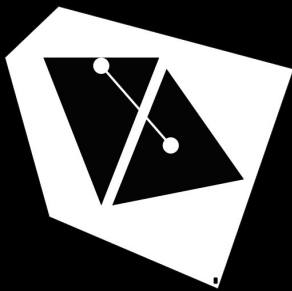
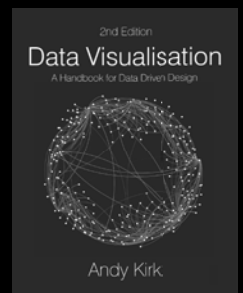


The Design of Nothing

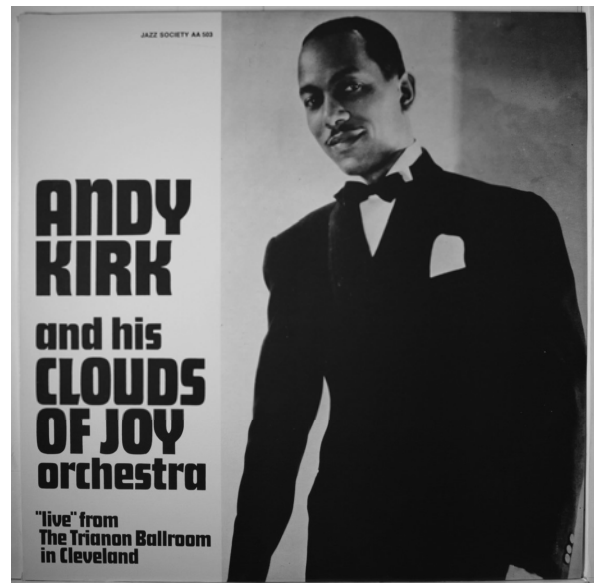
by Andy Kirk



andy@visualisingdata.com
www.visualisingdata.com
@visualisingdata



What IS NOT happening assists what IS



Images from <http://www.musicstack.com/records-cds/andy+kirk>

What IS NOT happening assists what IS



Martin Scorsese - The Art of Silence

Every Frame a Painting

Subscribe 1.2M

1,430,801 views

+ Add to Share ... More

24,061 139

Published on 14 Jun 2014

Even though Martin Scorsese is famous for his use of music, one of his best traits is his deliberate and powerful use of silence. Take a glimpse at fifty years of this simple technique from one of cinema's masters. SPOILERS for Shutter Island (2010), Superman (1978) and Man of Steel (2013)



Martin Scorsese - The Art of Silence

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Video from <https://www.youtube.com/watch?v=NURrTjEXjSM&feature=youtu.be>

3

What IS NOT happening assists what IS

Running times: when to go for a pee during classic movies

The app RunPee buzzes in your pocket when a boring bit is coming up in a film, so you can go to the toilet without missing anything. So what's the safest time to nip out in Casablanca or The Godfather?



“You must remember this ... go out in minute 59.” Photograph: Snap/Rex/Shutterstock

Image from <https://www.theguardian.com/film/shortcuts/2017/aug/09/running-times-when-to-go-for-a-pee-during-classic-movies>

4

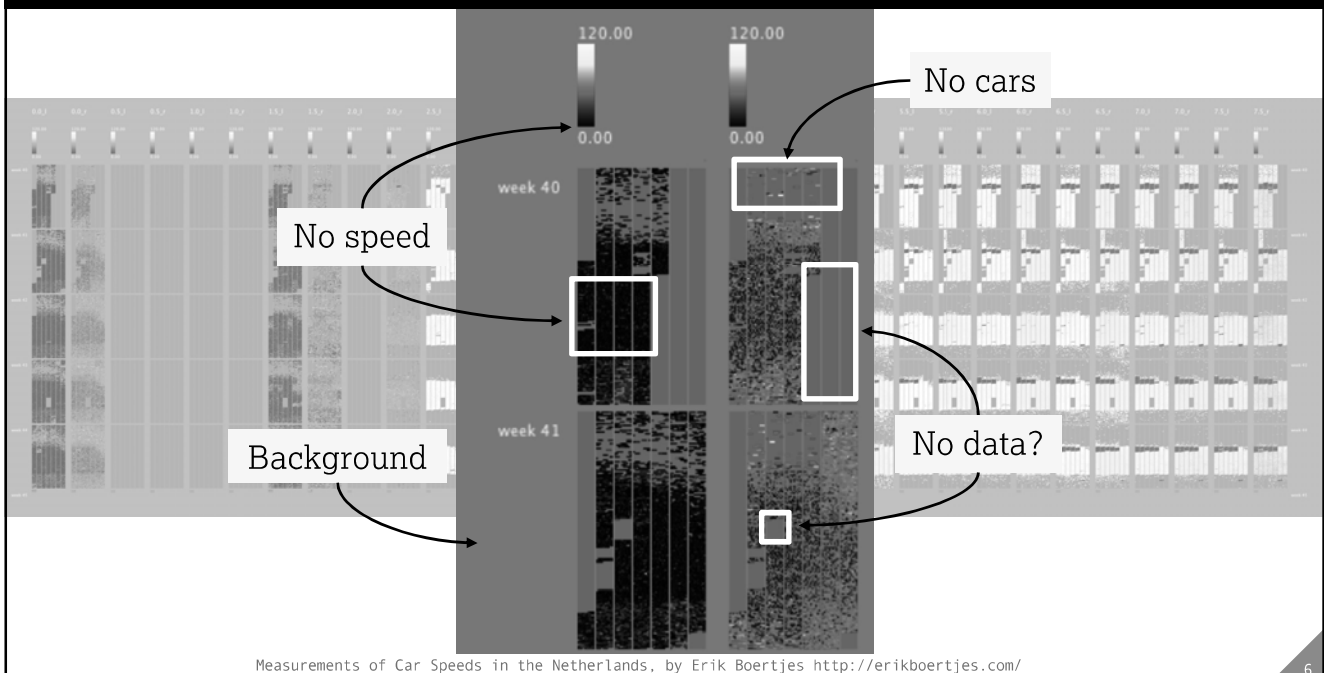
Statistics **describe** data

Visualisation **shows** data

But how do you show *nothing*?

5

The challenge of showing 'nothingness'



6

The challenge of showing 'nothingness'

Every police force has seen response times increase in recent years
Police forces' average response times for top priority calls (immediate response), and comparison to each forces' target times

	Under target				Missing target					
	<70% of target	>70% <80%	>80% <90%	>90% <100%	Urban (if present)	All only	No target time	No data		
West Midlands				13:32	10:41	10:28	10:59	12:22	18:02	23:12
Cambridgeshire	08:01	16:03	18:11	15:40	16:16	17:57	17:55	20:11	21:18	
Lincolnshire					15:41	15:32	16:39	18:51	20:11	
Staffordshire	11:34	11:21	12:08	11:46	12:39	13:23	15:20	15:20	18:50	
Durham								12:23	14:49	16:00
Kent	08:51	08:06	08:48	09:40	11:30	12:33	13:35	14:46	15:58	
South Wales	13:17	11:58	13:31				15:27	15:30	15:36	
Nottinghamshire	13:00	16:00	12:00	14:00	12:00	13:00	13:00	14:00	15:00	
Devon and Cornwall					14:15	13:59	14:28	14:11	14:33	
South Yorkshire	07:33	07:25	16:08	08:50	09:18	09:42	10:45	12:30	14:04	
Thames Valley			10:42	10:54	11:08	11:20	12:04	13:13	14:08	
Dorset				08:18	09:06	10:36	11:54	14:30	13:30	
Avon and Somerset		09:00	09:00	09:00	11:00	12:00	13:00	12:00	13:00	
Derbyshire	11:00	11:00	11:00	11:00	11:00	12:00	11:00	12:00	13:00	
Greater Manchester		06:17	06:38	07:23	07:36	08:30	09:56	10:09	12:03	
Merseyside	06:05	06:16	06:47	06:03	08:45	08:27	10:32	10:02	11:16	
West Midlands	07:02	07:08	07:31	07:57	08:44	09:22	09:57	10:04	11:03	
Essex	07:58	08:01	09:19	08:36	09:09	10:33	10:28	10:21	10:49	
Hertfordshire	07:21	07:12	07:24	08:31	09:09	09:16	09:12	09:33	10:02	
Cheshire				10:07	10:44	10:01	09:19	09:42	09:30	10:01
Suffolk					09:00	09:00	10:00	10:00	10:00	
Norfolk	08:45	08:40	08:02	08:12	08:43	08:46	08:27	08:58	09:37	
Bedfordshire*					24:28	27:06	31:53	33:45		

No data

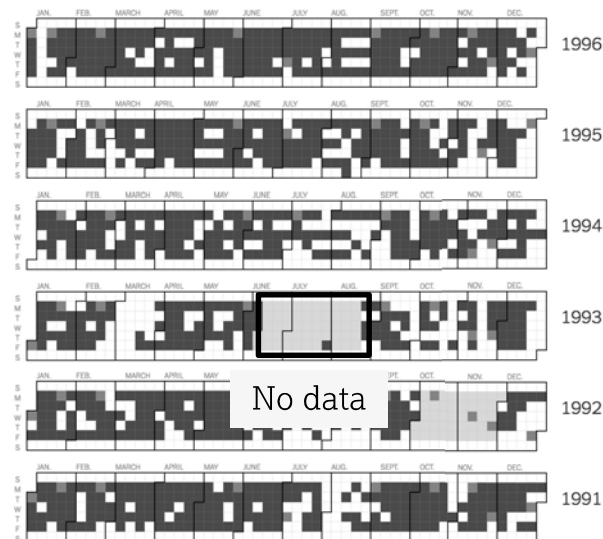
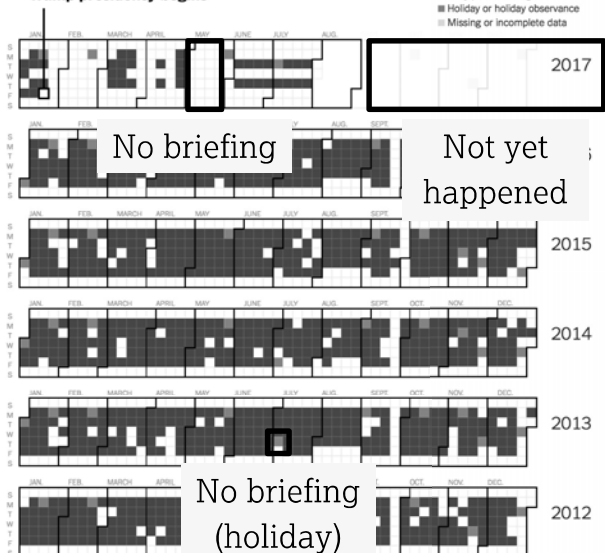
Background

