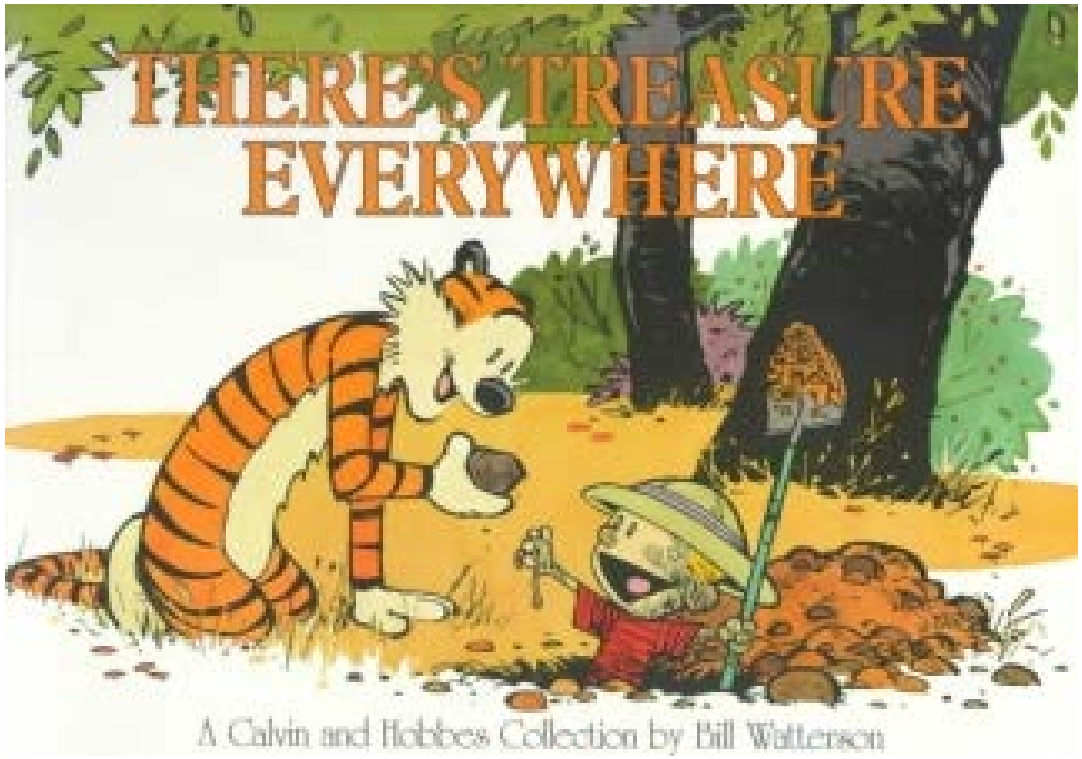

"*The reality is often that big data requires a priesthood of data scientists to implement and more mumbo jumbo than you'll find at the New York Witch Festival.*

But a funny thing happened on our way to big-data heaven. The more we thought about it, the more we realized we didn't need to wait to get real, actionable audience and other insights. There really is data everywhere that you can tap into right now that will help you understand how customers, suppliers and others view you, your company and your products."

"Oh, and don't expect big data -- even when you do get it all really working -- to be the holy grail, either. According to my friend Mark Anderson, CEO of Strategic News Service and one of the smartest analysts and futurists in the business, next year we'll be worrying more about Big Visualization. Or in other words, even once you've got all that data warehoused, you still need great systems to help you "see" inside and extract real, actionable knowledge." **What Calvin and Hobbes Can Teach Us About Big Data You Can Find Treasure Everywhere -- You Just Have to Start Digging** By: Jim Louderback

Big Data what it is and why it is important to Business?

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WHO WE ARE

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Acumen Analytics is a WBE certified, information management and analytics consulting firm focused on helping our customers leverage their data, technology and organizational assets to create strategies and deliver solutions that *Seize Innovation*, *Accelerate Business* and *Drive Successful Business Outcomes*.

Our consultants industry insight, unparalleled experience and comprehensive capabilities across many industries and business functions, provide information management strategy, data management and architecture, business intelligence, and advanced analytics that measure performance, identify opportunities, and forecast the future efficiently and more cost effectively, creating competitive advantage.

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What we do

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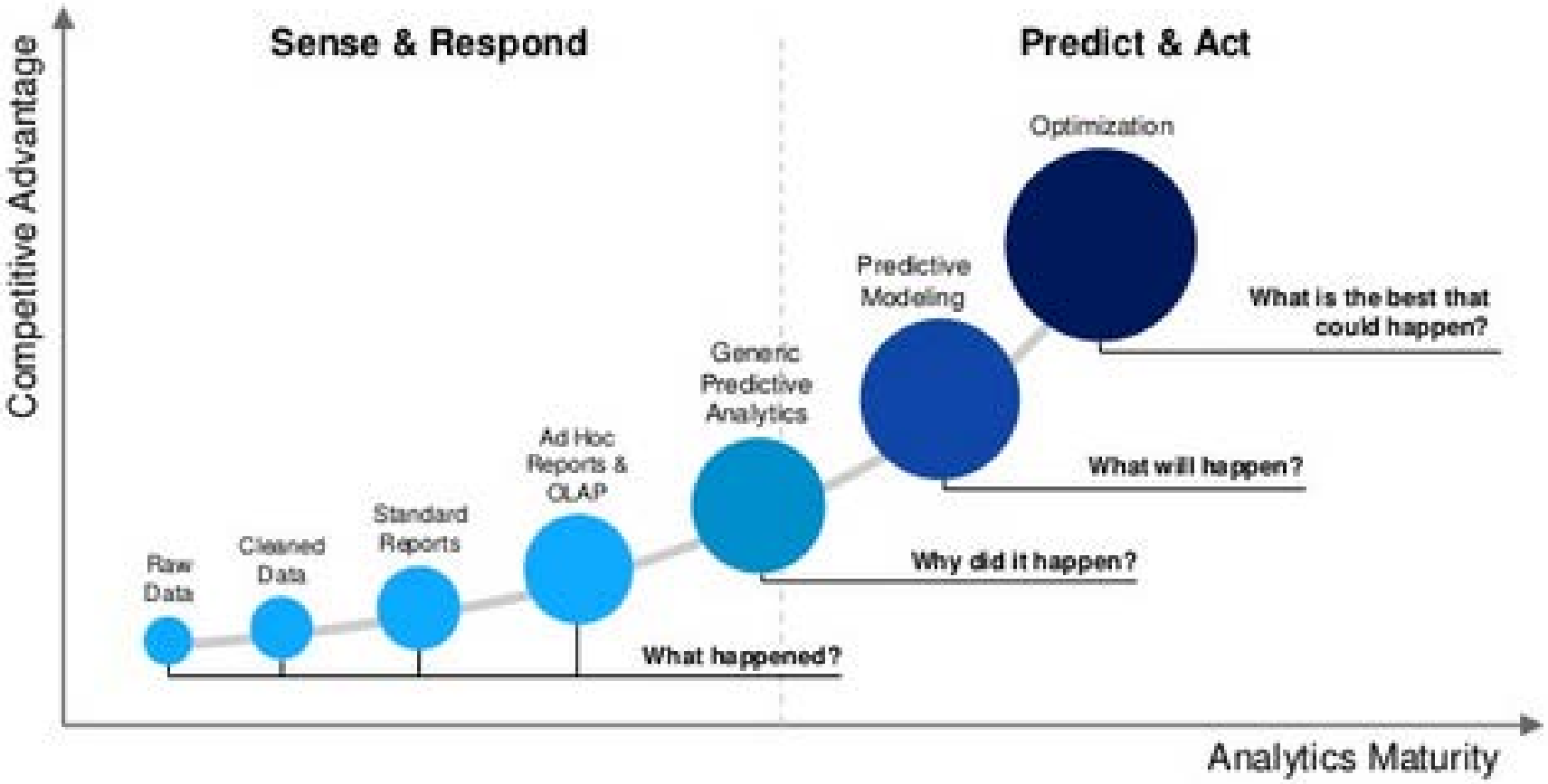

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WHO WE DO IT FOR

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Are there areas in your organization with knowledge gaps?

Sales

Patient Management

Human Capital

Supply Chain

Procurement

Customer Sentiment

Forecasting

Cash Management

Marketing

Donor & Campaign Success

Churn Rates

- Confident, fact-based decisions
- Creating Competitive Advantage
- Actionable insights
- Within the decision window
- Accelerating time-to-value
- A single version of truth
- Successful, measurable outcomes, repeatedly

Data & information vs. Knowledge & Insight

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Data

From Wikipedia, the free encyclopedia

For data in computer science, see Data (computing). For other uses, see Data (disambiguation).

Data (/ˈdeɪtə/ DAY-tə or /ˈdætə/ DA-tə, also /ˈdɑːtə/ DAH-tə) is a set of values of qualitative or quantitative variables; restated, data are individual pieces of information. Data in computing (or data processing) are represented in a structure that is often tabular (represented by rows and columns), a tree (a set of nodes with parent-children relationship), or a graph (a set of connected nodes). Data are typically the results of measurements and can be visualised using graphs or images.

Information

From Wikipedia, the free encyclopedia

For other uses, see Information (disambiguation).

Information, in its most restricted technical sense, is a sequence of symbols that can be interpreted as a message. Information can be recorded as signs, or transmitted as signals. Information is any kind of event that affects the state of a dynamic system that can interpret the information.

Knowledge

From Wikipedia, the free encyclopedia

For other uses, see Knowledge (disambiguation).

Knowledge is a familiarity with someone or something, which can include facts, information, descriptions, or skills acquired through experience or education. It can refer to the theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic.[1] In philosophy, the study of knowledge is called epistemology; the philosopher Plato famously defined knowledge as "justified true belief." However, no single agreed upon definition of knowledge exists, though there are numerous theories to explain it.

