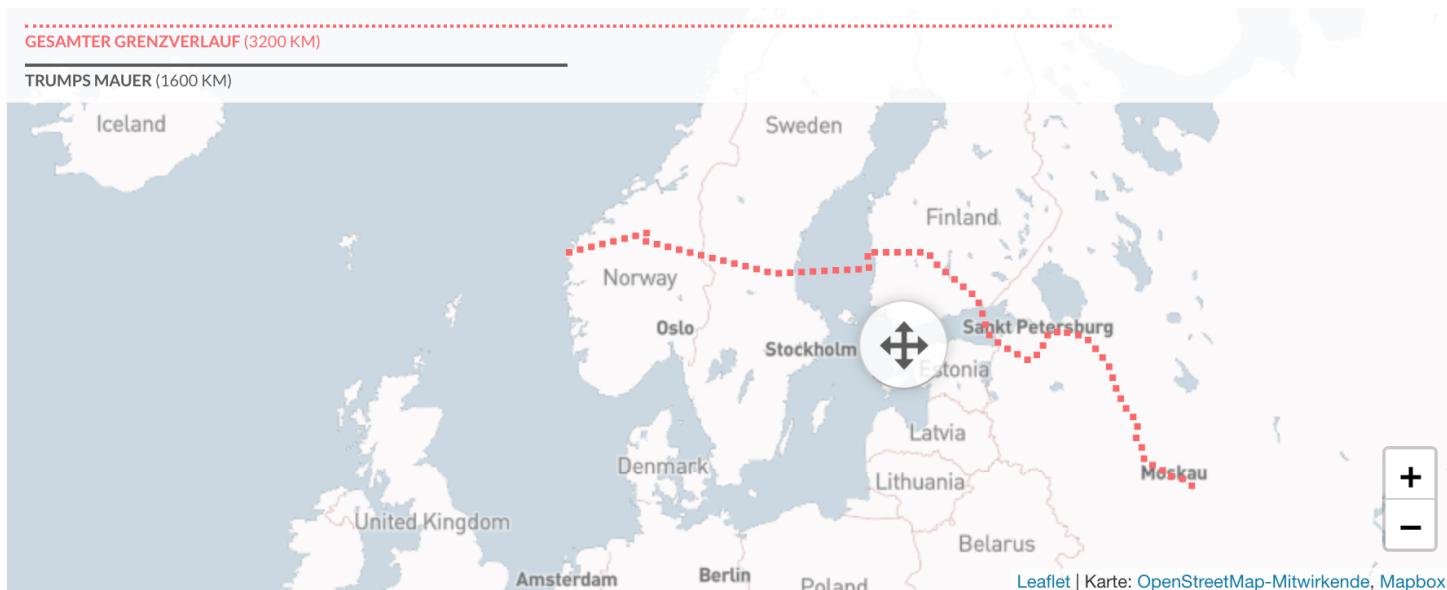
Show what the
data **would**
mean for you.

Most Shocking
Second a Day
Video, Save the
Children, 2014

Show what the
data **would**
mean for you.

Trumps Mauerpläne im Größenvergleich

US-Präsident Donald Trump plant eine Betonmauer an der Grenze zu Mexiko. Verschieben Sie den Grenzverlauf auf der Karte und übertragen Sie die Dimensionen auf eine beliebige Region.



Trumps
Mauerpläne im
Größenver-
gleich, Berliner
Morgenpost,
2017

Kaum ein Wahlkampfversprechen hat die eingefleischten Fans von Donald Trump so elektrisiert wie seine Pläne für eine „große, schöne, mächtige Mauer“ an der Grenze zu Mexiko. Bis zu 15 Meter hoch soll sie sein, aus

@lisacroft



Show what the
data **would**
mean for you.

Tim Wallace:
Aleppo, as if in
Queens, 2016

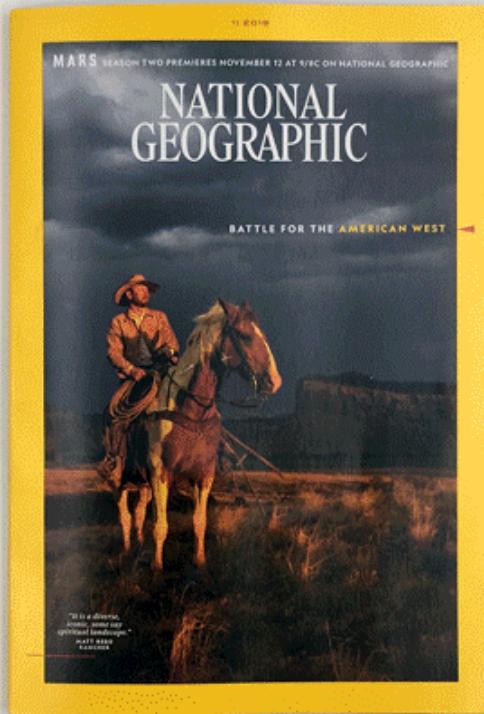
Show what the
data **would**
mean for you.

1% to 1.3%

Percentage of the Syrian population killed. It would be like killing 3 to 4 million Americans.

Empty out Boston; starve Moscow, and you may understand some of Syria's hell, CNN, 2015

Show what the
data **would**
mean for you.



When Children
Lack Nutrition,
National
Geographic,
2018

@lisacroft

Show what the
data **would**
mean for **you**.

How would **my city** look differently?

How many nearby **people** would be affected?

How would **my life** be different?

What **options** would I have? ...

Show what the
data **would**
mean for **you**.

How would **my city** look differently?

How many nearby **people** would be affected?

How would **my life** be different?

What **options** would I have? ...

Creating proximity

to my location, to my interests, to *now*

Show what the
data **would**
mean for **you**.

How would **my city** look differently?

How many nearby **people** would be affected?

How would **my life** be different?

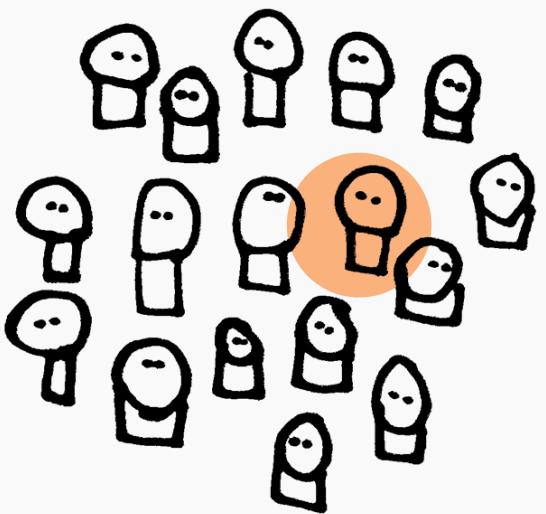
What **options** would I have? ...