No target

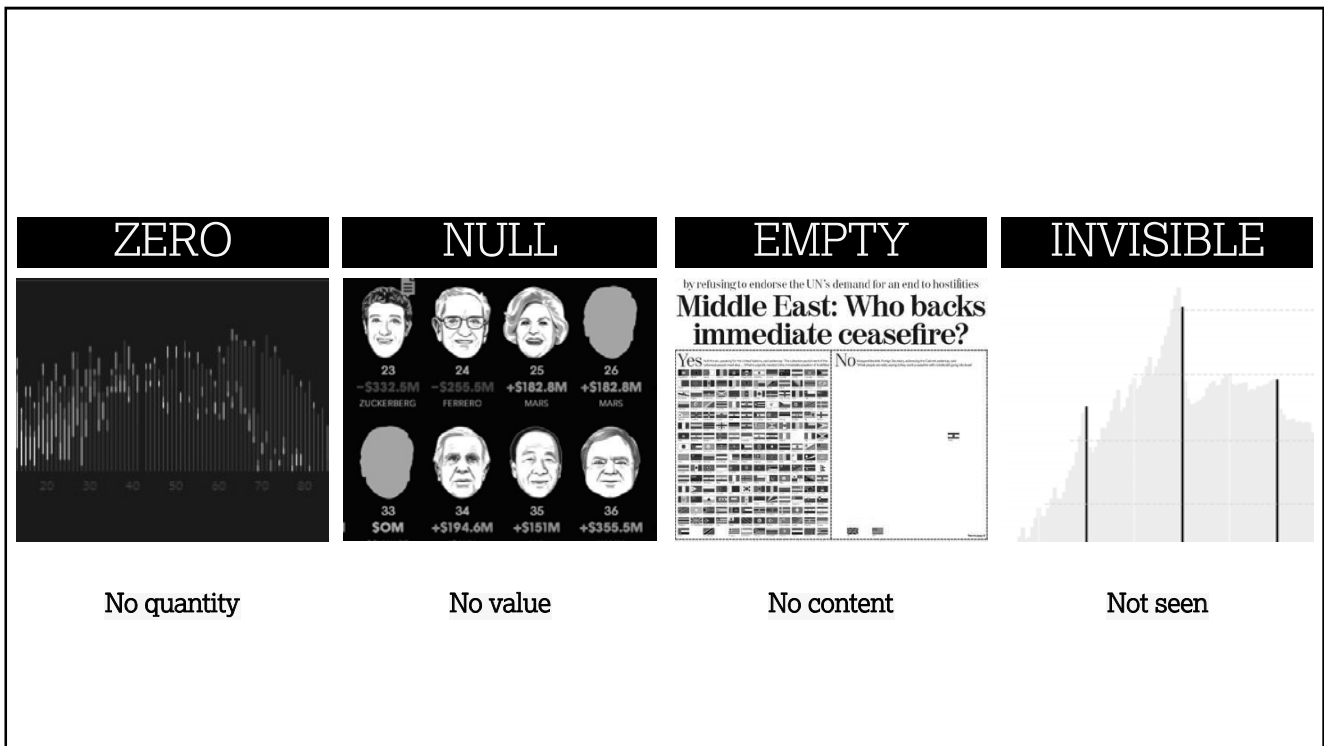
Visualisation by The Telegraph <https://www.telegraph.co.uk/news/2019/01/13/crime-victims-wait-half-hour-police-respond-999-calls-response/>

The challenge of showing 'nothingness'

Trump presidency begins



The Lowest-Profile State Department in 45 Years, by TheUpshot
<https://www.nytimes.com/interactive/2017/08/01/upshot/lowest-profile-state-department-in-decades.html>



Visualising the 'show about nothing'



Nothing

3 years ago | More

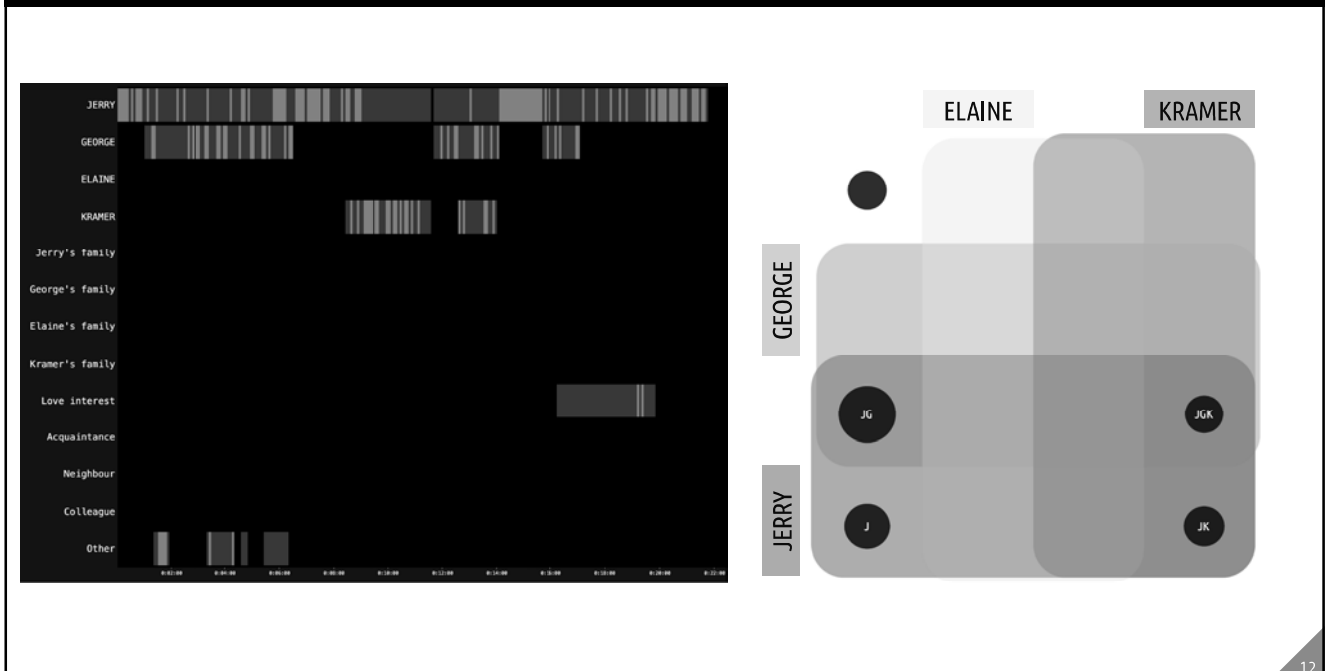
LJ Frezza PLUS [+ Follow](#)

▶ 462K ❤️ 1,145 📦 48 💬 35

Every shot from "Seinfeld" (1989-1998) where nothing happens. A response to everyone I met in New York who said they'd love the city if only there weren't so many people in it.

Video from <https://vimeo.com/88077122>

Visualising the nothingness of zero (no appearance/interaction)



“Zero is in the mind, but not in the sensory world”

Robert Kaplan

Harvard math professor

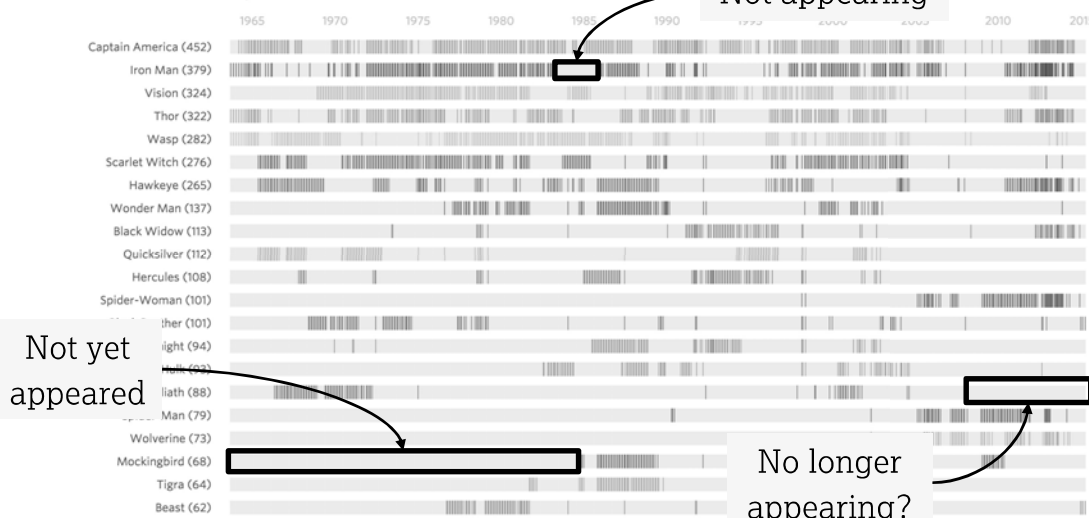
Quote from <https://www.vox.com/science-and-health/2018/7/5/17500782/zero-number-math-explained>

13

Visualising the nothingness of zero (no appearance)

'Avengers' characters' appearances over time

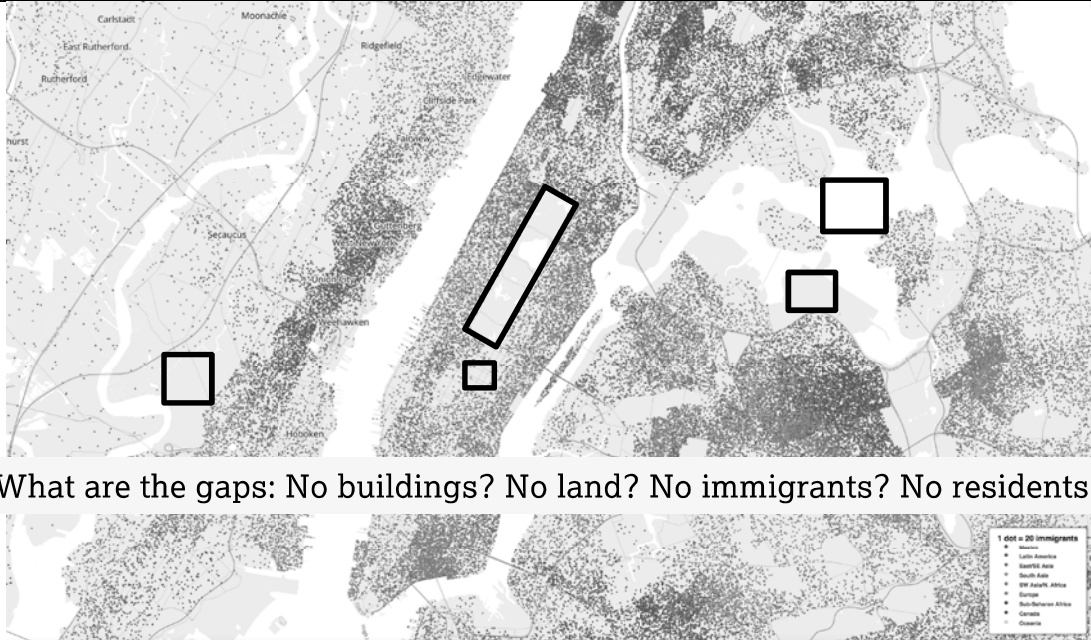
Avengers team members sorted by most number of appearances, across the 'Avengers' comic book title in one of the issues as an Avenger. stripe is an appearance



How the 'Avengers' Line-up Has Changed Over the Years, by Jon Keegan <http://graphics.wsj.com/avengers-team/>

14

Interpretations of zero often formed by knowledge

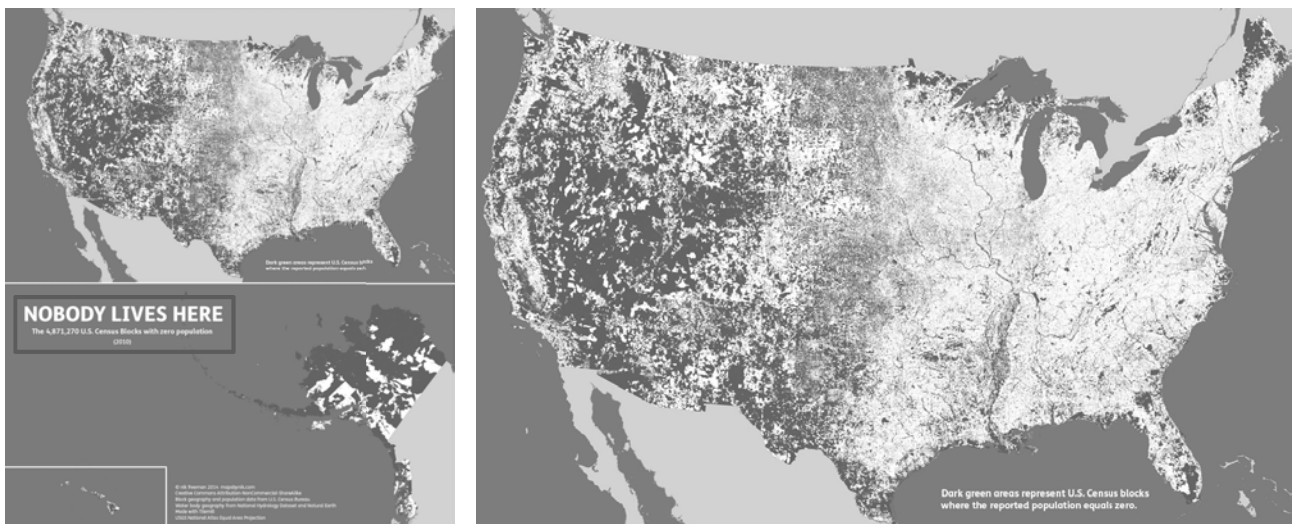


What are the gaps: No buildings? No land? No immigrants? No residents?

