



顛覆企業傳統ROI

資訊革新論壇 *The New ROI*

Return on Information

資訊創造報酬率，迎接ROI大革新

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Big Data Development
IBM Silicon Valley Lab



Big Data can solve problems that improve human life



Actionable insights that anticipate situations are the keys to success



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New Opportunities with Big Data & Analytics

**Transactional
& Application
Data**

**Machine
Data**

**Social
Data**

**Enterprise
Content**

- Stream Computing
- Hadoop
- Data Warehousing



Data Landing Zone and Technology Platform

Big Data and Technology Platform



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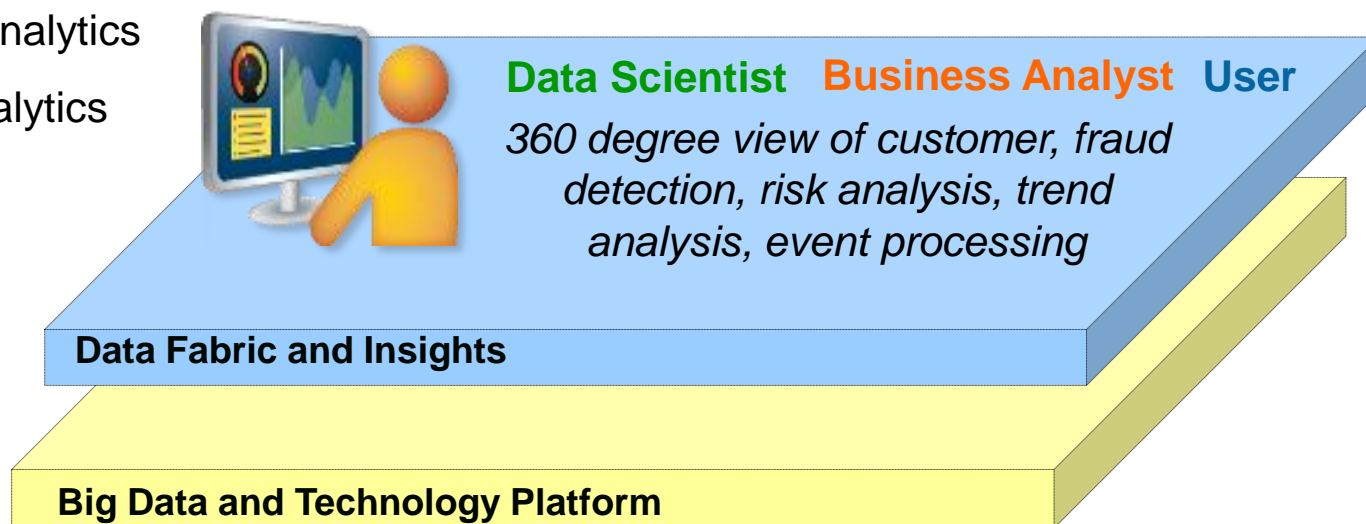
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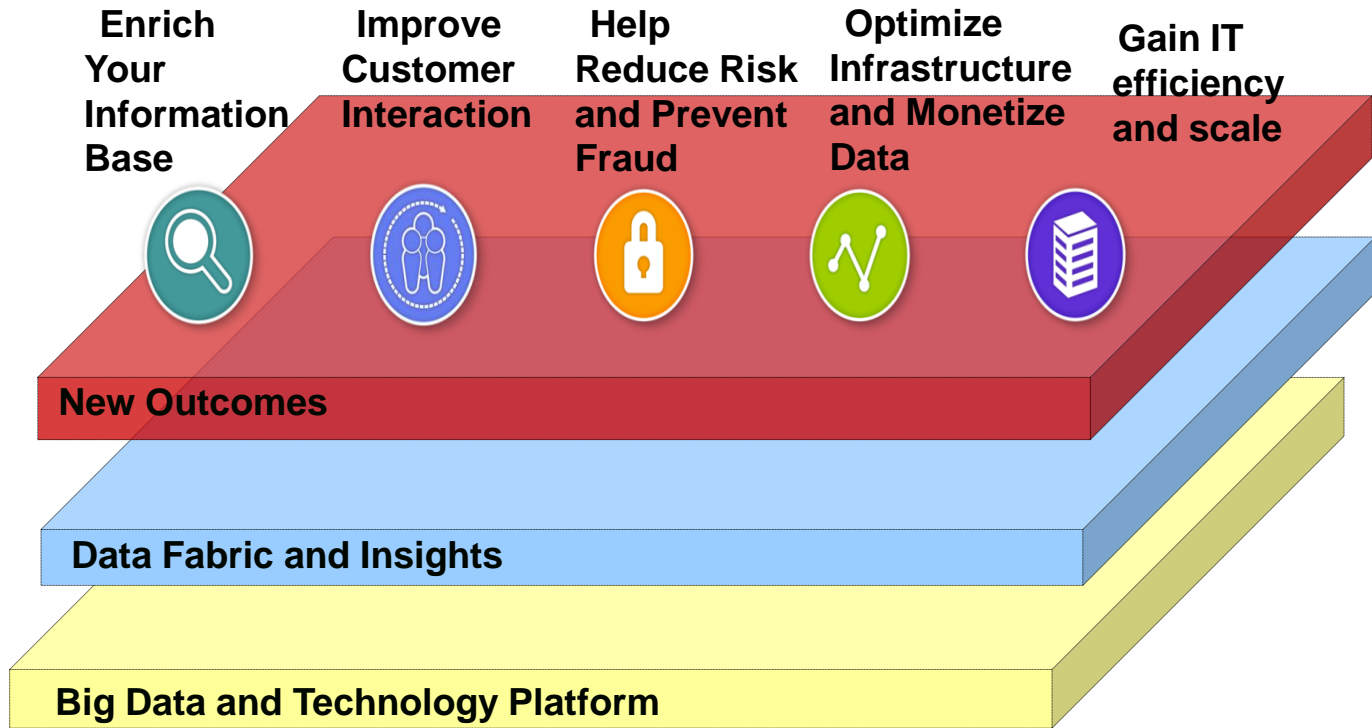
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New Opportunities with Big Data & Analytics

