



## Smarter Analytics Live 2013

Turning information and insight into actionable business outcomes.

# Harnessing big data for improved business outcomes

Tim Young – Big Data Marketing Executive

10 April 2013

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## Marketing and Data Analysis are Intertwined



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## Topics

- Big data-driven business models - creating value
- An emerging architecture - managing big data
- Cultivating big data adoption

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## Study 1: Evidenced-based car insurance



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

*"It's about delivering young people, and all customers, much more competitive and cheaper motor insurance, but also providing them with a mechanism to educate themselves to drive more responsibly."*

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### Traditional approach to valuing risk

Variable	Value
Age	18
Gender	Male
Postcode	NE12 2BF
Date of previous claim	-----

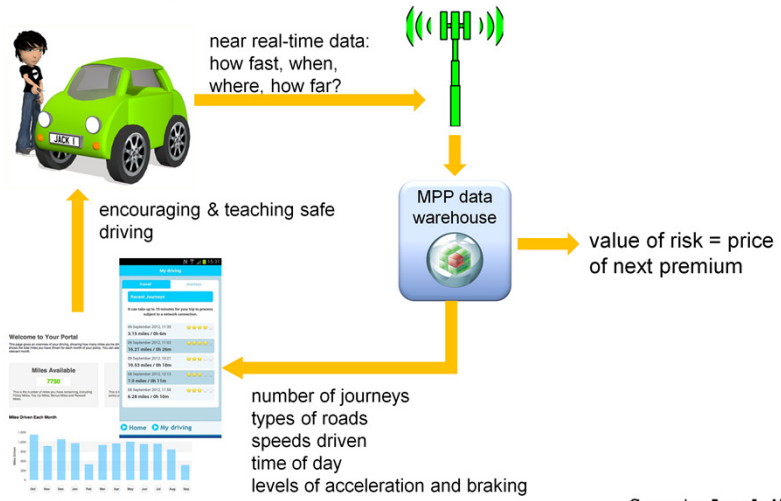
small data creates a fragile analytic model

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## Telemetry – big data, evidence-based insurance



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## Study 2: Re-engineering neonatal healthcare



**Dr. Carolyn McGregor**  
Canada Research Chair  
in Health Informatics  
University of Ontario  
Institute of Technology

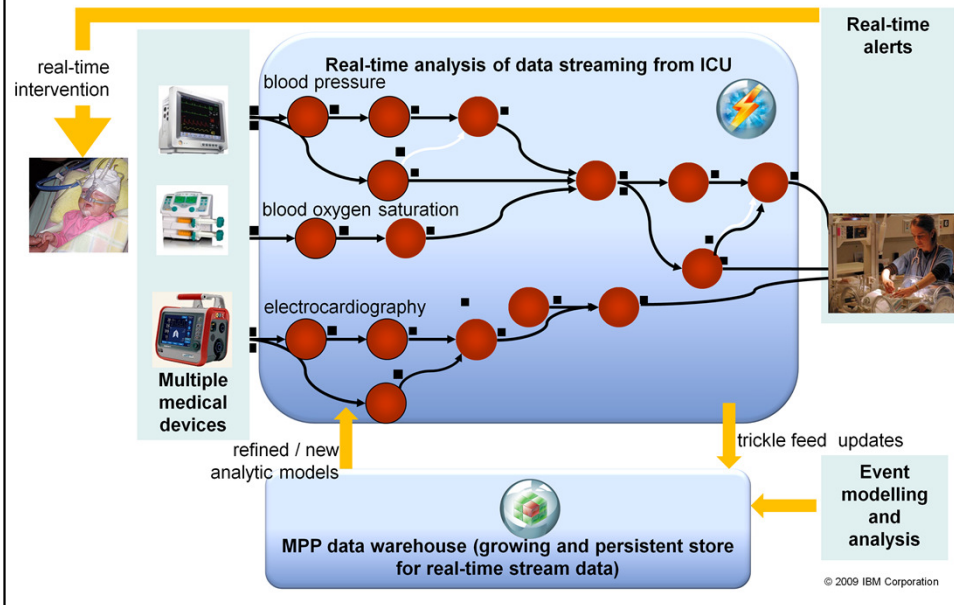
[www.ibmbigdatahub.com/video/ibm-stream-computing-smarter-healthcare](http://www.ibmbigdatahub.com/video/ibm-stream-computing-smarter-healthcare)

*“Being able to analyse streams in real-time is providing us with real opportunities for much earlier proactive intervention in the prediction of onset of illness”*

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## Predicting potential health-threatening events





### Study 3: Predicting unfavourable customer events

Investment client



predicts clients with high propensity to take action (leave the firm, file complaint, etc.) for immediate attention



