

Looking for Failure to Generate Success

Big Data and the Missing Pieces

Paul Edelblut

Vantage Labs



VANTAGE



MCCANN ASSOCIATES

An Innovative Leader in Assessment, Certification, Learning Management, and Business Intelligence Solutions.
We Transform Organizations and Decision Making.

and Decision Making
We Transform Organizations



VANTAGE LEARNING

Creating sophisticated knowledge solutions for K-12 using award-winning AI and linguistic tools, providing immediate feedback to enhance teaching and student learning

student learning



iseek.ai

Cognitive computing platform using natural language understanding and machine learning to solve Big Data



VANTAGE LINGUISTICS

The leading provider of software solutions based on linguistic technology that improves business productivity, efficiency and organizational performance

organizational performance

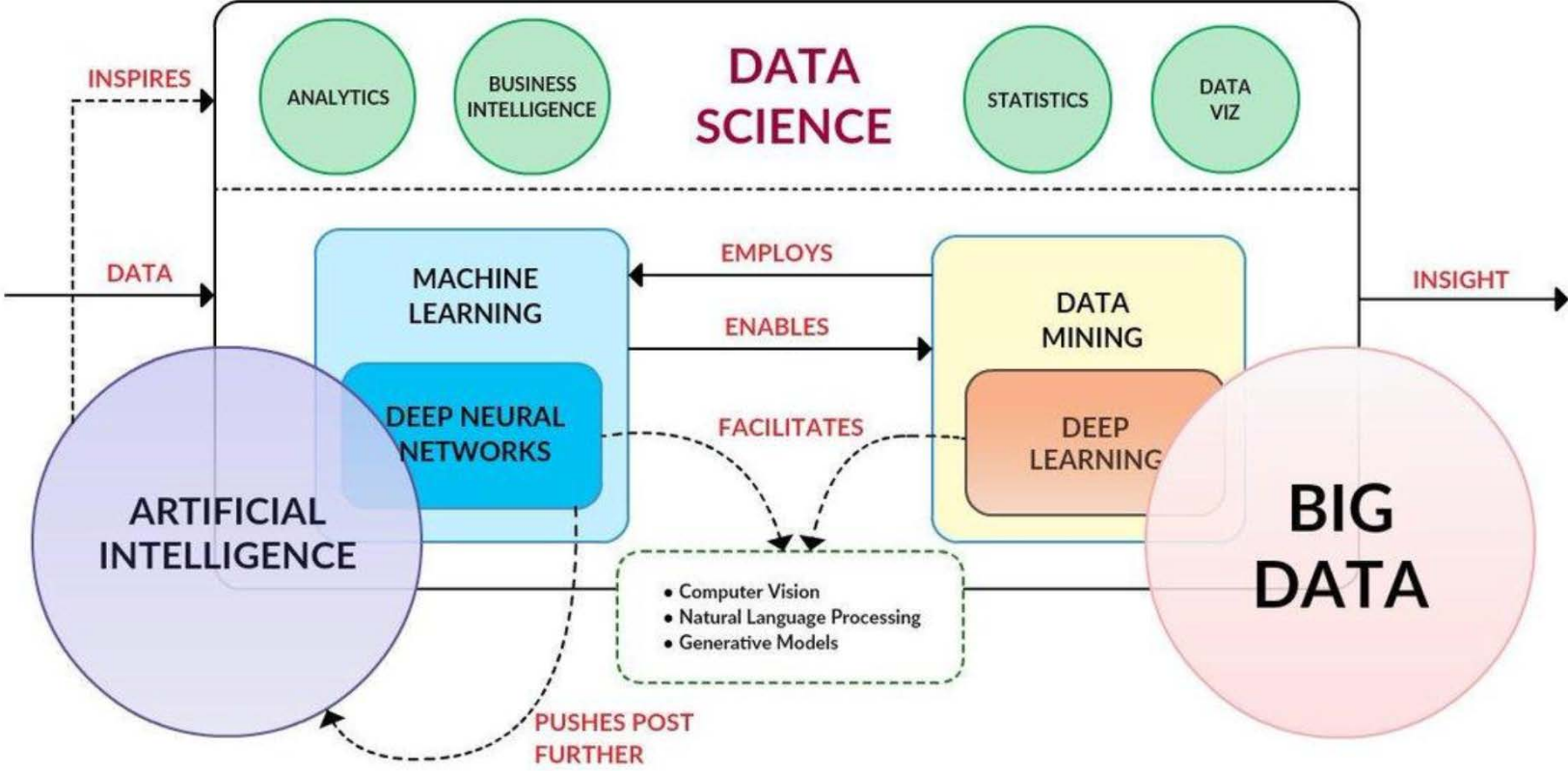


VANTAGE COMMUNICATIONS

International leader in converged IP telephony communications solutions that deliver powerful and cost effective productivity gains to the desktop