Mapping Immigrant America, by Kyle Walker <http://personal.tcu.edu/kylewalker/immigrant-america/#>

15

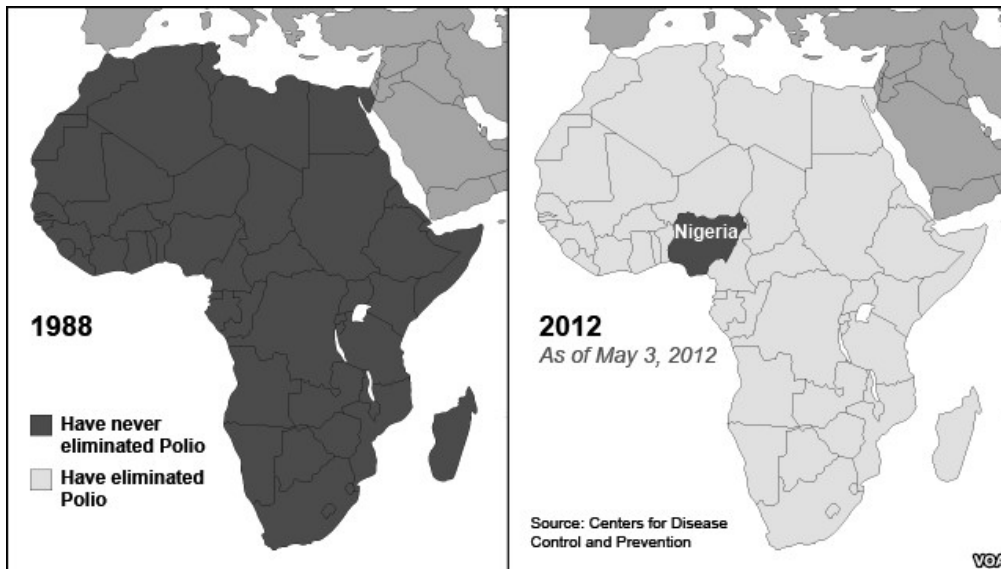
Visualising the nothingness of zero (no people)



Nobody Lives Here, by Nik Freeman <http://mapsbynik.tumblr.com/post/82791188950/nobody-lives-here-the-nearly-5-million-census>

16

Visualising the nothingness of zero (no recorded disease)



Visualisation from VOA News <http://www.voanews.com/content/nigeria-polio-cases-drop-50-percent/1776099.html>

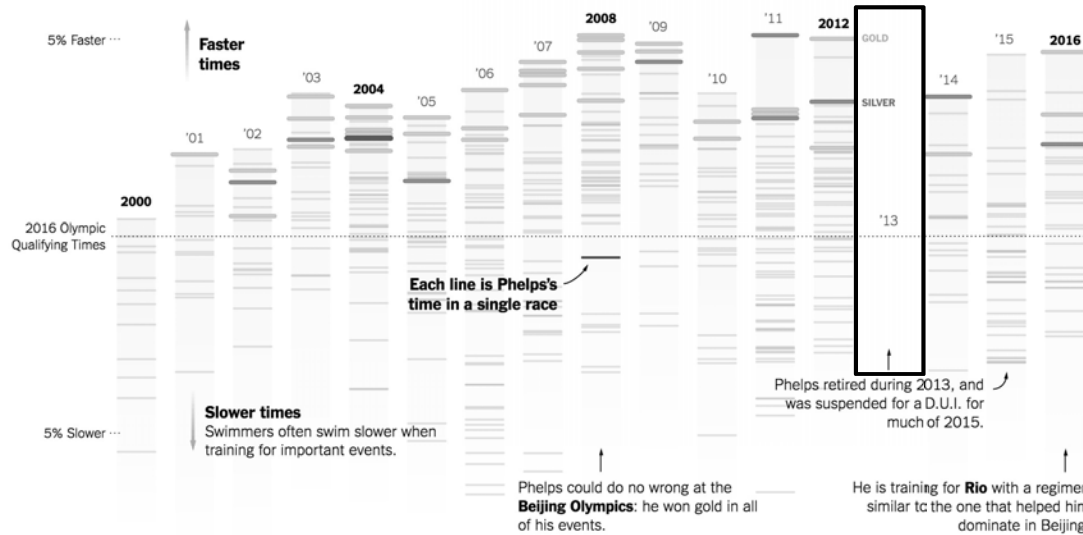
17

Visualising the nothingness of zero (no species)



18

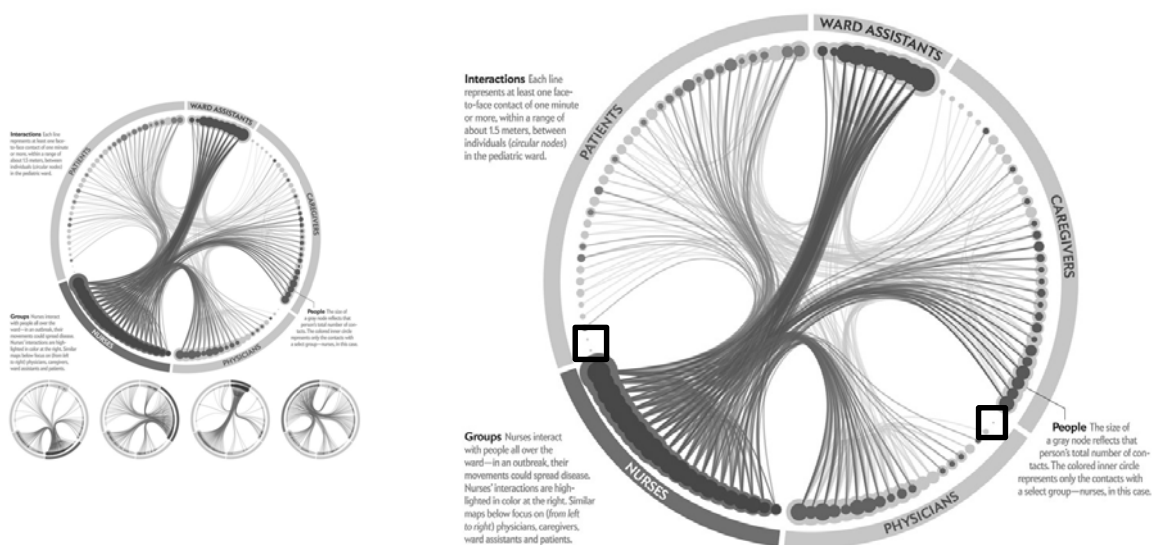
Visualising the nothingness of zero (no races)



Visualisation by New York Times <https://www.nytimes.com/interactive/2016/08/09/sports/olympics/2016-08-09-olympics-phelps-vs-phelps.html>

19

Visualising the nothingness of zero (no interactions)

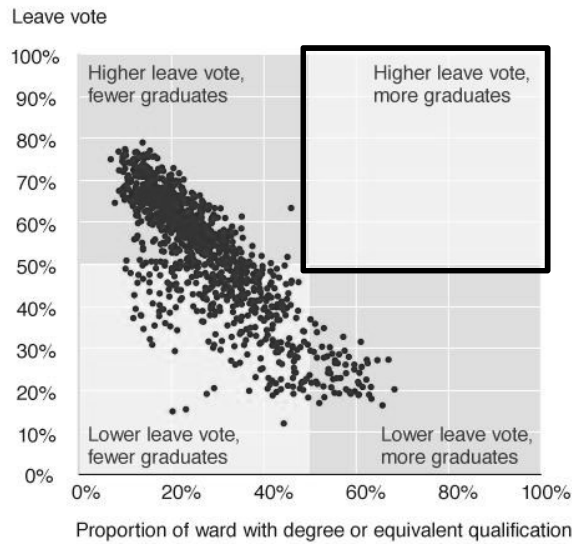


RFID Tags Track Possible Outbreak Pathways in the Hospital, by Jan Willem Tulp
<http://www.scientificamerican.com/article.cfm?id=rfid-tags-track-possible-outbreak-pathways-in-hospital>

20

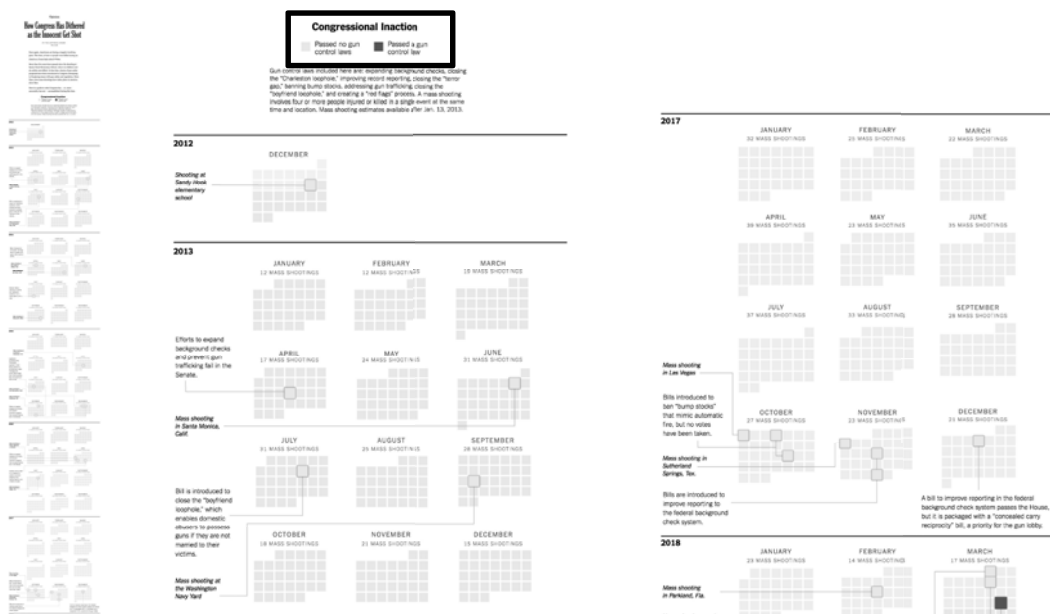
Visualising the nothingness of zero (no related values)

