



Doing the Data Right:

10 ways Business Analysis can help!

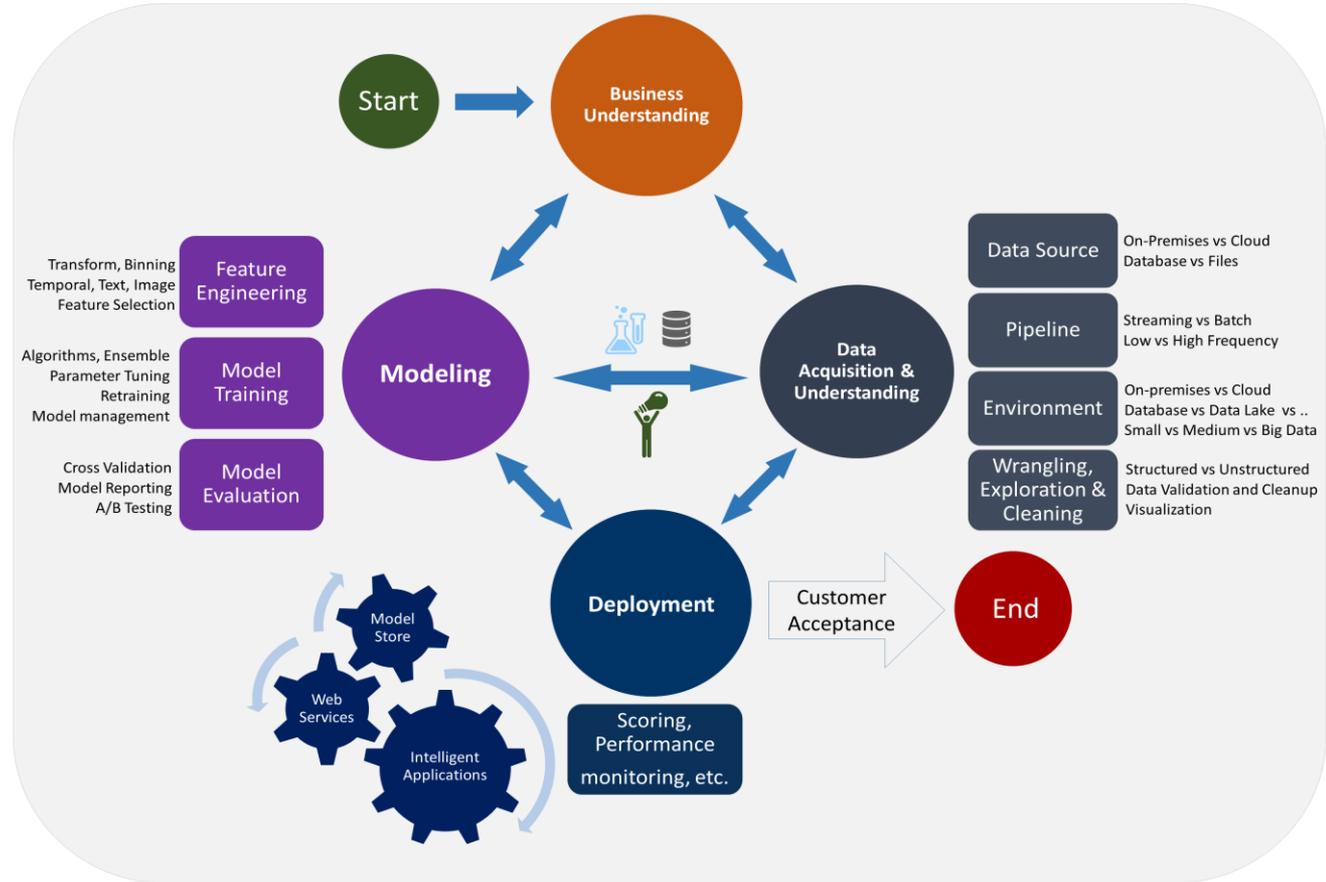


Data is the new oil.....

