



GETTING FROM DATA TO INFORMATION

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PhUSE 2018

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AGENDA

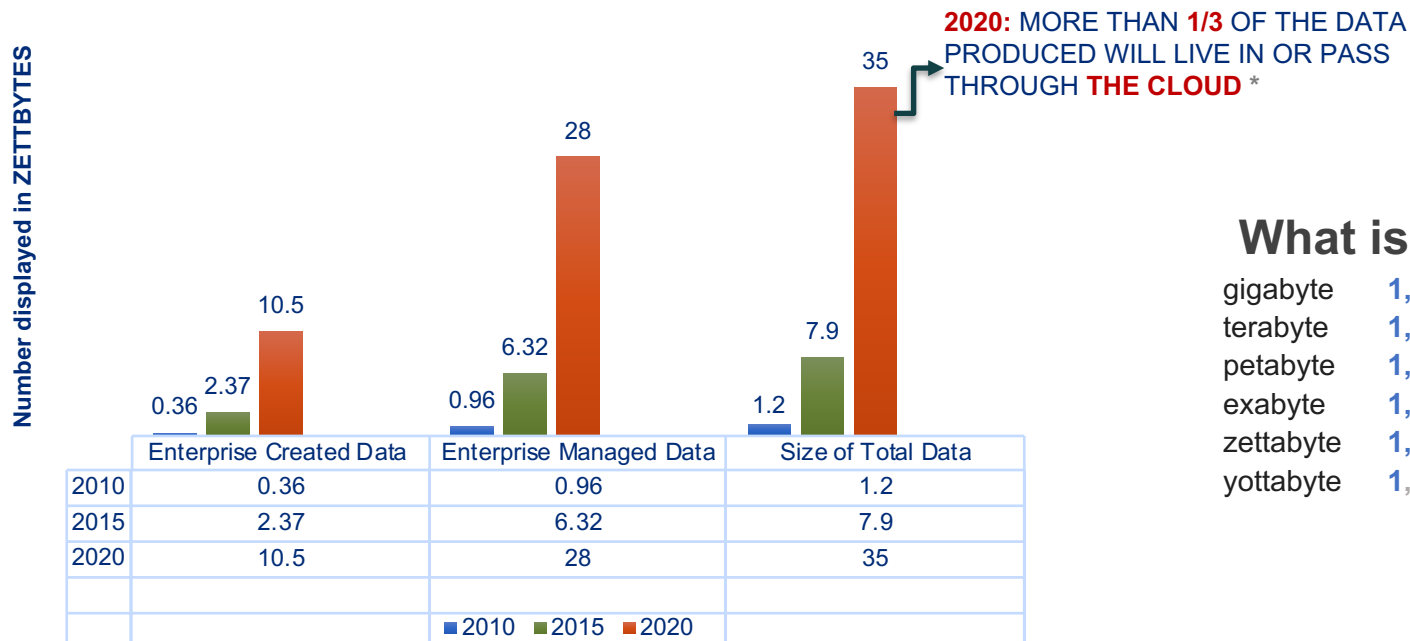
CONVERTING HIGH VOLUME DATA CHALLENGE TO RELEVANT CLINICAL DATA INSIGHT

- High Volume Data
- The View
- What is Analytics ?
- Key Component
- Progression
- Unique Patient Identifier
- Insights

DIGITAL GROWTH CREATED BIG DATA

Data Production will be 44 times greater in 2020 than it was in 2009.

More than 70% of the digital universe is generated by individuals. But enterprises have responsibility for the storage, protection and management of 80% of it.



What is Bytes ???

gigabyte	1,000,000,000,000,000
terabyte	1,000,000,000,000,000
petabyte	1,000,000,000,000,000
exabyte	1,000,000,000,000,000
zettabyte	1,000,000,000,000,000
yottabyte	1,000,000,000,000,000

The production of data is expanding at an astonishing pace. Experts now point to a 4300% increase in annual data generation by 2020. Drivers include the switch from analog to digital technologies and the rapid increase in data generation by individuals and corporation alike.