Insight

From Wikipedia, the free encyclopedia

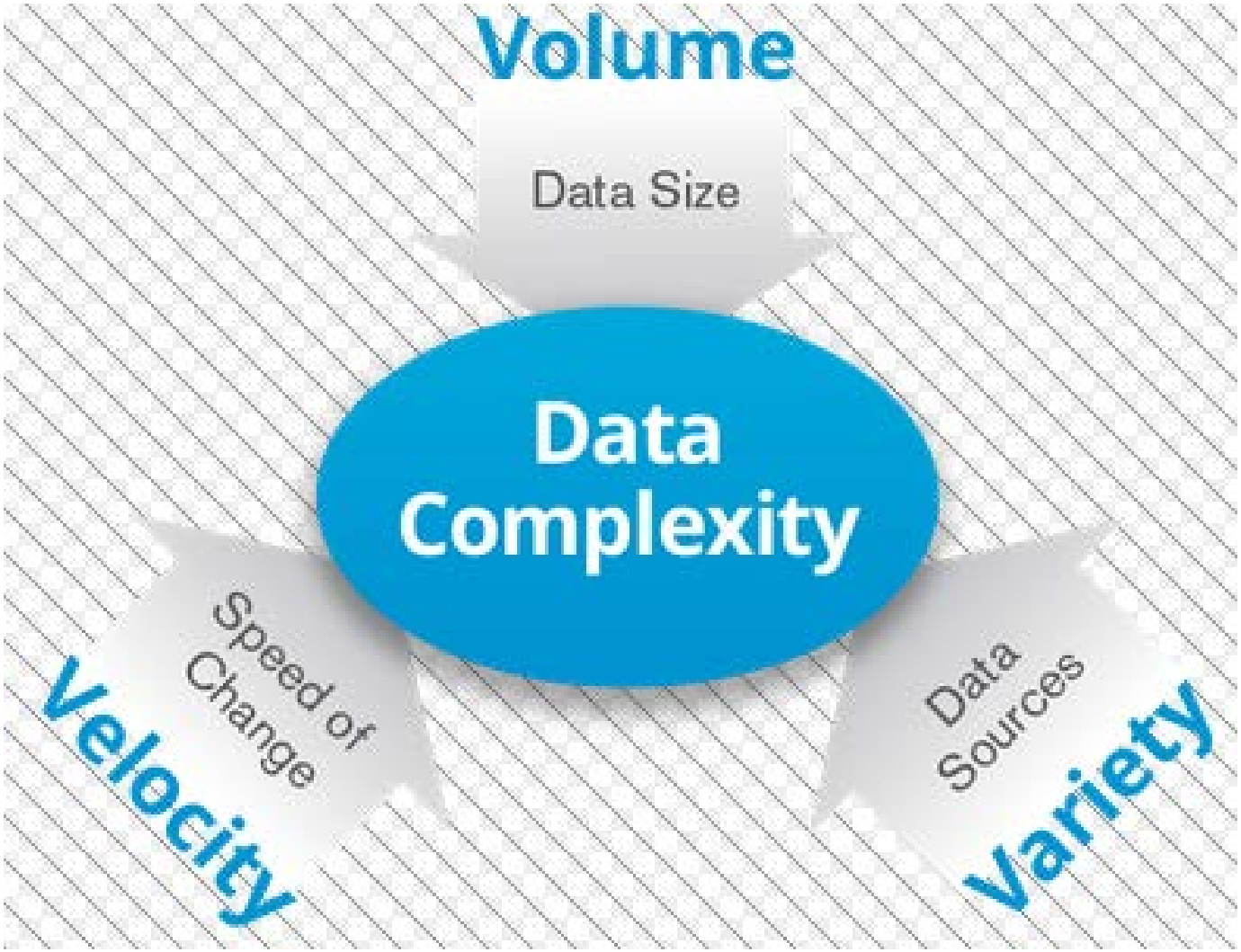
Not to be confused with INCITE, InSight, INSIGHT, or Insite.

For other uses, see Insight (disambiguation).

Insight is the understanding of a specific cause and effect in a specific context. The term insight can have several related mean

- a piece of information
- the act or result of understanding the inner nature of things or of seeing intuitively in Greek called noesis
- an introspection
- the power of acute observation and deduction, penetration, discernment, perception called intellection or noesis
- an understanding of cause and effect based on identification of relationships and behaviors within a model, context, or scenario (see artificial intelligence)

What is Big Data?



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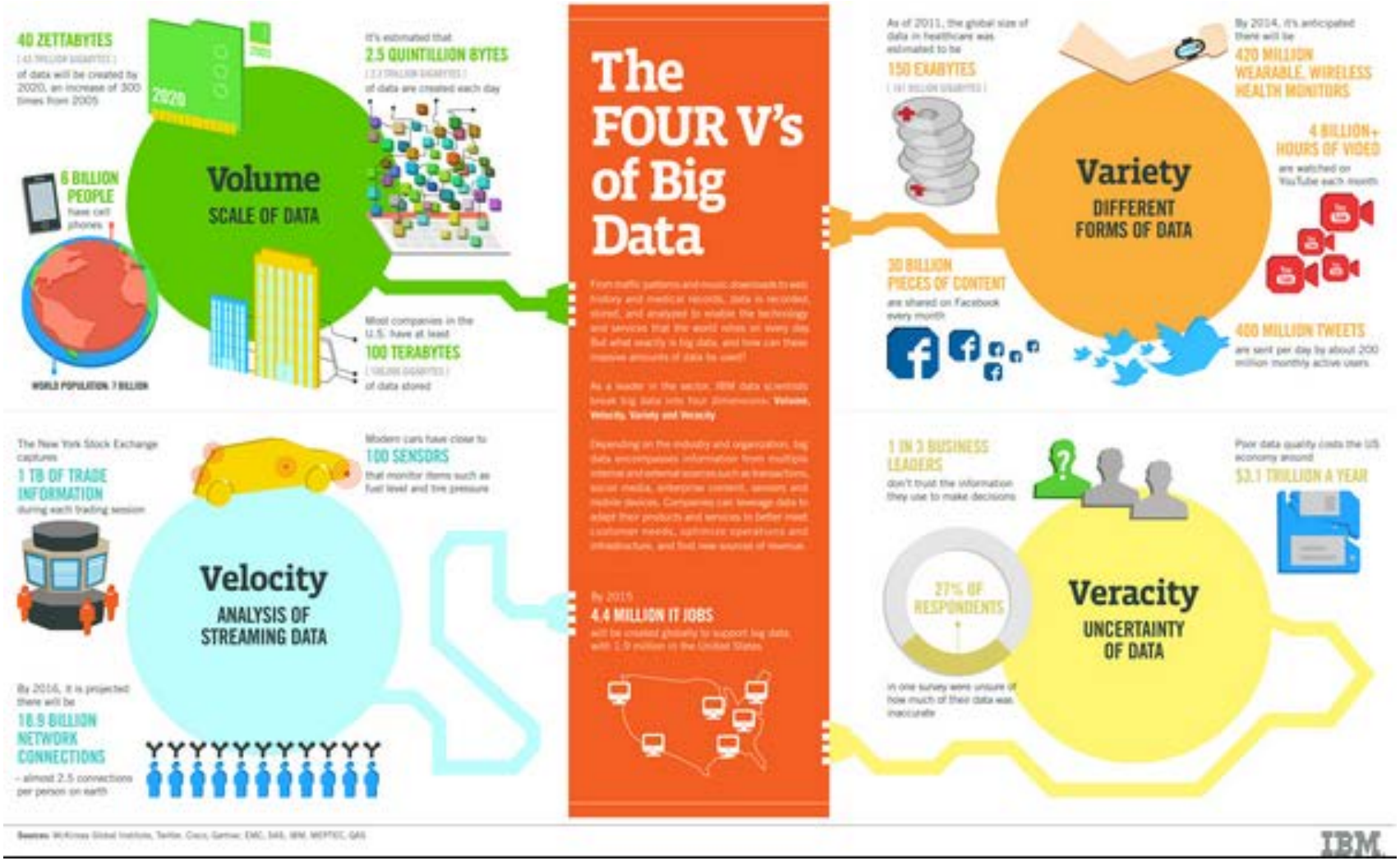

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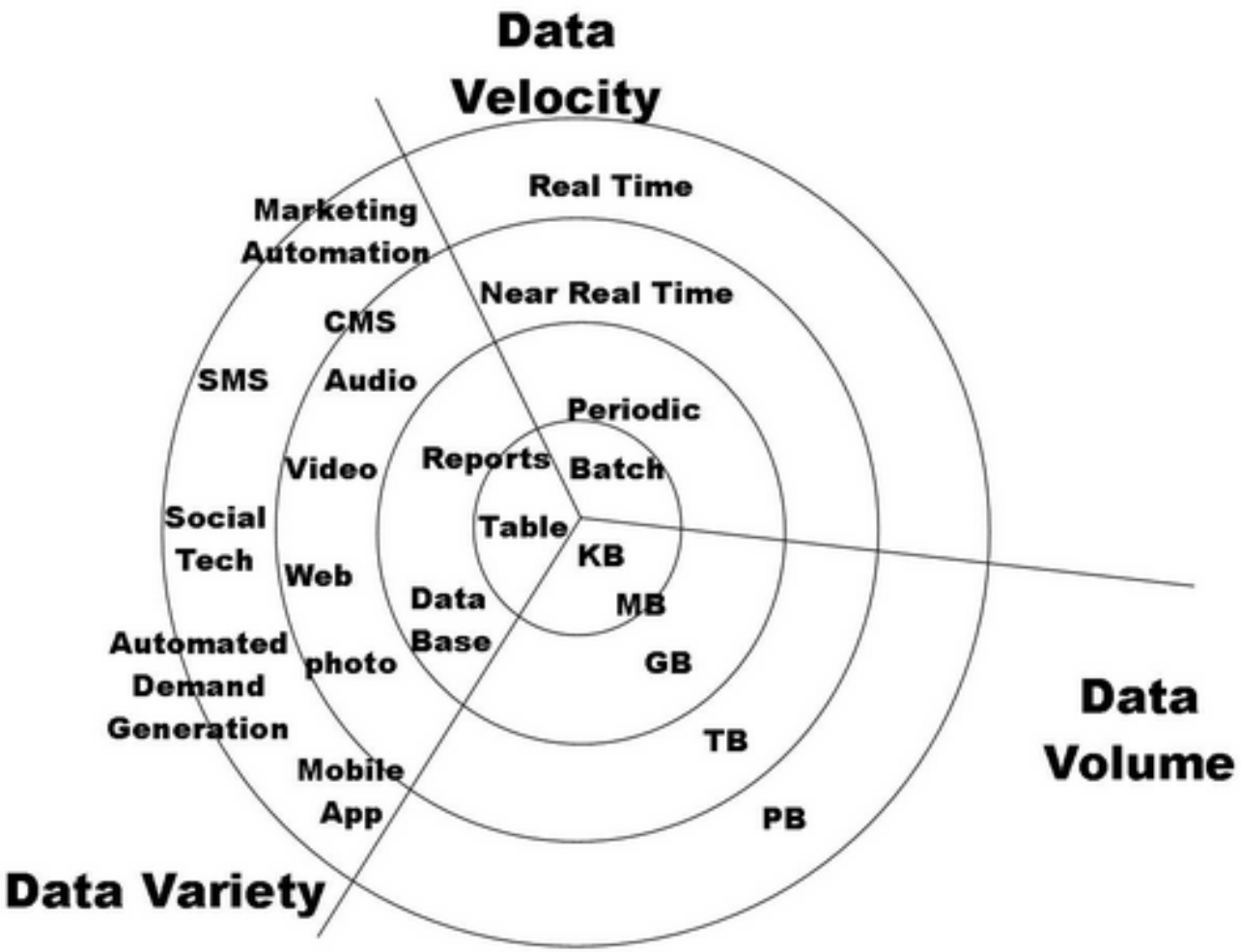

