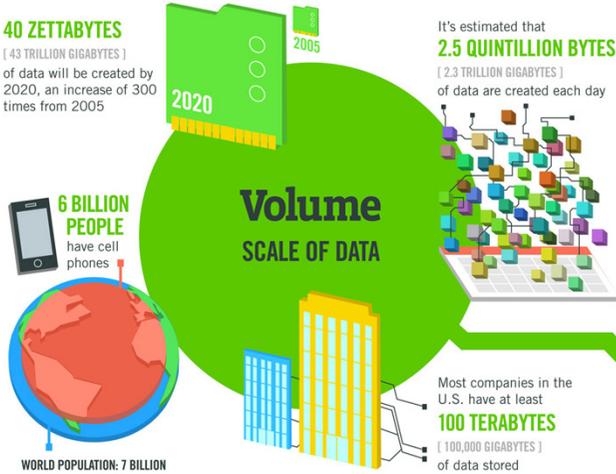


40 ZETTABYTES
[43 TRILLION GIGABYTES]
of data will be created by 2020, an increase of 300 times from 2005



The FOUR V's of Big Data

From traffic patterns and music downloads to web history and medical records, data is recorded, stored, and analyzed to enable the technology and services that the world relies on every day. But what exactly is big data, and how can these massive amounts of data be used?

As a leader in the sector, IBM data scientists break big data into four dimensions: **Volume, Velocity, Variety and Veracity**

Depending on the industry and organization, big data encompasses information from multiple internal and external sources such as transactions, social media, enterprise content, sensors and mobile devices. Companies can leverage data to adapt their products and services to better meet customer needs, optimize operations and infrastructure, and find new sources of revenue.

By 2015 **4.4 MILLION IT JOBS** will be created globally to support big data, with 1.9 million in the United States



As of 2011, the global size of data in healthcare was estimated to be **150 EXABYTES** [161 BILLION GIGABYTES]



30 BILLION PIECES OF CONTENT are shared on Facebook every month



By 2014, it's anticipated there will be **420 MILLION WEARABLE, WIRELESS HEALTH MONITORS**

Variety DIFFERENT FORMS OF DATA

4 BILLION+ HOURS OF VIDEO are watched on YouTube each month



400 MILLION TWEETS are sent per day by about 200 million monthly active users



The New York Stock Exchange captures **1 TB OF TRADE INFORMATION** during each trading session



Modern cars have close to **100 SENSORS** that monitor items such as fuel level and tire pressure

Velocity ANALYSIS OF STREAMING DATA

By 2016, it is projected there will be **18.9 BILLION NETWORK CONNECTIONS** — almost 2.5 connections per person on earth



1 IN 3 BUSINESS LEADERS don't trust the information they use to make decisions



Poor data quality costs the US economy around **\$3.1 TRILLION A YEAR**



27% OF RESPONDENTS

in one survey were unsure of how much of their data was inaccurate

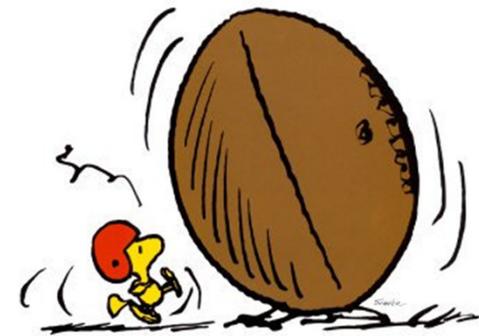
Veracity UNCERTAINTY OF DATA

Real World Use of BIG DATA

Kieran Hagan – Information Management Technical Manager
Tim Brown – Information Management Technical Pre-Sales



THINK
BIG



@TimBrown_IBM



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REALITY
✓
CHECK

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The definition of “Big”:



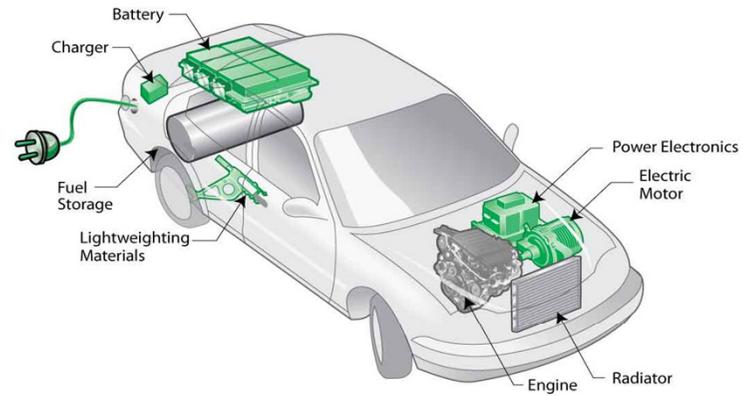
- 1) of considerable size or extent:
- 2) of considerable importance or seriousness:
- 3) *[predic.] informal, often ironic* generous: ‘I’m inclined to take pity on you.’ ‘That’s **big of you!**’

(Oxford online dictionary; <http://oxforddictionaries.com/definition/english/big?q=big+>)



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Gaining Insight from your Information



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Resolving information management challenges outside traditional approaches to deliver **new business insight**



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Analytics is expanding from enterprise data to big data