Data is the new oil that fuels digital to provide
better customer experience

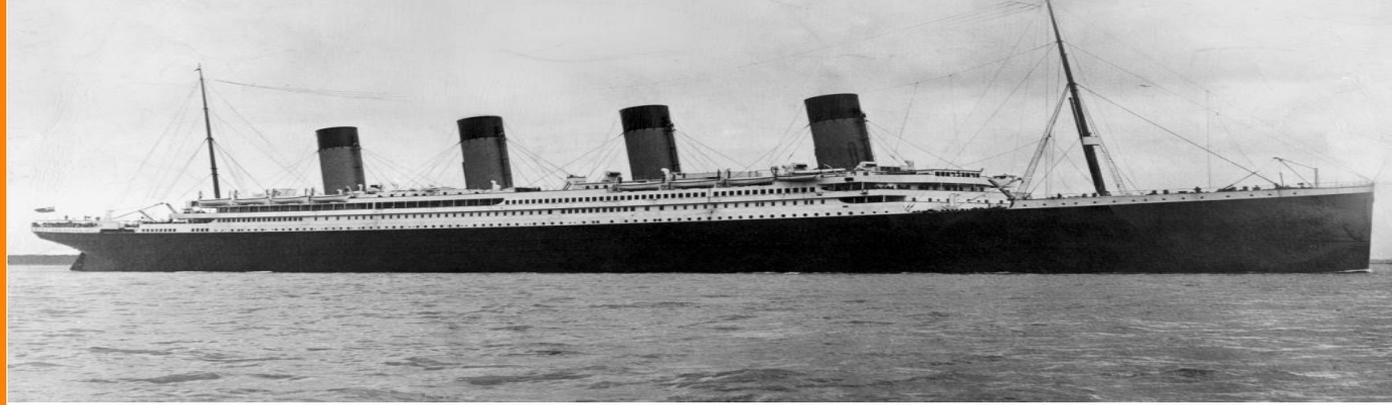
Discovering Insights from Data

Data Science Lifecycle



Source: Microsoft TDSP Lifecycle

Business Analysis to rescue



The sinking of the RMS Titanic is one of the most infamous shipwrecks in history. On April 15, 1912, during her maiden voyage, the Titanic sank after colliding with an iceberg, killing 1502 out of 2224 passengers and crew.

***Given you know something about the passengers,
predict who will survive the shipwreck ?***

Finding the Obvious

Variable Definition	Key
Survival	0 = No, 1 = Yes
Ticket class	1 = 1st, 2 = 2nd, 3 = 3rd
Sex	
Age in years	
# of siblings / spouses aboard the Titanic	
# of parents / children aboard the Titanic	
Ticket number	
Passenger fare	
Cabin number	
Port of Embarkation	C = Cherbourg, Q = Queenstown, S = Southampton