Creating proximity
to my location, to my interests, to now

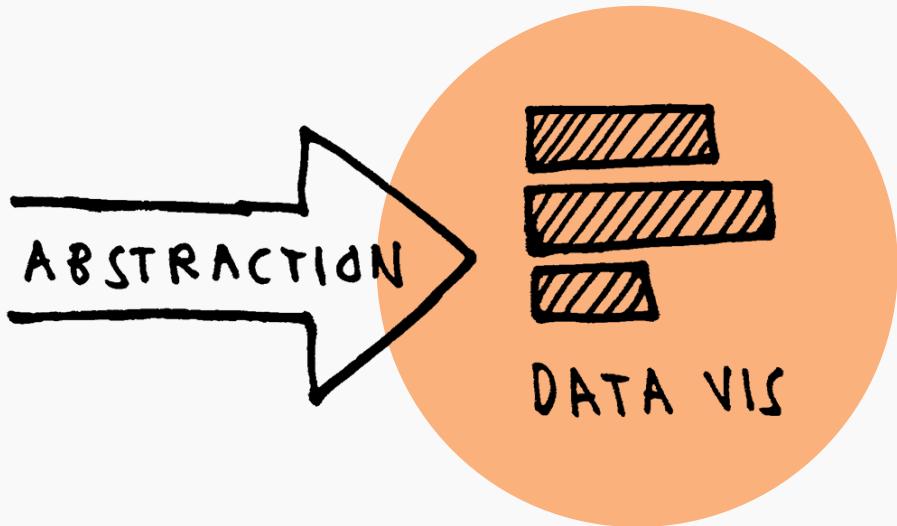
Data Vis Experience

4

Zoom into
one dot.



DATA POINTS





**Zoom into
one dot.**

Oxfam ad

SEE ME.

Millions of refugees are fleeing violence and poverty—but we can't lose sight of the individuals. Each one needs food, shelter, and opportunity. You can provide not only aid, but hope. Please give today.

**HELP NOW: Text SEE ME to 97779
or visit OXFAMAMERICA.ORG**



OXFAM

@lisacrost

A screenshot of a news article from NBC News. The article is titled "Signed Out Of Prison But Not Signed Up For Health Insurance". It features a photo of a woman with dark hair and a blue shirt. The NBC News logo is in the top left corner, and there are navigation buttons like 'Newspaper', 'Search', 'Print', 'Email', 'RSS', 'Facebook', 'Twitter', and 'LinkedIn'.

Signed Out Of Prison But Not Signed Up For Health Insurance

By Brian Ries | NBC News | Last Updated: 10/12/2016 10:11 AM ET



Photo: AP/John Minchillo

When she got out of prison, Shelly Jackson signed up for health insurance. She signed up again when she got out of prison a second time. Now she's signed up again, but she's not signed up for health insurance.

"I had to go to doctor, she told me I needed a month of pills to extend her definition of health care," says Shelly Jackson, 40, of New York City, who has been released from prison three times since 2008.

After the state's Medicaid program cut him in Medicaid, although under the Affordable Care Act, Jackson has applied for health insurance programs to include more insurance. Last December he applied for insurance on his phone, for some online deposit financing one of the first three generations to receive it.

"There's a lot of initial disbelief which is valid around the time you're trying to get into the other place," said Jackson, who had to prove to himself he really had health insurance to qualify for Medicaid. "Thankfully I found a new home pretty immediately."

The health care was supposed to extend toward and beyond all other care in prison for six days after his release, but Jackson says they spent nearly two months in jail after his release. Jackson says he applied for state programs that require inmates to wait until they've completed their sentence before they can file for benefits.

But Medicaid participation is required within 90 days after release, so Jackson, 40, was denied by the Medicaid Project at Legal Health Services.

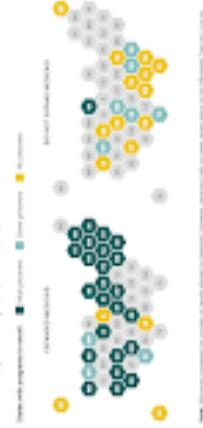
Most of the same prison systems do not want their Medicaid beneficiaries to have either any extended stays with Medicaid programs or repeat any specific programs that have been discontinued within 90 days — unless they are terminally ill — without permission.

Local public protection offices of prisoners (LPOs), mostly funded privately by LPOs, along with some prison funds for a growing public, according to the inmates, by many estimates, add millions to spending, justifying higher average age of inmates than a month and a few months after release respectively.

The inmates with the most difficult of Public Protection funds have been told that they can't receive Medicaid until a New York City-based Medicaid office for prison and jail for inmates are either incarcerated.

Notably, some 175,000 inmates have early prison entry years with Medicaid-enrolled Medicaid Safety net, according to a memo from The Medicaid Project.

