

DATA-DRIVEN JOURNALISM

EBU HACKATHON • GENEVA • MARCH 23-24, 2016

PEOPLE IN CRISIS: HOW CAN DATA HELP?

The human and financial cost of 15 years of Fortress Europe

The Migrants Files is a consortium of journalists from over 15 European countries. It is coordinated by [Journalism++](#).

🏆 Winner, Data Journalism Awards 2014

🏆 Winner, European Press Prize 2015



@MIRKOLORENZ

JOURNALIST/INNOVATION MANAGER @DW

TRAINER FOR DATA-DRIVEN JOURNALISM

DEUTSCHE WELLE INNOVATION TEAM

DATAWRAPPER FOUNDER/MANAGER

DATADRIVENJOURNALISM.NET

DATA JOURNALISM HANDBOOK



Our Mission:

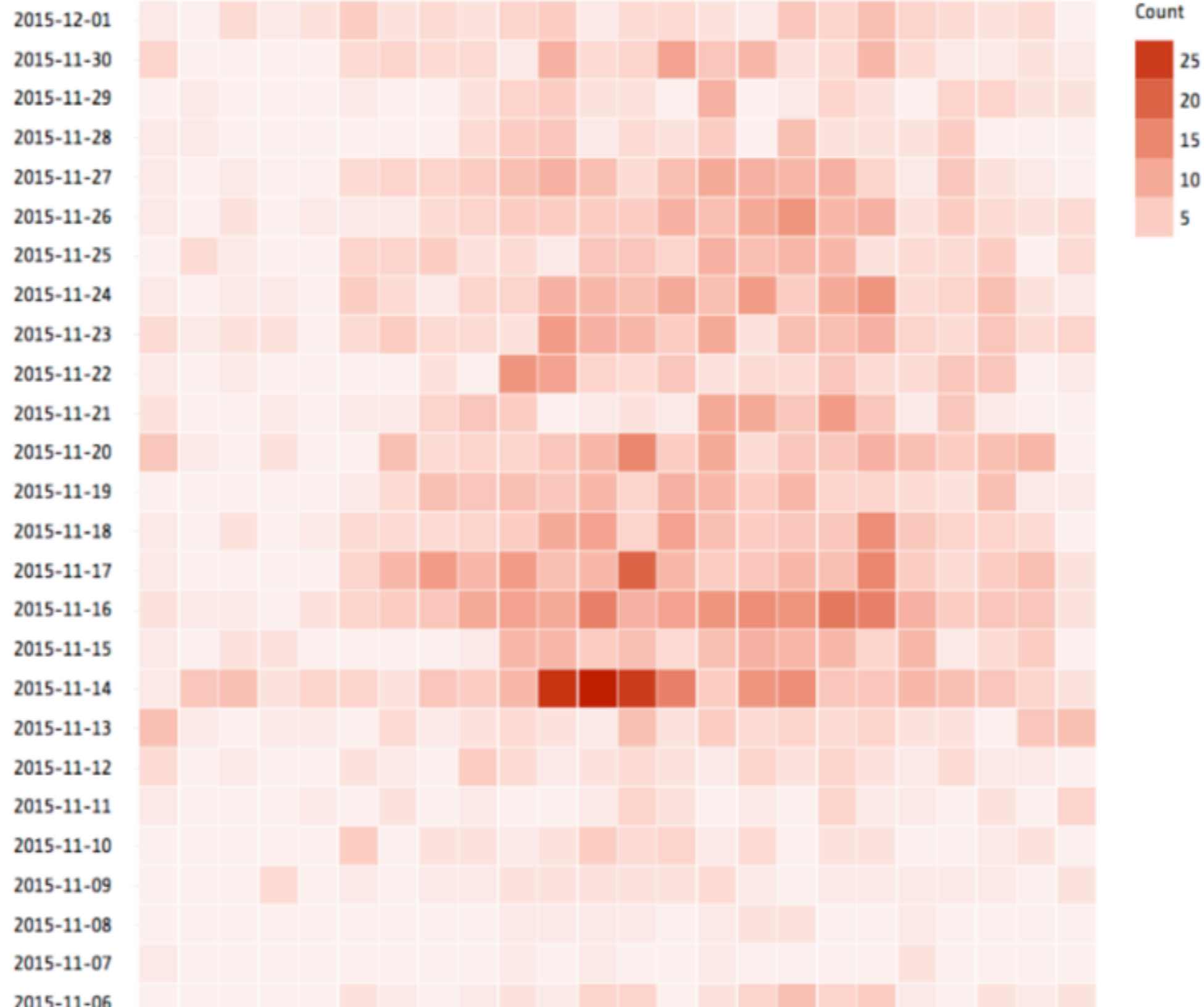
→ to make data more accessible for
everyone

→ to help people discover and tell their own
data stories

[ALL STORIES](#)[PROJECT NEWS](#)[DDJ TIPS AND TRICKS](#)[DATAVIZ](#)[MEET THE EXPERTS](#)

FIND US ON TWITTER:

Tweets by [@YDS_EU](#)

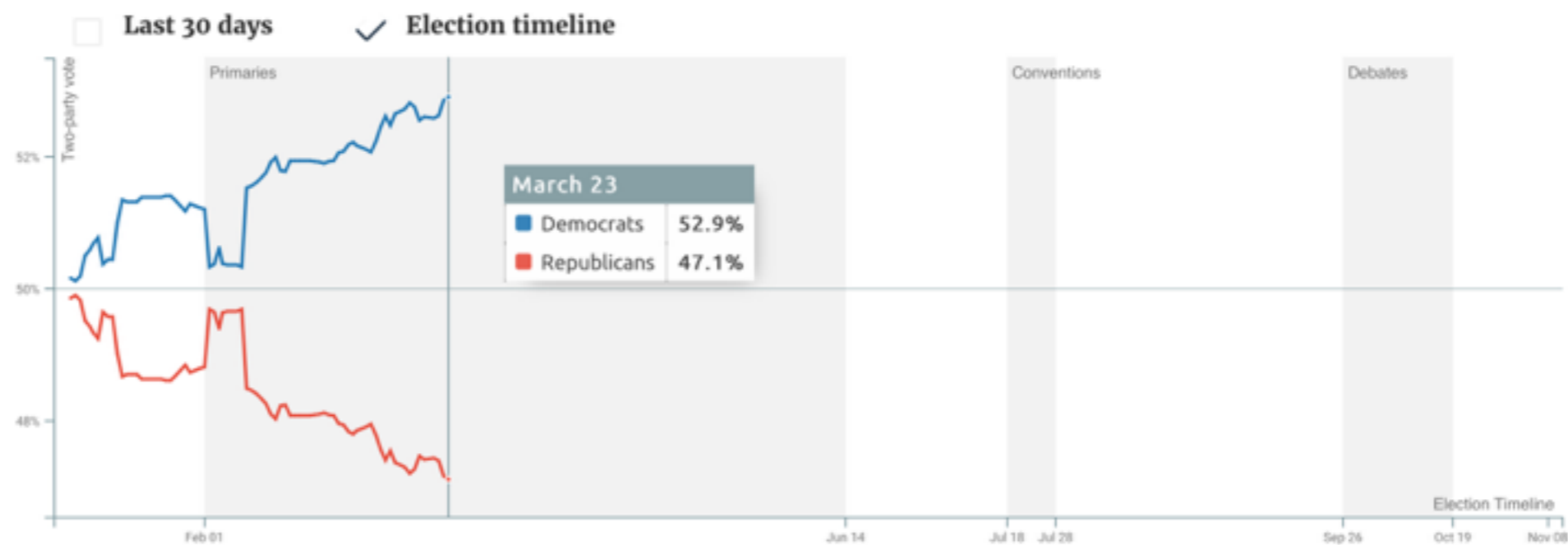
Start Date Publisher Query 

Prediction: Democrats will win

As of March 23 the Democrats are predicted to win the presidential election of 2016. The latest data says that the Democrats will win with 52.9 of the vote while the Republicans get 47.1 percent.

Latest prediction (March 23, 2016; updated daily

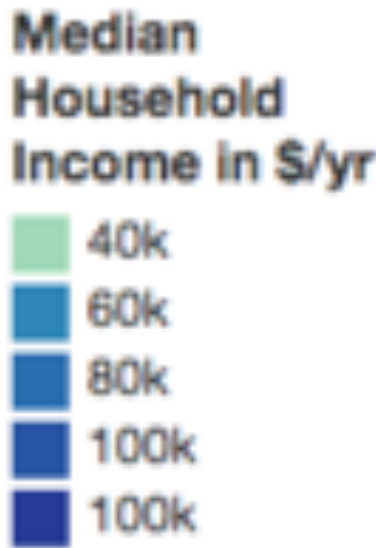
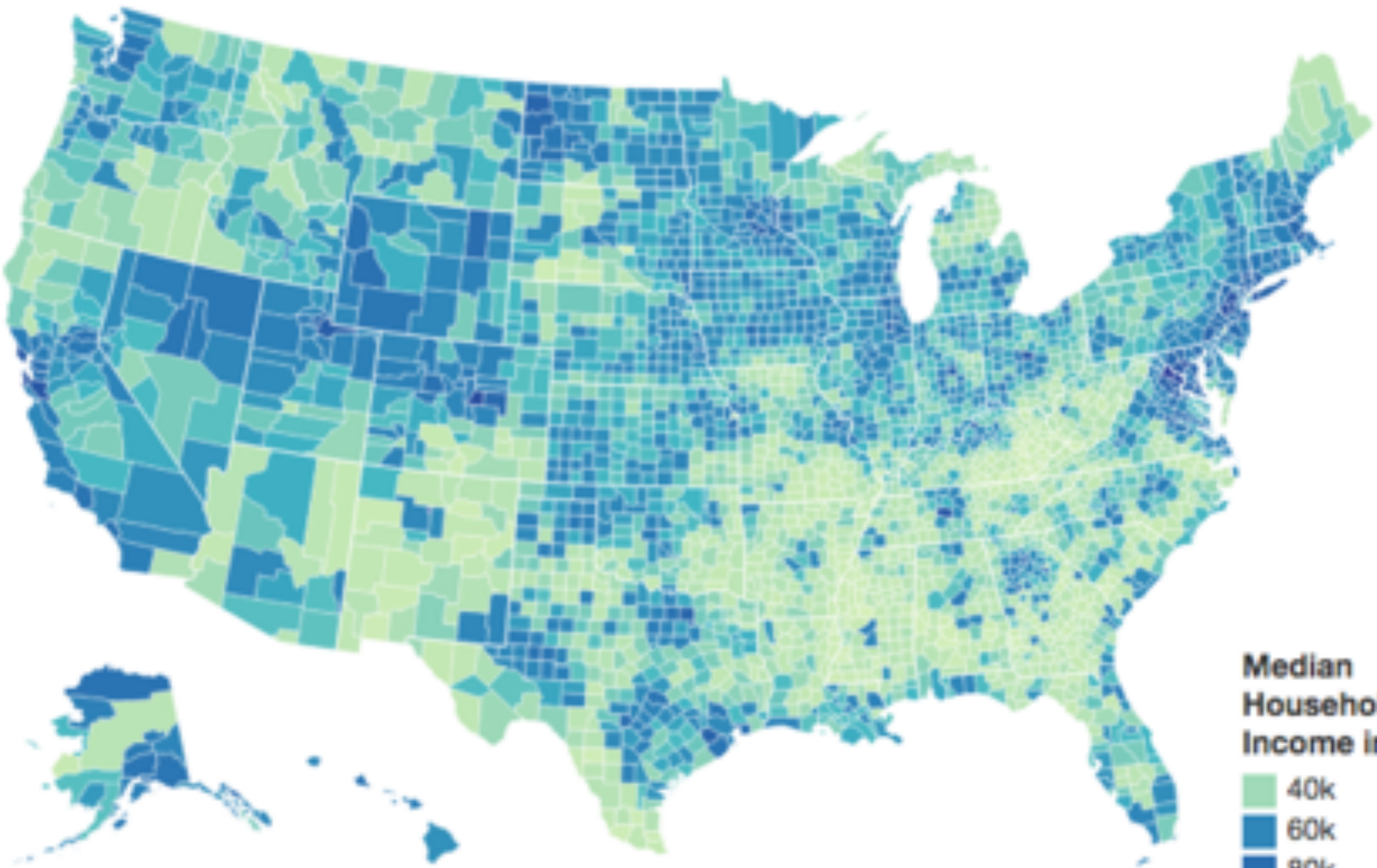
Democrats: 52.9%
Republicans: 47.1%