the desktop

The Landscape

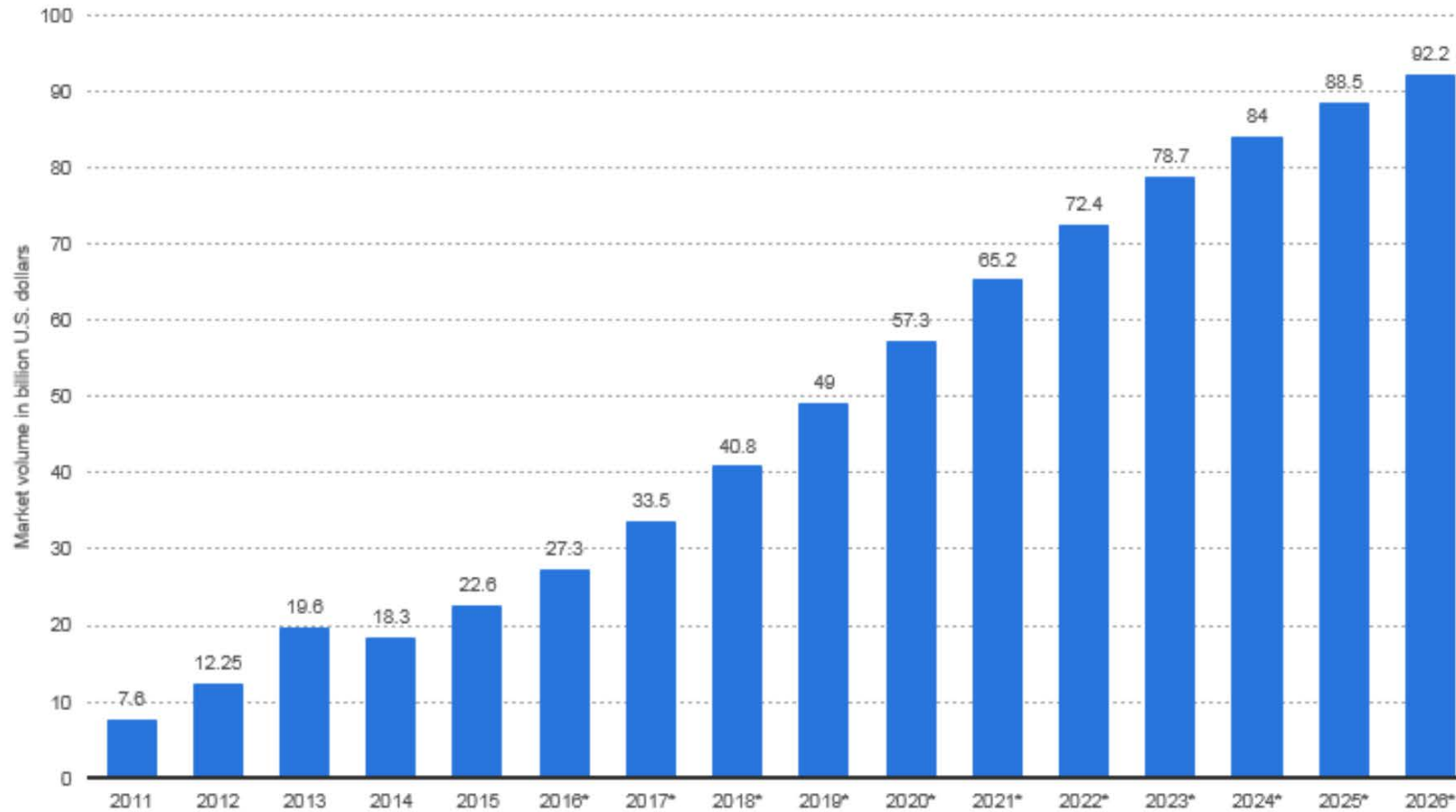


We are teens all over again

- 2016—Big Data Failure Rates ~60%--Gartner
- 2017—Oops, actually, Big Data Failure Rates ~85%--Gartner
- Everyone is still learning

***Big Data is like teenage sex;
everyone talks about it,
nobody really knows how to do it,
everyone thinks everyone else is doing it,
So everyone claims they are doing it.
--Dan Ariely, Duke University***

Big data market size revenue forecast worldwide from 2011 to 2026 (in billion U.S. dollars)