Where Inmates Can Get Help With Medicaid Upon Release



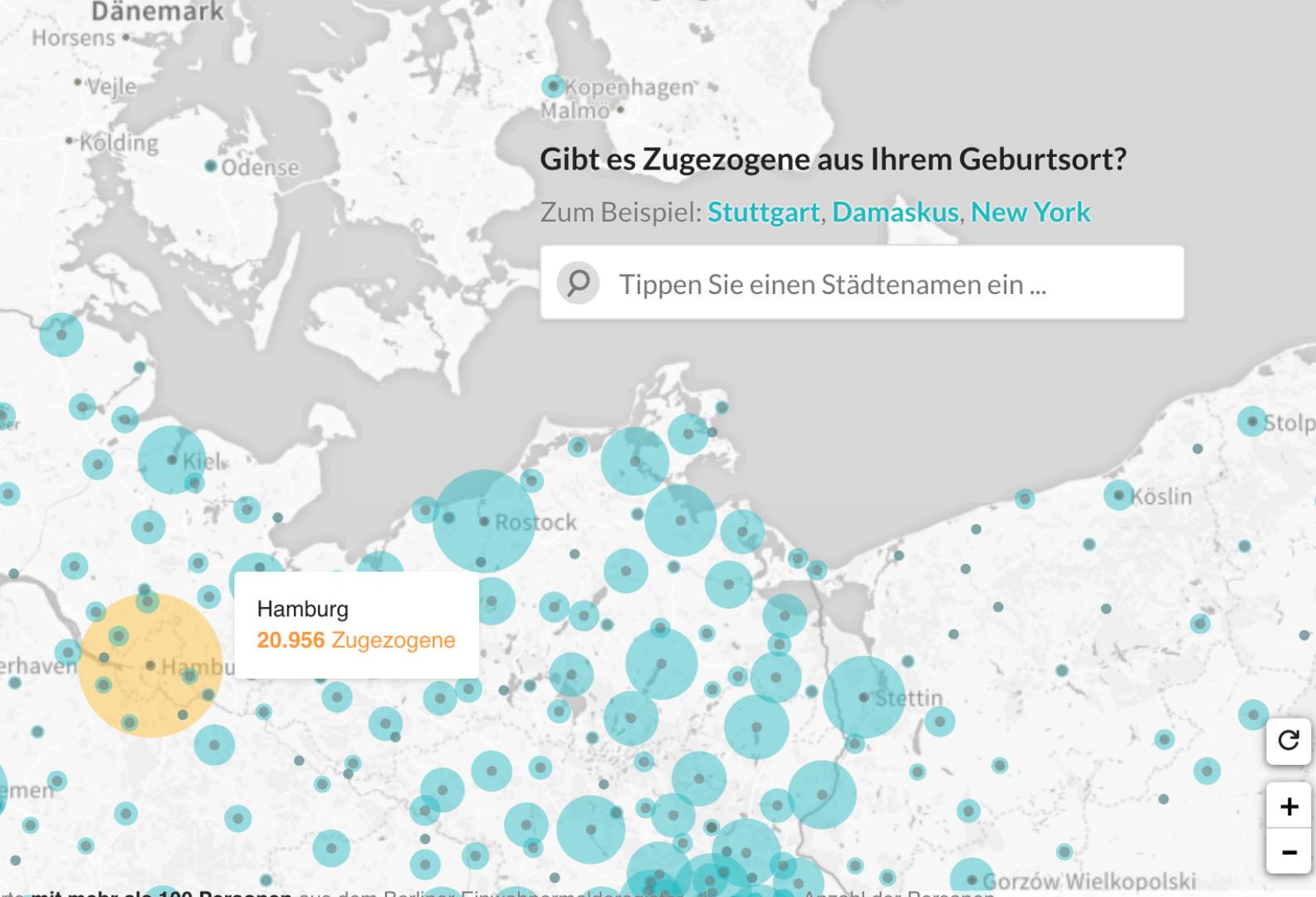
Zoom into one dot.

Signed Out Of Prison But Not Signed Up For Health Insurance, NPR, 2016

@lisacrost

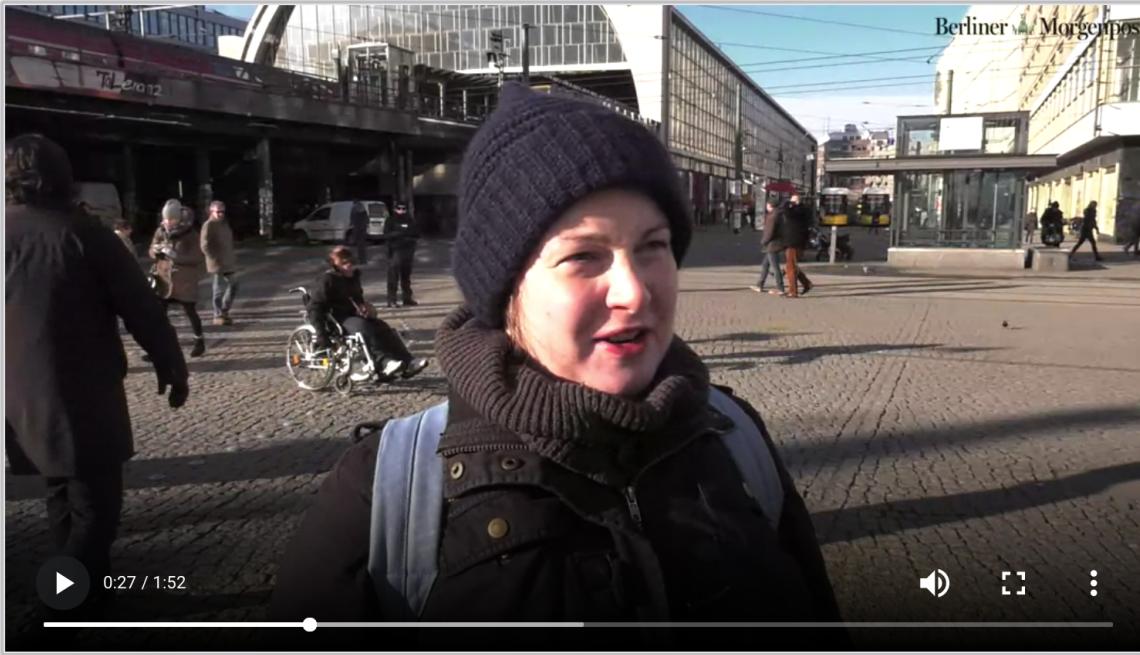
Every project needs a story.

Zoom into
one dot.



Weltkrieg nach: Bei vielen älteren Berlinern steht noch der deutsche Name einer heute polnischen Stadt im Pass. So ist Szczecin (Stettin) mit 6801 Berlinern die erste ausländische Stadt in der Rangliste.

Zoom into one dot.



Wahlberliner erzählen, wo sie herkommen und warum sie in die Hauptstadt gezogen sind. Video: Max Boenke, Jörg Krauthöfer, BM

Die meisten Wahlberliner stammen aber aus Städten des Bundesgebiets (836 Orte). Dabei führt Hamburg die Rangliste mit 20.956 Menschen an - vor den sächsischen Großstädten Dresden (17.578) und Leipzig (17.561). Doch die Karte zeigt auch, in welchen deutschen Kleinstädten viele

@lisacroft

Woher die Berliner wirklich kommen, Berliner Morgenpost, 2016

Zoom into
one dot.