Embedding and sharing is free for everyone. The content is dynamic, i.e. numbers and text change in accordance with the data. If you are curious about controversial developments, check out the [PollyVote Blog](#)

Source: [PollyVote](#) 

Median Household Income



#didi

Why use data in the newsroom?

„....we will have to increasingly rely on "data" to feed our stories, to the point that "data-driven reporting" becomes second nature to journalists.“

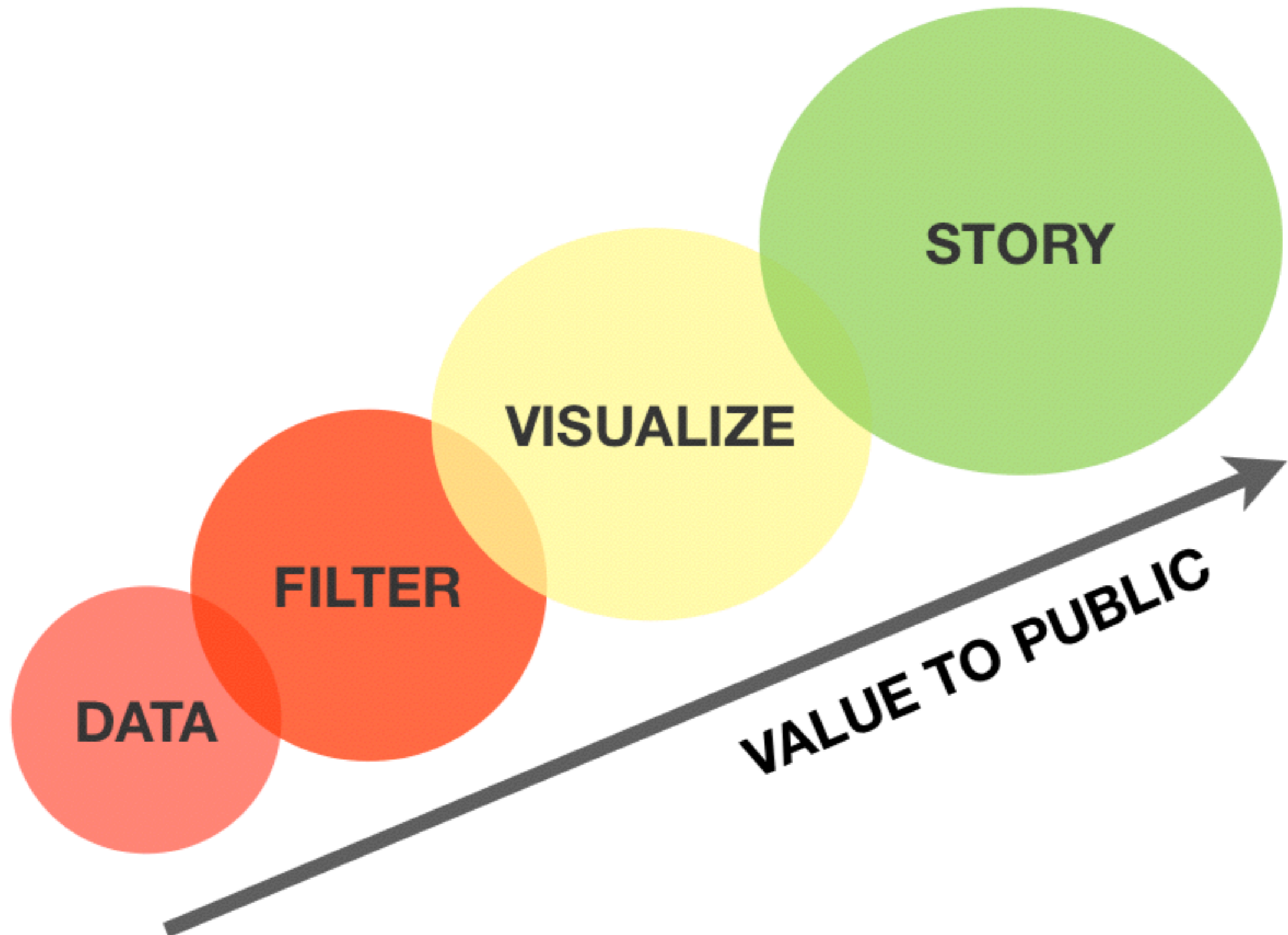
Zach Beauvais, Journalism Needs Data in the 21st Century, ReadWriteWeb, August 5, 2009

http://www.readwriteweb.com/archives/journalism_needs_data_in_21st_century.php

pclass", "survived", "name", "sex", "age", "sibsp", "parch", "ticket", "fare", "cabin", "embarked", "boat", "body", "home.dest"		
1,"1st",1,"Allen, Miss. Elisabeth Walton","female",29,0,0,"24160",211.337494,"B5","Southampton",2,NA,"St Louis, MO"		
2,"1st",1,"Allison, Master. Hudson Trevor","male",0.916700006,1,2,"113781",151.550003,"C22 C26","Southampton",11,NA,"Montreal, PQ / Ch		
3,"1st",0,"Allison, Miss. Helen Lorraine","female",2,1,2,"113781",151.550003,"C22 C26","Southampton",,NA,"Montreal, PQ / Chesterville, ON"		
4,"1st",0,"Allison, Mr. Hudson Joshua Crei","male",30,1,2,"113781",151.550003,"C22 C26","Southampton",,135,"Montreal, PQ / Chesterville, C		
5,"1st",0,"Allison, Mrs. Hudson J C (Bessi","female",25,1,2,"113781",151.550003,"C22 C26","Southampton",,NA,"Montreal, PQ / Chesterville, C		
6,"1st",1,"Anderson, Mr. Harry","male",48,0,0,"19952",26.5499992,"E12","Southampton",3,NA,"New York, NY"		
7,"1st",1,"Andrews, Miss. Kornelia Theodos","female",63,1,0,"13502",77.9582977,"D7","Southampton",10,NA,"Hudson, NY"		
8,"1st",0,"Andrews, Mr. Thomas Jr","male",39,0,0,"112050",0,"A36","Southampton",,NA,"Belfast, NI"		
9,"1st",1,"Appleton, Mrs. Edward Dale (Cha","female",53,2,0,"11769",51.4791985,"C101","Southampton",D,NA,"Bayside, Queens, NY"		
10,"1st",0,"Artagaveytia, Mr. Ramon","male",71,0,0,"PC 17609",49.5042,,,"Cherbourg",,22,"Montevideo, Uruguay"		
11,"1st",0,"Astor, Col. John Jacob","male",47,1,0,"PC 17757",227.524994,"C62 C64","Cherbourg",,124,"New York, NY"		
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13,"1st",1,"Aubart, Mme. Leontine Pauline","female",24,0,0,"PC 17477",69.3000031,"B35","Cherbourg",9,NA,"Paris, France"		
14,"1st",1,"Barber, Miss. Ellen \\\\"Nellie\\","female",26,0,0,"19877",78.8499985,,,"Southampton",6,NA,""		
15,"1st",1,"Barkworth, Mr. Algernon Henry W","male",80,0,0,"27042",30,"A23","Southampton",B,NA,"Hessle, Yorks"		
16,"1st",0,"Baumann, Mr. John D","male",NA,0,0,"PC 17318",25.9249992,,,"Southampton",,NA,"New York, NY"		
17,"1st",0,"Baxter, Mr. Quigley","male",47,1,1,"11751",52.5541992,"D33","Southampton",5,NA,"New York, NY"		
18,"1st",1,"Baxter, Mrs. James H (Ellen)","female",26,0,0,"111369",30,"C148","Cherbourg",5,NA,"New York, NY"		al, PQ"
19,"1st",1,"Bazzani, Miss. Amelia","female",35,0,0,"PC 17760",135.633301,"C99","Southampton",8,NA,""		
20,"1st",0,"Beattie, Mr. Thomas","male",42,0,0,"PC 17757",227.524994,,,"Cherbourg",4,NA,""		
21,"1st",1,"Beckwith, Mr. Richard Leonard","male",47,1,1,"11751",52.5541992,"D33","Southampton",5,NA,"New York, NY"		
22,"1st",1,"Beckwith, Mrs. Richard Leonard","female",47,1,1,"11751",52.5541992,"D33","Southampton",5,NA,"New York, NY"		
23,"1st",1,"Behr, Mr. Karl Howell","male",26,0,0,"111369",30,"C148","Cherbourg",5,NA,"New York, NY"		
24,"1st",1,"Bidois, Miss. Rosalie","female",42,0,0,"PC 17757",227.524994,,,"Cherbourg",4,NA,""		
25,"1st",1,"Bird, Miss. Ellen","female",29,0,0,"PC 17483",221.779205,"C97","Southampton",8,NA,""		
26,"1st",0,"Birnbaum, Mr. Jakob","male",25,0,0,"13905",26,,,"Cherbourg",,148,"San Francisco, CA"		
27,"1st",1,"Bishop, Mr. Dickinson H","male",25,1,0,"11967",91.0792007,"B49","Cherbourg",7,NA,"Dowagiac, MI"		
28,"1st",1,"Bishop, Mrs. Dickinson H (Helen)","female",19,1,0,"11967",91.0792007,"B49","Cherbourg",7,NA,"Dowagiac, MI"		
29,"1st",1,"Bissette, Miss. Amelia","female",35,0,0,"PC 17760",135.633301,"C99","Southampton",8,NA,""		
30,"1st",1,"Bjornstrom-Steffansson, Mr. Mau","male",28,0,0,"110564",26.5499992,"C52","Southampton",D,NA,"Stockholm, Sweden / Washing		
31,"1st",0,"Blackwell, Mr. Stephen Weart","male",45,0,0,"113784",35.5,"T","Southampton",,NA,"Trenton, NJ"		
32,"1st",1,"Blank, Mr. Henry","male",40,0,0,"112277",31,"A31","Cherbourg",7,NA,"Glen Ridge, NJ"		
33,"1st",1,"Bonnell, Miss. Caroline","female",30,0,0,"36928",164.866699,"C7","Southampton",8,NA,"Youngstown, OH"		
34,"1st",1,"Bonnell, Miss. Elizabeth","female",58,0,0,"113783",26.5499992,"C103","Southampton",8,NA,"Birkdale, England Cleveland, Oh"		
35,"1st",0,"Borebank, Mr. John James","male",42,0,0,"110489",26.5499992,"D22","Southampton",,NA,"London / Winnipeg, MB"		
36,"1st",1,"Bowen, Miss. Grace Scott","female",45,0,0,"PC 17608",262.375,,,"Cherbourg",4,NA,"Cooperstown, NY"		
37,"1st",1,"Bowerman, Miss. Elsie Edith","female",22,0,1,"113505",55,"E33","Southampton",6,NA,"St Leonards-on-Sea, England Ohi"		
38,"1st",1,"Bradley, Mr. George (\\\\"George Ar","male",NA,0,0,"111427",26.5499992,,,"Southampton",9,NA,"Los Angeles, CA"		
39,"1st",0,"Brady, Mr. John Bertram","male",41,0,0,"113054",30.5,"A21","Southampton",,NA,"Pomeroy, WA"		
40,"1st",0,"Brandels, Mr. Emil","male",48,0,0,"PC 17591",50.4958,"B10","Cherbourg",,208,"Omaha, NE"		
41,"1st",0,"Brewer, Dr. Arthur Jackson","male",NA,0,0,"112379",39.5999985,,,"Cherbourg",,NA,"Philadelphia, PA"		
42,"1st",1,"Brown, Mrs. James Joseph (Marga","female",44,0,0,"PC 17610",27.7208004,"B4","Cherbourg",6,NA,"Denver, CO"		