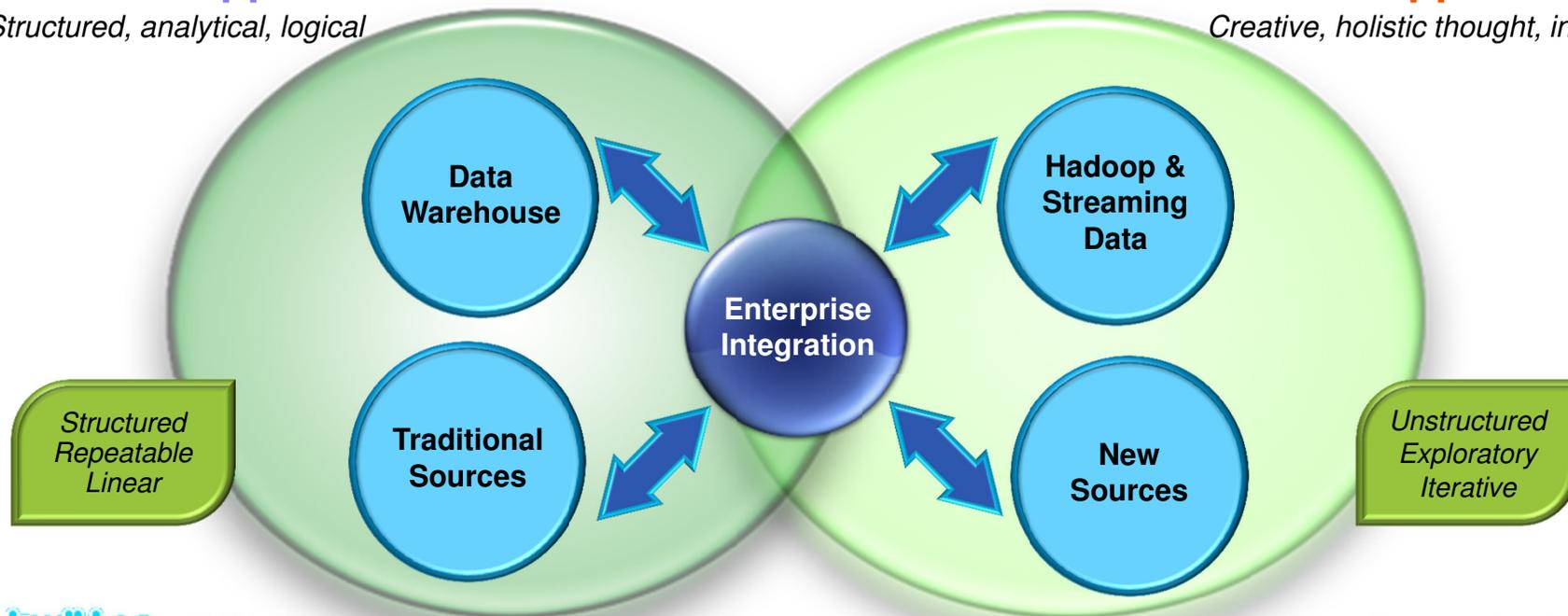


Traditional Approach

Structured, analytical, logical

New Approach

Creative, holistic thought, intuition



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Organisations who see analytics as a competitive advantage are increasing



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Martha Payne



.au/



Total Pageviews

8659036

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Big Data "Sense-making"



$$1 + 1 = 3$$

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5 Key Use Case Patterns



Big Data Exploration



Enhanced 360° View of the Customer



Security/Intelligence Extension



Operations Analysis



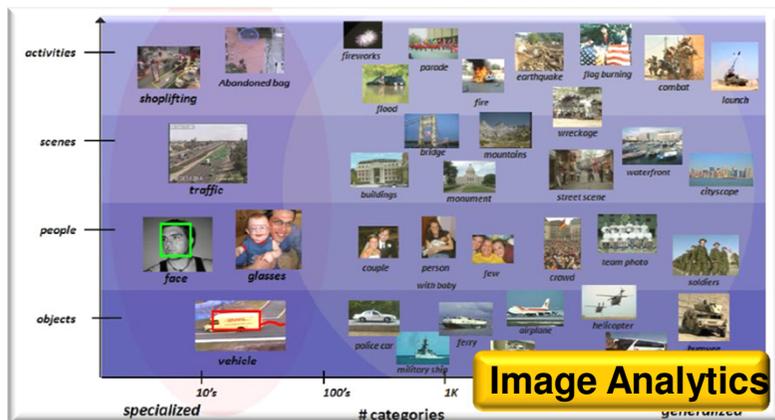
Data Warehouse Augmentation



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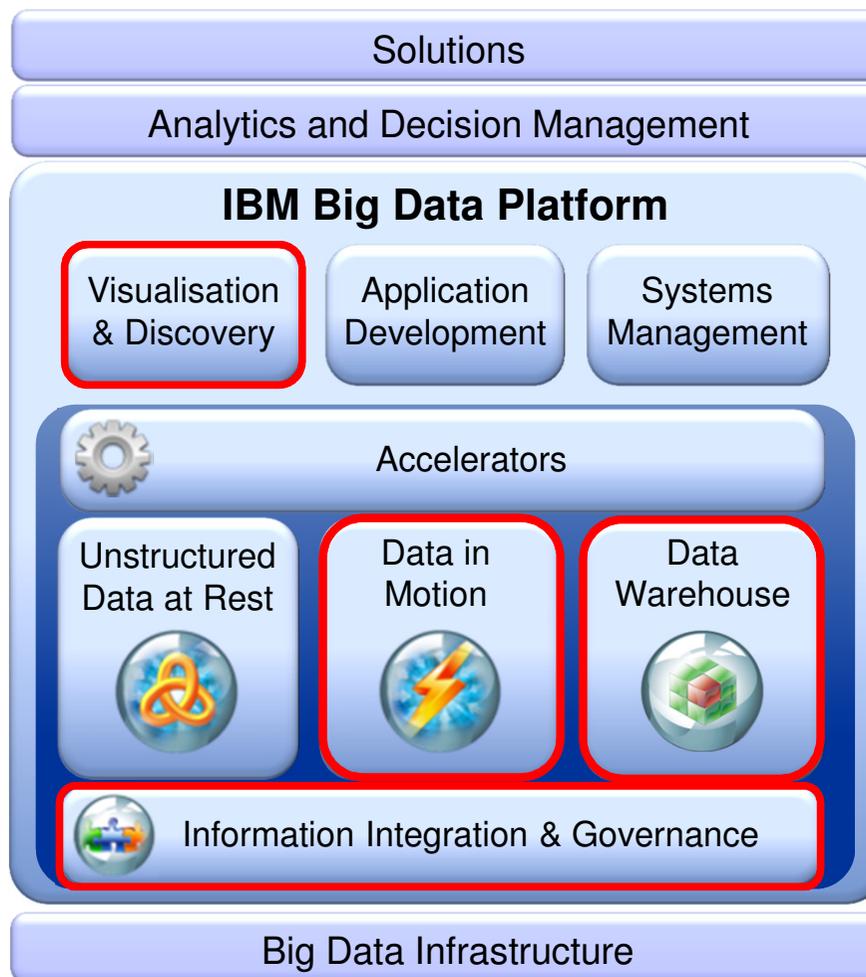
Implementation Zone