censusAmericans

@censusAmericans

Following



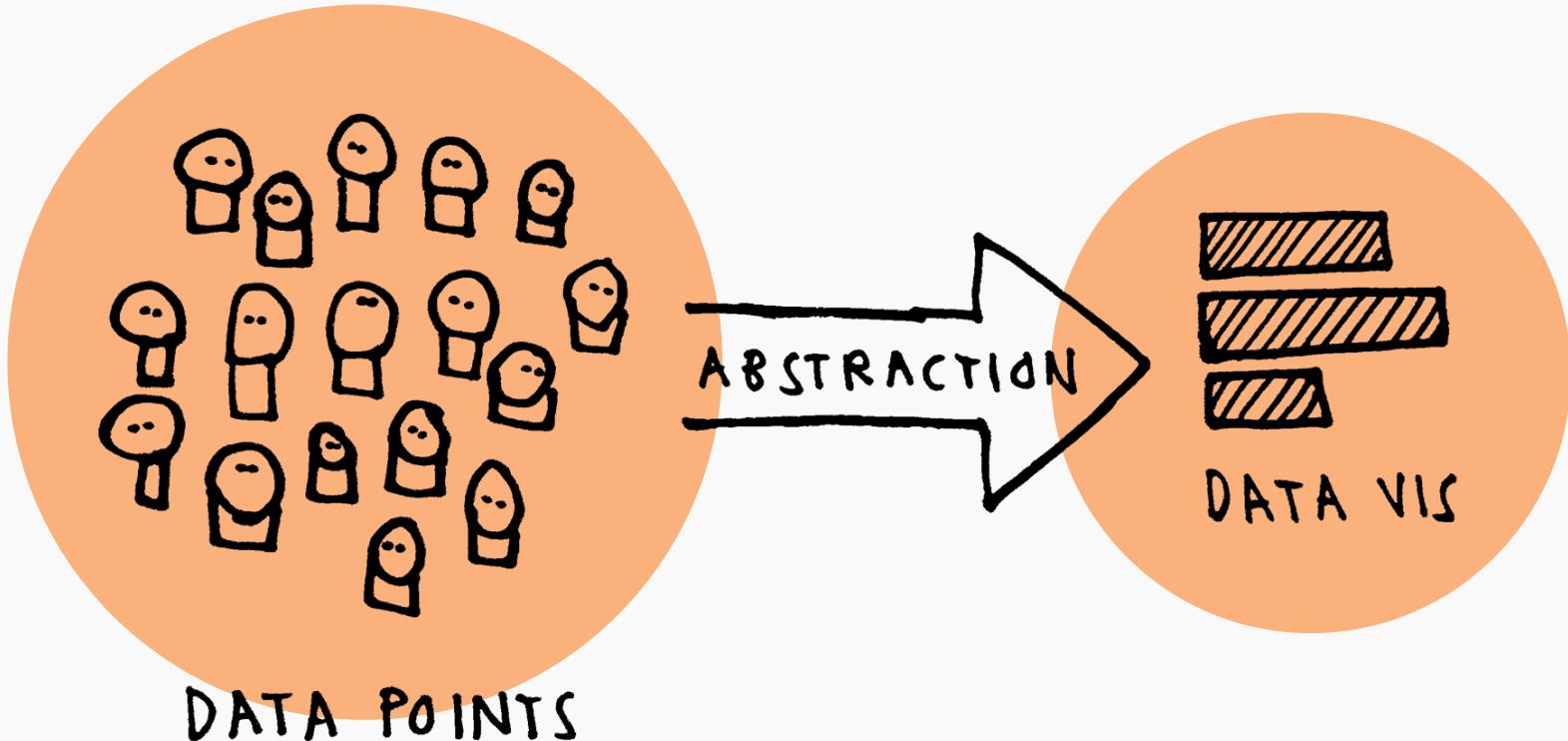
[twitter.com/
census
Americans](https://twitter.com/censusAmericans)

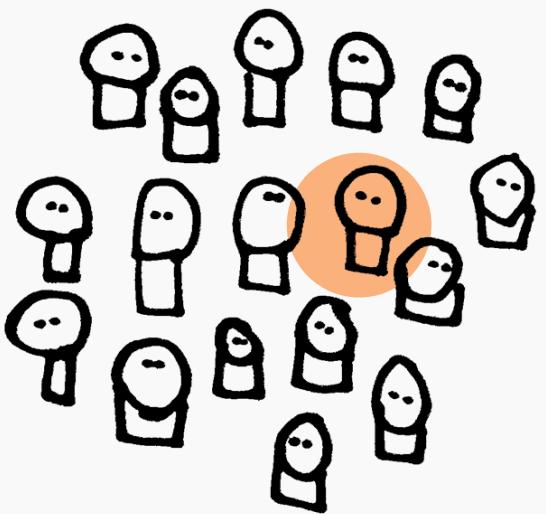
I get to work around 2:20pm. I have an associate's degree. I got married in 1998. I had less than 2 weeks off last year. I am married.

12:00 PM - 4 May 2019

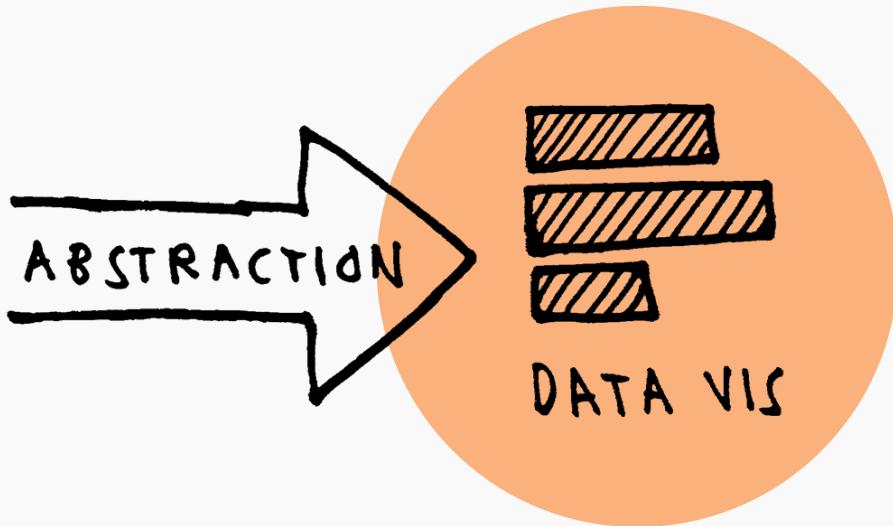
@lisacroft

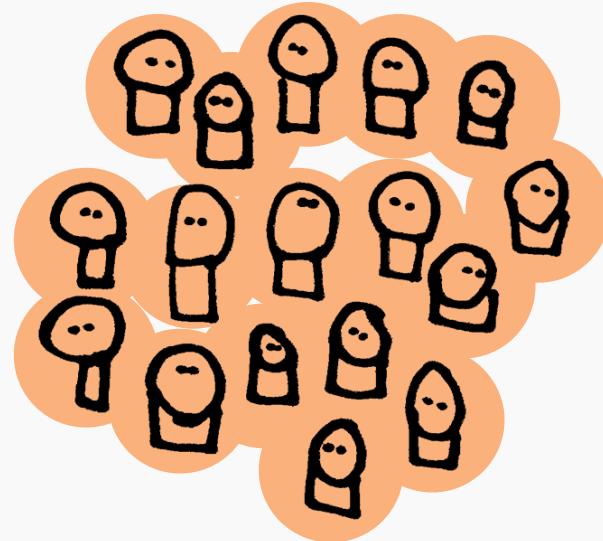
5 Show the
mass as
individuals.