IN MOST NEWSROOMS THIS WOULD BE
CONSIDERED JUST BROKEN

- ▶ **Data-driven journalism is a process**
- ▶ **Tasks are to collect, clean, visualize and report**



NEWS + TECHNOLOGY
+ CREATIVITY + SKILLS

DATA ANALYSIS, CODING & DEEP
STORIES AT THE PACE OF THE
NEWSROOM

Perspective on data

„The sexy job in the next ten years will be statisticians. People think I'm joking, but who would've guessed that computer engineers would've been the sexy job of the 1990s? The ability to take data—to be able to understand it, to process it, to extract value from it, to visualize it, to communicate it—that's going to be a hugely important skill.“

- Hal Varian, Google Chief Economist, McKinsey Quarterly, Jan. 2009

The old newsroom/developer relationship



Developer



Journalist

The new newsroom/developer relationship



Developer/Journalist



3

Simple comparison

Clarity

Proximity

START WITH THIS QUESTION: COMPARED TO WHAT?

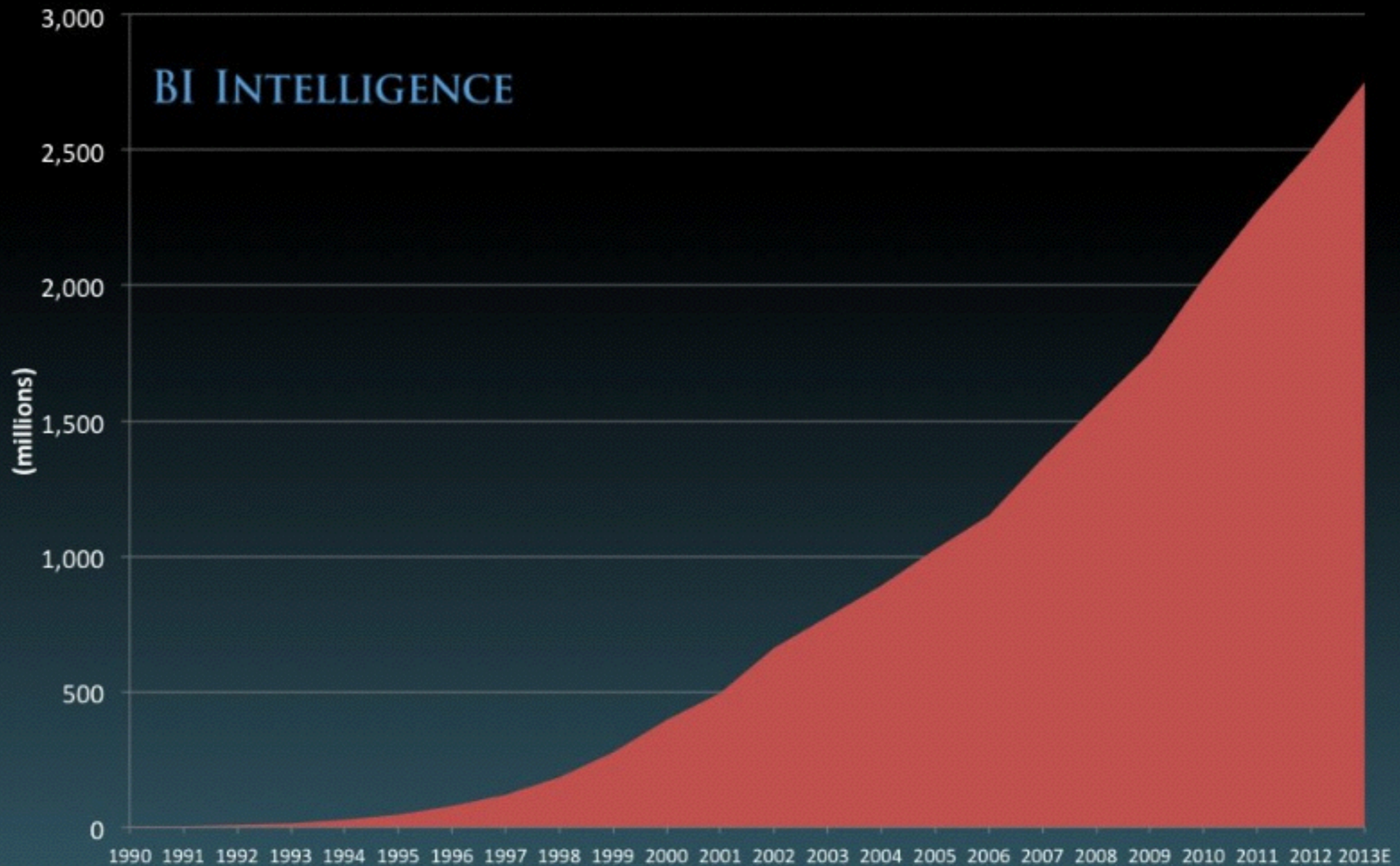


Edward Tufte: To be truthful and revealing, data graphics must bear on the question at the heart of quantitative thinking: “Compared to what?”, from: [The Visual Display of Quantitative Information](#)