40 million emails per month



Financial advisor

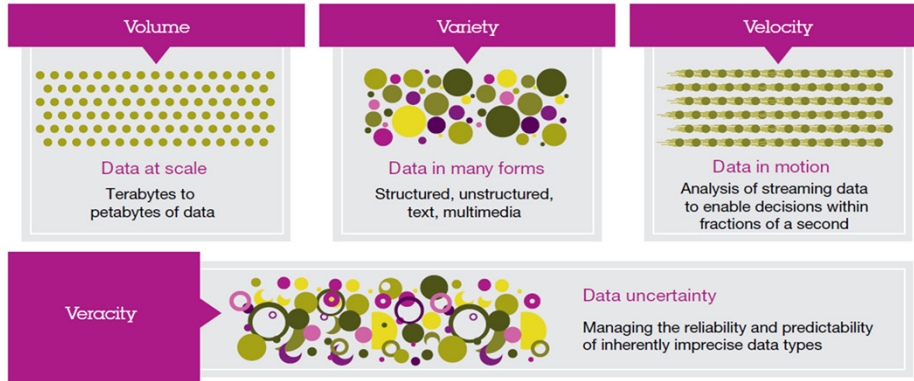


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## Big data in dimensions



Report based on the Big Data @ Work Survey conducted by IBM in mid-2012 with 1144 professionals from 95 countries across 26 industries.

Respondents comprised business professionals (54%) and IT professionals (46%).

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Extracting insights from exploding data volumes  
requires **new technologies** and methodologies

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Sampling can be a good thing....



...but not in digital marketing!

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## Throwing out impressions breaks attribution analysis



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It's not just about big...



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Reducing data latency creates significant marketing value



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### Marketeer's Objective

### Platform Capabilities

1 Single view of customer



Consolidation



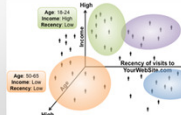
Clickstream  
Transactions  
Events  
CRM  
Support calls

All in one place

2 Increased Targeting Precision



Segmentation



Clustering  
Scoring  
Feature Selection  
Associations

3 Improved Relevance



Matching

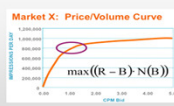


Personalized message  
Matching algorithms  
Matrix computations  
Single Value Decomp.

4 Higher campaign profitability



Optimization



Forecasting  
Predictive algorithms  
Decision trees  
Linear Regression

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### Marketeer's Objective

### Platform Capabilities

1 Single view of customer



Consolidation

Clickstream  
Transactions  
Events  
Calls  
Support calls

**Big Data**

All in one place

2 Increased Targeting Precision



Segmentation

Clustering  
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Associations

3 Improved Relevance



Matching

Personalized message  
Matching algorithms  
Matrix computations  
Linear algebra comp.

**Big Math**

4 Higher campaign profitability



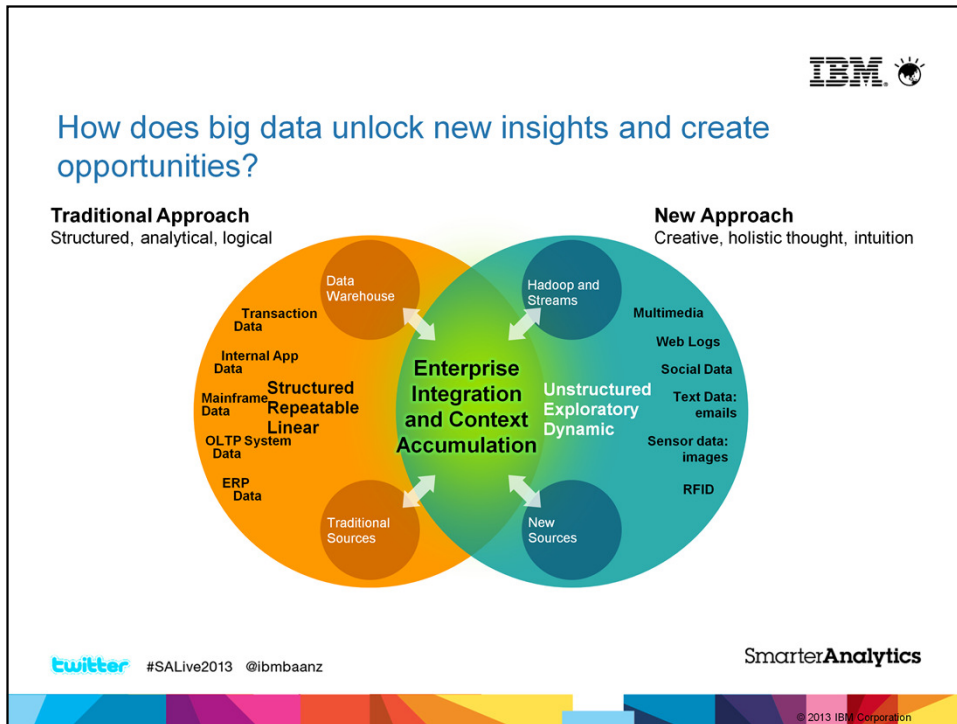
Optimization

Forecasting  
Predictive algorithms  
Decision trees  
Linear Regression

Market X: Price/Volume Curve

$\max((R - B) \cdot N(B))$

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## The IBM Big Data Platform