Wards with more graduates had lower Leave vote



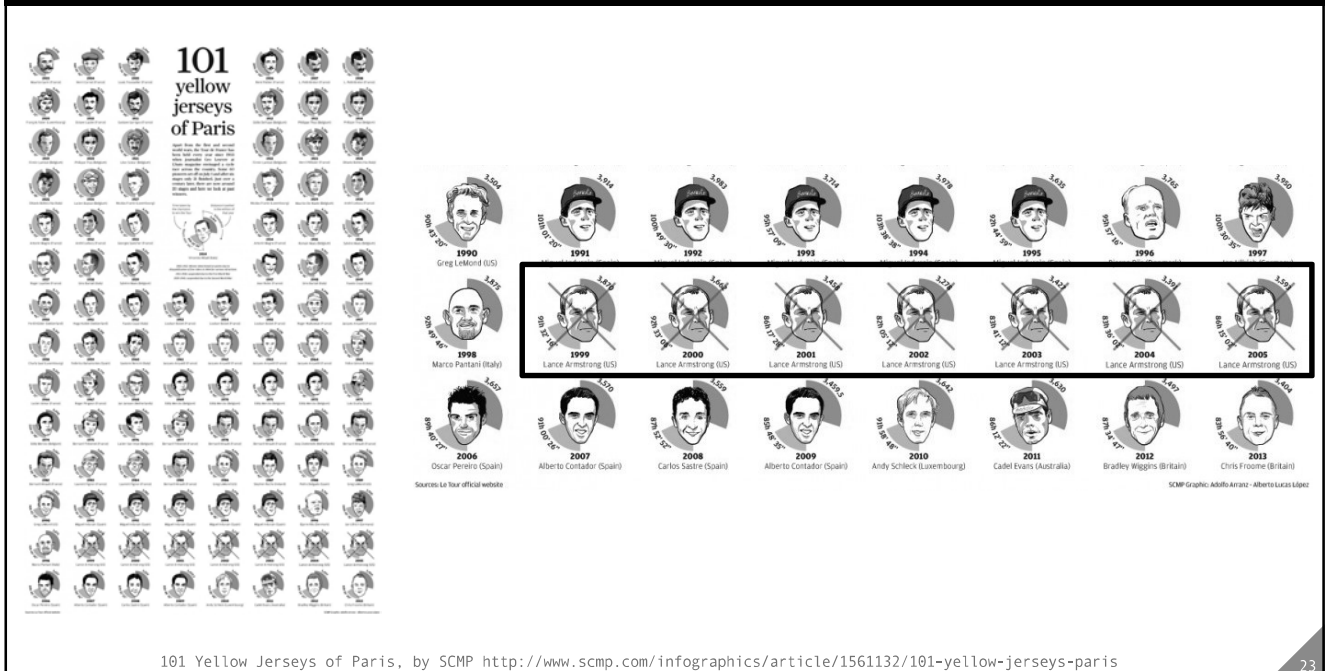
Visualisation by BBC <http://www.bbc.co.uk/news/uk-politics-38762034>

Visualising the nothingness of zero (no action)



How Congress Has Dithered as the Innocent Get Shot, by the New York Times
<https://www.nytimes.com/interactive/2018/02/15/opinion/congress-gun-progress.html>

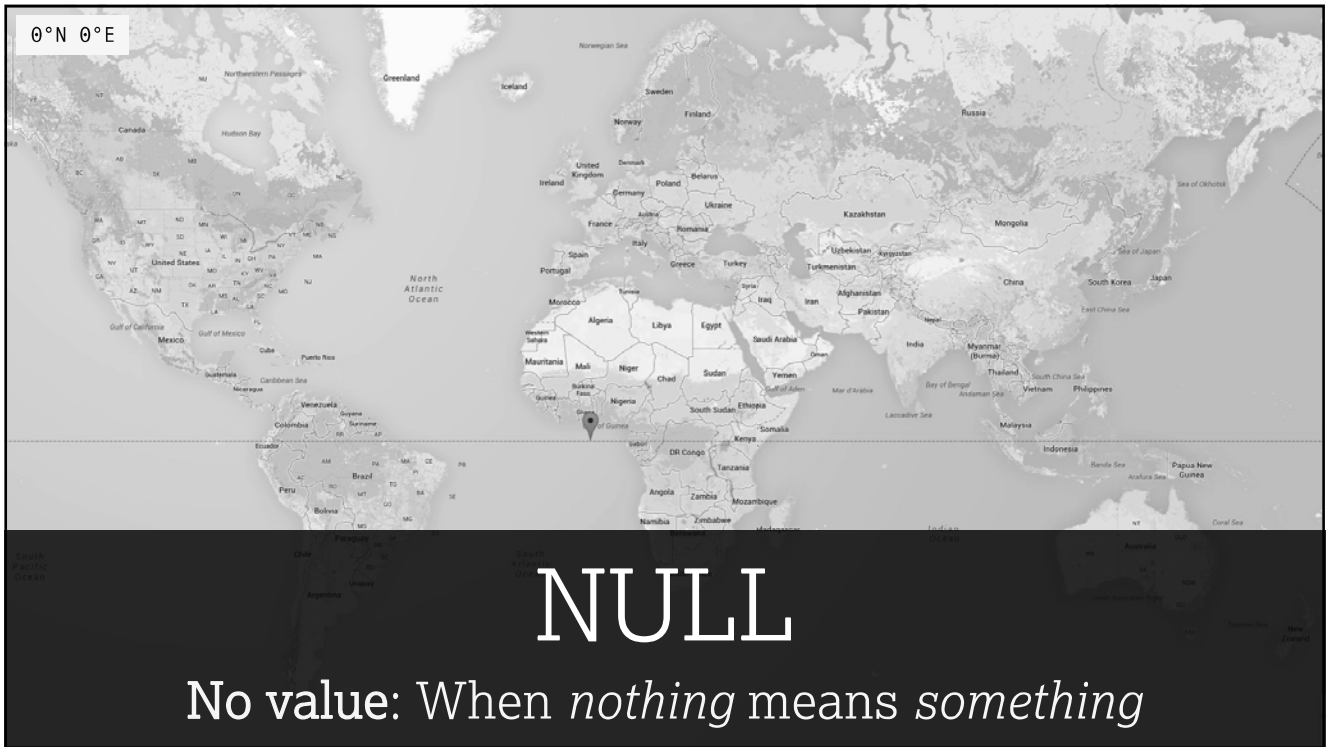
Visualising the nothingness of zero (no winner)



Visualising the nothingness of zero (no winner)

RANK	MARK	WIND	COMPETITOR	DOB	NAT	POS	VENUE	DATE
1	9.58	-0.9	Usain BOLT	21 AUG 1986	JAM	1	Berlin (Olympiastadion)	16 AUG 2009
2	9.63	-1.5	Usain BOLT	21 AUG 1986	JAM	1	London (Olympic Stadium)	05 AUG 2012
3	9.69	0.0	Usain BOLT	21 AUG 1986	JAM	1	Beijing (National Stadium)	16 AUG 2008
4	9.68	0.0	TYSON GAY	8 AUG 1982	USA	1	Beijing	16 SEP 2008
5	9.97	0.1	Yohan BOIRE	10 DEC 1987	USA	1	Beijing	16 AUG 2008
6	9.97	0.0	TYSON GAY	8 AUG 1982	USA	1	Beijing (Olympic Stadium)	16 AUG 2008
7	9.72	-1.7	Usain BOLT	21 AUG 1986	JAM	1r1	New York City, NY	31 MAY 2008
8	9.72	-0.2	ASHER FOWELL	19 NOV 1992	GBR	5r1	Beijing	16 SEP 2008
9	9.74	+1.7	ASHER FOWELL	19 NOV 1992	GBR	10r1	Beijing	16 SEP 2008
10	9.74	0.0	JURGEN CARLUM	10 FEB 1983	USA	1	Doha (Stadium Al-Khalifa)	16 MAR 2015
11	9.95	-1.1	Yohan BOIRE	10 DEC 1987	USA	1	Beijing (Olympic Stadium)	16 SEP 2008
12	9.95	-1.0	Yohan BOIRE	10 DEC 1987	USA	2	London (Olympic Stadium)	05 SEP 2008
13	9.95	0.0	JURGEN CARLUM	10 FEB 1983	USA	1-0	Beijing (Olympic Stadium)	04 SEP 2008
14	9.95	1.1	JURGEN CARLUM	10 FEB 1983	USA	1-0	Beijing (Olympic Stadium)	04 SEP 2008
15	9.74	-1.8	Usain BOLT	21 AUG 1986	JAM	1	Kingston (NS), JAM	03 MAY 2008
16	9.76	-1.3	Usain BOLT	21 AUG 1986	JAM	1	Bruxelles (Boudewijnstadion)	16 SEP 2011
17	9.76	-0.1	Usain BOLT	21 AUG 1986	JAM	1	Roma (Stadio Olimpico)	31 MAY 2012
18	9.94	-1.0	Yohan BOIRE	10 DEC 1987	USA	1-0	Beijing (Olympic Stadium)	04 SEP 2008
19	9.77	+1.0	ASHER FOWELL	19 NOV 1992	GBR	1	London (Olympic Stadium)	16 SEP 2008
20	9.89	-0.0	ASHER FOWELL	19 NOV 1992	GBR	1	Schiedam	14 JUN 2004
21	9.77	+1.0	ASHER FOWELL	19 NOV 1992	GBR	1r1	Beijing	16 AUG 2008
22	9.95	1.1	TYSON GAY	8 AUG 1982	USA	1-0	Beijing (Olympic Stadium)	16 SEP 2008
23	9.77	-1.3	Usain BOLT	21 AUG 1986	JAM	1	Bruxelles (Boudewijnstadion)	05 SEP 2008
24	9.89	0.0	ASHER FOWELL	19 NOV 1992	GBR	10r1	Beijing	16 SEP 2008
25	9.89	0.1	TYSON GAY	8 AUG 1982	USA	1	Doha (Stadium Al-Khalifa)	16 MAR 2015
26	9.77	-0.3	Usain BOLT	21 AUG 1986	JAM	1	Moskva (Luzhnik)	11 AUG 2013
27	9.77	+0.0	ASHER FOWELL	19 NOV 1992	GBR	1	Bruxelles (Boudewijnstadion)	05 SEP 2008
28	9.78	0.0	ASHER FOWELL	19 NOV 1992	GBR	1	Beijing	16 SEP 2008
29	9.89	0.1	TYSON GAY	8 AUG 1982	USA	1	London (Olympic Stadium)	16 SEP 2008

Image from <https://mobile.twitter.com/jonbir90/status/89394732054881024>



There's usually a story behind missing data/information

UNCLASSIFIED

Object 1 Possibly Associated With MH370 Search

Indian Ocean COORDS: 43:58:34S 090:57:37E

16 Mar 2014 0416Z/1216L Local © DigitalGlobe Panchromatic

16 Mar 2014 0416Z/1216L Local © DigitalGlobe Multispectral

Possible Object

Approx 24m

Possible Object

Approx 24m

Image from <http://www.bbc.co.uk/news/world-asia-26659951>

30

There's usually a story behind missing data/information

“In the transcript, TIME have redacted everything that is not verifiably true. What remains is everything the president said that is definitely true”

PRESIDENT TRUMP: Hey, Michael.
TIME: Hey Mr. President, Thank you for taking the time.
Absolutely. How have you been, OK?
Yeah, it has been a wild couple months. You keep us busy.
Do you want me to give you a quick overview [of the story]?
Sweden. I make the statement, everyone goes crazy.
I tweeted about that
I
said that the allies must pay.
We have a lot of things.
But there's other things you said that haven't panned out. The peg for this story is the wiretapping hearing on Monday, in which [FBI Director James] Comey and [NSA Director Mike] Rogers testified about your tweets there.
Devin Nunes had a news conference,
I have not, no.