EXAMPLE

Nearly 3 billion people online

Global Internet Population

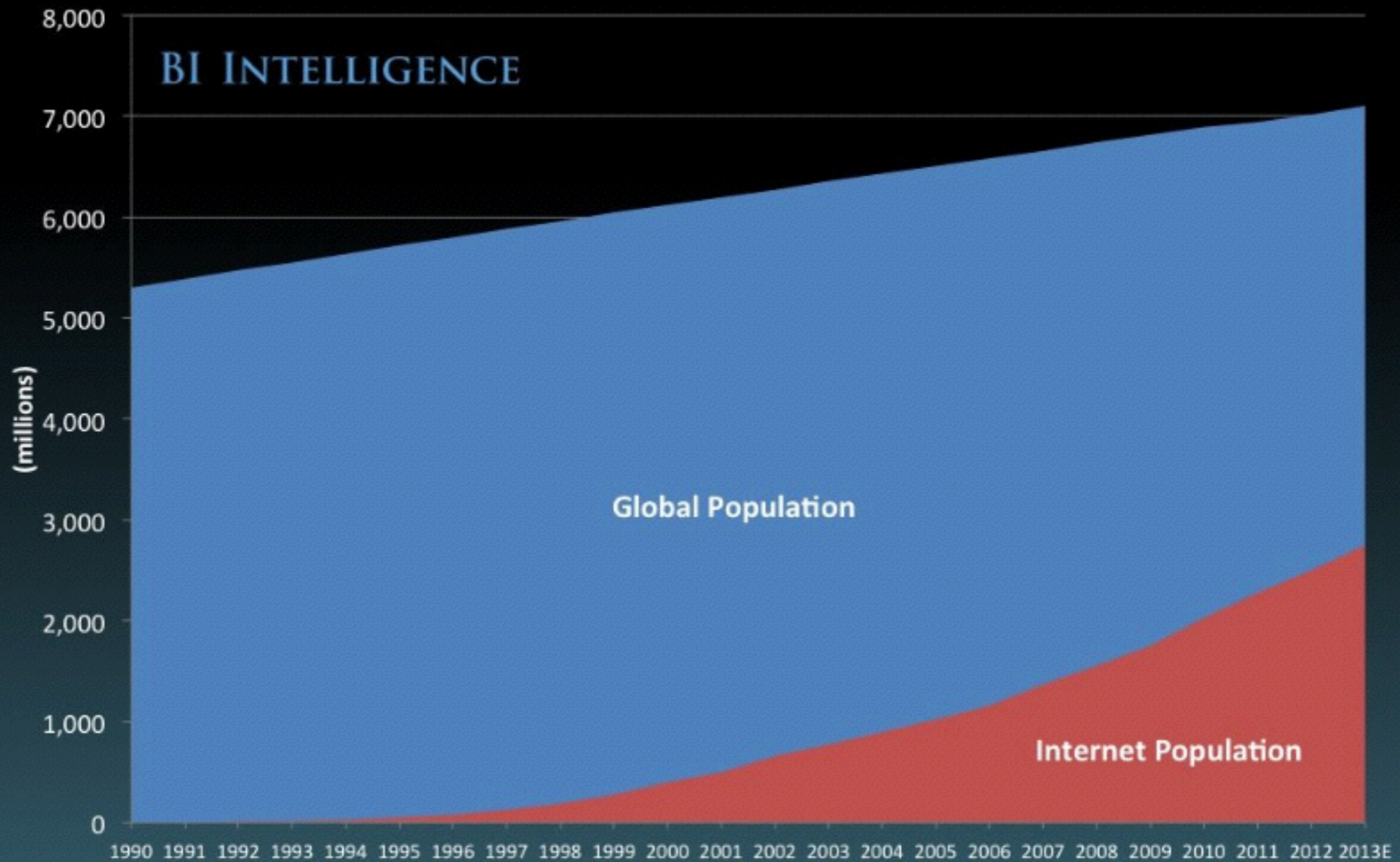


Source: International Communication Union, Google

EXAMPLE

About half left to go!

Global Internet Population



Source: International Communication Union, Google

Inspiration

Simple comparison

Clarity

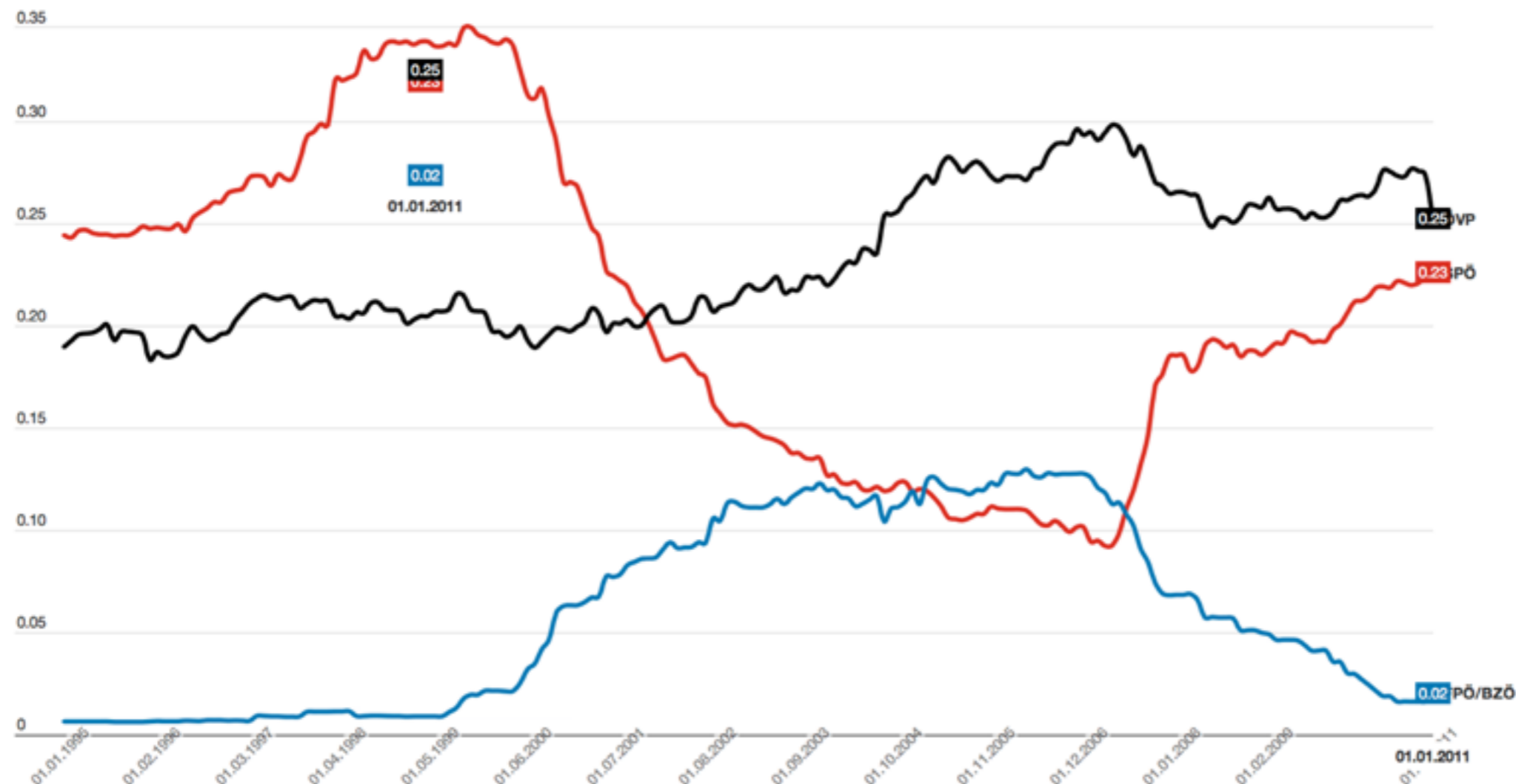
Proximity

Vergleich über lange Zeitreihe

- Je länger der Zeitraum, desto klarer wird das Muster.

Manager in staatlichen Unternehmen nach Parteifarbe

Die Grafik zeigt den Anteil an Managern von staatlichen und staatsnahen Unternehmen, die Parteien zuzurechnen sind oder waren. Als Manager gilt, wer Mitglied des Vorstands, der Geschäftsführung oder des Aufsichtsrates war. Bewegen Sie den Mauszeiger über die Zeitachse für Detail-Ergebnisse.