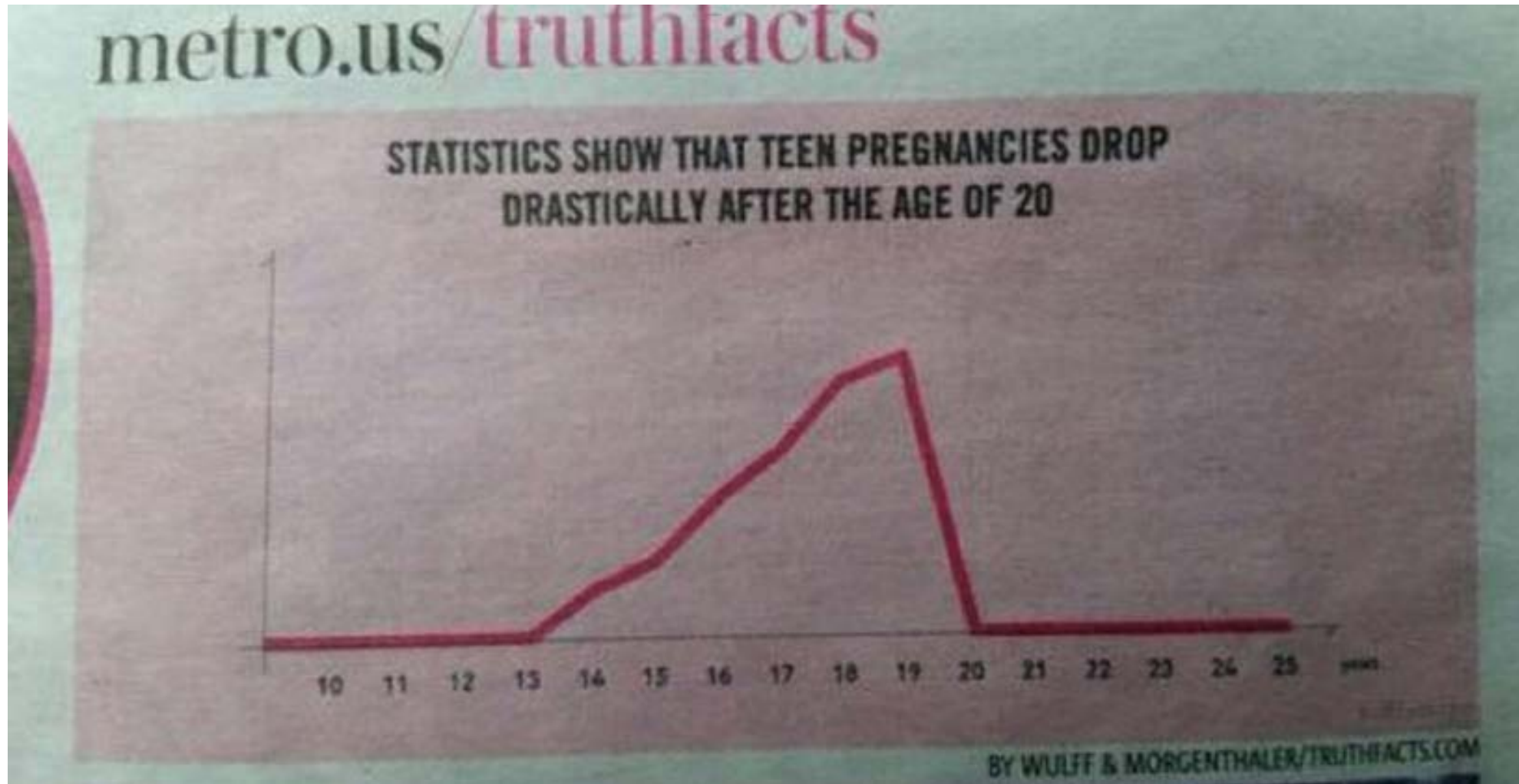
source statista via @mikequindazzi

Note: Worldwide; 2014 to 2016

Further information regarding this statistic can be found on [page 100](#).

Source: Wikibon; [ID 254266](#)

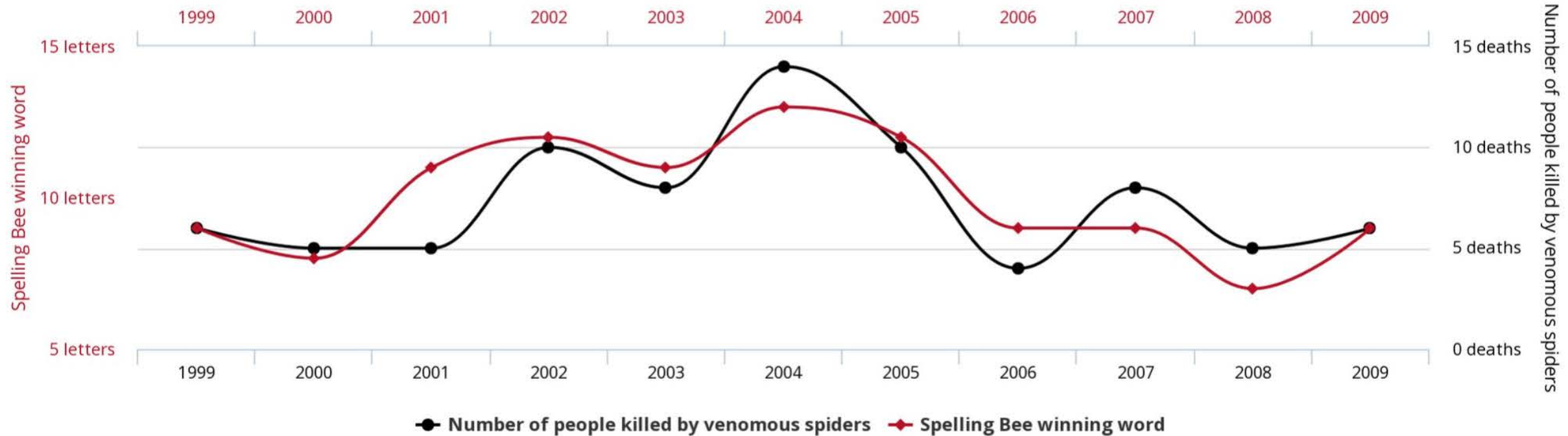
There are Lies, Damn Lies and Big Data Lies



If you look long enough...

Letters in Winning Word of Scripps National Spelling Bee correlates with

Number of people killed by venomous spiders



So, what is the problem?

- Technology
- Data Hygiene
- Data Governance
- People

What if.....

Fox built an algorithm for hiring

- based on the last 20 years of hiring data (fair)
- weighted in favor of those who stayed a minimum of 4 years (fair)
- weighted in favor of those who were promoted at least once (fair)



Uh Oh!

- 50% of the population would largely be filtered out
- At Fox, women traditionally didn't meet the definitions of success as noted above
- Big Data doesn't automatically bring equity and yet it is built on data! Data may not lie but it can be wrong.
- Big Data can accelerate bad decisions!