Image from The Slot <https://theslot.jezebel.com/we-redacted-everything-thats-not-a-verifiably-true-stat-1793571837>

31

There's usually a story behind missing data/information

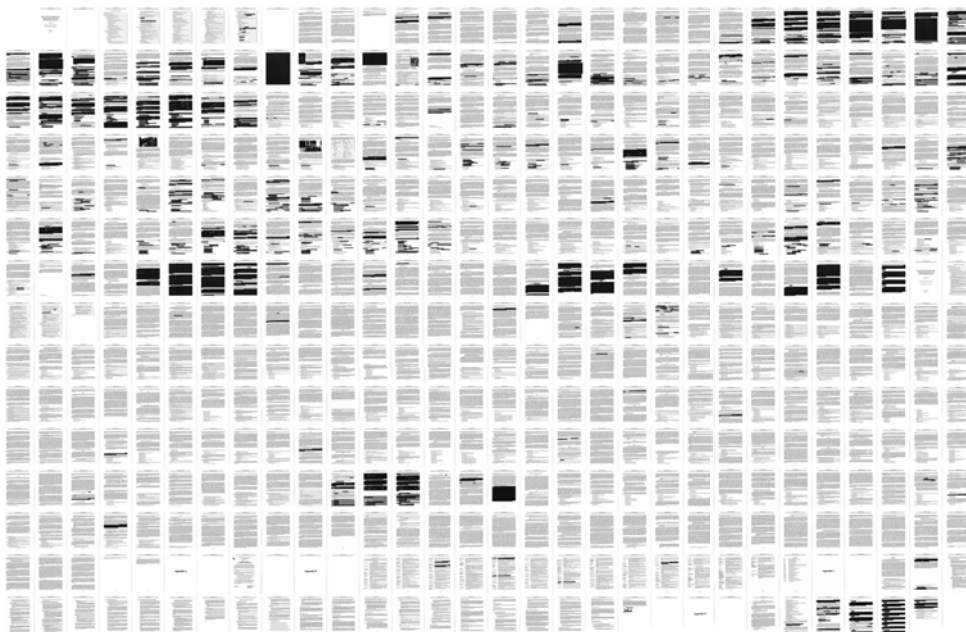


Image from <https://flowingdata.com/2019/04/18/redacted>

32

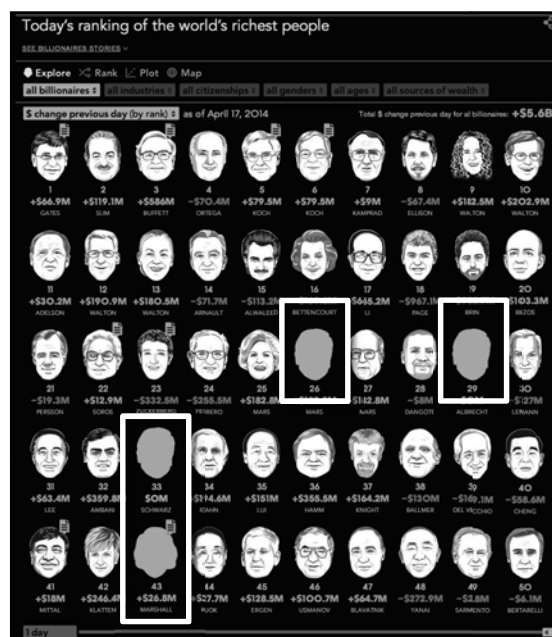
There's usually a story behind missing data/information



International New York Times (22/23 March 2014)

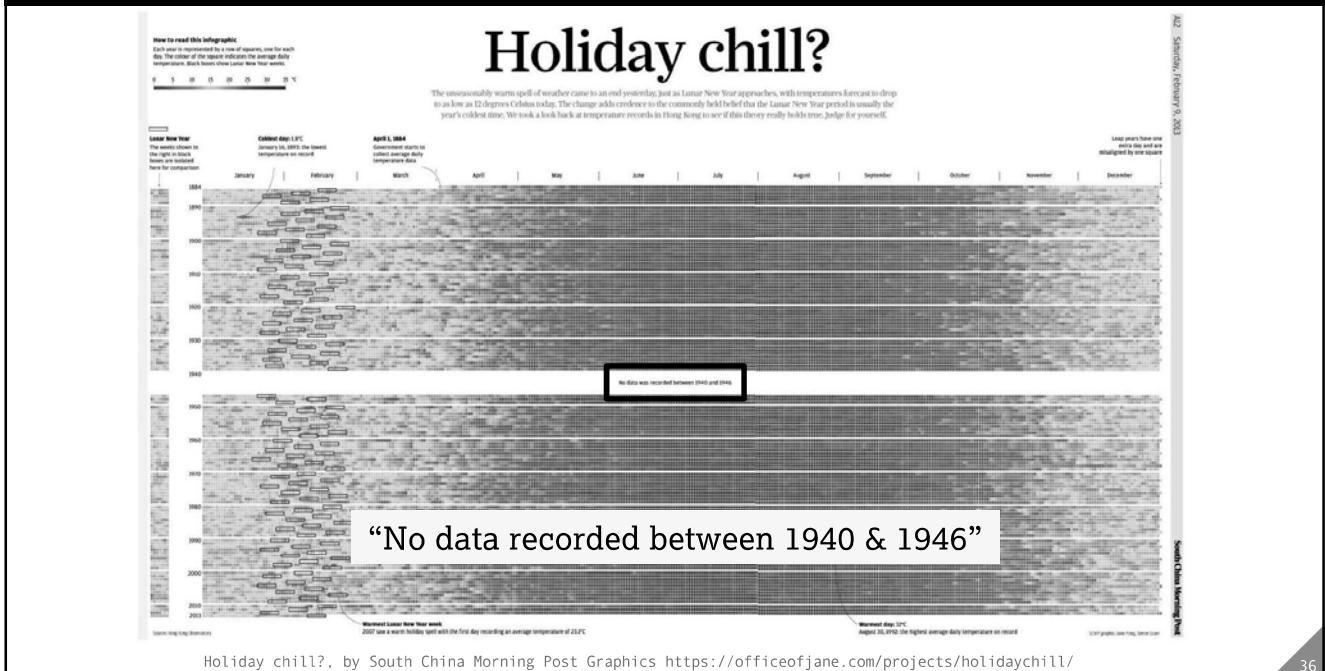
<https://twitter.com/AleemMaqbool/status/447306090087452672/photo/1> & <https://twitter.com/QasimNauman/status/447277789121495040/photo/1>

There's usually a story behind missing data/information

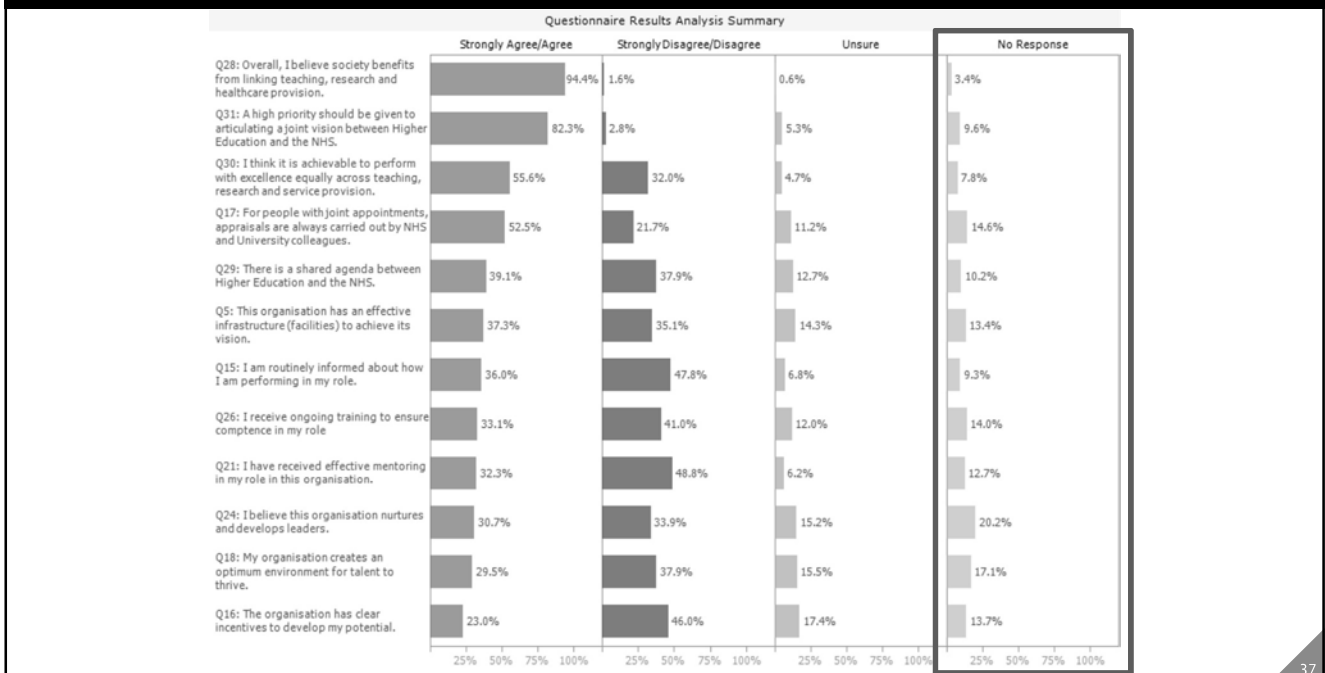


Billionaires, by Bloomberg <http://www.bloomberg.com/billionaires/>

There's usually a story behind missing data/information



There's usually a story behind missing data/information

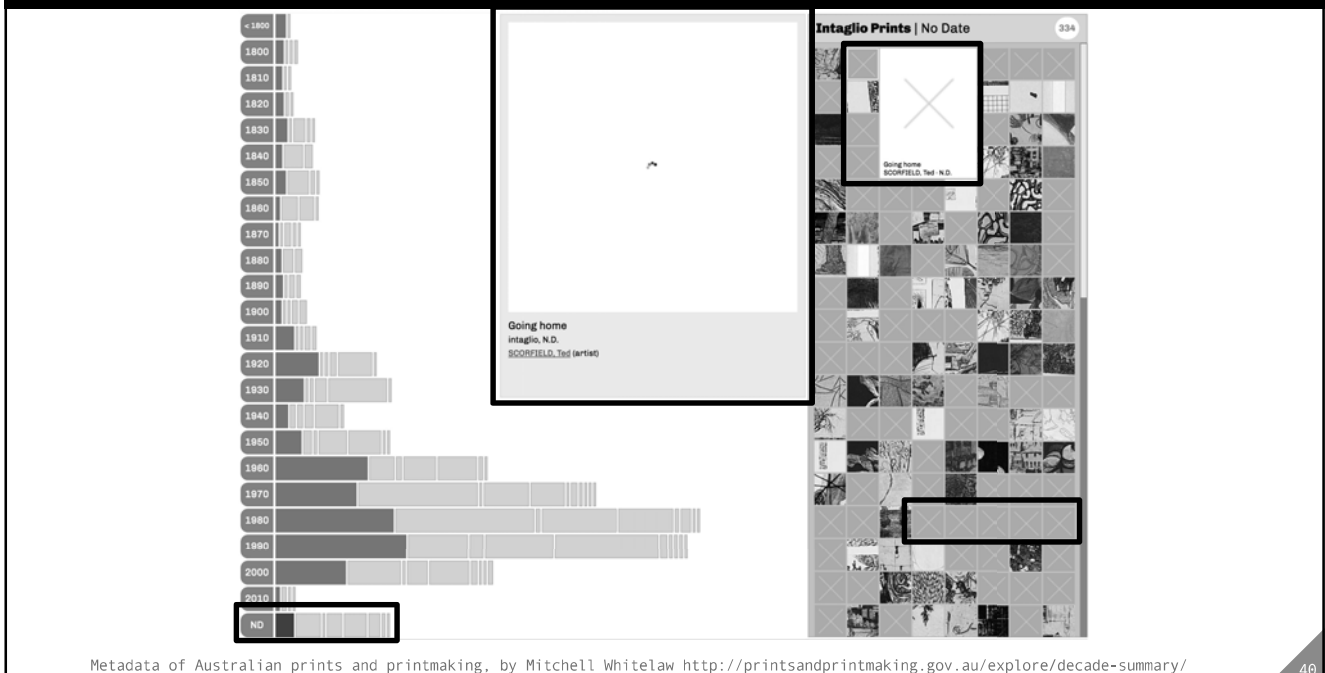


Data darkness: Deficiency to drive action



39

Data darkness: Deficiency to drive action



40

Data darkness: Deficiency to drive action

Lost Mothers

An estimated 700 to 900 women in the U.S. died from pregnancy-related causes in 2016. We have identified 120 of them so far.

by Nina Martin, ProPublica, Emma Cillekens and Alessandra Freitas, special to ProPublica
July 17, 2017



The U.S. has the highest rate of maternal mortality in the developed world. Yet these deaths of women from causes related to pregnancy or childbirth are almost invisible. When a new or expectant mother dies, her obituary rarely mentions the circumstances. Her identity is shrouded by medical institutions, regulators and state maternal mortality review committees. Her loved ones mourn her loss in private. The lessons to be learned from her death are often lost as well.