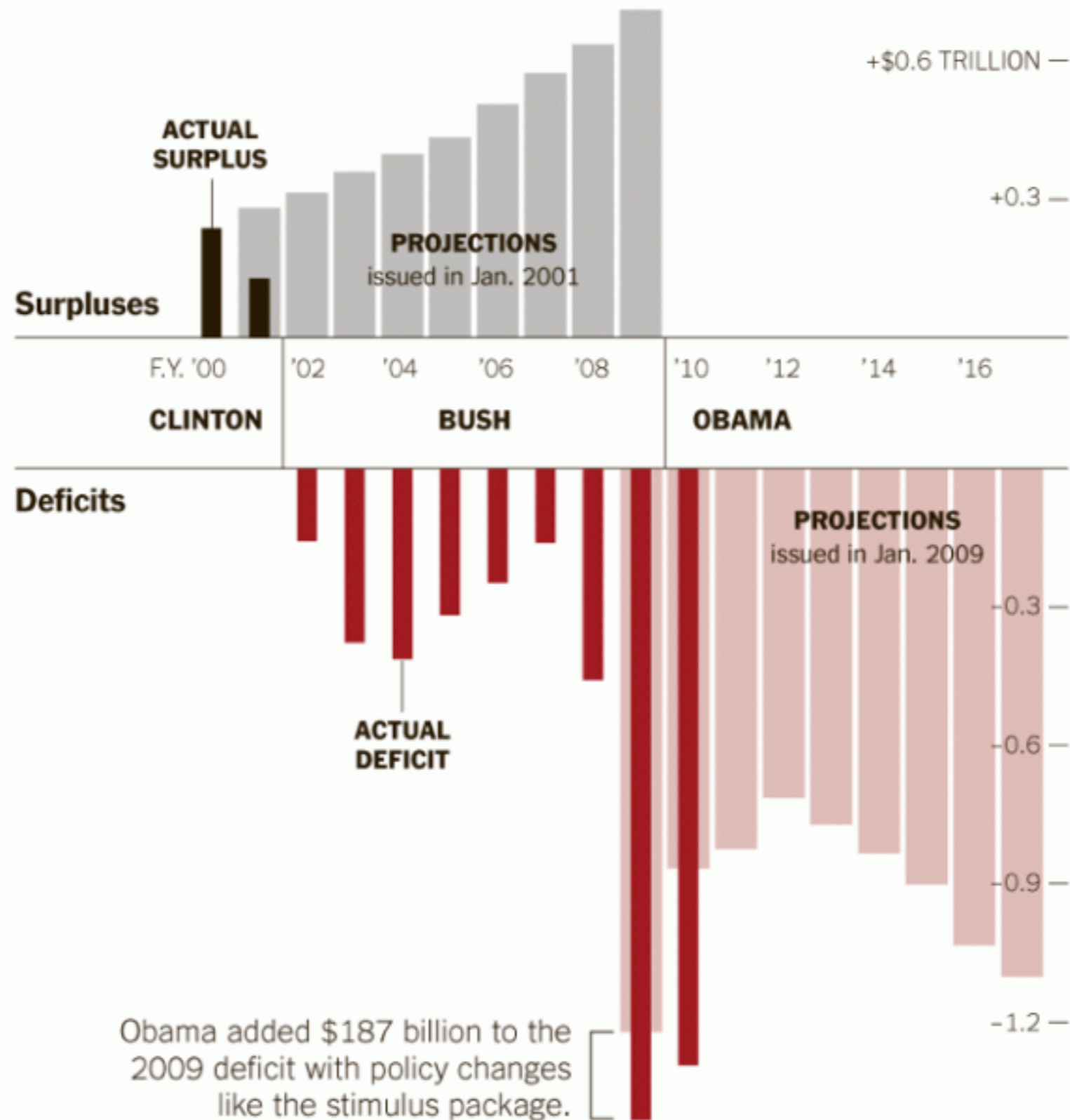


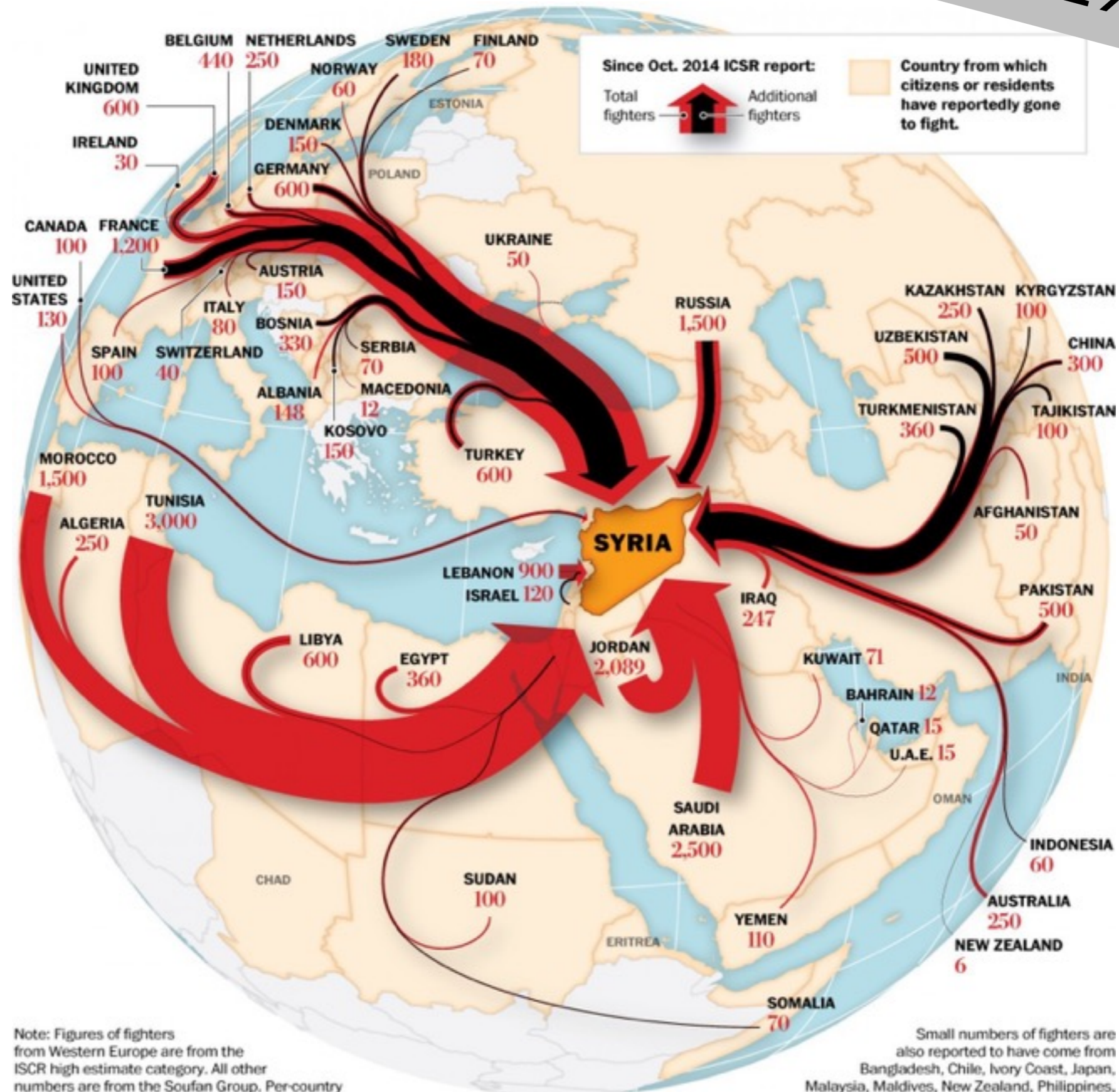
How the deficit got so big

July 26, 2011 to Statistical Visualization • Share on Twitter • Comment

SIMPLE BAR, BIG STORY

Budget Projections and Realities







CLASSIC EXAMPLE OF DATA/MAP



BIG INVESTIGATION,
MULTI-PUBLICATION ACROSS
EUROPE

The Migrants Files

A database on the more than 23,000 migrants who died on their way to Europe since 2000.

Start to explore

The project is an excellent example of journalists intervening to put a largely neglected issue on the political agenda, and providing decision-makers and the public with the evidence they need to take action to stop these tens of thousands of deaths at Europe's borders. This is data journalism at its best. We need more projects like this.

More than **200,000** people
have been killed in the four-and-a-half-year Syrian civil war.

Why It Takes Two Years for Syrian Refugees to Enter the U.S.

By HAEYOUN PARK and LARRY BUCHANAN NOV. 20, 2015

Syrians must pass many layers of security checks before being admitted to the United States, a process that can take two years or longer. In most cases, the refugees do not enter the United States until the very end. They are also subject to an **additional layer of checks** beyond those for refugees of other nationalities; after the Paris attacks, the **House voted to further tighten screening procedures**. Since 2011, the United States has admitted **fewer than 2,000 Syrian refugees**.

1. **Registration** with the United Nations.
2. **Interview** with the United Nations.
3. **Refugee status** granted by the United Nations.
4. **Referral** for resettlement in the United States.

The United Nations decides if the person fits the definition of a refugee and whether to refer the person to a country for resettlement. Only the most vulnerable are referred, accounting for fewer than 1 percent of refugees worldwide. Some people spend years waiting in refugee camps

Investigations

Homes for the taking



Full Screen Autoplay

1 of 11

DATA RESEARCH LEAD
TO THIS STORY



BIG DATA

SMALL DATA

RELEVANT DATA

Proximity

What's in this for you, me, us?

Crisis Religion Terror

Refugees

Migrants

Integration Jobs

Future

Flüchtlinge

Ein Teller Wärme

Beim Welcome Dinner laden Hamburger wildfremde Flüchtlinge nach Hause zum Abendessen ein. Und hören abenteuerliche Geschichten.

Von **Roland Kirbach**

12. Juli 2015 / DIE ZEIT Nr. 26/2015, 25. Juni 2015 / [49 Kommentare](#)



General-Anzeiger

Bonner laden Neuankömmlinge zum Essen ein

01/02



Foto: Privat

Jana Guttzeit (2. von links) lud die syrische Familie Diab zu sich nach Hause zum Essen ein, inzwischen gab es auch schon einen Gegenbesuch.

23.12.2015 BONN. Mariya Ilcheva hat eine Facebook-Seite ins Leben gerufen, über die Bonner Neuankömmlinge in der Stadt zum Essen

geladen, über die Bonner Neuankömmlinge in der Stadt zum Essen
23.12.2015 BONN. Mariya Ilcheva hat eine Facebook-Seite ins Leben

noch schon einen Gegenbesuch.

Jana Guttzeit (2. von links) lud die syrische Familie Diab zu sich nach Hause zum Essen ein, inzwischen gab es



Ich lade Dich ein /Bonn/

Gemeinschaft

Sende eine Nachricht an diese Seite. x

Gefällt mir

Nachricht senden



Chronik

Info

Fotos

„Gefällt mir“-Angaben

Videos

Seite erstellen

Aktuell

2016

2015

Suche nach Beiträgen auf dieser Seite



Hohe Reaktionsfreudigkeit bei Nachrichten



964 Personen gefällt das
Bettina Schwarz und 2 weiteren Freunden



Freunde einladen, diese Seite mit „Gefällt mir“ zu markieren

INFO



Bonner laden Zugewanderte zu sich nach Hause zum Essen ein. Mach mit! Werde Gastgeber oder Gast!



Antwortet normalerweise innerhalb von Minuten
[Jetzt eine Nachricht senden](#)



<http://www.ichladedichein.org/>



[Impressum](#) [?]



Status



Foto/Video



Schreib etwas auf seine Seite ...