US Military Failure



Good Pilots

Better
Planes

Worse
Results

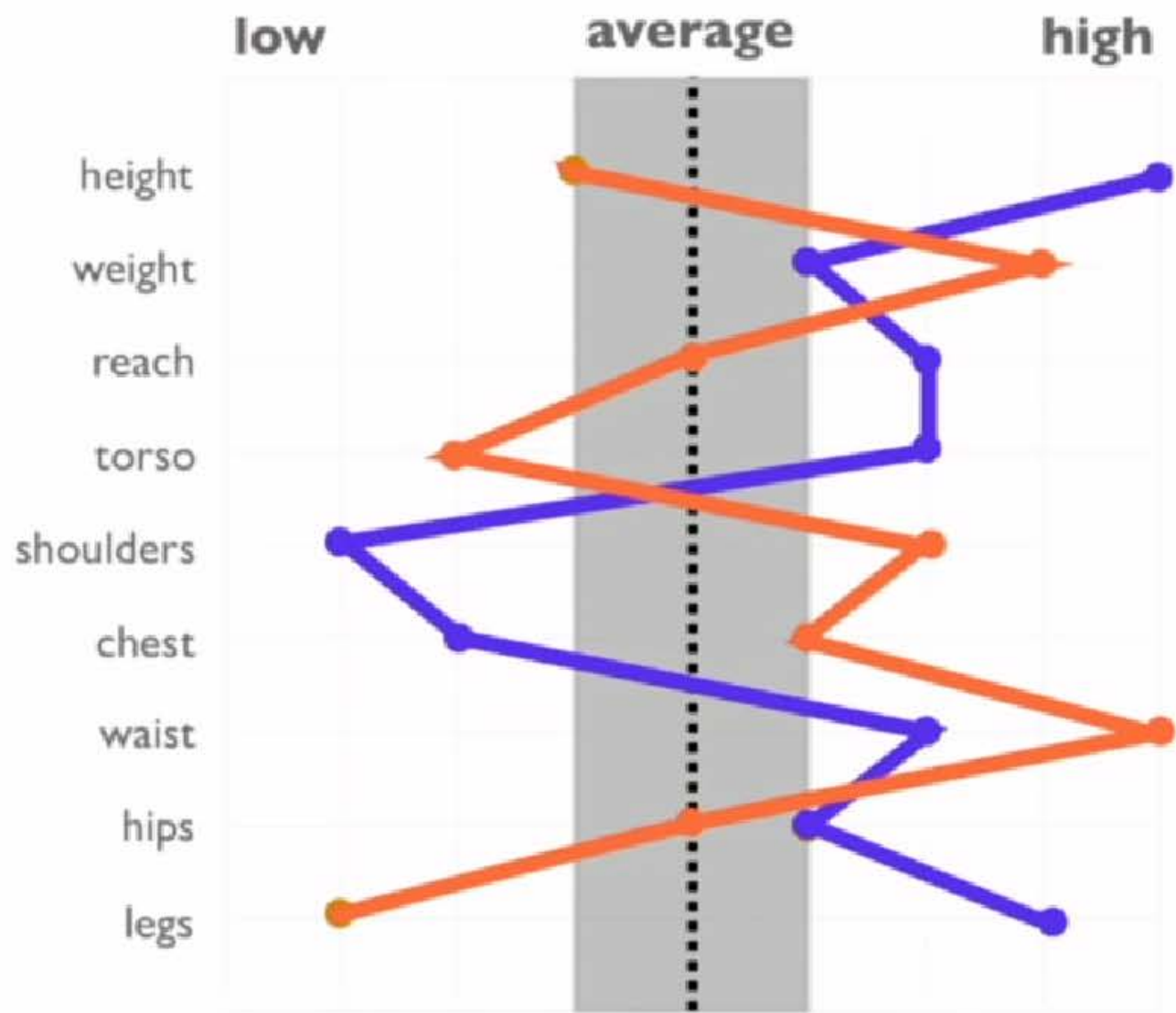
Blame the
Pilots

Blame the
Technology
(planes)