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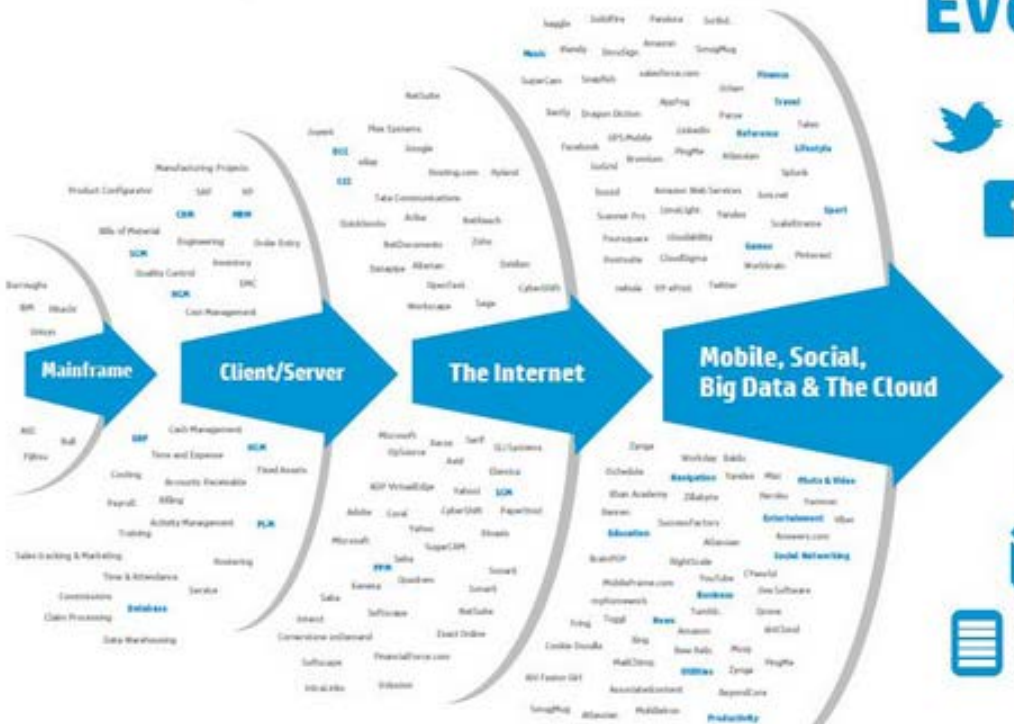
A new style of IT emerging



Every 60 seconds

- **98,000+** tweets
- **695,000** status updates
- **11million** instant messages
- **698,445** Google searches
- **168 million+** emails sent
- **1,820TB** of data created
- **217** new mobile web users

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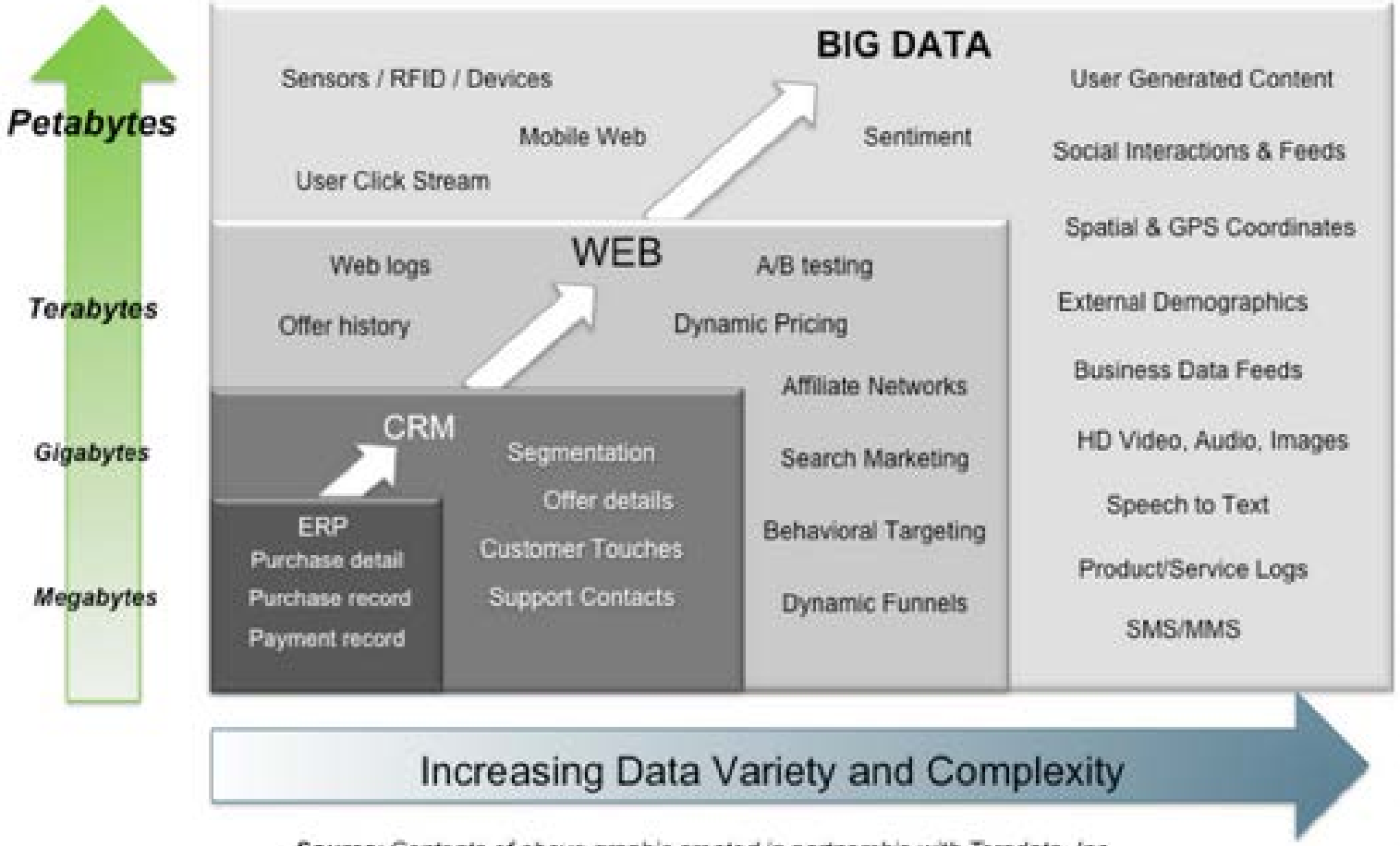
Big Data = Transactions + Interactions + Observations



***Source**: Contents of above graphic created in partnership with Teradata, Inc.*

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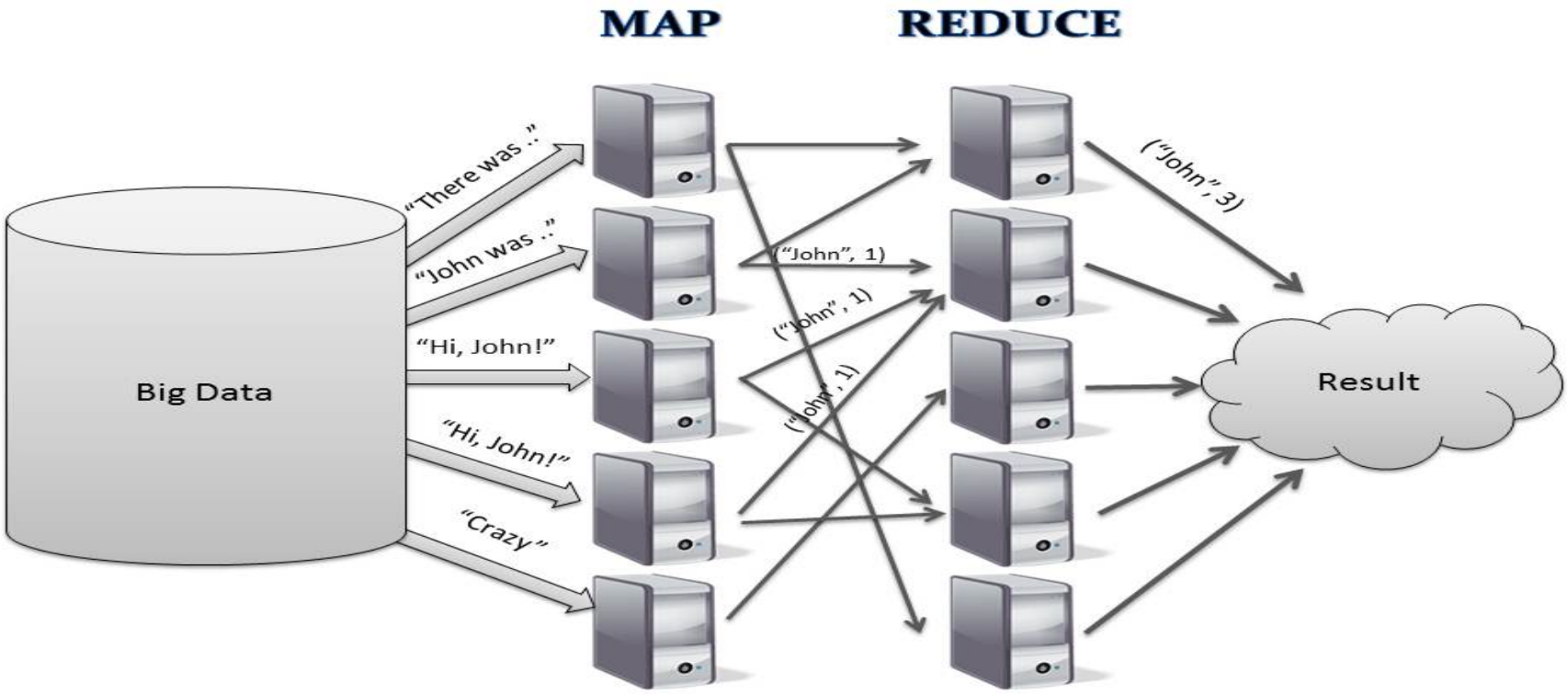
Map Reduce