A female passenger travelling first class has a 97%
chance of survival

1. Domain knowledge is the key

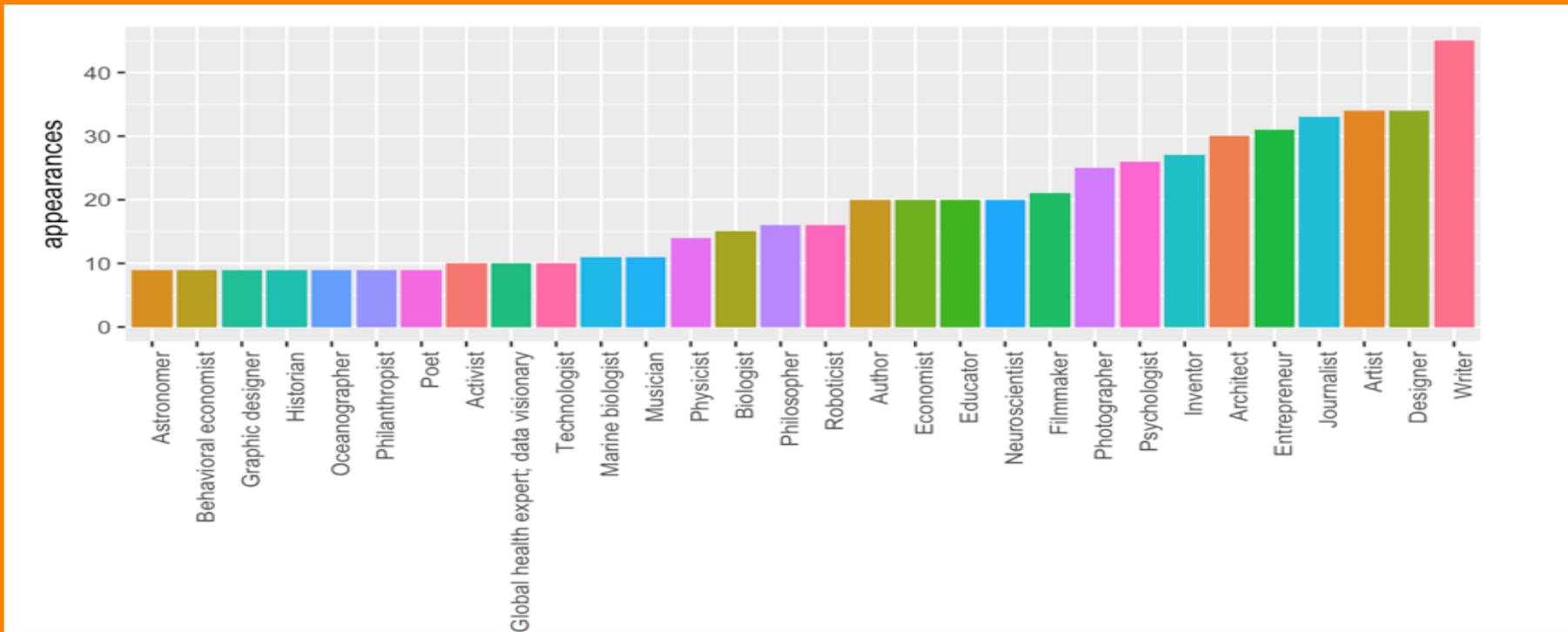
The right data



In search of that perfect talk we
naturally arrived at TED talks

What are the data points to look for ?

Features(Suggestion)
Description
Duration
Event
Published Date
Language
Speaker
Title
Speaker Occupation
.....
Views
Comments



2. Picking the right data for the use case

Why are there no mosquitos in Disney World ?



Disneyland, Florida is squarely in the middle of swamp country enjoys a relatively insect free environment, making the place safe for guests

Mosquito Surveillance Program

- *Traps*
- *Sentinel Chickens*

And a whole lot of analytics

BA's are much closer to a business problem and are in a unique space to think about the right use cases for utilizing data

3. Problem analysis is what we do best

Where is the
Data coming
from ?