Catherine Gaskins
Muncie, IN
Died: 12/21/2016
Age: 37
[READ THE OBITUARY](#)

Lost Mothers, by ProPublica <https://www.propublica.org/article/lost-mothers-maternal-health-died-childbirth-pregnancy>

Data darkness: Deficiency to drive action



Data darkness: Deficiency to drive action

How lucky we are to be able to say *"I remember"*.
Let's share our memories to fight Alzheimer's disease.

This site will gradually disappear
if it is not regularly given memories.

I Remember, from <http://i-remember.fr/en>

43

Data darkness: Deficiency to drive action

I remember

Let's share our memories
and make sure this website does not disappear.

13%
FACEBOOK
MEMORIES



I remember, this year that it is a bear

hujjijh

Share with:   

I Remember, from <http://i-remember.fr/en>

44

Data darkness: Deficiency to drive action



Image from <http://i-remember.fr/en>

45

FedEx®

EMPTY

No content: The deliberate *nothing* of emptiness

The deliberate nothing of emptiness

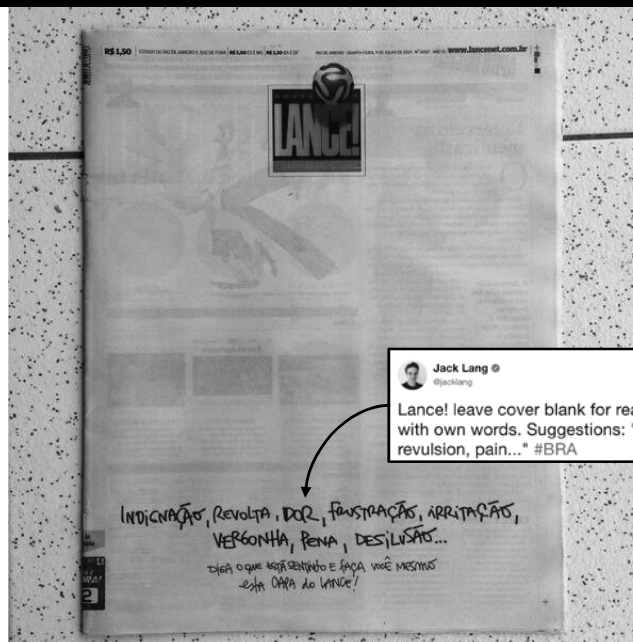
“The single most overlooked element in visual design is **emptiness**... [but] space must look deliberately used.”

Alex White

Quote from 'The Elements of Graphic Design'

47

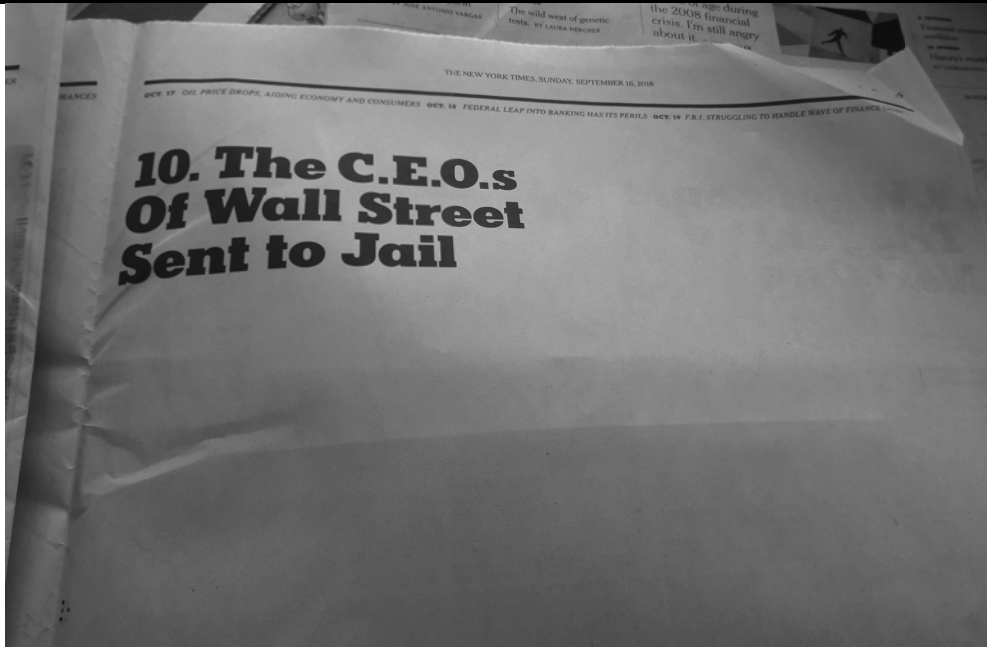
Emptiness for narrative effect



Images from <https://twitter.com/jacklang/status/486838697657384960>

48

Emptiness for narrative effect



Images from <https://twitter.com/albertocairo/status/1041319151158157313>

49

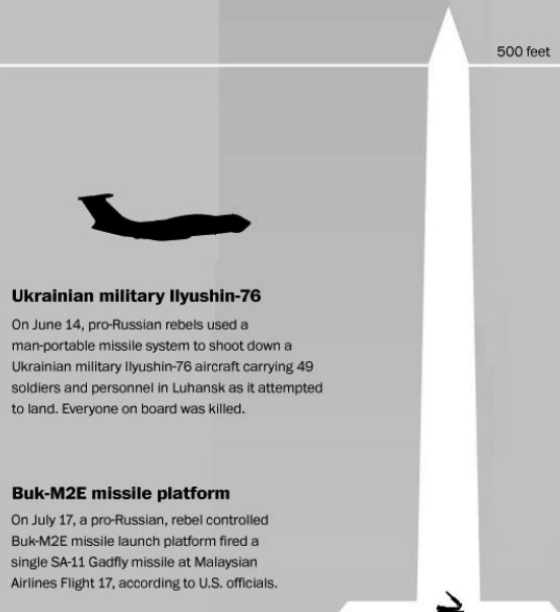
Emptiness for narrative effect

All commercial transport aircraft are fitted with underwater locator beacons to assist in the relocation of black box flight data recorders and cockpit voice recorders. These beacons are free-running pingers that transmit signals at an acoustic frequency of 37.5 kilohertz and have an expected battery life of 30 days. The scale of the challenge in locating the black boxes is immense.

200 feet - the width of a Boeing 777-200.



22 feet - the draft of the Australian offshore support vessel Ocean Shield, now searching for the black box. It is 347 long.



The Depth of the Problem, by Washington Post <http://apps.washingtonpost.com/g/page/world/the-depth-of-the-problem/931/>
How High Can a Missile Reach? by Washington Post <http://apps.washingtonpost.com/g/page/world/how-high-can-a-missile-reach/1195/>

50

Emptiness for narrative effect

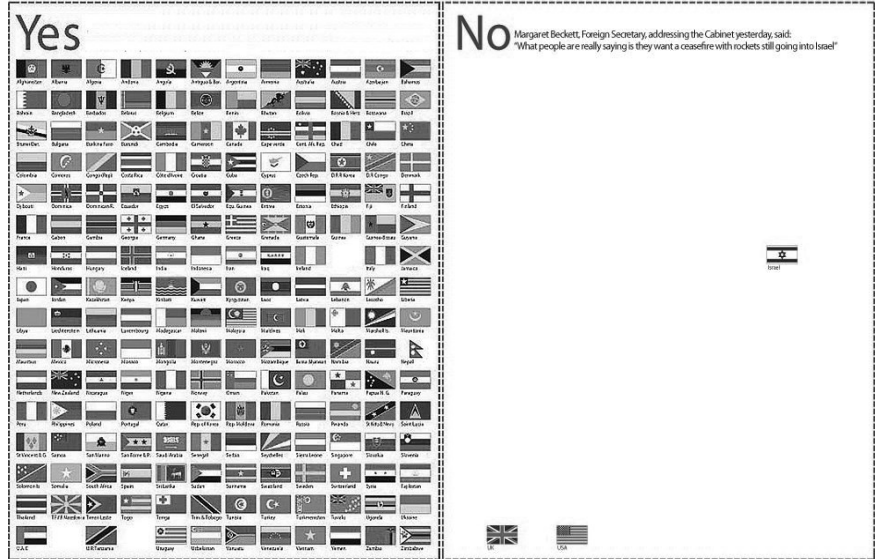
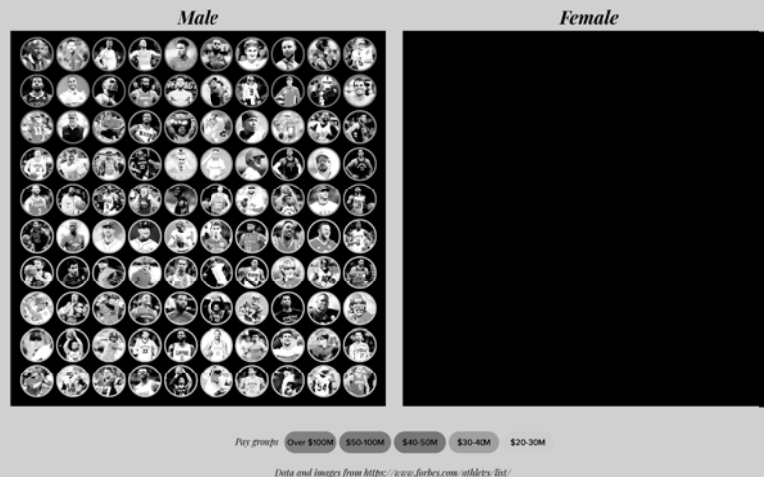