Blame the
Flight
Instructors



height
shoulders
chest
waist
hips
legs
reach
torso
neck
thigh



memory

language

knowledge

reading

vocabulary

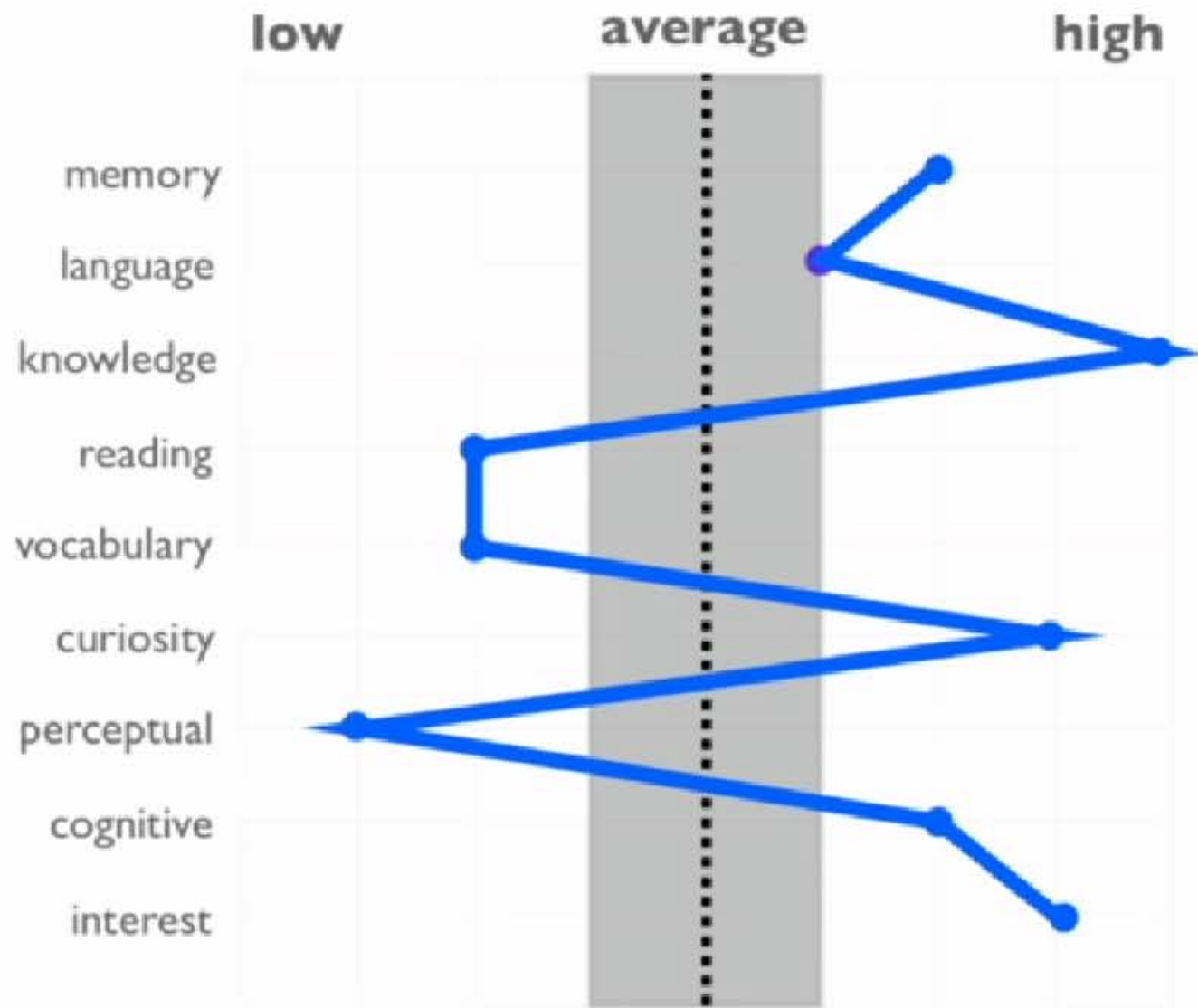
curiosity

perceptual

cognitive

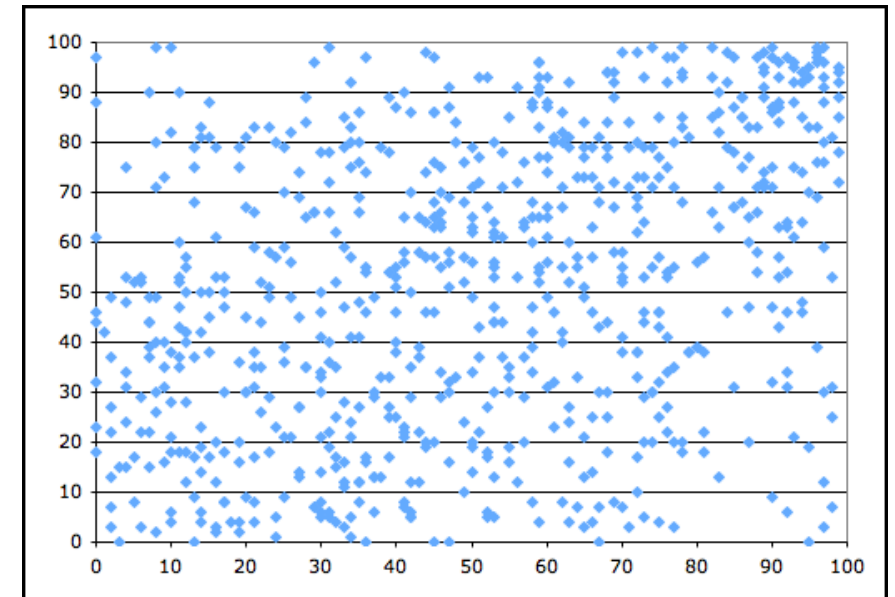
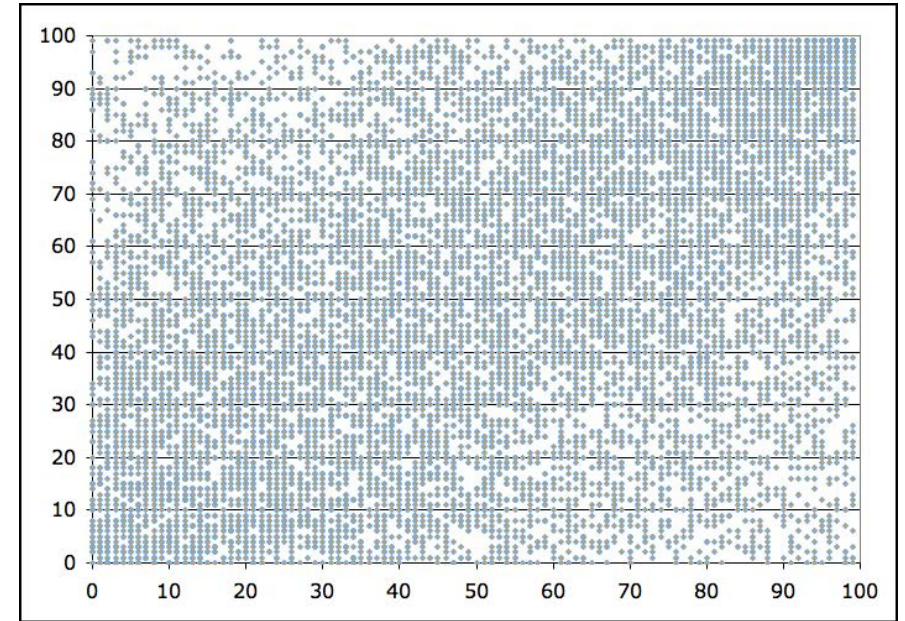
interest





New York City DOE-Fail

- Value Added Measure of 18,000 teachers
- Much like AI, the algorithm was never released
- The Data still tells a story
 - Scores produced for each T but against no scale or standard
 - Fig 1- 13K Ts 08-09 vs 09-10 with no discernable pattern—data hygiene
 - Fig 2- 707 Ts who had 1st and 2nd yr data—eye test

