The Design of Nothing
by Andy Kirk

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What IS NOT happening assists what IS

Images from http://www.musicstack.com/records-cds/andy-kirk
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?

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Statistics **describe** data

Visualisation **shows** data

But how do you show **nothing**?
The challenge of showing ‘nothingness’

The challenge of showing ‘nothingness’

No data

Background

No target

No briefing

Not yet happened

No briefing (holiday)

No data
ZERO

No quantity: Something to represent nothing
Visualising the ‘show about nothing’

Nothing
3 years ago  More
LJ Freeza  Follow

Every shot from “Seinfeld” (1998–1998) 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://video.com/8807122

Visualising the nothingness of zero (no appearance/interaction)
“Zero is in the mind, but not in the sensory world”

Robert Kaplan
Harvard math professor

Visualising the nothingness of zero (no appearance)

'Avengers' characters' appearances over time

Not appearing

Not yet appeared

No longer appearing?

How the 'Avengers' Line-up Has Changed Over the Years, by Jon Keegan http://graphics.wsj.com/avengers-team/
Interpretations of zero often formed by knowledge

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

Visualising the nothingness of zero (no people)
Visualising the nothingness of zero (no recorded disease)

![Map of Africa showing the elimination of polio](http://www.voa.gov/content/nigeria-polio-cases-drop-58-percent/1776009.html)

**1988**
- Have never eliminated Polio
- Have eliminated Polio

**2012**
As of May 3, 2012

Source: Centers for Disease Control and Prevention

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Visualising the nothingness of zero (no species)


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Visualising the nothingness of zero (no races)

Each line is Phelps’s time in a single race.

Phelps retired during 2013, and
was suspended for a D.U.I. for much of 2015.

Faster times

Slower times
Swimmers often swim slower when training for important events.

Phelps could do no wrong at the Beijing Olympics: he won gold in all of his events.

He is training for Rio with a regimen similar to the one that helped him dominate in Beijing.


Visualising the nothingness of zero (no interactions)

Interactions: Each line represents one person. The lines connect with people above and below based on the relationship between individuals. The lines change in thickness based on the intensity of the relationship.

Groups: Names interact with people above and below based on the intensity of the relationship. Thicker lines between groups indicate a stronger relationship.

RFID Tags Track Possible Outbreak Pathways in the Hospital, by Jan Willem Tulo
Visualising the nothingness of zero (no related values)

Wards with more graduates had lower Leave vote

[Graph showing relationship between proportion of ward with degree or equivalent qualification and Leave vote]

Proportion of ward with degree or equivalent qualification

Higher leave vote, fewer graduates
Higher leave vote, more graduates

Lower leave vote, fewer graduates
Lower leave vote, more graduates

Visualisation by BBC [link]

Visualising the nothingness of zero (no action)

[Calendar showing congressional action or inaction]

Congressional actions

How Congress Has Dithered as the Innocent Get Shot, by the New York Times
[Link to article]

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Visualising the nothingness of zero (no winner)


Image from https://mobile.twitter.com/jonpor/status/893947328154861024
NULL

No value: When nothing means something

There’s usually a story behind missing data/information

Object 1 Possibly Associated With MH370 Search
Indian Ocean COORDS: 43:58:348 098:57:37E

Image from http://www.bbc.co.uk/news/world-asia-26659951
“In the transcript, TIME have redacted everything that is not verifiably true. What remains is everything the president said that is definitely true.”
There’s usually a story behind missing data/information
There's usually a story behind missing data/information

Holiday chill?

“No data recorded between 1940 & 1946”

There's usually a story behind missing data/information
Data darkness: Deficiency to drive action

STATE OF THE POLAR BEAR
An exploration of current population, habitat and threat information for the world’s polar bears.

TREND:
- Increasing
- Stable
- Data Deficient

EXPLORE:
- Subpopulations
- Nations
- Ecoregions

21 population units of polar bears, called subpopulations, are recognized throughout the circumpolar Arctic by the IUCN (Prowse 2010).

Genetic studies have shown that polar bears from the various subpopulations are genetically similar (Prowse et al., 1999), and there is no evidence that any of the groups have been evolutionarily separated for a significant period of time. Consequently, the rate of genetic exchange is such that these “units” cannot be considered as real populations in an evolutionary sense.

“A statement to Russia to release the data”


Data darkness: Deficiency to drive action


© 2019 Visualising Data Ltd
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 Cilluffo and Alessandra Prenta, 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.