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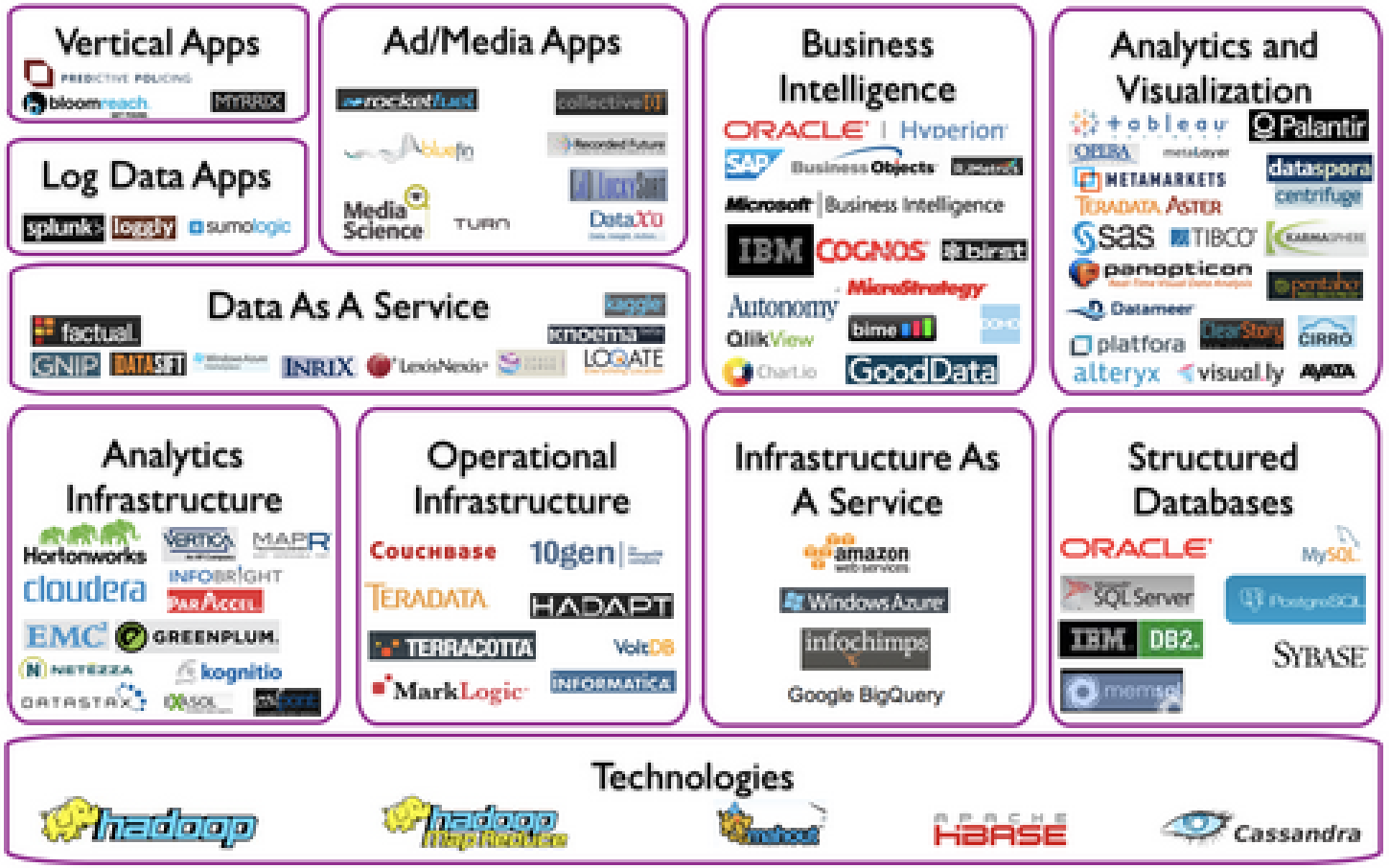
Big Data Landscape



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dave@vcdave.com

blogs.forbes.com/davefeinleib

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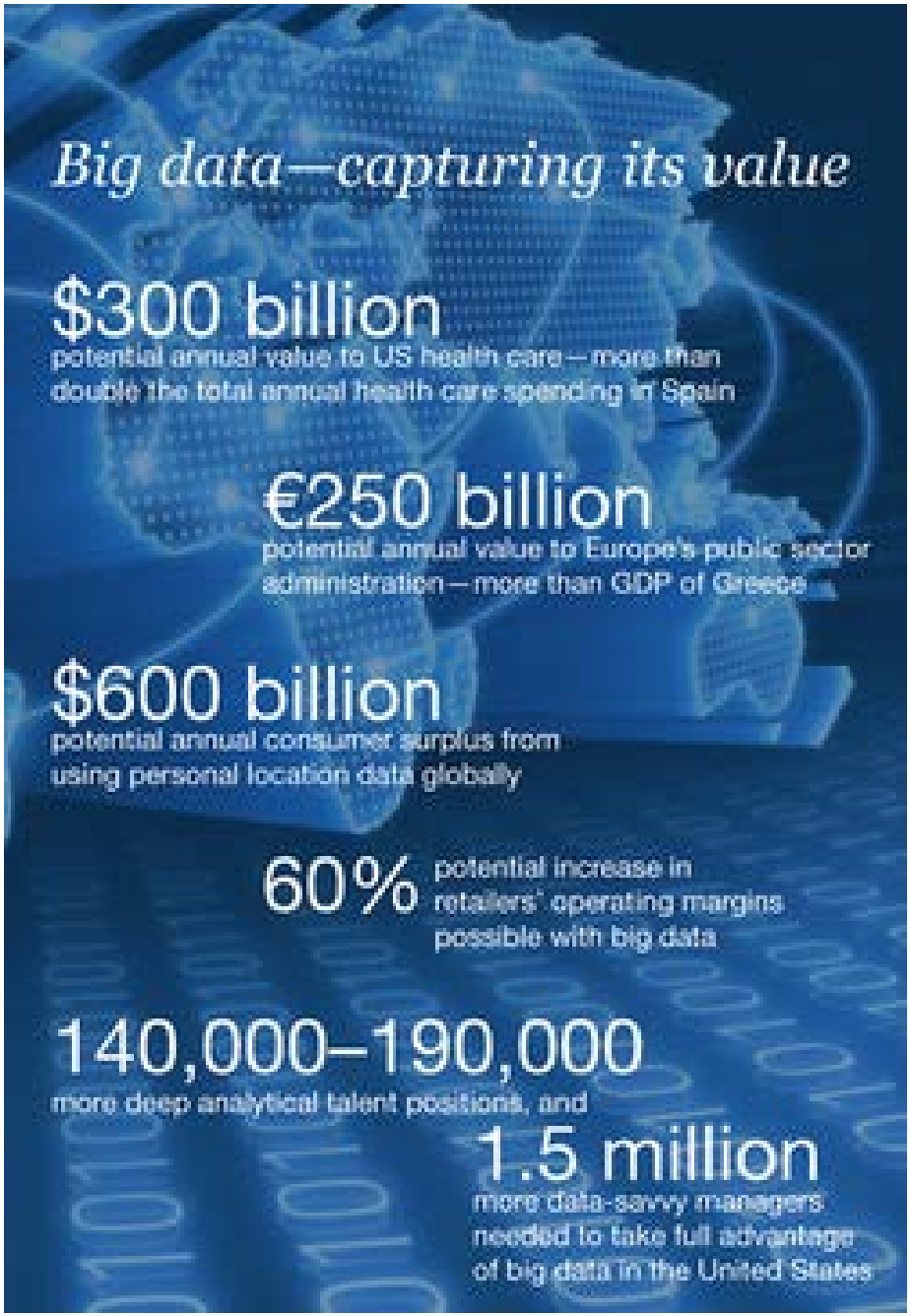

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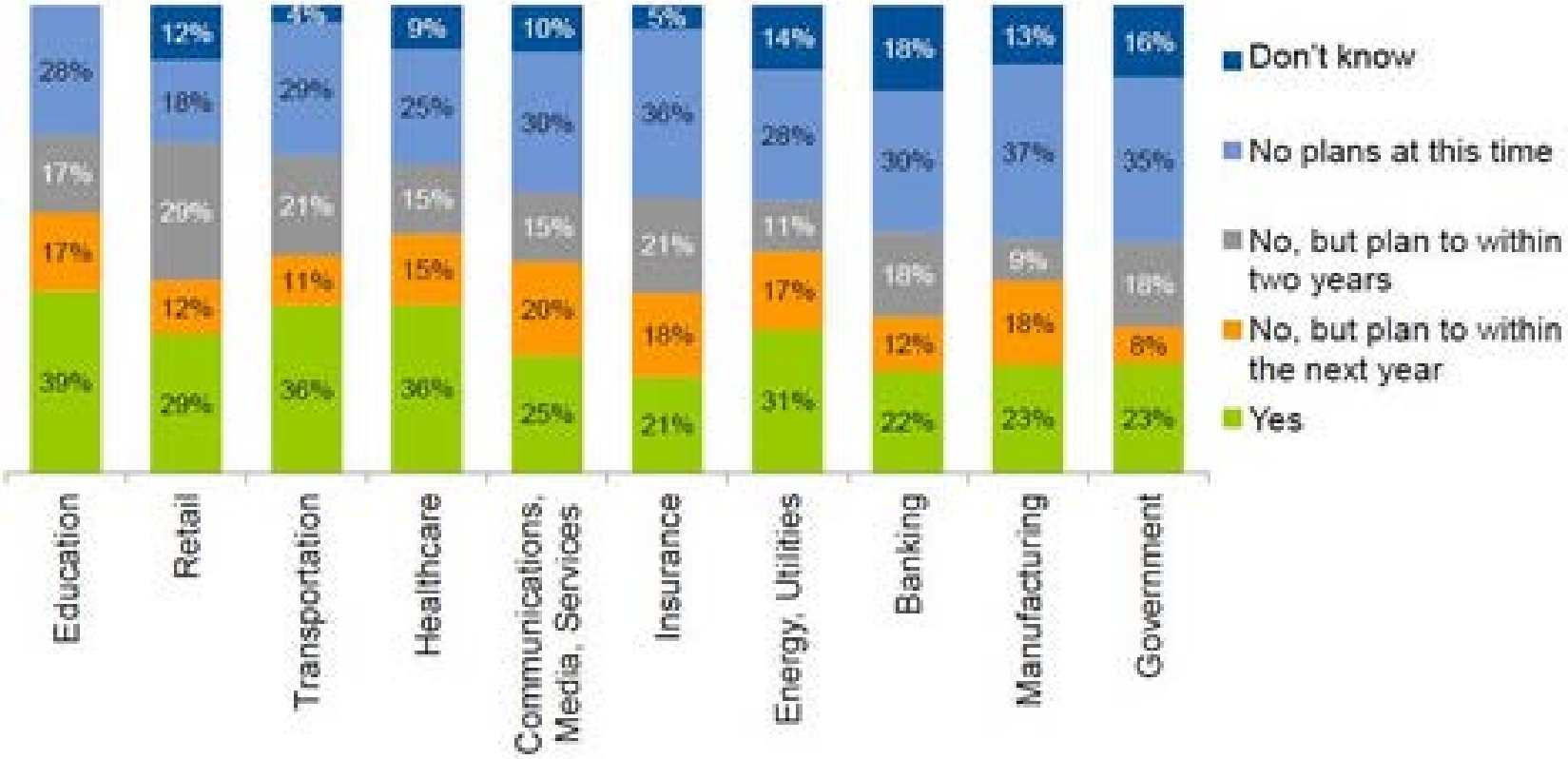
Big Data Investments by Industry