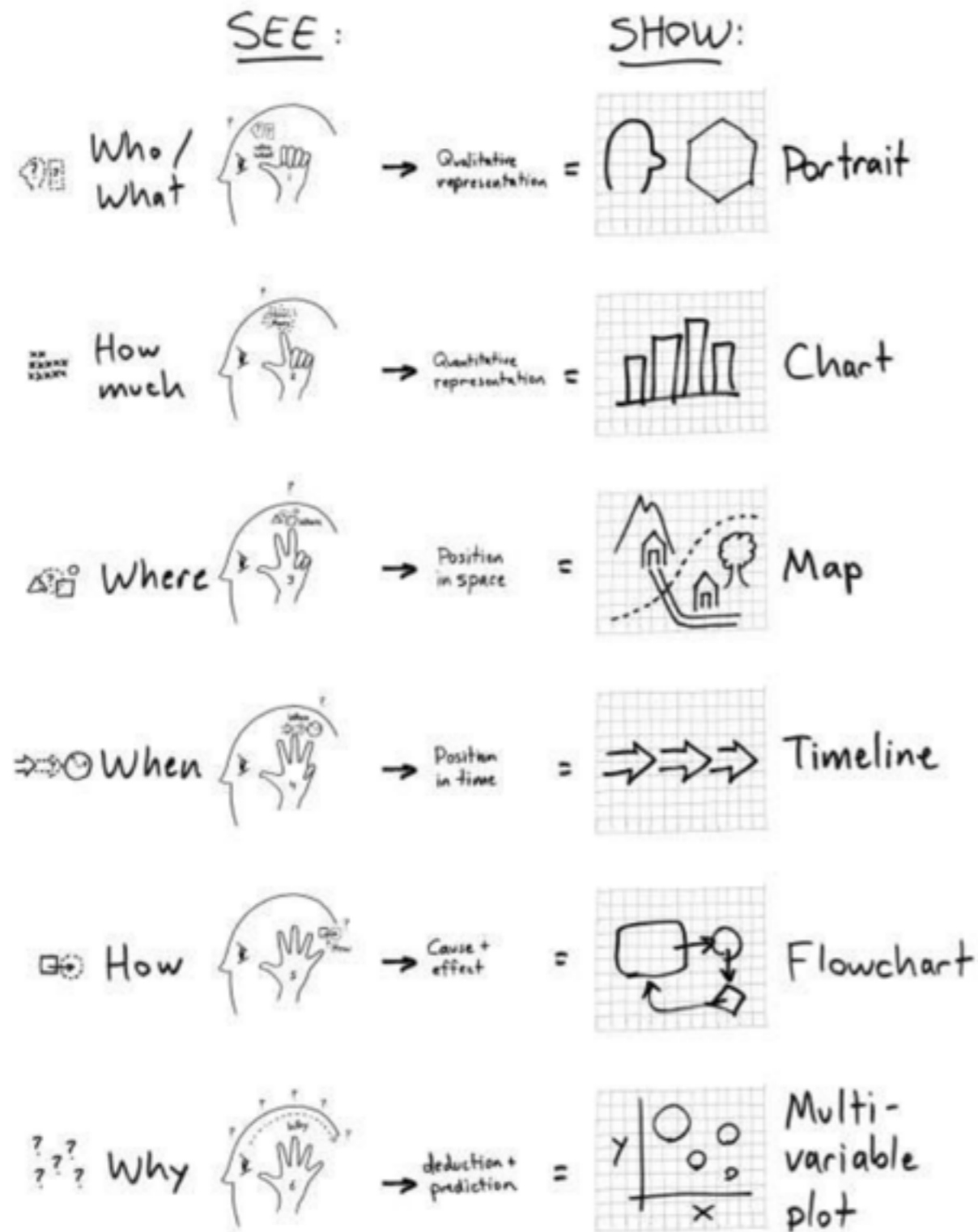
Ich lade Dich ein /Bonn/

17. März um 21:16 ·

Baraa war zu Gast bei Karina und ihren Freunden. "Das Abendessen war einfach toll, sie sind sehr nett und wir haben über verschiedenen Themen gesprochen", schreibt er. Die Gastgeber können ihm nur zustimmen: "Das war wirklich ein schöner Abend! Und Baraa ist sehr nett." Wie schön!



GO THROUGH THE KEY QUESTIONS - FIVE W & ONE H



WHAT? (WHO'S COUNTING?)

HOW MUCH? (COMPARE)

WHERE? (MAP)

WHEN? (TIMELINE)

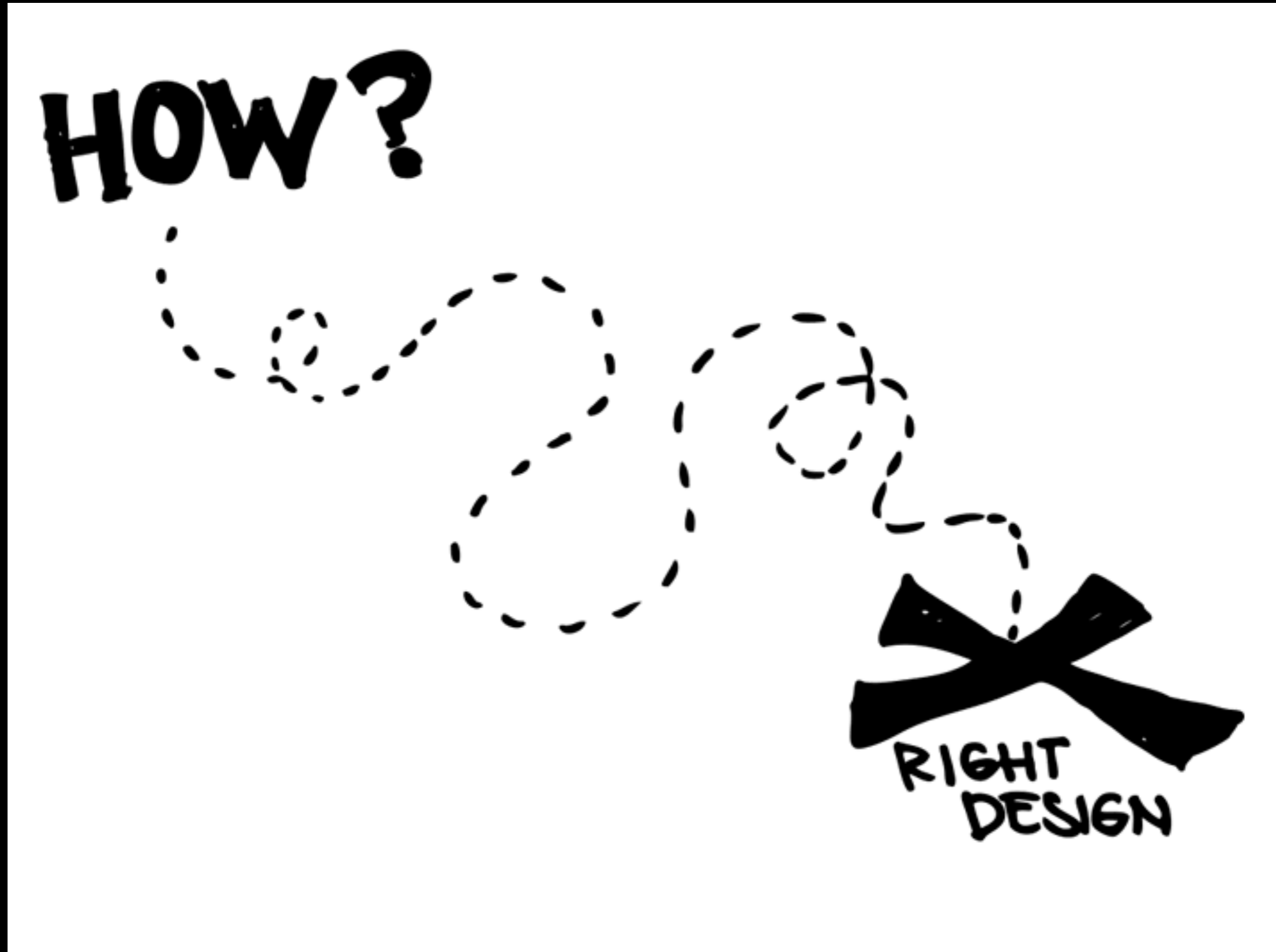
HOW? (FLOWCHART)

WHY (ANALYSIS)



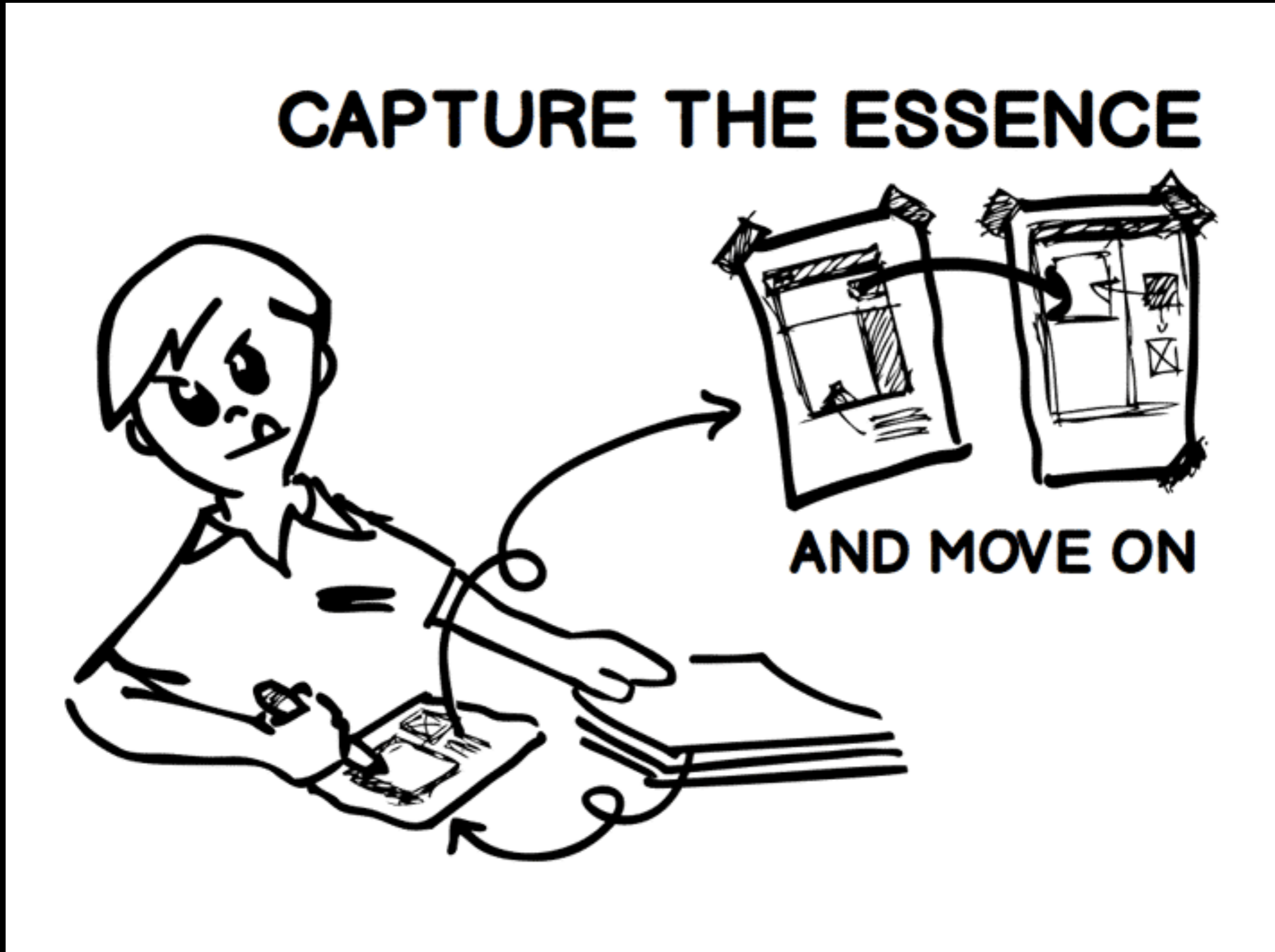
Journalism Saved!

From idea to completion: Not a straight line.