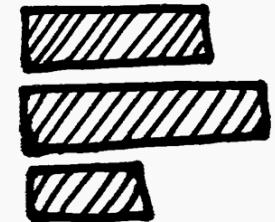


DATA POINTS

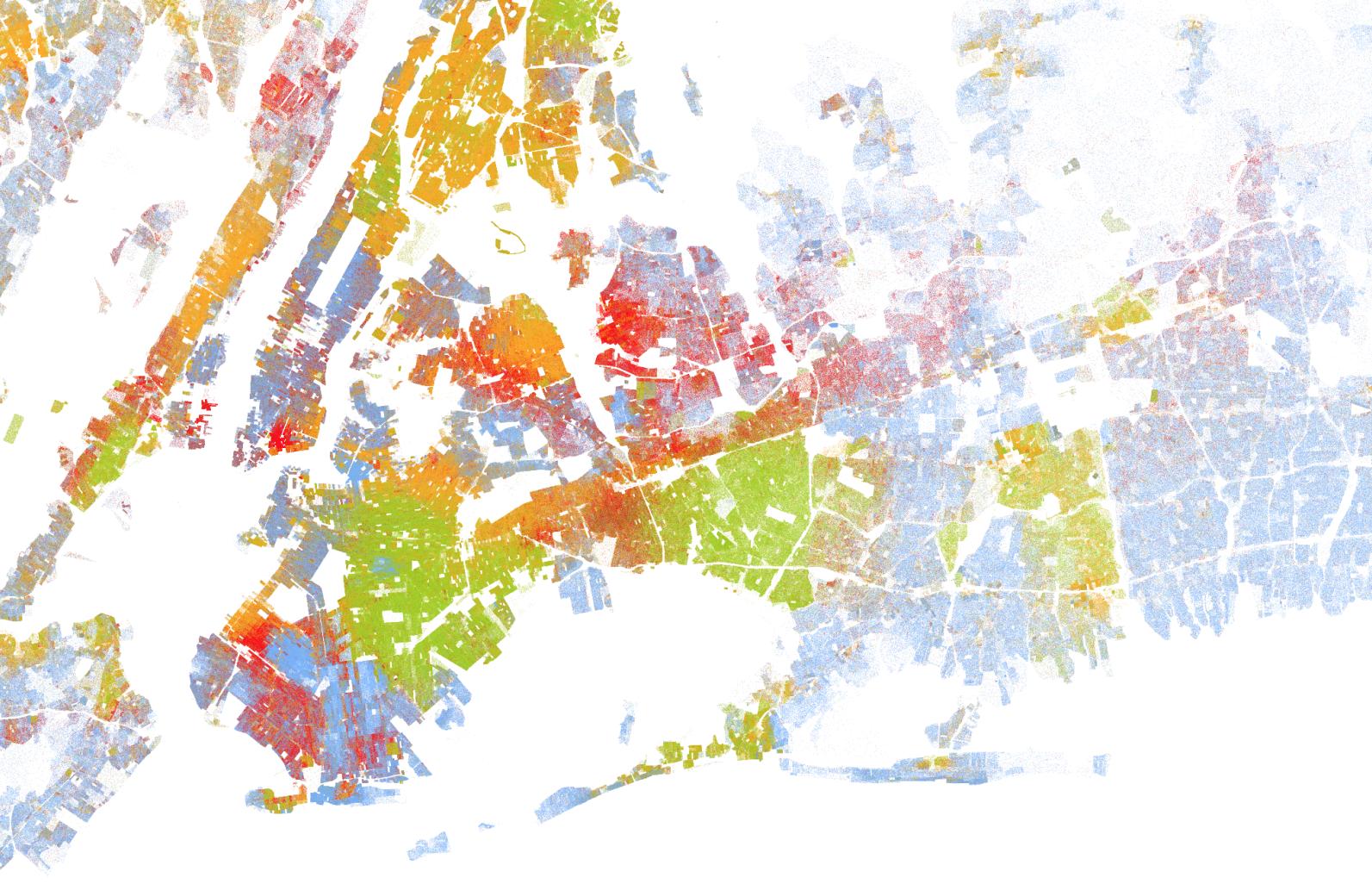




DATA POINTS



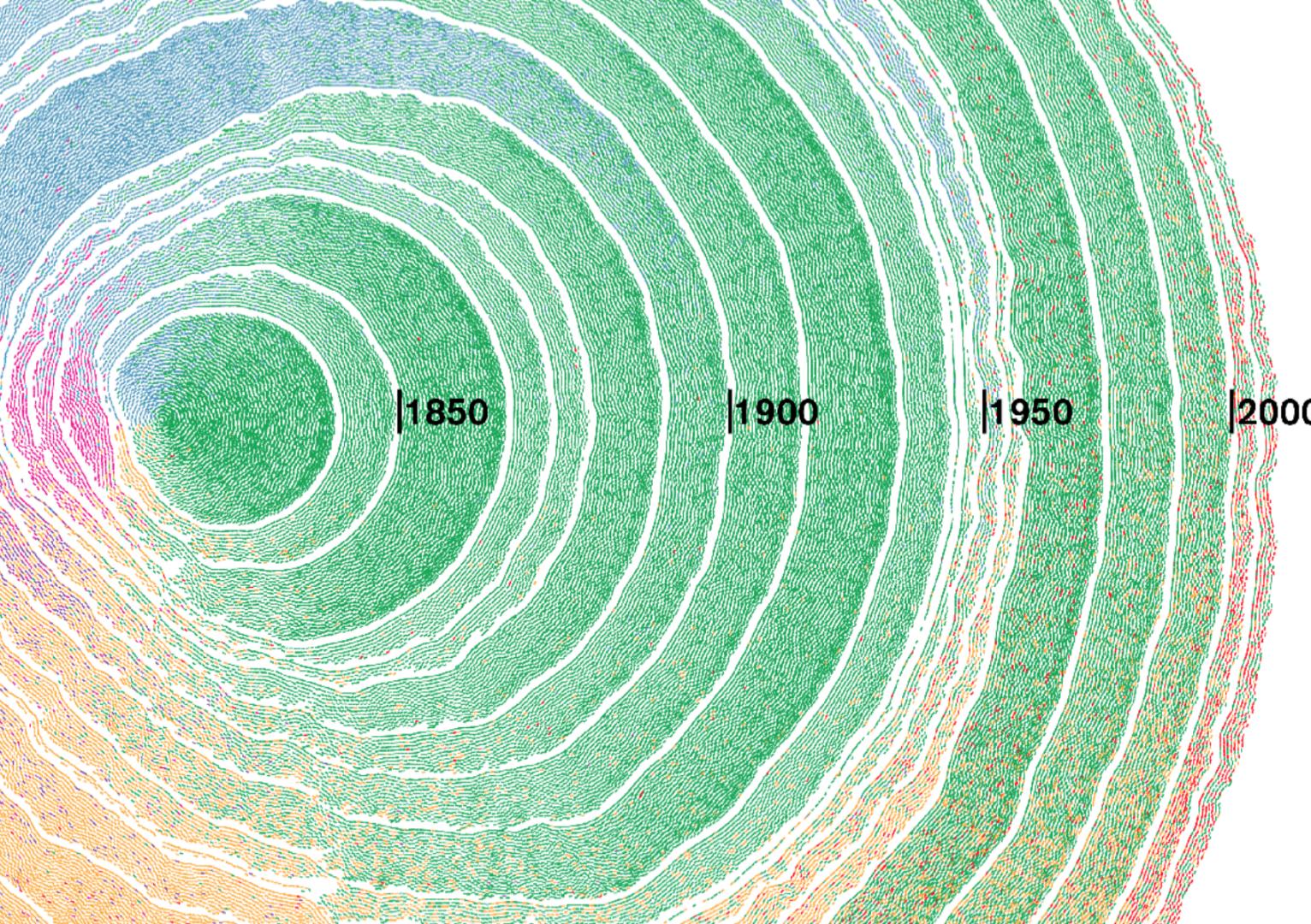
DATA VIS



Show the
mass as
individuals.

The Radial Dot
Map with
Census data
from 2010,
University
of Virginia

Blue = White
Green = Black
Red = Asian



Show the
mass as
individuals.

Simulated
Dendrochronol
ogy of U.S.
Immigration,
1790-2016,
Pedro Cruz,
2017

Each dot
represents 100
immigrants.

Green = Europe
Red = Africa
Blue = Canada
Pink = Asia
Yellow = Latin
America

Show the
mass as
individuals.

“Eight hundred
thousands
killed in the last
800 days.”

“One life
lost every
11 seconds.”

U.S. GUN DEATHS IN 2013 2010

0

PEOPLE KILLED

0

STOLEN YEARS



AGE 0

108

Show the
mass as
individuals.

“There were not 6 million
jews murdered [during the