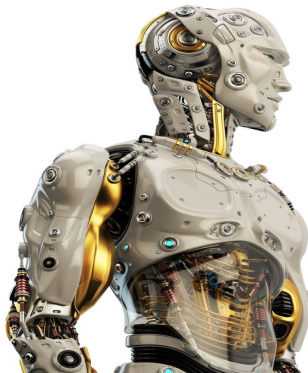
* Sources: practicalanalytics.files.wordpress.com 2012

TWO VIEWS

“Pop Culture” view

**Machine achieving
consciousness or
independent agency.**

**Replacing humans,
eliminating jobs.**



“Augmented Intelligence” view

**Solving the greatest challenges of
our time, unleashing the power of
data.**

**Build a world that is healthier, more
secure, less wasteful, more
productive, more personalized,
more sustainable.**



CONFUSION ON TERMINOLOGY !



Advance
Analytics



Big Data



Data Mining



Business
Intelligence

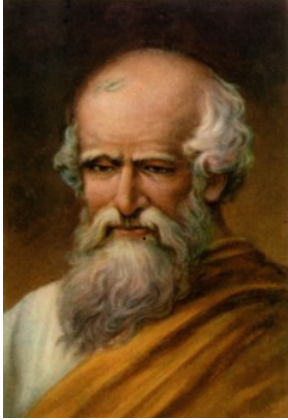


Machine
Learning



Artificial
Intelligence

ATTEMPT TO DEFINE “ANALYTICS” !

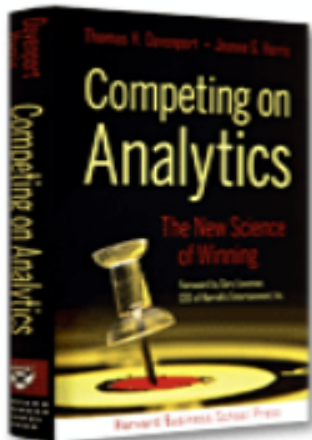


“As Archimedes taught us, creativity is not just while thinking. It is the ability to realize new relationships among variables through a systematic process of analysis.”

“The application of computer technology, operations research and statistics to solve problems in business and industry analytics is carried out within an information system.”