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The IBM BIG DATA Platform



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The IBM BIG DATA Platform



Process any type of data: Structured, unstructured, in-motion, at-rest

Purpose-Built Engines: Designed to handle different requirements

Flexible Analytics: data-in-motion and data-at-rest



Manage and Govern data within the ecosystem

Enterprise data integration

Grow and evolve on current infrastructure

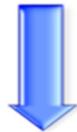
Merging the Traditional and Big Data Approaches

Traditional Approach

Structured and Repeatable Analysis

Business Users

Determine what question to ask



IT

Structures the data to answer that question



Big Data Approach

Iterative and Exploratory Analysis

IT

Delivers a platform to enable creative discovery



Business Users

Explores what questions could be asked



Why Data Matters: The Age of Analytics



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IBM provides a  governable & accessible
Big Data platform that
delivers **insight** from **data**
at-rest and **in-motion**



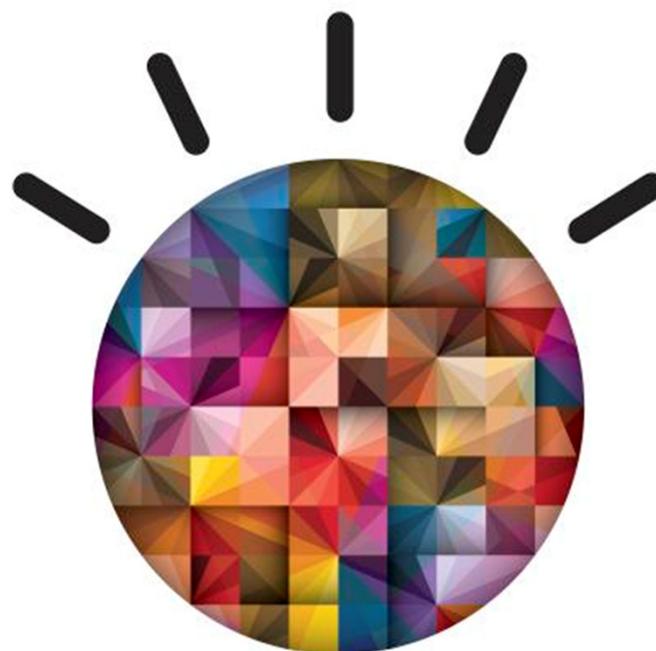
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For more information:
ibm.com/bigdata



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Thank you

Don't forget to check out the [Demo Zone](#) during the break or talk to one of our experts at the [Table Talk](#) area.



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Tweet your questions for the panel discussion this afternoon.

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Reference Data Videos



<http://www.youtube.com/watch?v=AUVWhO87ful>

**Big Data
Exploration**



<http://www.youtube.com/watch?v=j5U-lqpDQgk>

**Security/Intelligence
Extension**



<http://www.youtube.com/watch?v=M0GM8BIEXmo>

**360° View of the
Customer**



<http://www.pnnl.gov/news/release.aspx?id=776>

**Data Warehouse
Augmentation**



<http://www.ibmbigdatahub.com/video/sprint-uses-analytics-innovate>

**Operations
Analysis**



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