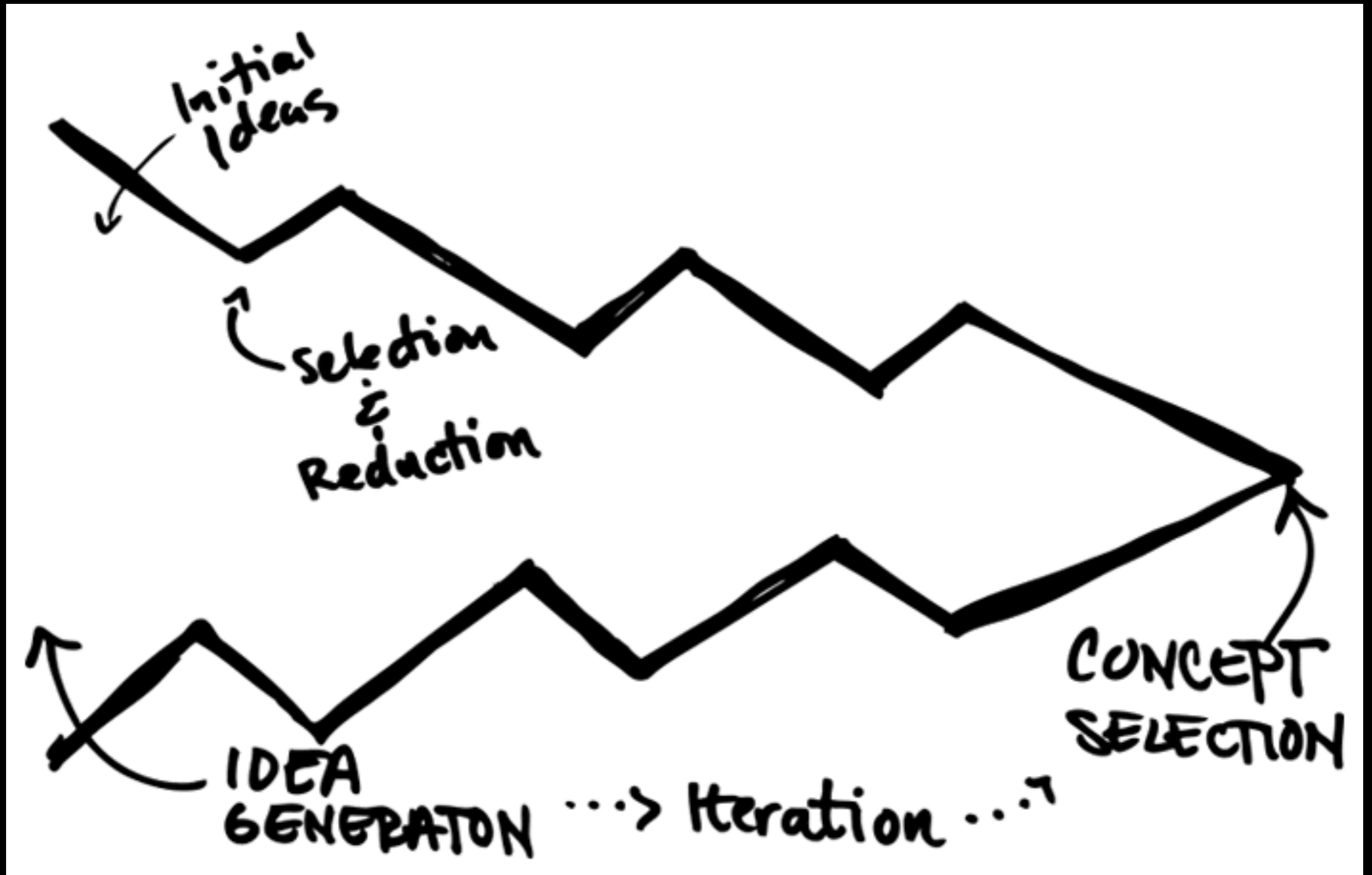
<http://konigi.com/book/sketch-book/why-we-sketch>

Geschichten skizzieren - Komplexität entwirren



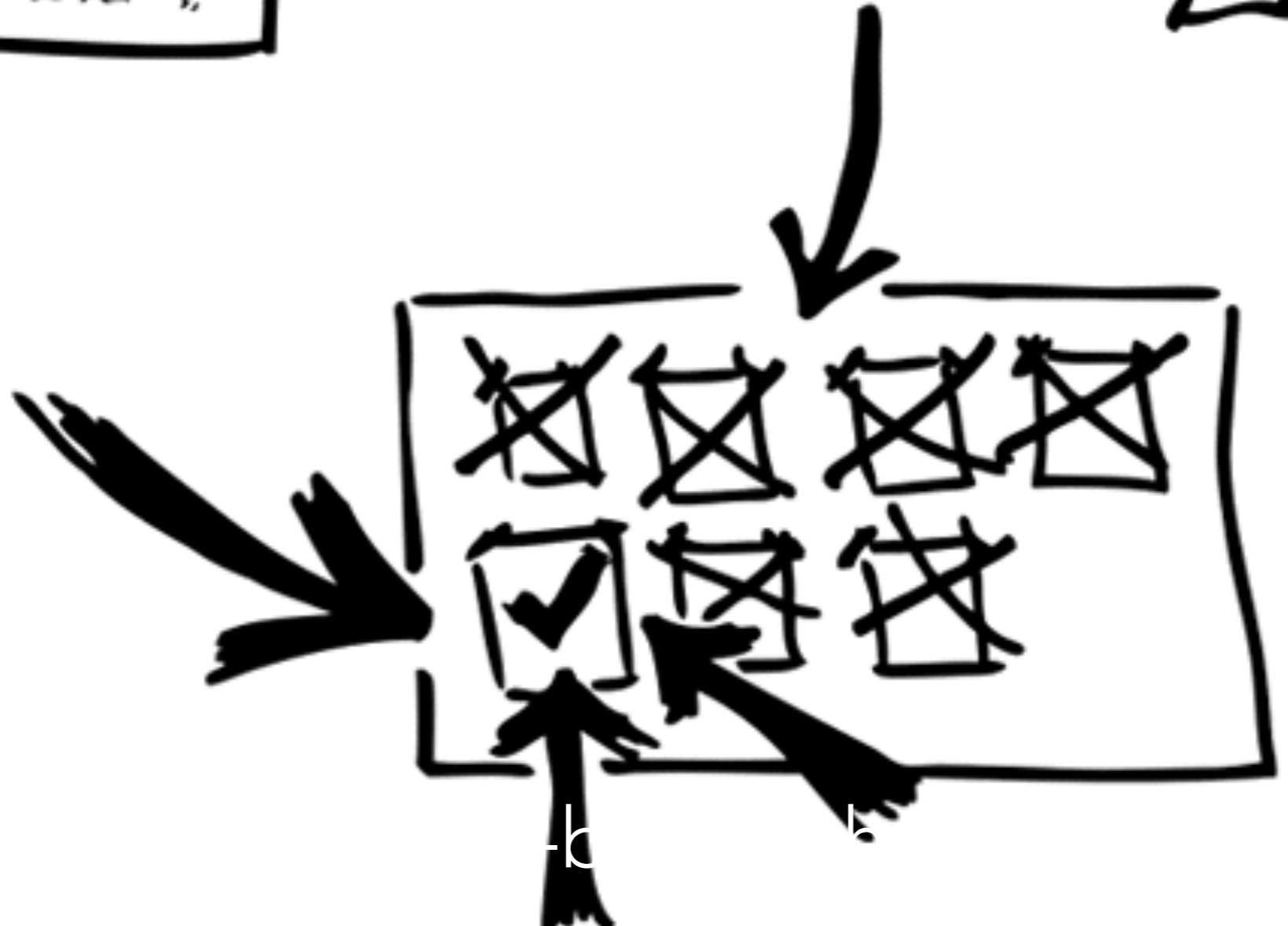
<http://konigi.com/book/sketch-book/why-we-sketch>

Iterieren, formen, verdichten.



<http://konigi.com/book/sketch-book/why-we-sketch>

Persönlich machen: Protagonist als Spiegel/Bezugspunkt.



Use the 3x3 rule for better story structure.

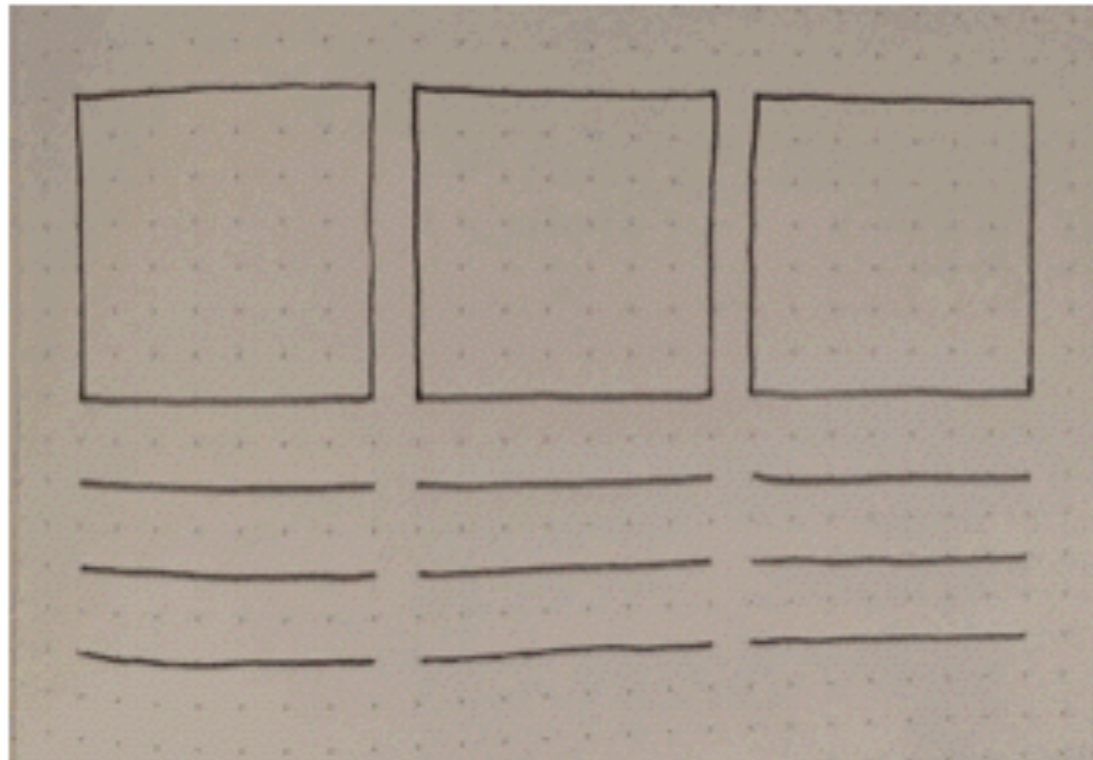
The background of the slide is a dark, textured surface resembling a chalkboard. Three large, hand-drawn squares are visible, each made of light-colored chalk. They are arranged horizontally across the upper half of the slide. The squares are slightly irregular and have a rough, sketched appearance.