Has your organization already invested in technology specifically designed to address the big data challenge?

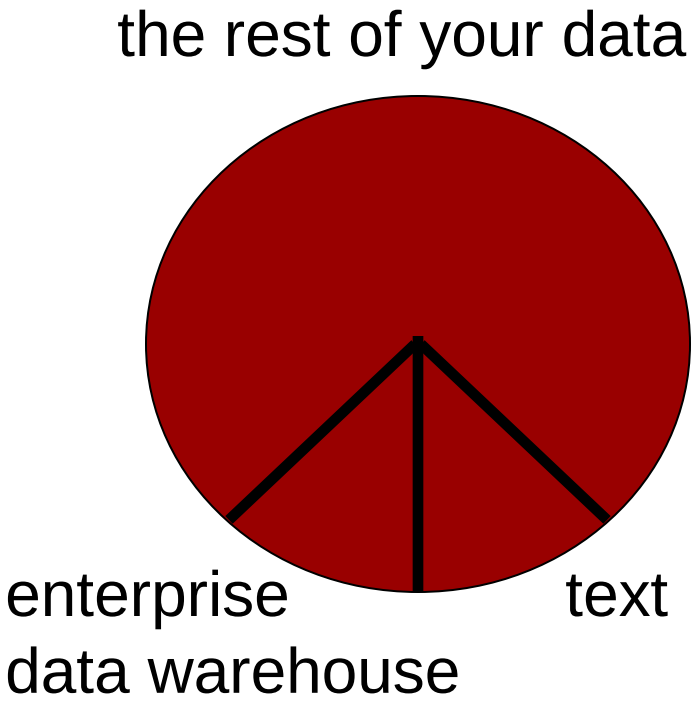


Source: Gartner (July 2012)

Gartner

Where do we keep it?

The World of Data Integration



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Big Data Ecosystem

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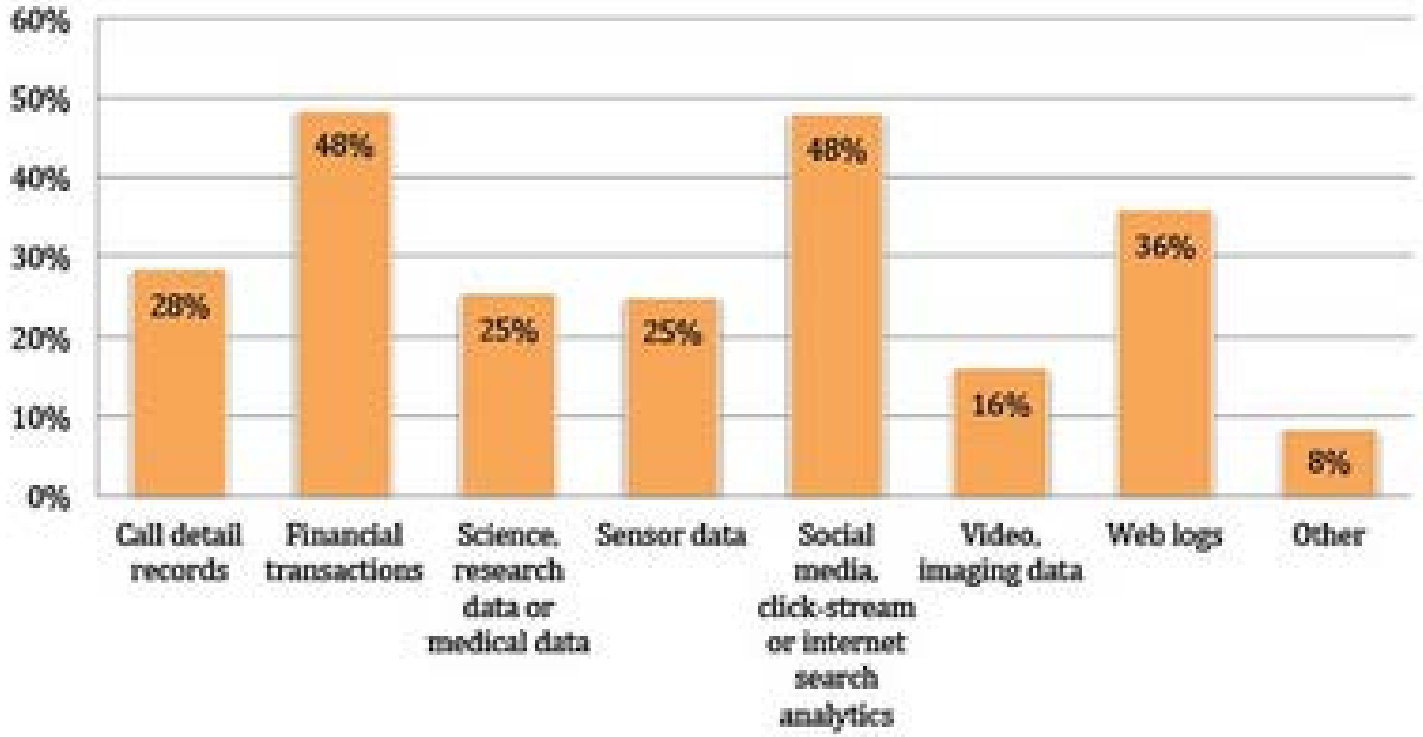
Figure 7: Which applications are driving big data needs at your organization? (multiple responses)



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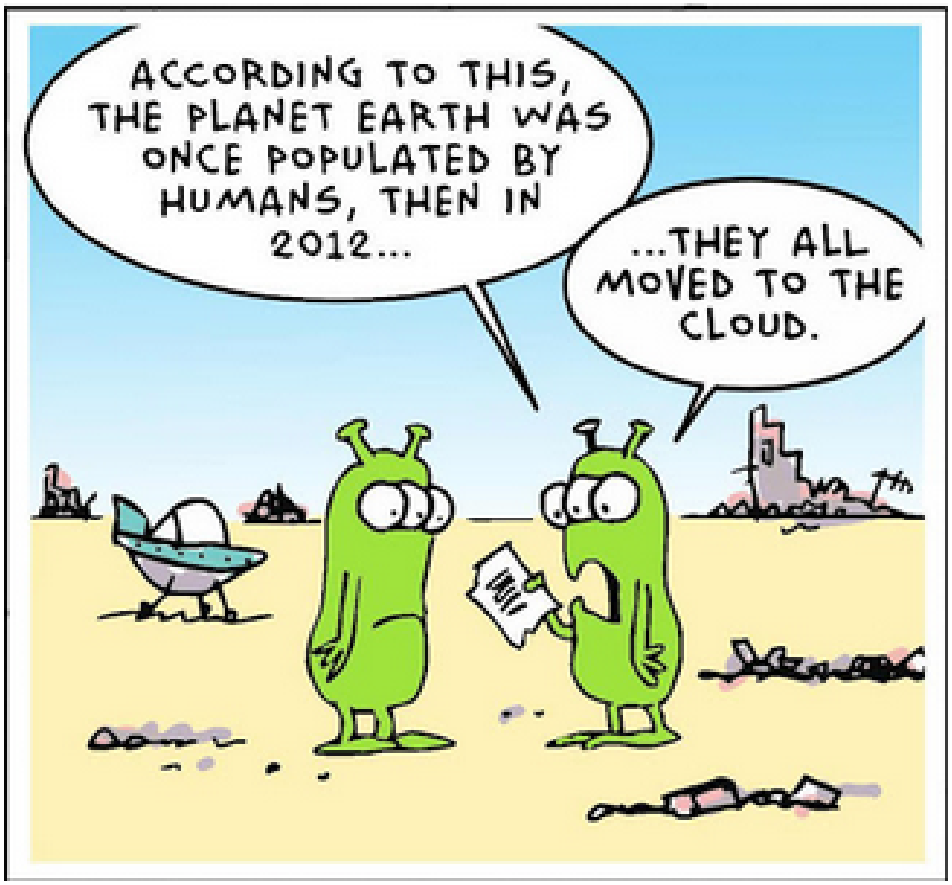
ACCORDING TO THIS, THE PLANET EARTH WAS ONCE POPULATED BY HUMANS, THEN IN 2012...
...THEY ALL MOVED TO THE CLOUD.

examples

MARKETING

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Table 2: The Best-in-Class PACE Framework

Pressures	Actions	Capabilities	Enablers
• Need to deliver higher quality sales leads • Pressure to deliver ROI on marketing spend	• Gain insight into effectiveness of specific marketing campaigns and channels • Improve the targeting of marketing offers to optimize marketing ROI • Optimize marketing activities at each touch-point along the customer lifecycle	• Track, measure and report on all marketing campaign results • Key Performance Indicators (KPIs) are defined to track overall marketing performance • Process to test effectiveness of campaign content • Executive support of using customer analytics in marketing programs • Defined process to disseminate knowledge on marketing campaigns to key decision makers/stakeholders • Dedicated staff to collect and manage all campaign/resource data	• Website visitor tracking • Web analytics • Lead management solution • Marketing content / asset management • CMO dashboard • Lead scoring • Marketing automation • Revenue performance management