holocaust]; there was one
murder, six million times”

– Abel Hertzberg

Show the
mass as
individuals.

Roman
Opałka

5607249

Show the
mass as
individuals.

Roman
Opałka

@lisacrost

Show the
mass as
individuals.

Dear Data,
Giorgia Lupi,
2014



Show the
mass as
individuals.

DATA HUMANISM

~~SMALL~~ big data

data bandwidth ~~QUALITY~~

~~imperfect~~ infallible data

~~SUBJECTIVE~~ impartial data

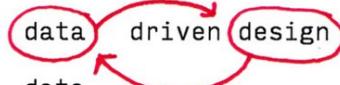
~~INSPIRING~~ descriptive data

~~SERENDIPITOUS~~ predictive data

data conventions ~~POSSIBILITIES~~

data to ~~simplify~~ complexity / ~~DEPICT~~

data processing ~~DRAWING~~

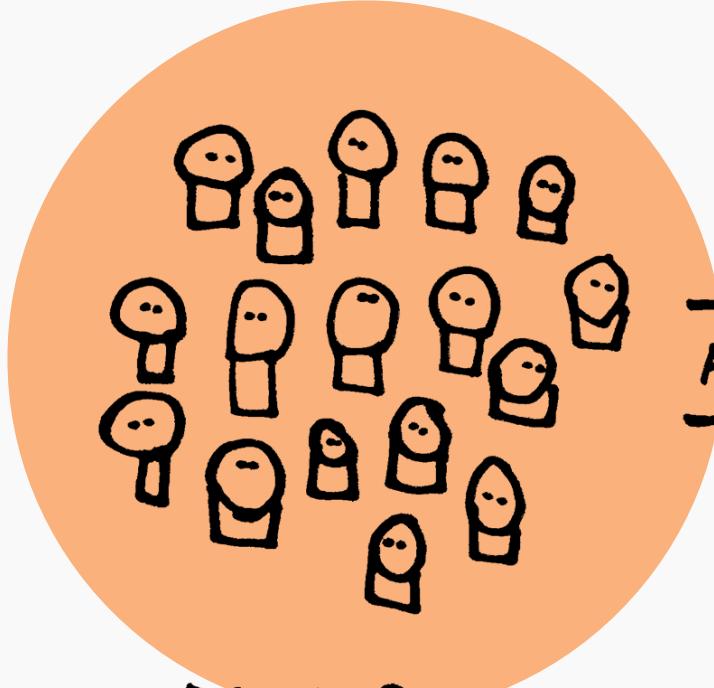


~~SPEND~~ save time with

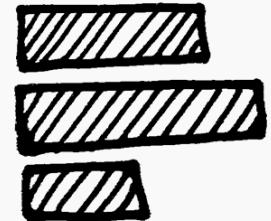
data is numbers ~~people~~

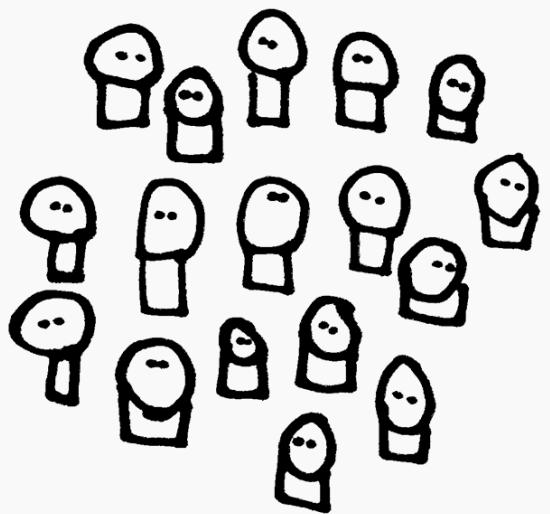
data will make us more efficient ~~HUMAN~~.