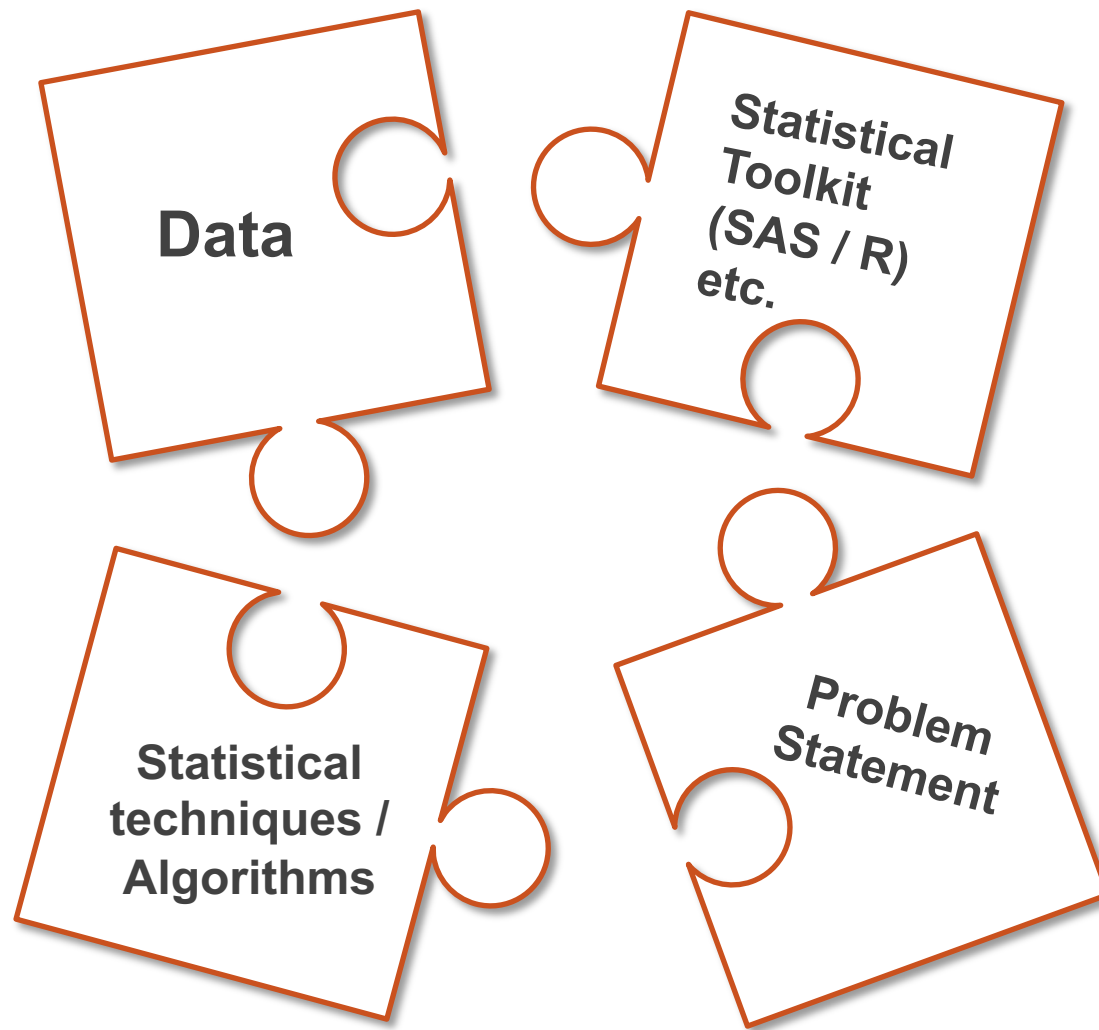


WIKIPEDIA
The Free Encyclopedia

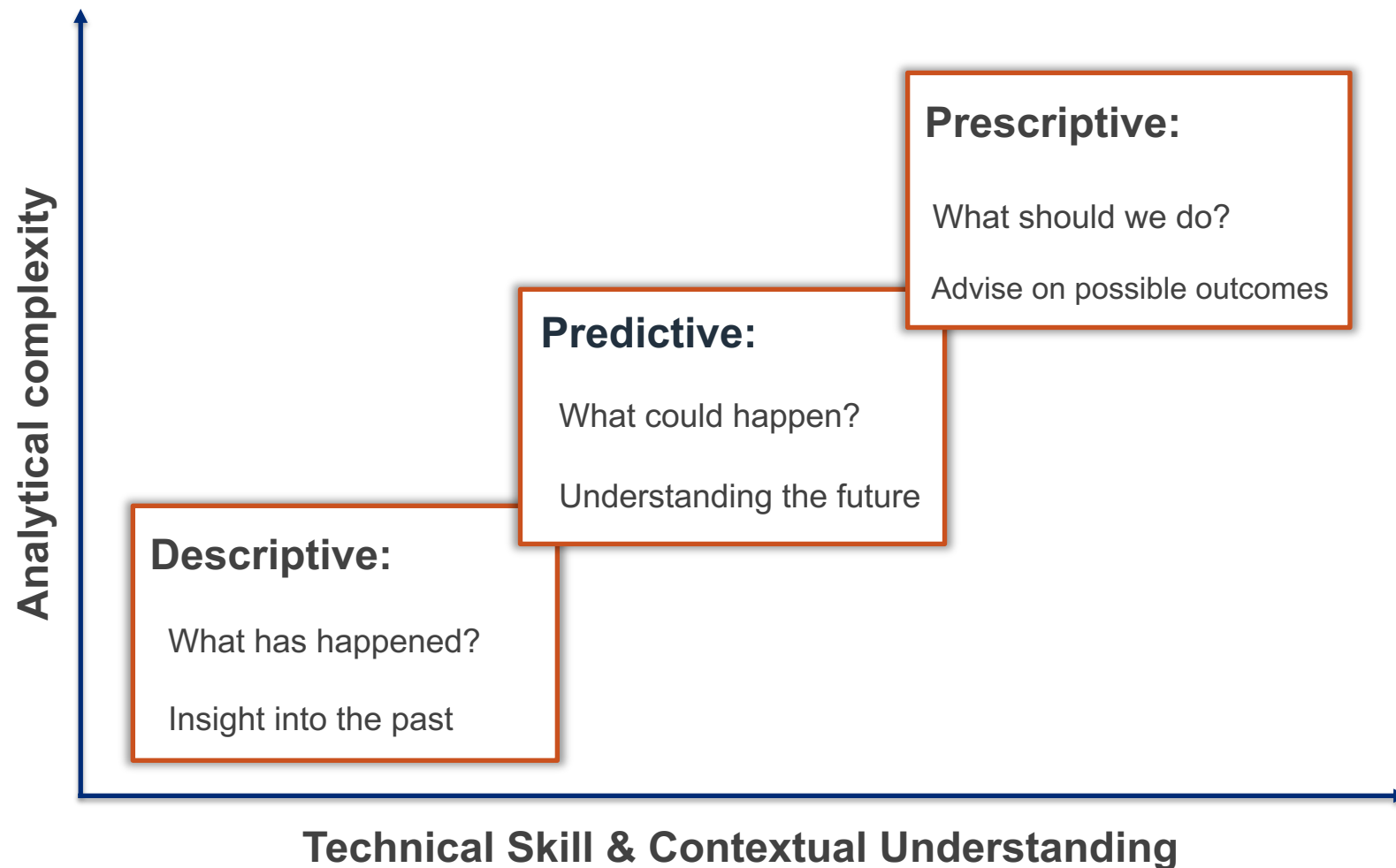


“The extensive use of data statistical and quantitative analysis, explanatory and predictive models and fact based management to drive decisions and actions.”

KEY COMPONENT !



ANALYTICAL PROGRESSION !



**“The Key is to bring together the data from many different sources
into one integrated data mart.”**

- The CIO of a U.S. – Headquartered pharmaceutical firm

UNIQUE PATIENT IDENTIFIER

Aadhaar is the world's largest biometric ID system by the Unique Identification Authority of India (UIDAI).



World Bank Chief Economist described Aadhaar as “the most sophisticated ID programme in the world.”



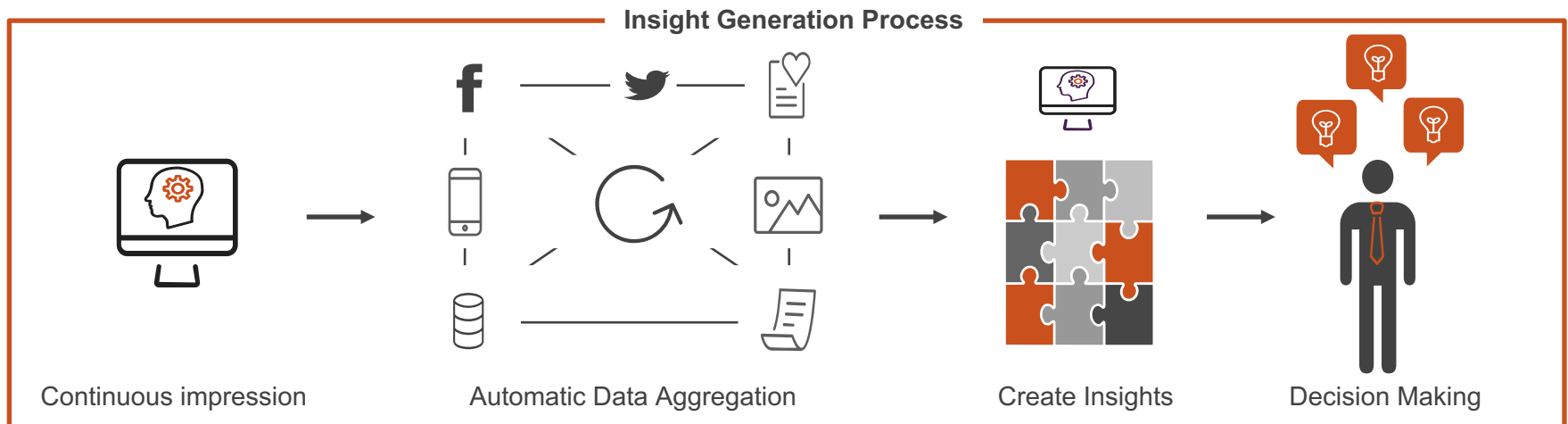
Every patient is unique

The 1996 Health Insurance Portability and Accountability Act (HIPAA) called for the creation of “a standard unique health identifier for each individual.”

Unique medical IDs are not a new idea. Over 30 countries, including Singapore and Australia, use similar health ID programs.

REIMAGINE HOW DATA IS USED

From Data to Insights to Decision-Making



USE INSIGHTS

- 1. Manages chronic disease(s):** Monitor blood sugar, track calorie intake and activity.
- 2. Makes every day easier:** Pay medical bills, find a medical practitioner nearby/schedule appointment, understand health care benefits, refill prescription and monitor health in real time.
- 3. Improves health IQ:** Relevant health/fitness tips and provide personalized recommendations and insights.
- 4. Provides care anywhere and play the role of information agent:** Medical advice and data based circumstances

THANK YOU