Source: Aberdeen Group, July 2011

Table 3: The Competitive Framework

	Best-in-Class	Average	Laggards
Process	Process to test effectiveness of campaign content		
	64%	42%	25%
	Defined process to disseminate knowledge on marketing campaigns to key decision makers/stakeholders		
	59%	40%	22%
Organization	Dedicated staff to collect and manage all campaign/resource data		
	73%	64%	45%
	Executive support of using customer analytics in marketing programs		
	59%	52%	36%
Knowledge	Track, measure and report on all marketing campaign results		
	82%	57%	38%
	Single repository for all marketing campaign and program information		
	48%	38%	27%

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	Best-in-Class	Average	Laggards
Enabling Technology or Service	▪ 86% Website visitor tracking ▪ 82% Web analytics ▪ 73% Dashboards ▪ 64% Lead management ▪ 59% Marketing content / asset management ▪ 52% Revenue performance management	▪ 77% Website visitor tracking ▪ 68% Web analytics ▪ 64% Dashboards ▪ 59% Lead management ▪ 35% Marketing content / asset management ▪ 43% Revenue performance management	▪ 68% Website visitor tracking ▪ 58% Web analytics ▪ 44% Dashboards ▪ 45% Lead management ▪ 29% Marketing content / asset management ▪ 39% Revenue performance management
Performance	Key Performance Indicators (KPIs) are defined to track overall marketing performance		
	64%	45%	27%
	Ability to identify which marketing channels drive offline sales		
	45%	25%	18%

Source: Aberdeen Group, July 2011

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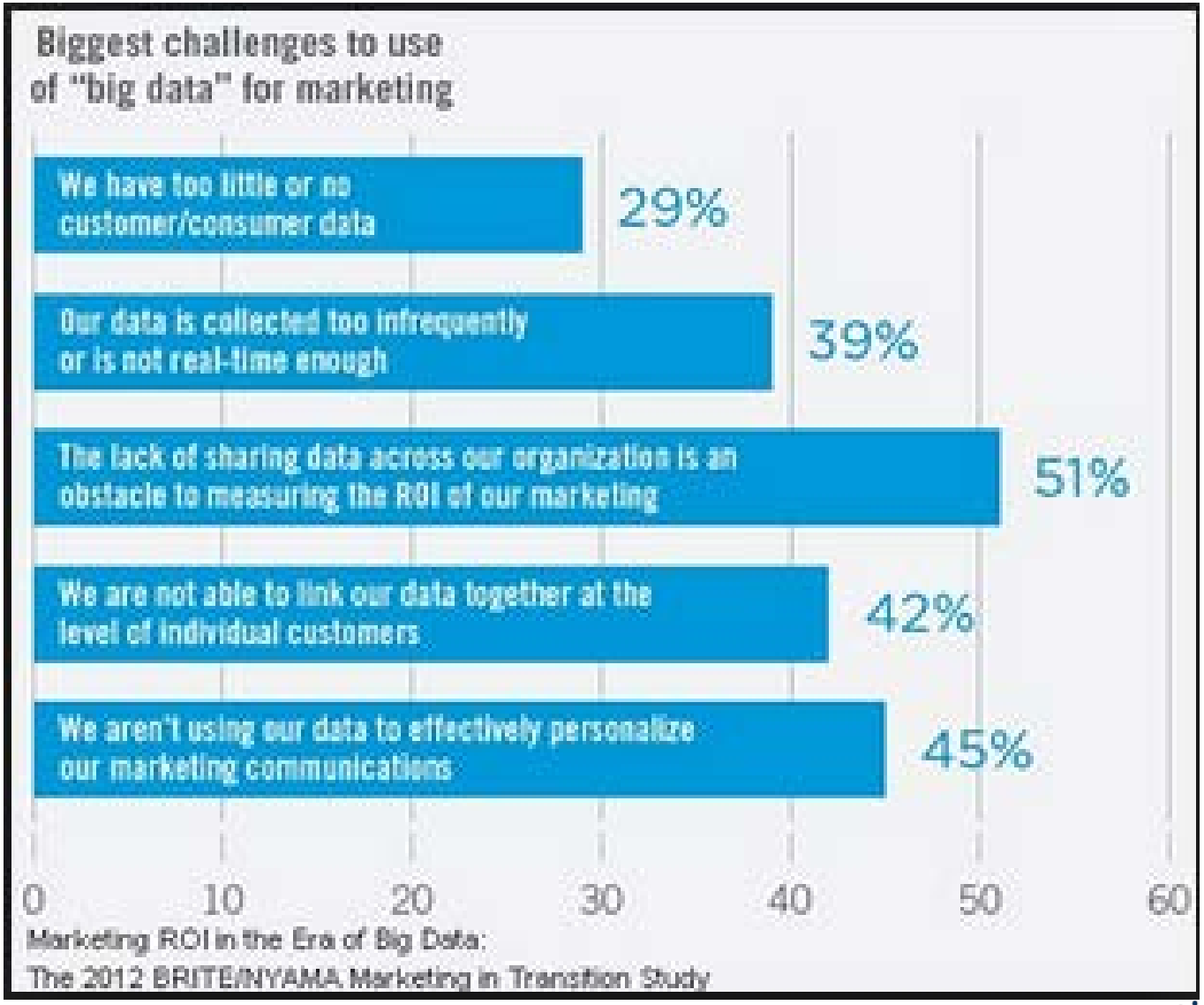

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LIFE SCIENCE

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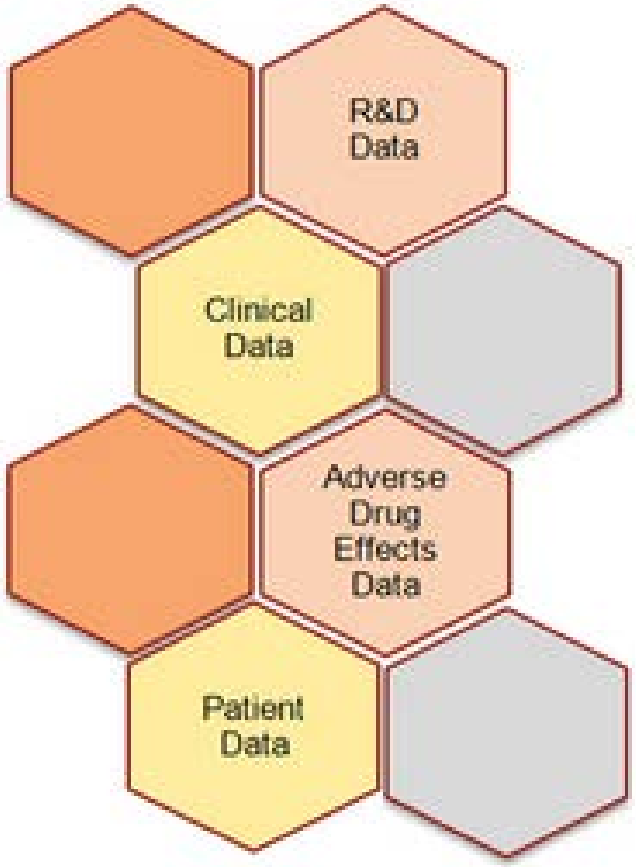

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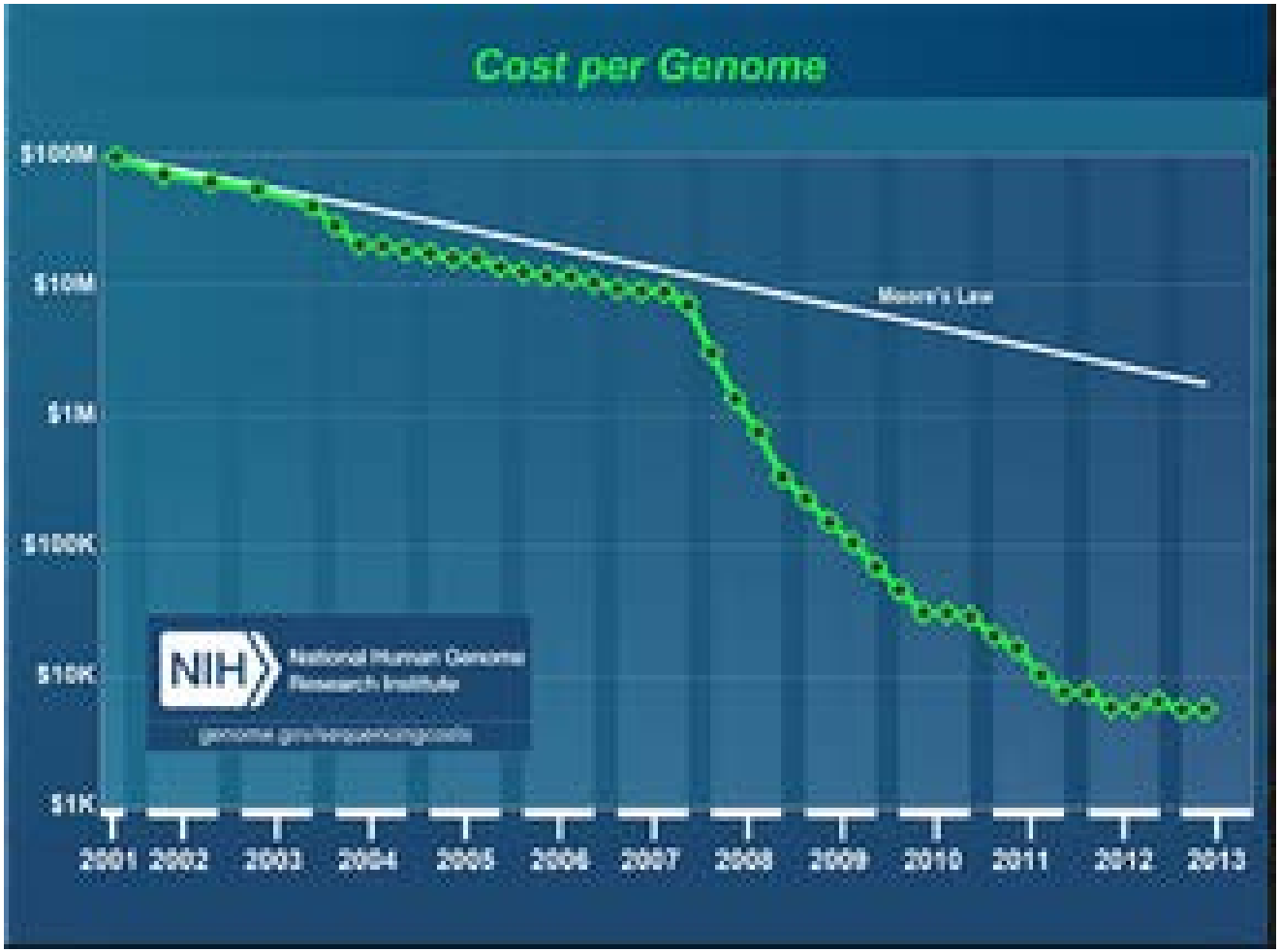