Data
Humanism, The
Revolution will
be Visualized,
Giorgia Lupi,
2017

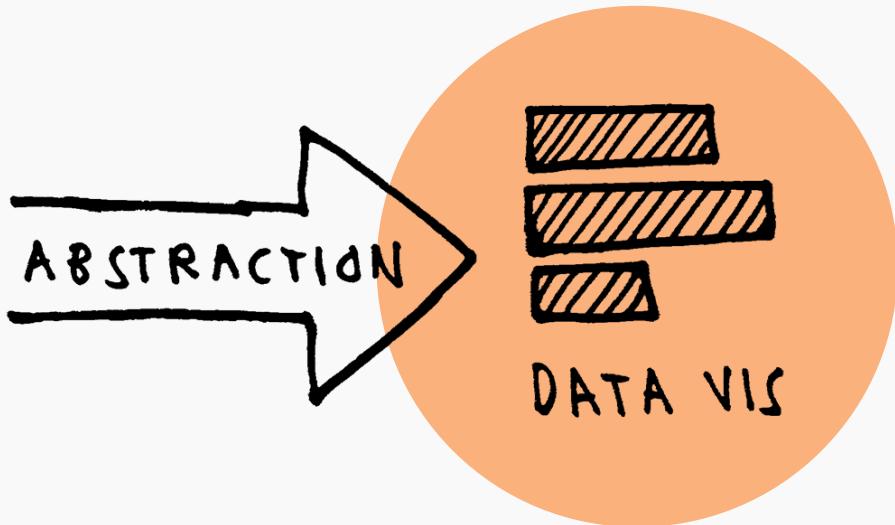


DATA POINTS





DATA POINTS



A Why feelings are **good** and
why they are **bad**

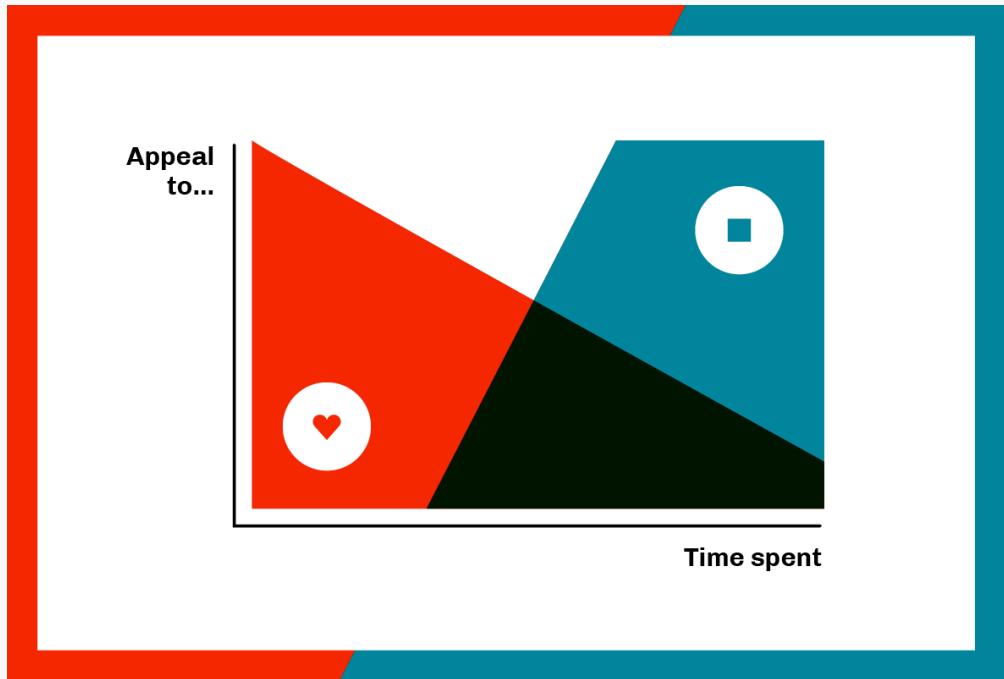
B Why we **should** make
feelings with data vis

C How we **can** make
feelings with data vis

A Why feelings are **good** and why they are **bad**

B Why we **should** make feelings with data vis

C How we **can** make feelings with data vis

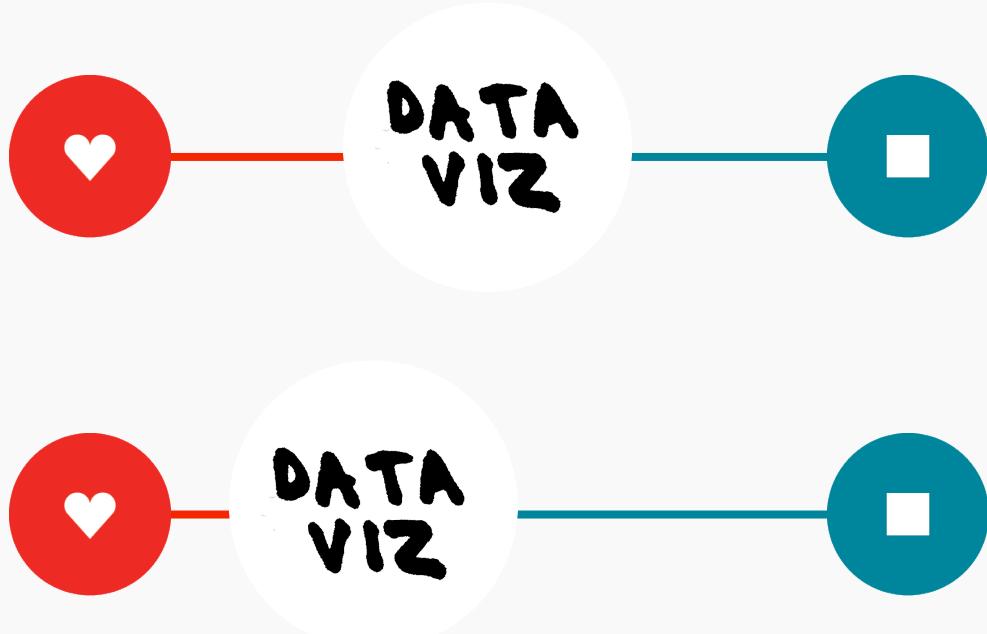


Feelings are good for making us care, but we should use reason to decide what to do.

A Why feelings are good and why they are bad

B Why we **should** make feelings with data vis

C How we **can** make feelings with data vis

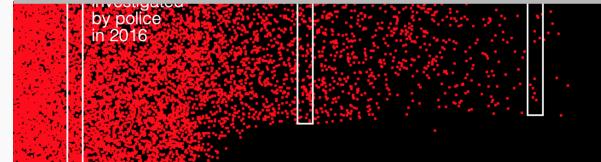


Data Vis is a tool that can, but doesn't need to evoke emotions. It depends on our goals.