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

Data darkness: Deficiency to drive action

I remember.

I Remember, from http://i-remember.fr/en
Data darkness: Deficiency to drive action

[Image from http://yi-remember.fr/en]

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*

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Emptiness for narrative effect

Images from https://twitter.com/jacklang/status/486838897607384969

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Emptiness for narrative effect

10. The C.E.O.s Of Wall Street Sent to Jail

Images from https://twitter.com/albericoairo/status/104135151158157113

Emptiness for narrative effect

All commercial transport aircraft are fitted with underwater locator beacons to assist in the location 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 Hertz 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 777-500.

Ukrainian military Ilyushin-76
On June 14, pro-Russian rebels used a man-portable missile system to shoot down a Ukrainian military Ilyushin-76 aircraft carrying 49 soldiers and personnel in Luhansk as it attempted to land. Everyone on board was killed.

Buk-M2E missile platform
On July 17, a pro-Russian, rebel-controlled Buk-M2E missile launch platform fired a single SA-11 Gadfly missile at Malaysian Airlines Flight 17, according to U.S. officials.

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/
Emptiness for narrative effect

Forbes: The World’s 100 Highest-Paid Athletes

Male

Female

Emptiness exposes findings

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

Gender diversity on UK boards

FTSE 100*
Number of companies

FTSE 250*
Number of companies

London Stock Exchange

14 companies have a 25% female board,
the most common proportion.

Equality

No FTSE 100 company has a majority female board

Only three companies,
Royal Mail, Jupiter Fund Management
and Ascential, have at least an equal share
of women on their boards.

Seven FTSE 250 companies have all-male boards,
including EBF, Sports Direct and Diageo.

Source: Hampton-Alexander *Excludes investment trusts
FT graphics and analysis Patrick Harpur, Billy Sternberg-Bhannan.
© FT

Visualisation by the FT https://www.ft.com/content/66811ca9-57b1-11e7-9d63-6786f39f675

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.

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Where the Labor Market is Tightening

Dominated by increased demand 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.

Changes over the past year in payrolls (left) and average hourly earnings (right) seasonally adjusted

- Total private nonfarm payrolls
- Construction
- Professional and business services
- Restaurants and bars
- Education and health services
- Transportation, warehousing
- Utilities
- Retail trade
- Financial services
- Mining and logging
- Information
- Wholesale trade
- Other services
- Hotels and lodging
- Manufacturing

*Figures reflect one available through S F 2013 for these sectors.
Source: Bureau of Labor Statistics

The visual punctuation of emptiness

http://www.this-page-intentionally-left-blank.org/whythat.html
The visual punctuation of emptiness

Observed reality has no outline

"Follow the leaders" by Isaac Cordal

INVISIBLE
Not seen: Interpreting what isn’t visible
“For sale: Baby shoes. Never worn.”

E. Hemingway

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

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

E. Hemingway

“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

Ridley Scott’s Masterpiece ‘Alien’: Nothing is as Terrifying as the Fear of the Unknown

https://cinephilebeyond.org/ridley-scott-masterpiece-alien-nothing-terrifying-fear-unknown/

Invisibility of interpreting: Thinking beyond what you see

https://www.filffestivals.com/blog/oscar_the_academy_awards/last_existing_model_of_the_1975_jaws_shark_offered_to_the_academy_museum
Invisibility of interpreting: Thinking beyond what you see

Terrorism Deaths in the United States Remain Rare
Thousands of Americans died in the Sept. 11 attacks, and 170 in the Oklahoma City bombing. But there is no other year since 1970 when more than 50 Americans died from terrorism at home.

Source: Global Terrorism Database

Is Terrorism Getting Worse? In the West. Yes. In the World, No, by New York Times
Interpreting the exception of nothing

Kobe’s last shot:
April 13, 2016: Capping a 60-point performance, Kobe Bryant made the free throw in the final moments of the game.


Interpreting the exception of nothing

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.”

Interpreting the exception of nothing

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
Invisibility of interpreting: Thinking critically

https://twitter.com/andreamususa/status/450886127986254848/photo/1

Invisibility of interpreting: Thinking critically

Images taken from http://www.theguardian.com/football/blog/2014/jul/03/diego-maradona-belgium-famous-photo
Invisibility of interpreting: Thinking critically

Photo from https://twitter.com/RobRLC/status/1061053459532233776

Invisibility of interpreting: Thinking critically

Photos from https://twitter.com/mikoflone/status/1071807429285227378
There is always something in nothing.

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