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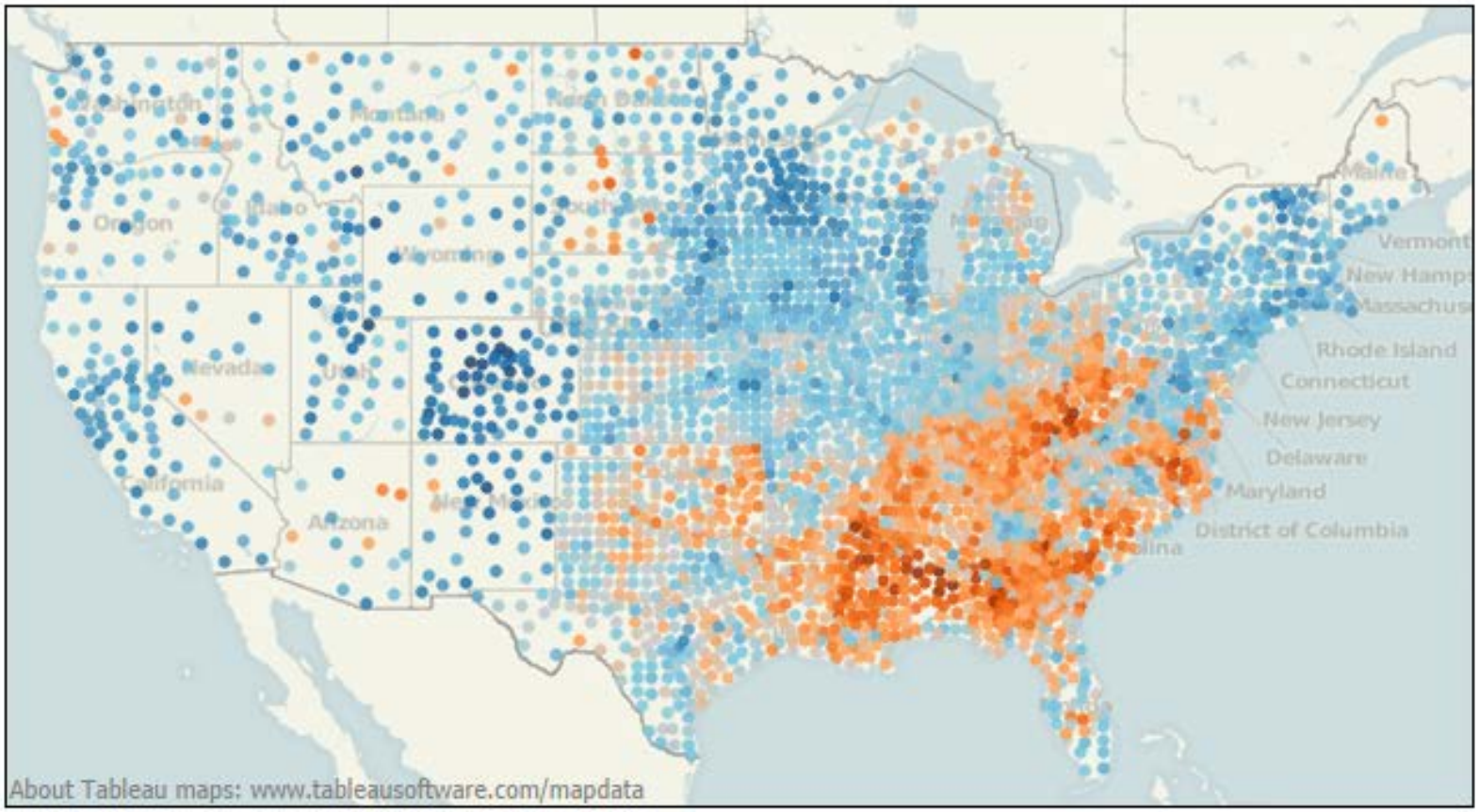
The Geography of Diabetes



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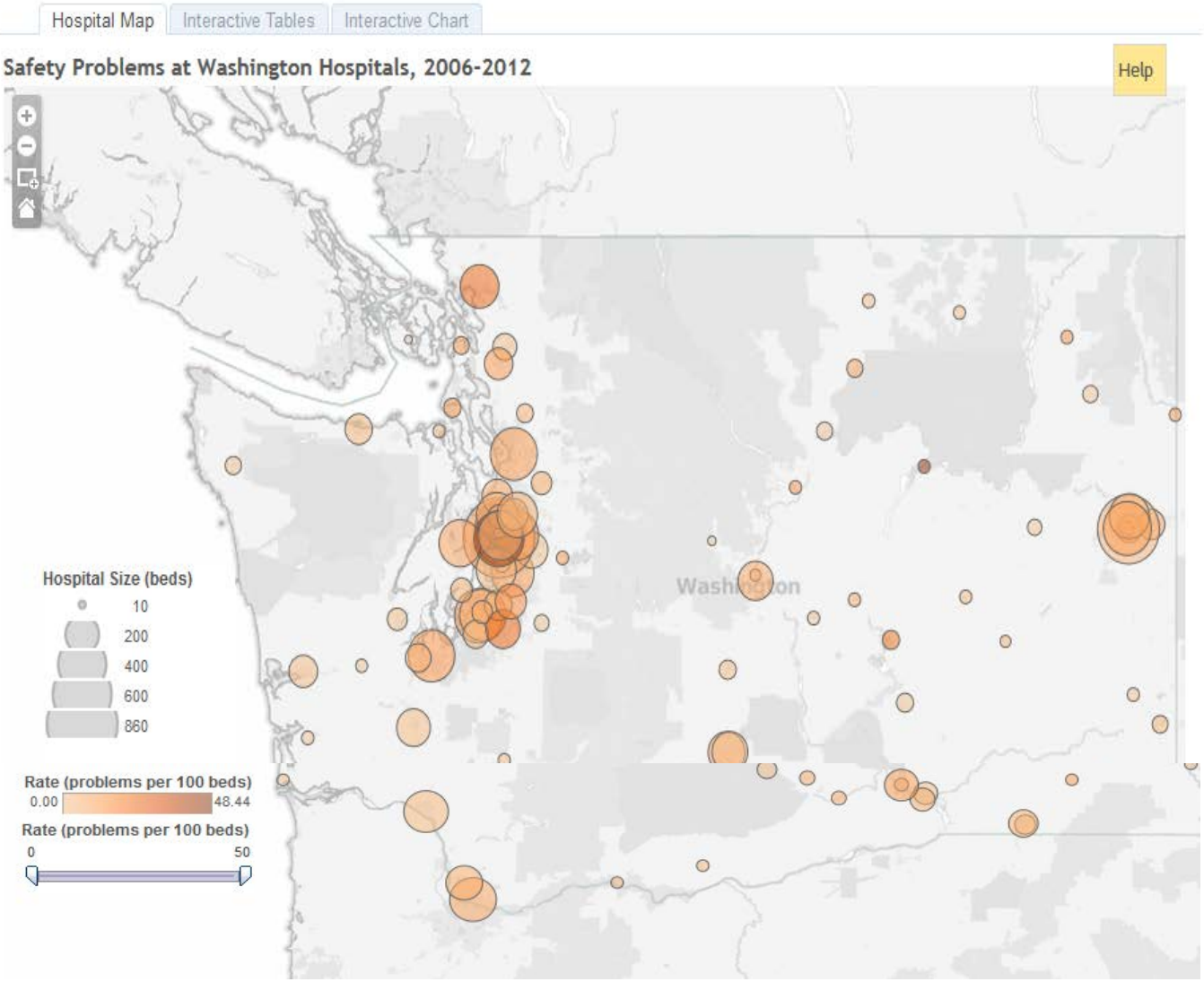

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WORKFORCE

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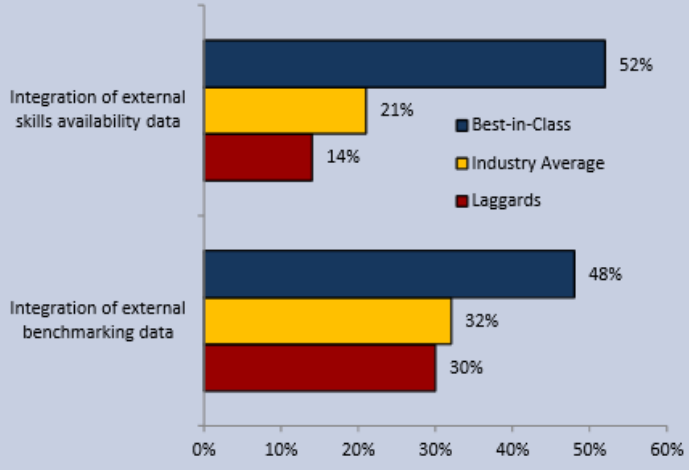
Aberdeen Insights — Strategy

Best-in-Class companies owe much of their success in workforce analytics and planning to their ability to integrate data in order to provide a more complete and coherent picture. This competence in integration - combined with a passion to over-perform - leads more Best-in-Class organizations than others to include external data in their analysis (Figure 5).