A Why feelings are **good** and why they are **bad**

B Why we **should** make feelings with data vis

C How we **can** make feelings with data vis



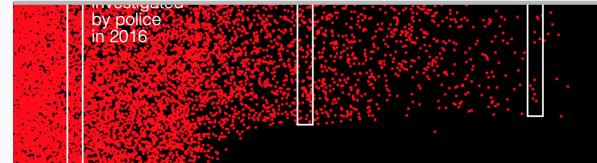
1

Make use of **color**.

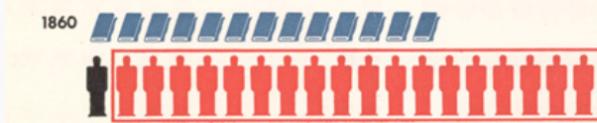
A Why feelings are **good** and why they are **bad**

B Why we **should** make feelings with data vis

C How we **can** make feelings with data vis



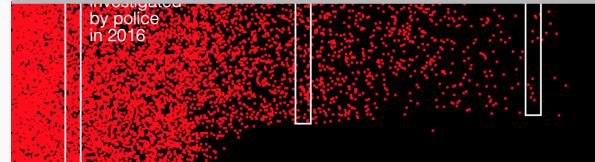
- 1** Make use of **color**.
- 2** Show what you're talking about.



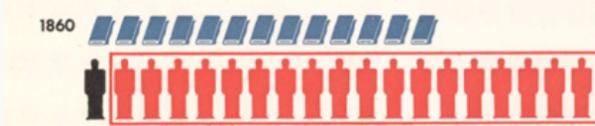
A Why feelings are **good** and why they are **bad**

B Why we **should** make feelings with data vis

C How we **can** make feelings with data vis



1 Make use of **color**.



2 Show what you're talking about.

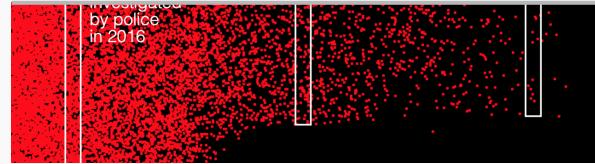


3 Show what the data means for **you**.

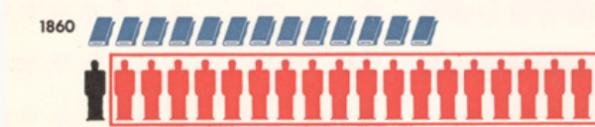
A Why feelings are **good** and why they are **bad**

B Why we **should** make feelings with data vis

C How we **can** make feelings with data vis



1 Make use of **color**.



2 Show what you're talking about.



3 Show what the data means for **you**.

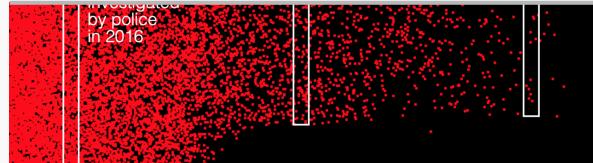


4 Zoom into one dot.

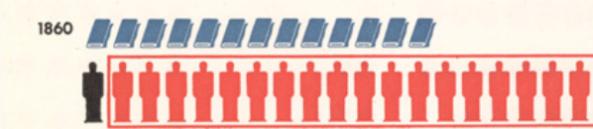
A Why feelings are **good** and why they are **bad**

B Why we **should** make feelings with data vis

C How we **can** make feelings with data vis



1 Make use of **color**.



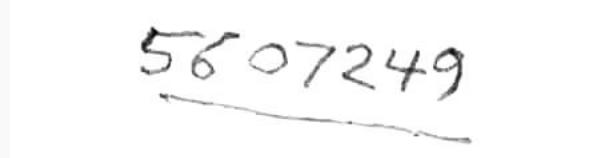
2 Show what you're talking about.



3 Show what the data means for **you**.



4 Zoom into one dot.



5 Show the mass as **individuals**.

A Why feelings are **good** and
why they are **bad**

B Why we **should** make
feelings with data vis

C How we **can** make
feelings with data vis

D How we can make
change with **feelings**

Questions left.

Questions left.

Do the presented methods
actually evoke emotions?

Questions left.

Do the presented methods
actually evoke emotions?

What are other methods?

Questions left.

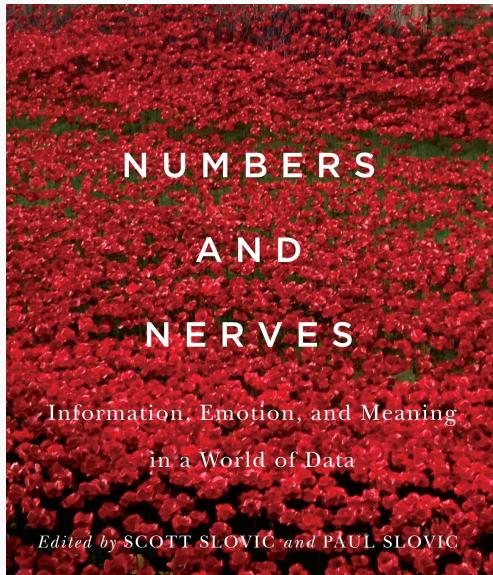
Do the presented methods
actually evoke emotions?

What are other methods?

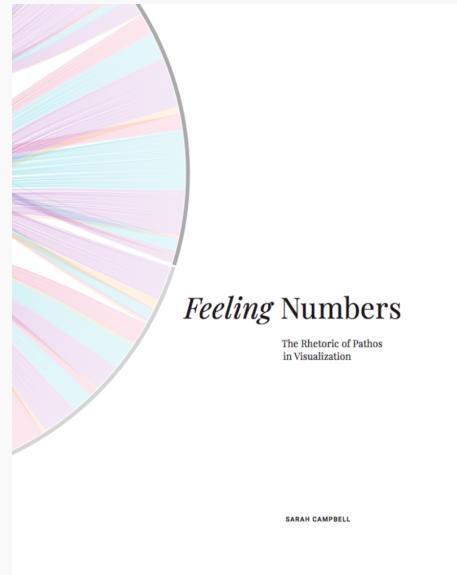
How to inspire long-term?

Recommended Resources.

Scott Slovic & Paul Slovic:
Numbers and Nerves.
Information, Emotion, and
Meaning in a World of Data



Sarah Campbell:
Feeling Numbers.
The Rhetoric of
Pathos in Visualization



PolicyViz Podcast #31:
**Rees & Mushon on
DataViz Empathy**



Thank you!

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lisacharlotterost@gmail.com

lisacharlotterost.de