**WIKIBAN**

*"IBM offers by far the largest product and services portfolio by both breadth and depth most..."*

– Jeff Kelly, IBM is The Undisputed Leader in Big Data Market



**FORRESTER**

*"IBM has the deepest Hadoop platform and application portfolio."*

– The Forrester Wave™, 1Q12



**the 451 group**

*"IBM InfoSphere BigInsights is a core capability of the most comprehensive Big Data analytics platforms out there right now..."*

– Krishna RoyLars



## Agenda

- Big data-driven business models - creating value
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- Cultivating big data adoption

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Analytics: The real-world use of big data  
*How innovative enterprises extract value from uncertain data*

[www.ibm.com/2012bigdatastudy](http://www.ibm.com/2012bigdatastudy)

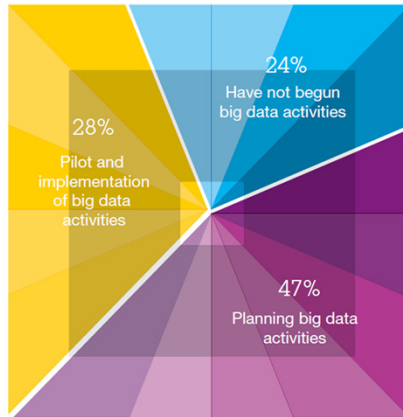
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## Step 1: Seize the opportunity



Most organizations are in the early stages of big data deployments.

Respondents were asked to identify the current state of big data activities within their organizations. Percentage does not equal 100% due to rounding.

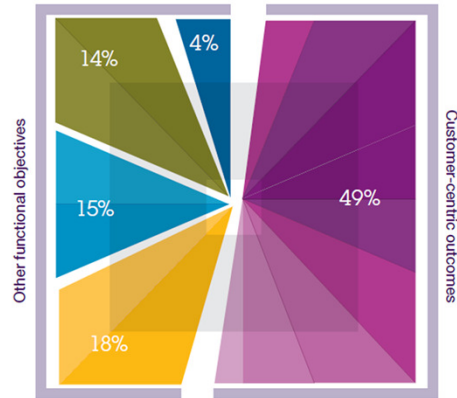
Total respondents = 1061

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## Step 2: Start with a goal – focus on customer-centric outcomes

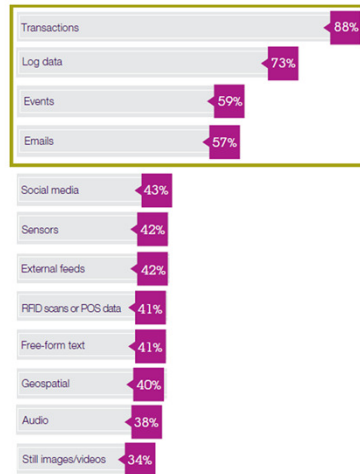


- Customer-centric outcomes
- New business model
- Operational optimization
- Risk/financial management
- Employee collaboration

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### Step 3: Activate existing data sources



Respondents with active big data efforts were asked which data sources they currently collect and analyze.

Each data point was collected independently.

Total respondents for each data point range from 557 to 867.

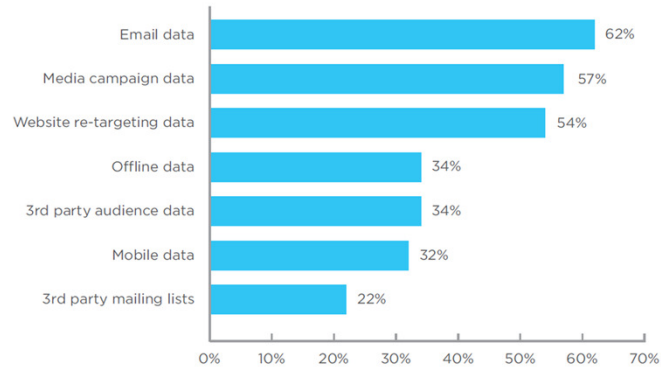






## Marketers most value first party data

Which of the following data assets are critical to your marketing efforts?



Radar Research: Marketers' Take on Data-Driven Strategies To Activate Cross-Channel Intelligence. December 2012

[www.bluekai.com/DMPREPORT/assets/files/radar-research-DMPwhitepaper.pdf](http://www.bluekai.com/DMPREPORT/assets/files/radar-research-DMPwhitepaper.pdf)

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## Closing thoughts

- Big data is not just a change in technology and tools
- Big data is not just a competitive differentiator
- Big data changes how organisations make decisions
- Big data changes how organisations deliver value

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