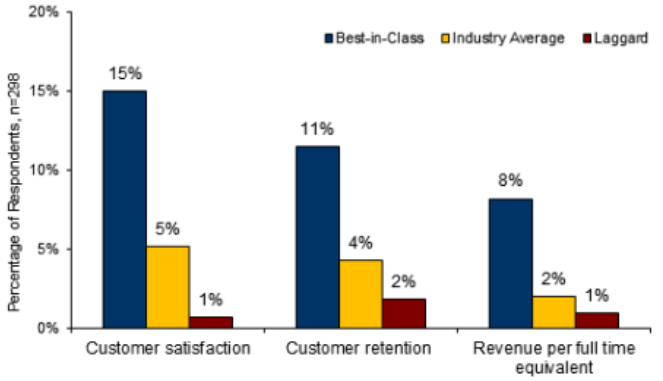
Figure 5: Integration of External Data



Fast Facts

- √ 46% of Best-in-Class organizations have been using HCM analytics for at least five years
- √ Only 35% of other survey respondents have the same level of experience

Figure 3: Business Impact of Best-in-Class HCM



Source: Aberdeen Group, December 2011

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Making the Pay Gap Look Good

What's the gender salary gap in *your* job?

Job	M/F diff (£)	M/F diff (%)
Corporate Managers And Senior Officials	38,265	39.0%
Health professionals	35,371	44.1%
Medical practitioners	28,415	30.8%
Financial managers and chartered secretaries	24,842	36.5%
Pharmacy managers	16,997	34.2%
Electrical engineers	16,101	35.7%
Recycling and refuse disposal managers	15,483	36.3%
Metal making and treating process operatives	13,641	51.4%
Solicitors and lawyers, judges and coroners	12,965	23.2%
Financial Institution And Office Managers	12,856	29.8%
Transport operatives n.e.c.	12,656	49.1%

Chart shows median salaries for full-time employees on adult rates who have been in the same job for more than a year. The source data indicates that some values are more reliable than others (by means of calculating the coefficient of variation).

Source: Annual Survey of Hours and Earnings, Office for National Statistics.

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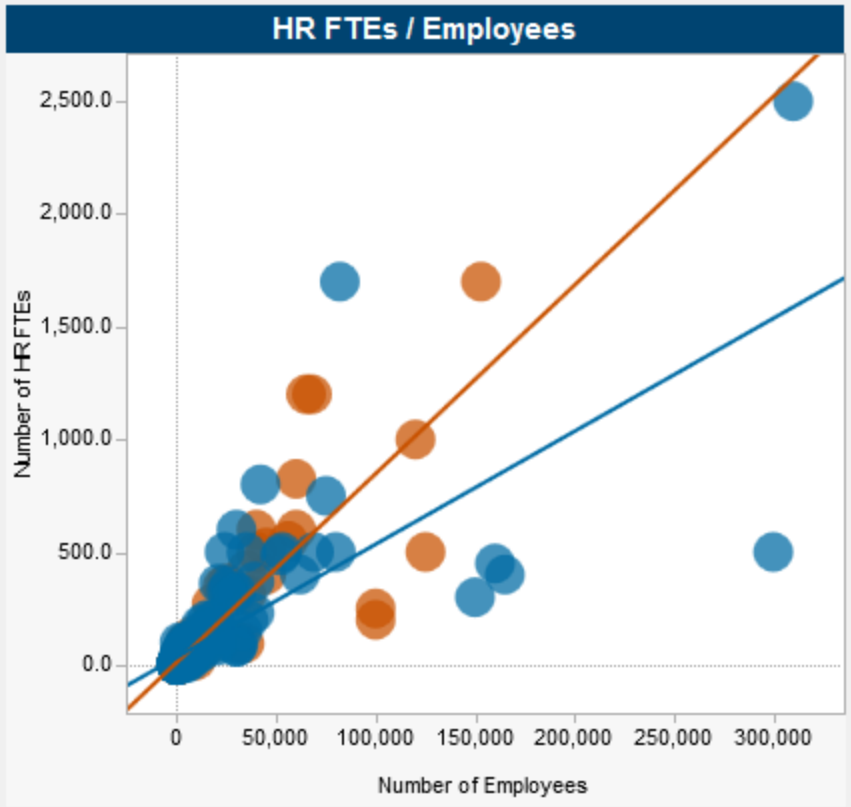
HR FTEs / Number of Employees Ratio Dashboard (Outliers removed)



Market Performance Indicator Score (MPI)
- Higher performers
- Lower performers

Industry
- (All)
- Commercial
- Non-commercial

Organization Size
- (All)
- 50,000 or more
- 10,000 to 49,999
- 1,000 to 9,999
- 100 to 999
- 1 to 99

Geographic Structure
- (All)
- Global
- Multinational
- National

Ratio		
Higher performers	1.97 HR FTEs per 100 (1 for every 50.8 employees)	1.97
Lower performers	1.81 HR FTEs per 100 (1 for every 55.4 employees)	1.81

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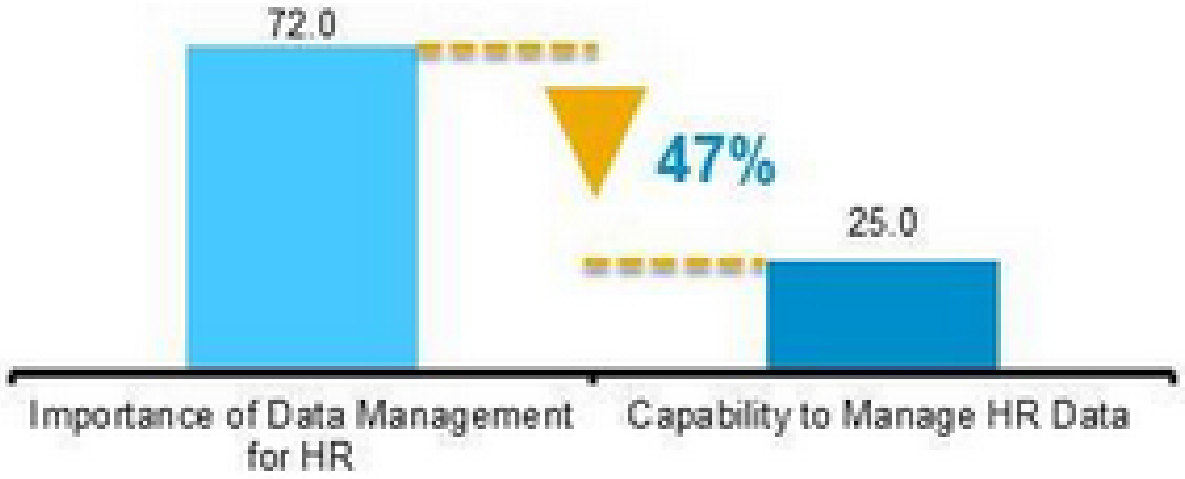
Enterprise Data Management for HR

72% companies find data management for HR important but only 25% have the necessary data management capabilities



Source: SAP EIM Performance Benchmarking 2012

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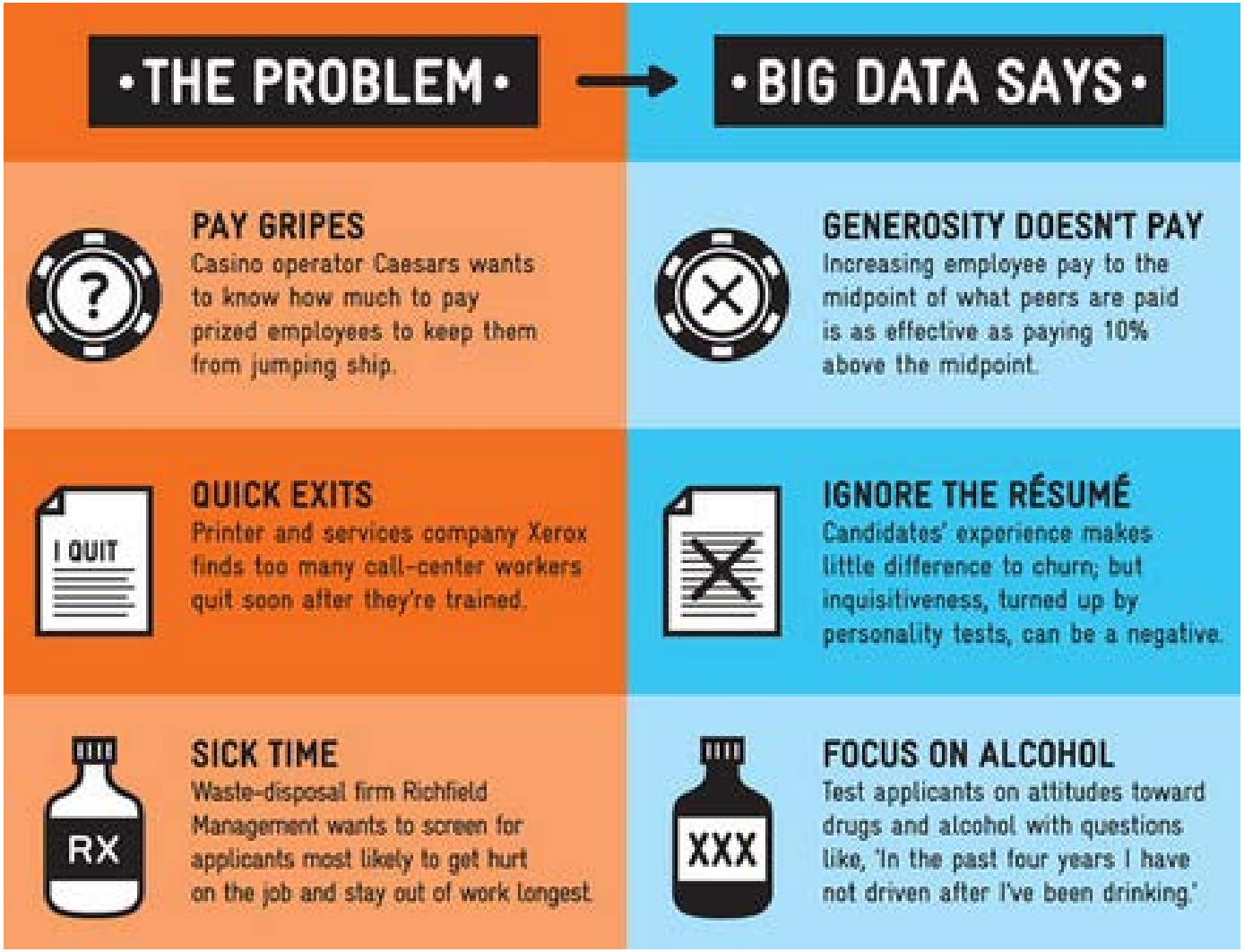

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Big Data – Terms and Components

- Seven Definitions:
- http://timoelliott.com/blog/2013/07/7-definitions-of-big-data-you-should-know-about.html

- http://data-informed.com/glossary-of-big-data-terms/

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