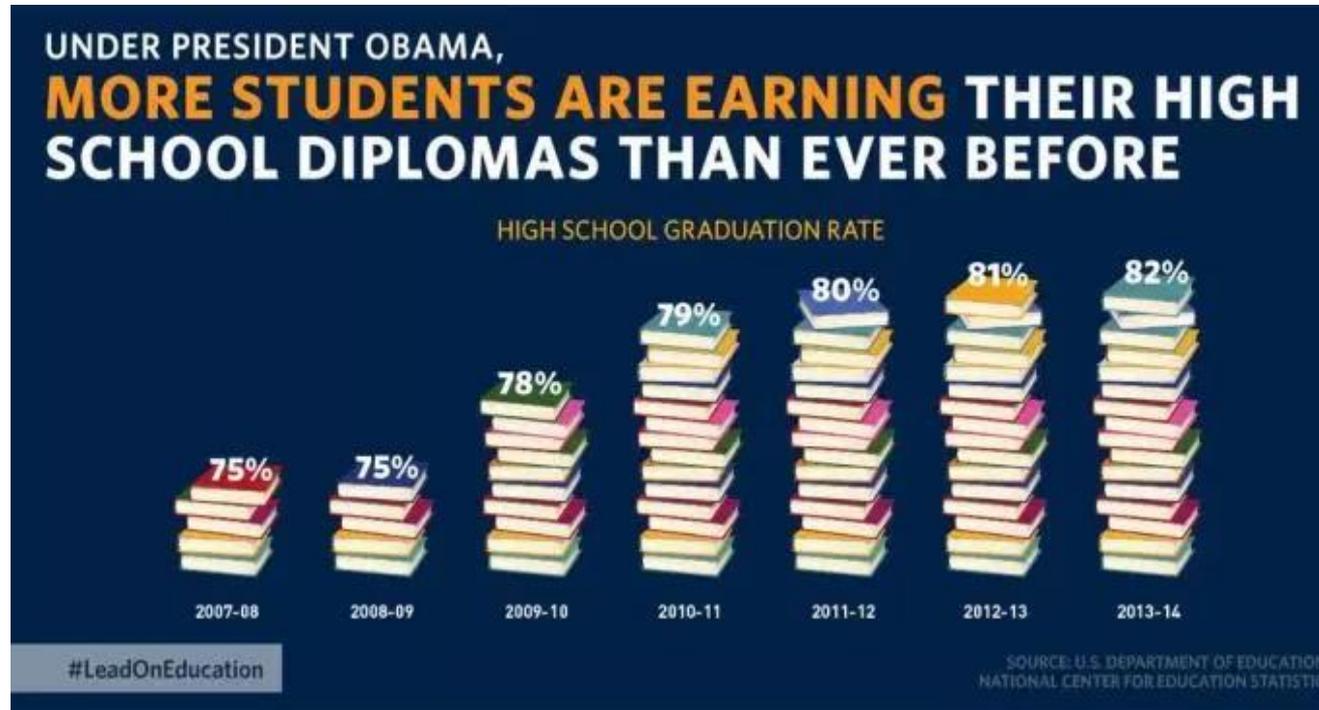


The technology has moved on to Digital but
the data is still brick and mortar

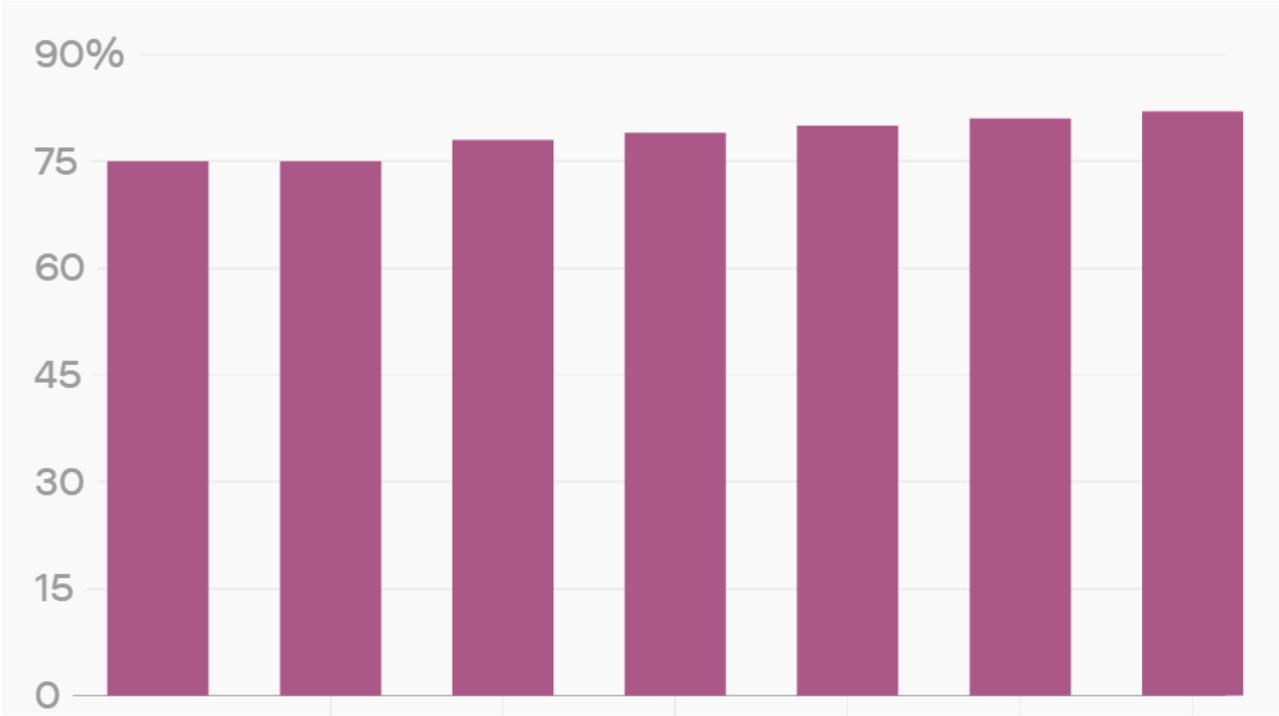
Eliciting the right kind of data from the right sources
requires precise analysis

4. Understanding where the
business and the customer data
resides

Alternate Facts!