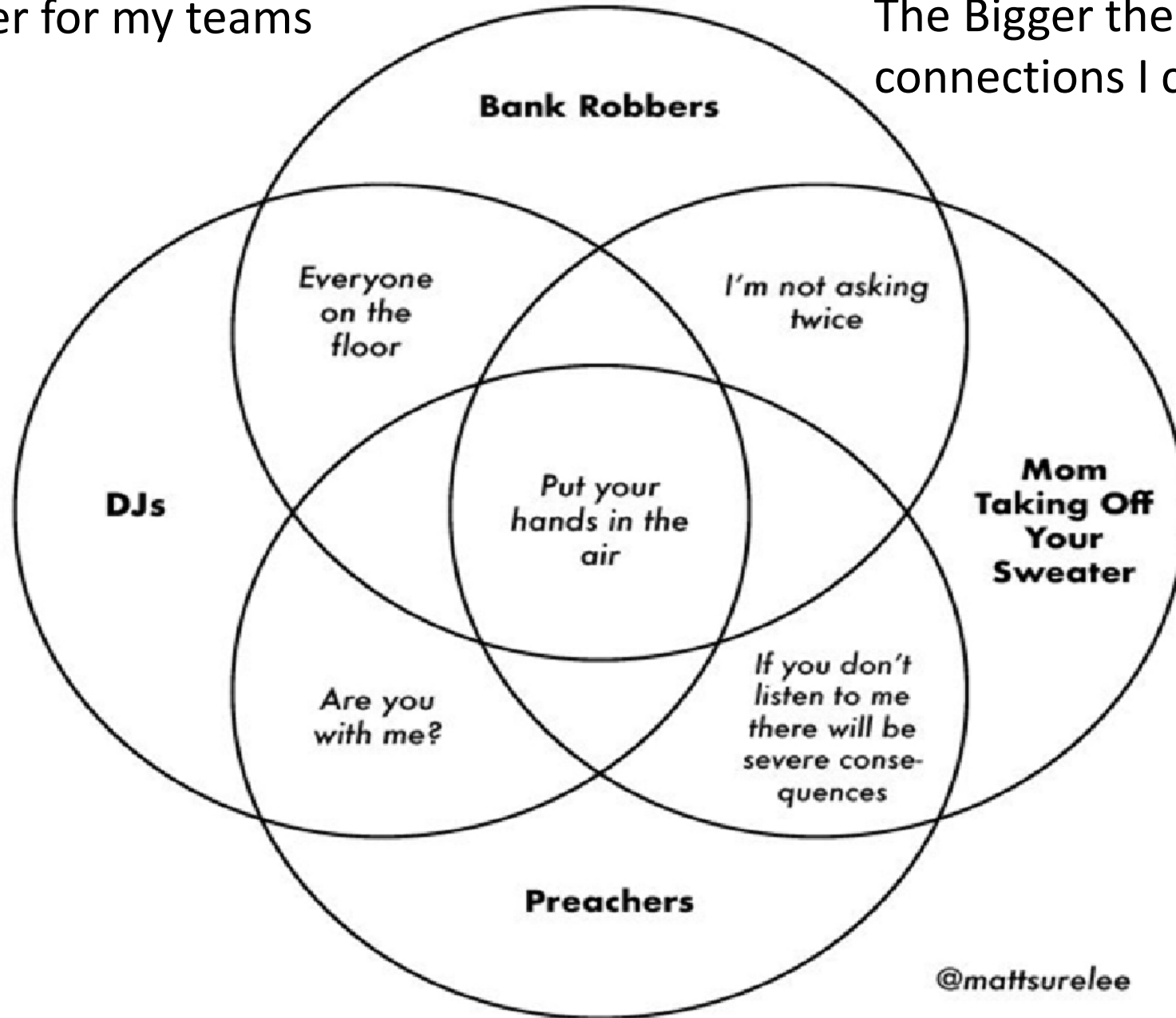


Big Data in Hiring

- Embrace the learning that comes from failures, don't just follow the success, a real culture shift on this
- Flip the model, let the machines work then ask the research questions
- Flip the model, does data predict success in the job or it can predict the need to change the job
- Add distinct and un-expected data source(s)
- Always do the eye test
- Essential entire organization of open to the transparency this brings
- Start SMALL but commit BIG
- Design to the edges, not the middle, for diversity

A simple reminder for my teams

The Bigger the Data the more connections I can make



@mattsurelee

Thank You!

Paul Edelblut

pedelblut@vantage.com

267-756-1159

Twitter: PaulEdelblut