Write better walkthroughs with the 3x3 Method

“If you can’t explain it simply, you don’t understand it well enough” — *Albert Einstein*

<https://medium.com/@tomcavill/3x3-d6202ef7d077>

WHAT? WHY? HOW?



- **What**—*what does your product do?*
- **Why**—*what's the benefit? (makes for a good slogan).*
- **How**—*a differentiator. Perhaps an innovative piece of functionality or a cost indicator.*

<https://medium.com/@tomcavill/3x3-d6202ef7d077>

WHAT

WHY

HOW

TOOLS

UN DATA

WORLD BANK DATA

EUROSTAT

KNOEMA

ZANRAN.COM

GOOGLE SHEETS

BLOCKSPRING

HTTP://

TABULA.TECHNOLOGY

Datawrapper

Create charts and maps in just four steps. This tool reduces the time you need to create visualizations from hours to minutes.

[+ Create a Chart](#)[My Charts](#)

Easy to use

Upload your data, choose a chart or map and publish - done. There are options to use this tool for free and paid services for single users, teams and organizations.

Customize

This tool is build for customization to your needs. Layout and visualizations can adapt based on your style guide. Additional features and workflows help integrating

Full control

Datawrapper is open source software. The source code is on Github. Which means: More options for you. Install yourself or work with us to enhance this tool. Or use our

1 Upload Data

2 Check & Describe

3 Visualize

4 Publish & Embed

It all starts with your data...

Select your data (including header row/column) in Excel or OpenOffice and paste it in the text field on the right. You can also upload a CSV file from your computer. [Learn more about how to upload your data.](#)

If you just want to try Datawrapper, here's a list of some example datasets you can use:

US Trade with United Kingdom



	Imports	Exports
1985	31965	24123
1986	32331	23978
1987	35202	28651
1988	35054	35810
1989	34073	38756
1990	35531	41343
1991	31117	37257
1992	32952	37391
1993	34551	42036

..or upload a CSV file

Upload and continue >

1 Upload Data ✓

2 Check & Describe

3 Visualize

4 Publish & Embed

Make sure the data looks right

Please make sure that Datawrapper interprets your data correctly. In the table number columns should be shown in blue, dates in green and text in black.

☒ First row as label

Where did you get the data?

Who published the data in the first place?

If possible, please provide a link the source data

< Back

Revert

Proceed >

↶ Transpose data table

Customize column format ↷

↕	A	B	C
1	Ⓞ X.1	Imports	
2	1985	31,965	
3	1986	32,331	
4	1987	35,202	
5	1988	35,054	
6	1989	34,073	
7	1990	35,531	
8	1991	31,117	
9	1992	32,952	
10	1993	34,551	
11	1994	38,838	
12	1995	40,663	
13	1996	42,598	
14	1997	46,702	
15	1998	49,122	
16	1999	54,147	
17	2000	58,082	

1 Upload Data ✓

2 Check & Describe ✓

3 Visualize

4 Publish & Embed

Chart type

Refine

Annotate

Design

Base color ▾

customize colors...

Customize labeling

☐ Direct labeling

Legend position

☒ right ☐ top ☐ inside left ☐ inside right

Customize lines

☐ Connect lines between missing values

☒ Fill area between lines

↑ Suggest aspect ratio that banks average line slopes to 45°

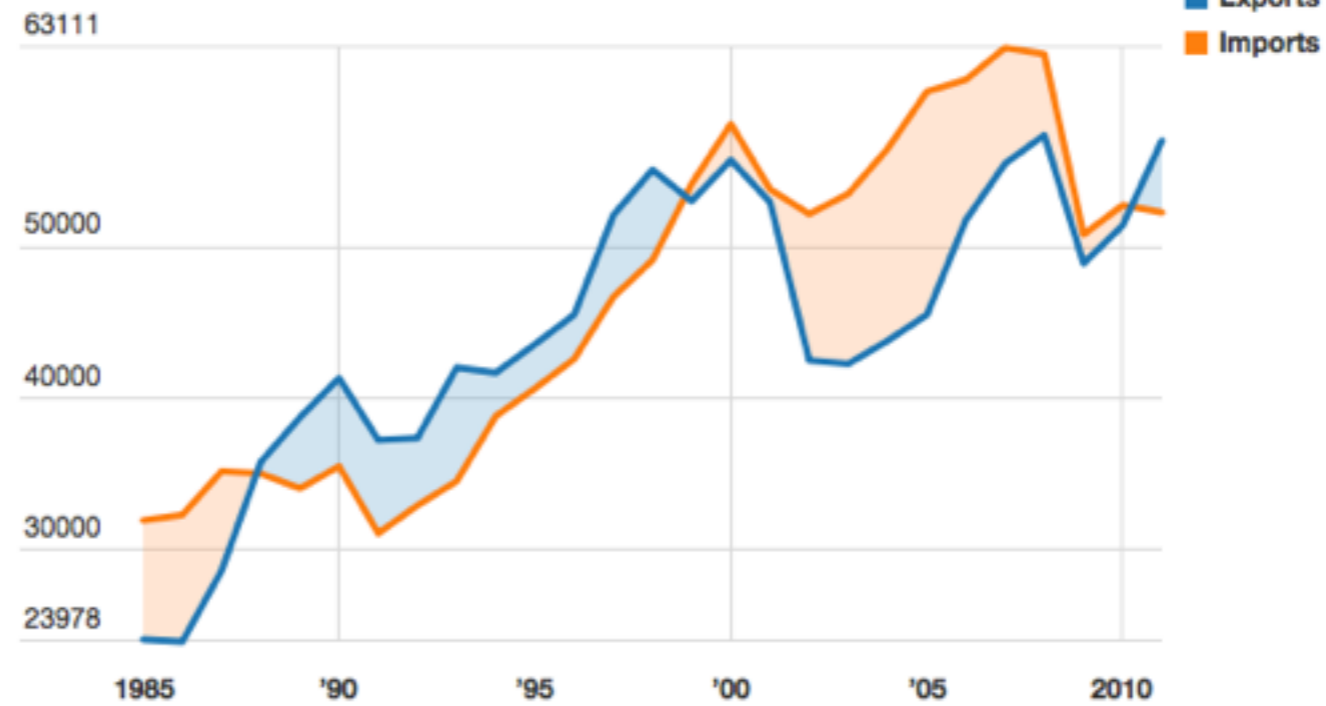
Line interpolation

☒ Straight ☐ Curved ☐ Stepped

Customize y-axis

Custom range: -

Exports and Imports



Source: [US Census Bureau](#) [Get the data](#)

Created with [Datawrapper](#)

Resize to: × (e.g. 480×320 320×480 640×360 640×480)

1 Upload Data ✓

2 Check & Describe ✓

3 Visualize ✓

4 Publish & Embed

What do you want to do with this chart?



Publish for
Embedding



Export to static
image



Print chart
(as PDF)



Download chart
as ZIP archive



Duplicate this
chart

How can I embed my chart?

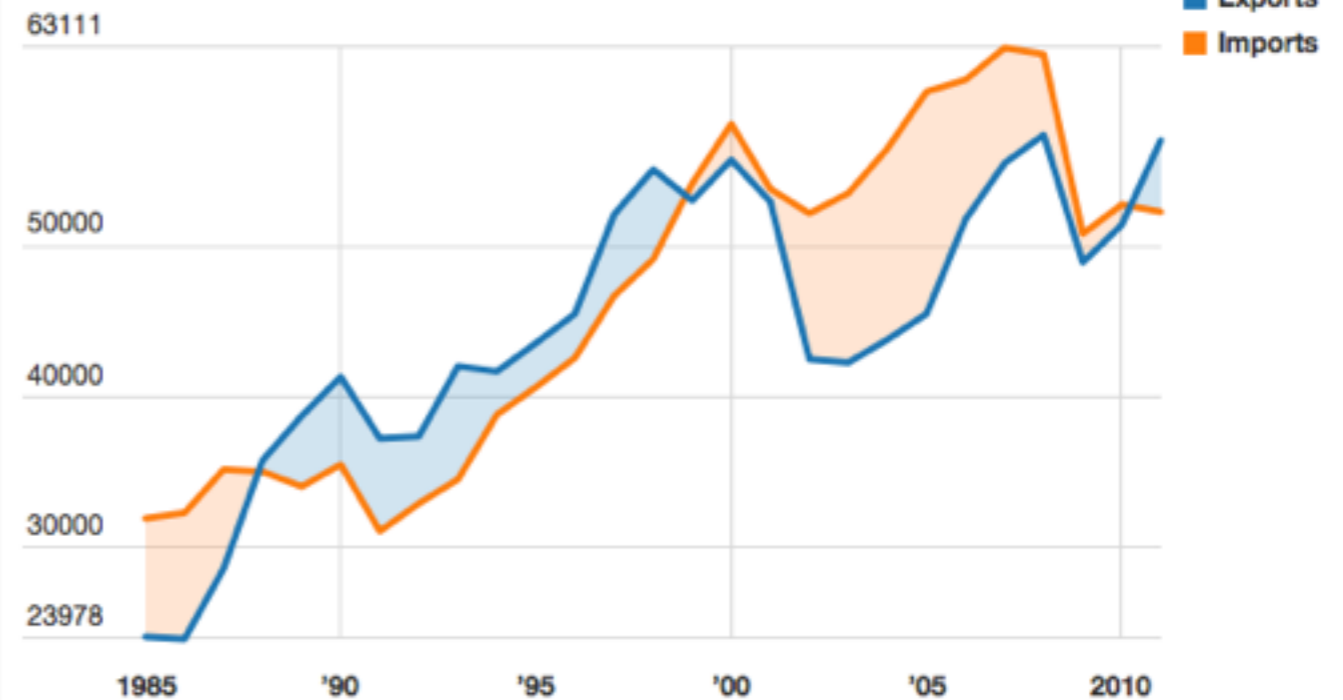
To publish your charts for embedding, you have to [upgrade your account to Datawrapper Single](#). Read more about why we changed our [usage guidelines](#).

Show in Gallery

You can show some love to Datawrapper by agreeing to show your visualisation in our [public gallery](#). This is absolutely optional.

☐ Yes, show this chart in the gallery

Exports and Imports



Source: [US Census Bureau](#) [Get the data](#)

Created with [Datawrapper](#)