The right one

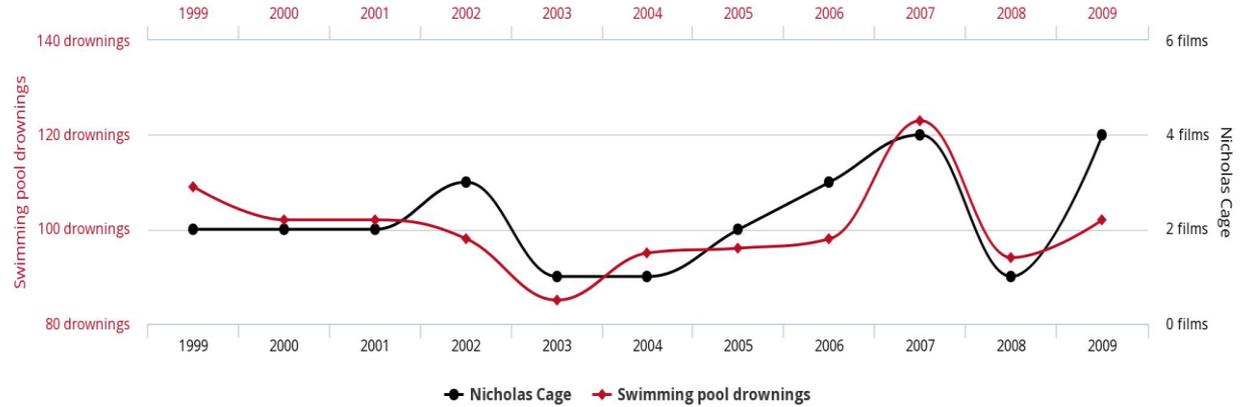


The right visual simplifies a complicated notion, but....

5. Pick the right visual that tells the
right story

Statistics and lies

Number of people who drowned by falling into a pool
correlates with
Films Nicolas Cage appeared in