Image from <http://kottke.org/06/07/independent-infographic>

Emptiness for narrative effect

Forbes: The World's 100 Highest-Paid Athletes

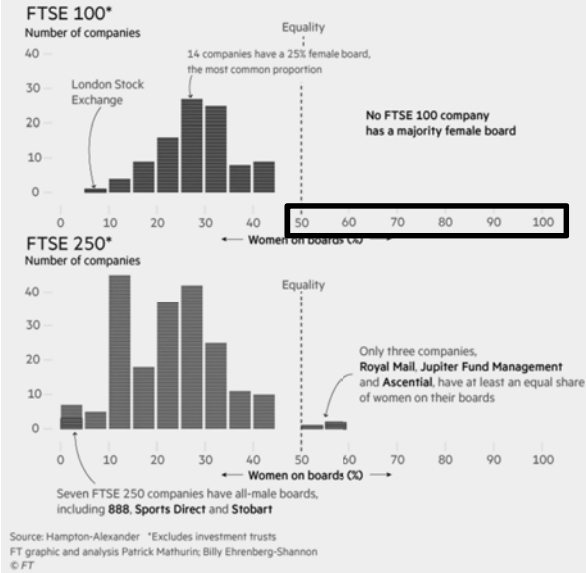


<http://www.visualisingdata.com/2018/06/using-containers-house-skewed-data-values/>

Emptiness exposes findings

A question of equality: women under-represented in the boardroom

Gender diversity on UK boards



Visualisation by the FT <https://www.ft.com/content/d66f1cea-c47d-11e7-a1d2-6786f39ef675>

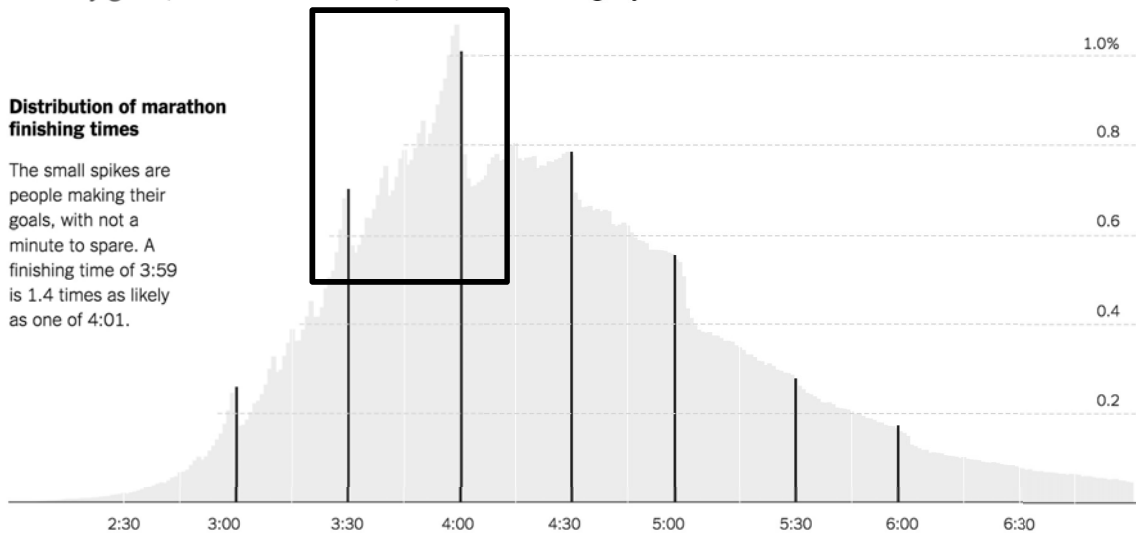
55

Emptiness exposes findings

Arbitrary goals, like round numbers, can be motivating – just ask 9 million marathoners.

Distribution of marathon finishing times

The small spikes are people making their goals, with not a minute to spare. A finishing time of 3:59 is 1.4 times as likely as one of 4:01.



Based on data from Eric Allen, USC, Patricia Dechow, U.C. Berkeley, Devin Pope and George Wu, University of Chicago.

Visualisation by New York Times <http://www.nytimes.com/2014/04/23/upshot/what-good-marathons-and-bad-investments-have-in-common.html>

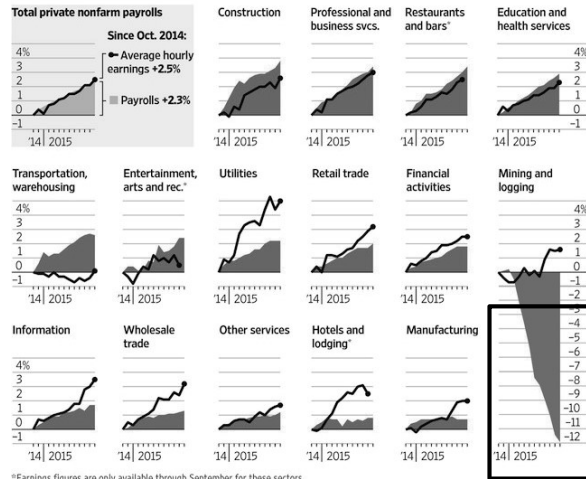
56

(Using) Emptiness exposes findings

Where the Labor Market Is Tightening

Domestically focused industries such as restaurants, retail and utilities have seen strong wage gains and steady hiring. Globally sensitive areas such as mining and manufacturing have struggled.

Change over the past year in payrolls (■) and average hourly earnings (—), seasonally adjusted



Brisk Job Gains Ease Fed's Path, by Wall Street Journal <https://www.wsj.com/articles/u-s-employers-add-271-000-jobs-1446816737>

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The visual punctuation of emptiness

THIS PAGE INTENTIONALLY LEFT BLANK >>

The This Page Intentionally Left Blank Project

[Blank page](#) | [Why that?](#) | [Take part!](#) | [Members](#) | [Comments](#)

Why that?

In former times printed manuals had some blank pages, usually with the remark "this page intentionally left blank". In most cases there had been technical reasons for that. Today almost all blank pages disappeared and if some still exist here and there, they present flatteringly comments like "for your notes" instead of the real truth: This page intentionally left blank!

Nowadays the "This Page Intentionally Left Blank"-Project (TPILB-Project) tries to introduce these blank pages to the Web again. One reason is to keep alive the remembrance of these famous historical blank pages. But it is the primary reason to offer internet wanderers a place of quietness and simplicity on the overcrowded World Wide Web—a blank page for relaxing the restless mind.

Perhaps you would like to take part in this project if you like our philosophy ...

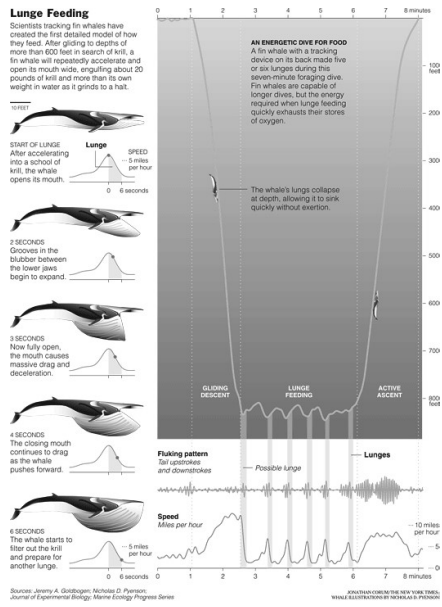
And please tell us your opinion.

<http://www.this-page-intentionally-left-blank.org/whythat.html>

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The visual punctuation of emptiness

Observed
reality has
no outline



Lunge Feeding. by Jonathan Corum <http://13pt.com/projects/nyt071211/>

“Follow the leaders” by Isaac Cordal



INVISIBLE

Not seen: Interpreting what *isn't visible*

Invisibility of interpreting: Thinking beyond what you see

“For sale: Baby shoes. Never worn.”

E. Hemingway

Invisibility of interpreting: Thinking beyond what you see

“Baby shoes for sale, as new, bought in error. They looked bigger on the web.”

E. Hemingway

Invisibility of interpreting: Thinking beyond what you see

“For sale: Baby shoes. Never worn. The little bugger is growing too fast.”

E. Hemingway

Invisibility of interpreting: Thinking beyond what you see

“Baby shoes for sale, as new, mistaken gift from Karen at work who thinks I’m Ed, but I’m Ernie and I did try tell her.”

E. Hemingway

Invisibility of interpreting: Thinking beyond what you see

CINEMATOGRAPHY, DOCUMENTARY, EDITING, FILMMAKING, INTERVIEW, SCREENWRITING 101
Ridley Scott's Masterpiece 'Alien': Nothing Is as Terrifying as the Fear of the Unknown



<https://cinephiliabeyond.org/ridley-scotts-masterpiece-alien-nothing-terrifying-fear-unknown/>

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Invisibility of interpreting: Thinking beyond what you see



https://www.filmfestivals.com/blog/oscar_the_academy_awards/last_existing_model_of_the_1975_jaws_shark_offered_to_the_academy_museum

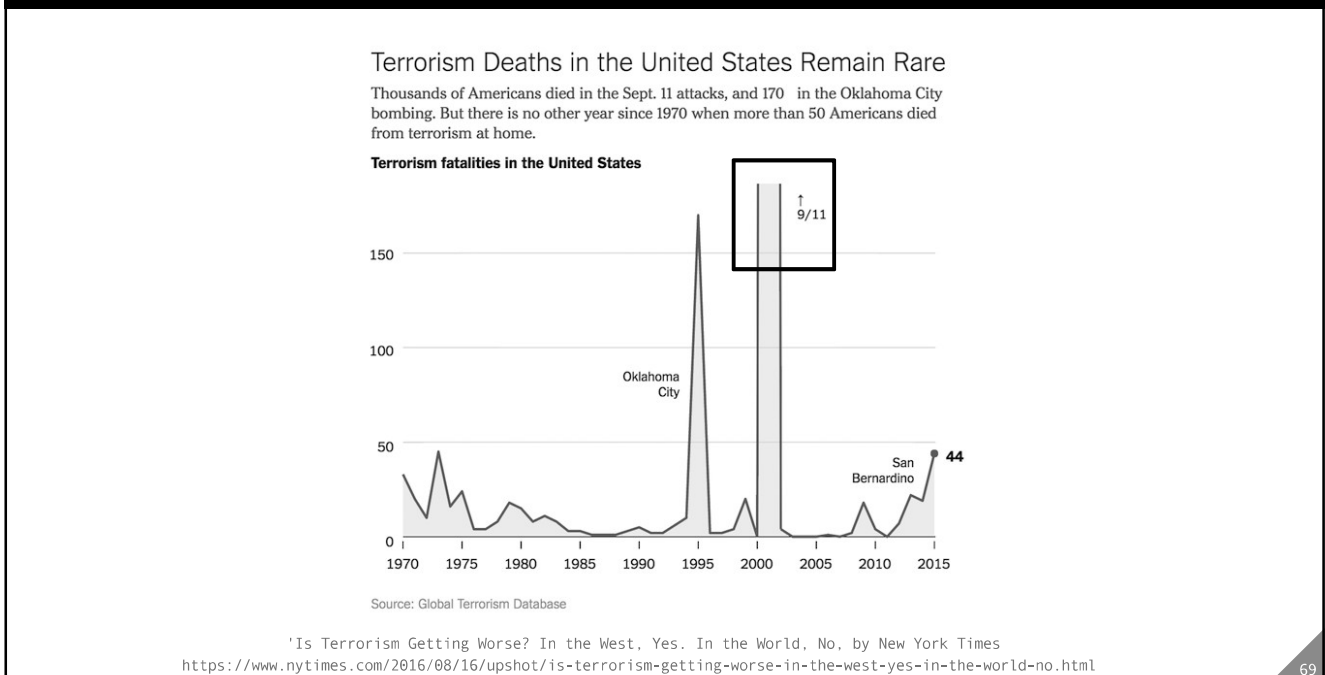
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Invisibility of interpreting: Thinking beyond what you see



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Invisibility of interpreting: Thinking beyond what you see



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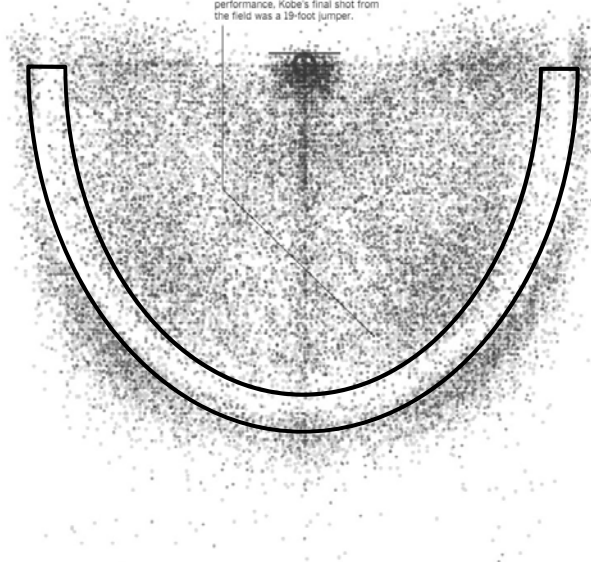
Interpreting the exception of nothing

Bryant attempted 30,699 shots throughout his career.