tylervigen.com

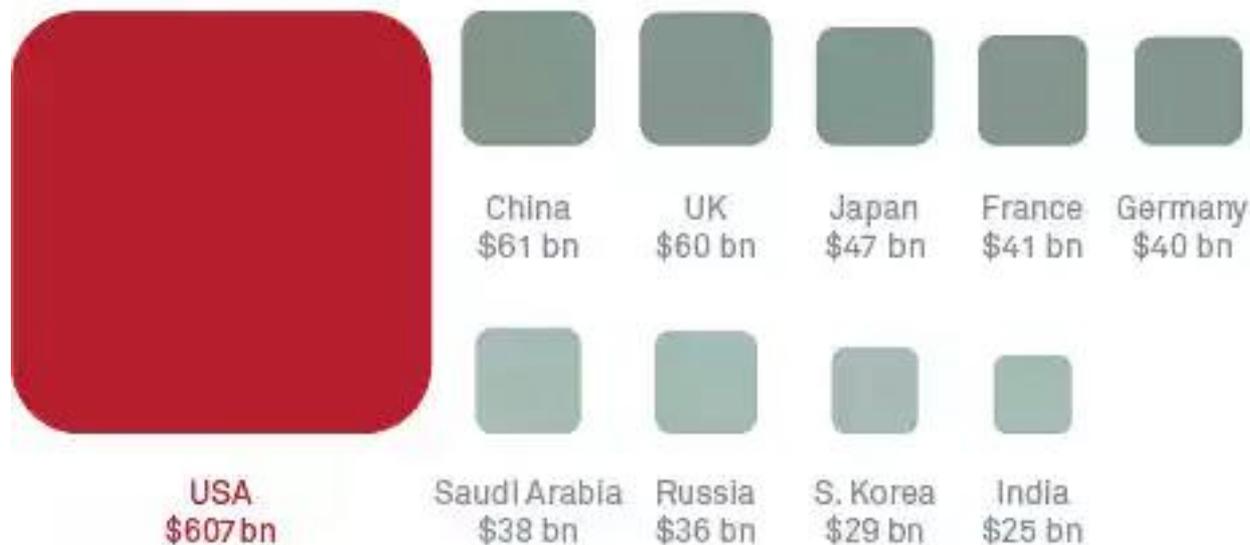
Correlation is never same as causation

6. Humans are still smarter.

The key message

War Chests

Who has the biggest military budget per year?



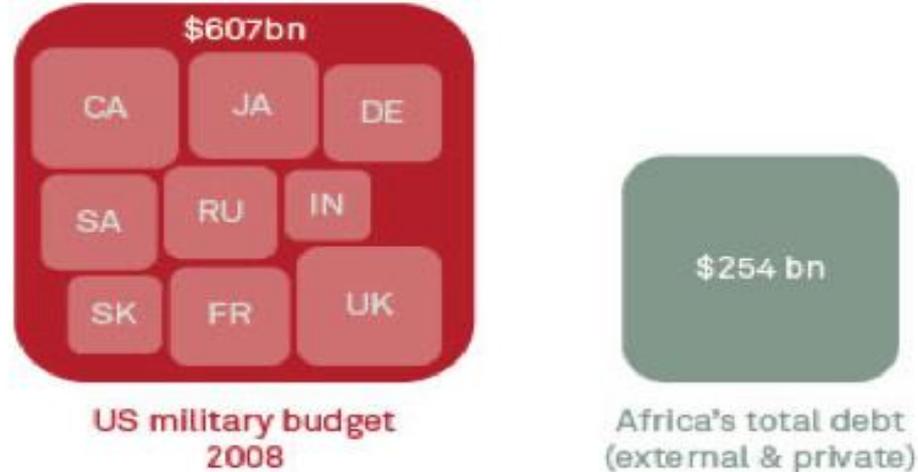
InformationIsBeautiful.net

source: Guardian Datablog, milexdata.sipri.org 2008

US
outspends
most
countries
combined

The US Military Budget

In context



InformationIsBeautiful.net

Per year source: UN, Datablog, m

Info is beautiful: the US military budget. Graphic: David McCandless

Perhaps they
need to

Big Spenders II

Yearly military budget as % of GDP



Data gives different stories with changing context

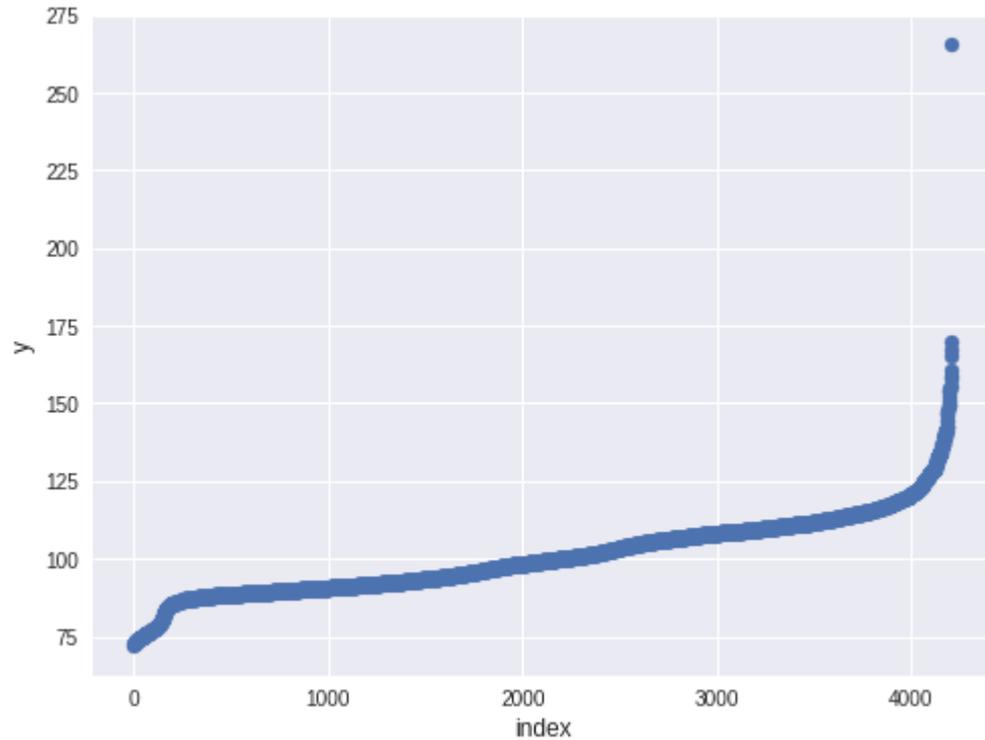
7. Choose the right metric for the message

Outliers



Daimler's Mercedes-Benz cars are leaders in the premium car industry. To ensure the safety and reliability of each and every unique car configuration before they hit the road, Daimler's engineers have developed a robust testing system.

There is
always one



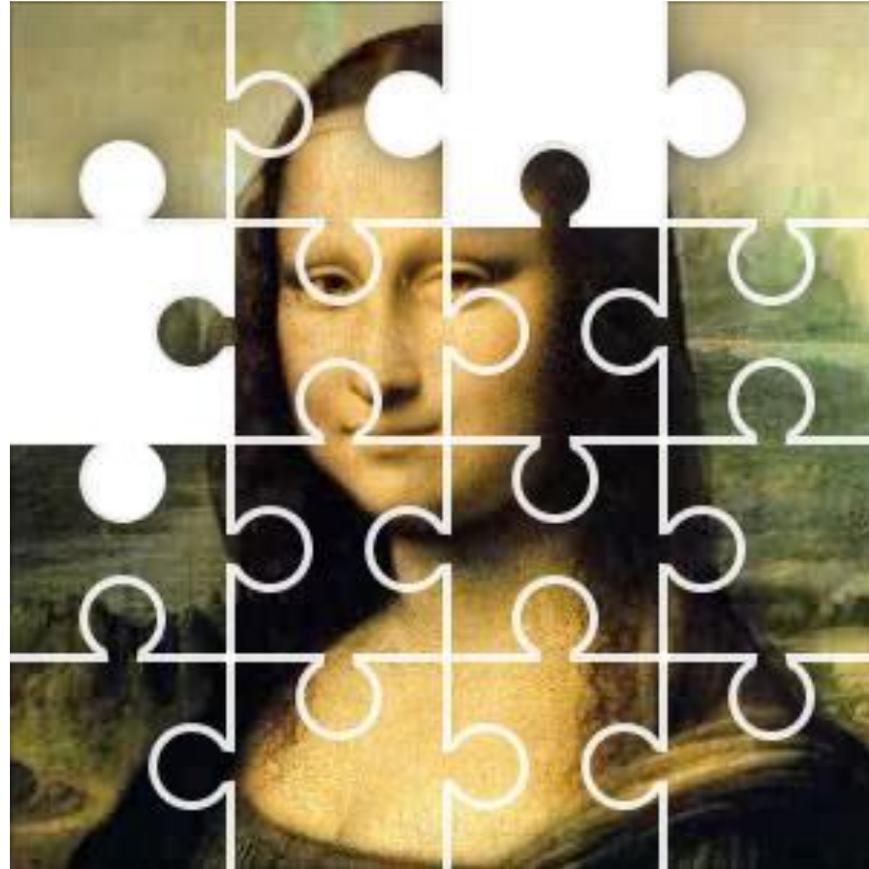
X – Identifier of particular car

Y – Time it takes to pass the test in some unit of time

Outlier challenges the notion of patterns, true discovery takes place by looking at the ones that do not confirm

8. Outlier are the interesting ones

When a
bunch of data
is missing



Decision to drop or impute data makes a difference to the result.

9. Develop a strategy for missing data

What are those geeks up to ?

We are exploring this new model since it had the best explanatory power in terms of R squared, adjusted R squared, p value and F-statistic, although it had only marginal improvements over the last model

10. Communicate & translate for the business to understand

Thank You !

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