- Made
- Missed

Kobe's last shot:

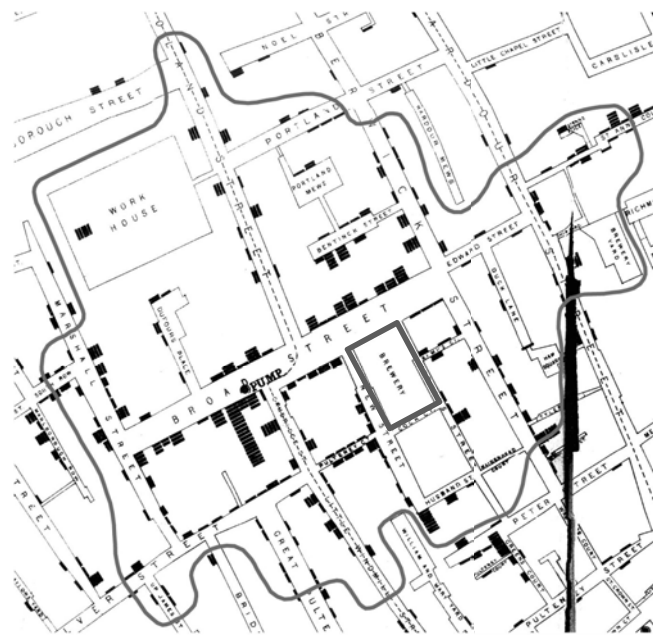
April 13, 2016: Capping a 60-point performance, Kobe's final shot from the field was a 19-foot jumper.



Visualisation by LA Times Graphics <http://graphics.latimes.com/kobe-every-shot-ever/>

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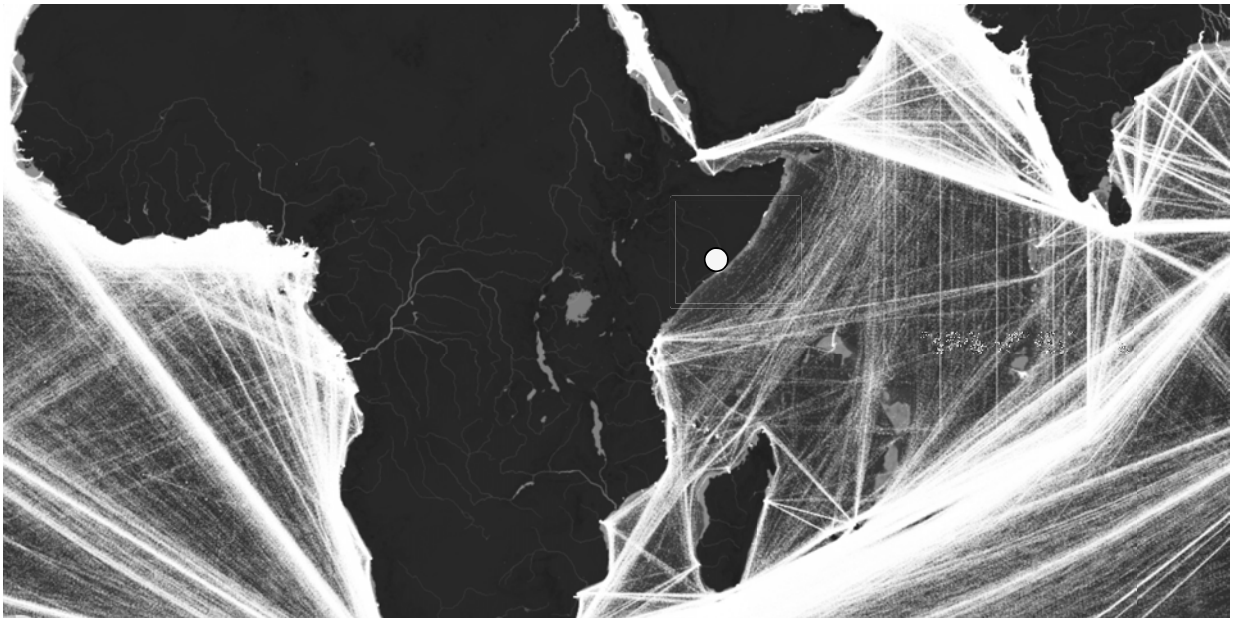
Interpreting the exception of nothing



Cholera Outbreak Map, by John Snow http://johnsnow.matrix.msu.edu/book_images12.php

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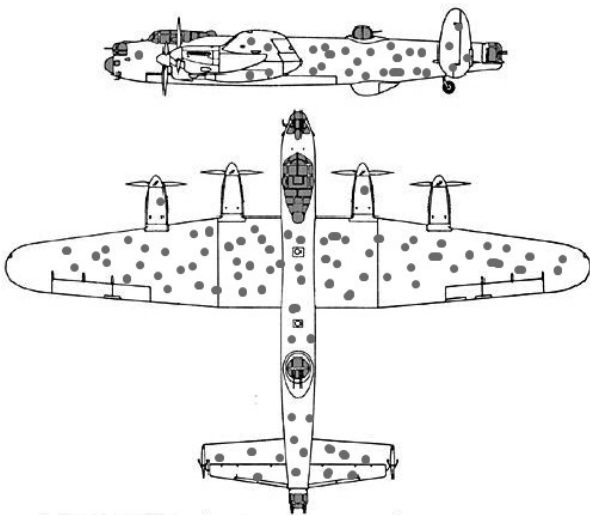
Interpreting the exception of nothing



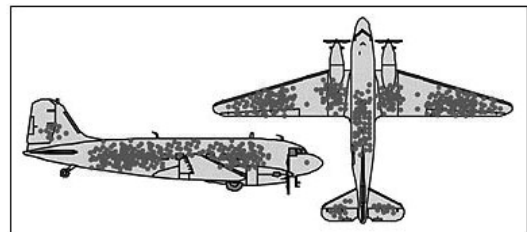
Ship map, by Kiln <https://www.shipmap.org/>

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Interpreting the exception of nothing



“What you really want to do is armor up the areas that don’t have any bullet holes. Why? Because planes with bullet holes in those places never made it back. That’s why you don’t see any bullet holes on the ones that do return.”

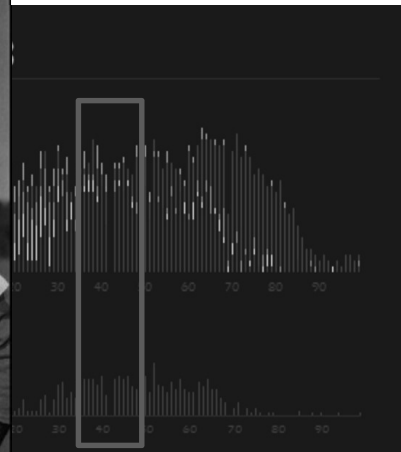
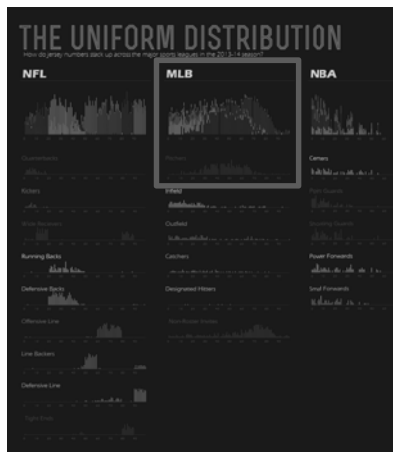


Credit: Cameron Moll

Images from <https://mauriceabarry.wordpress.com/2014/11/19/the-armor-goes-in-unexpected-places/>
& <http://www.motherjones.com/kevin-drum/2010/09/counterintuitive-world/>

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Interpreting the exception of nothing



The Uniform Distribution, by Darkhorse Analytics <http://darkhorseanalytics.com/blog/the-uniform-distribution/>

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Invisibility of interpreting: Thinking critically

Is It True That Only Six People Died In The Great Fire?

BY NICK YOUNG
LAST EDITED 11 MONTHS AGO

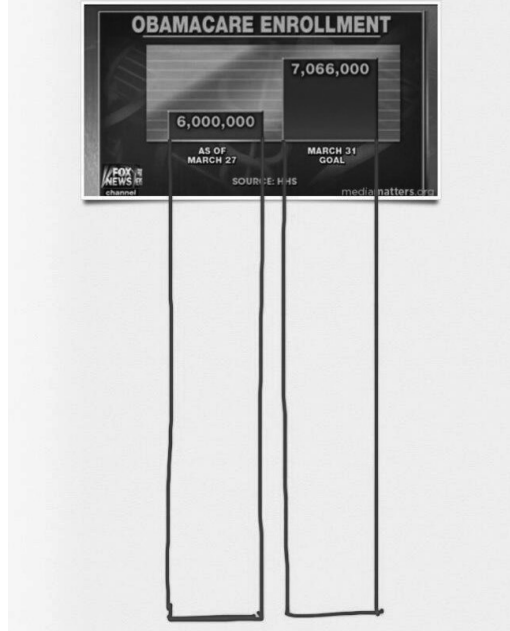
For a fire that destroyed some four-fifths of London — including 89 churches, four of the City's seven gates, around 13,200 houses and St Paul's Cathedral — one remarkable aspect of the Great Fire of 1666 is the death toll.

According to the official records, just six people died in the disaster. "Merciless to the wealth and estates of the citizens, it was harmless to their lives," according to the inscription on the Monument.

<https://londonist.com/2016/08/is-it-true-that-only-six-people-died-in-the-great-fire>

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Invisibility of interpreting: Thinking critically



<https://twitter.com/andreainsunza/status/450806179862548480/photo/1>

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Invisibility of interpreting: Thinking critically



Images taken from <http://www.theguardian.com/football/blog/2014/jul/05/diego-maradona-belgium-famous-photo>

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Invisibility of interpreting: Thinking critically



Photo from <https://twitter.com/RobRLFC/status/1018535695957323776>

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Invisibility of interpreting: Thinking critically



Photos from <https://twitter.com/mikofLohr/status/1071867429205229570>

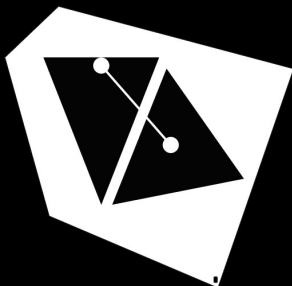
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There is always something in nothing.

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The Design of Nothing

by Andy Kirk



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[@visualisingdata](https://twitter.com/visualisingdata)