- Predictive Analytics
- Real-time Analytics
- Content Analytics



New Opportunities with Big Data & Analytics



Capturing Interaction Data



- The problem with traditional systems is that they don't know a customer's presence until checkout, after the shopping experience is pretty much complete
- A 360° view of a customer starts with interacting with him in real time – identifying the customer means tracking and individual across channels, from point of sale (POS, to multiple store outlet brands, call center, technical support, and more)



The Segmentation of One and Customer State: Client D.N.A

Service Profile:

Current Handset = RealPhone
 Next Upgrade = March 2013
 Data Plan = Unlimited Domestic
 Features = Basic

Customer Insights:

Customer Seg = SME
 Customer Value = High
 Influencer Score = Moderate
 Churn Risk = Mod/High
 Loyalty Member = No

Preference:

Movies & video
 Sports
 International Travel
 Social Media (Facebook)



Usage Data Summary (3 mos):

80% of calls out-of-network
 Made 3 calls to a competitor call center
 5 streaming video events per day
 Heavily uses smartphone app
 Data roamed in Japan 6 times

Billing Profile:

Average Bill = \$200 per mo
 Pays by autopay

Customer Profile:

Gender = Male
 Marital = Married
 Children = No
 Income = Upper/Mid Tier
 Language = English



D.N.A. Based Next Best Action



Action	Impact on Churn	Impact on Customer Lifetime Value	Likelihood to respond positively to action
\$20 off this month's bill			
Deliver an apology — Issue with cell tower being fixed this weekend			
6 months free unlimited data plan			
Upgrade phone			



Real Time Web Behaviors: Client D.N.A

Audience and ID:
Bill Middleton, 1234567

Products of Interest:
NanoPhone

Product Education: 20

Likelihood to Purchase: 20

Churn Risk: 65

Welcome, Bill Middleton!
Not Bill? Sign out.

Plans **Phones** **Accessories** **My Account**

The NanoPhone is here!

Our newest smartphone is a great choice for anyone on the go. With a bright, high-resolution touch screen, it's perfect for your digital lifestyle.

NanoPhone offers a full-featured web browser, push email, instant access to your favorite social networks, and an unbelievably sharp camera — all in our smallest form factor yet.

NanoPhone can access the NanoStore, which offers over 850,000 applications that you can download and run any time.

And one more thing: it makes phone calls, too.

LEARN MORE

More Apps
The NanoStore gives you access

More Coverage
Our global network has more cell



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Real Time Web Behaviors: Client D.N.A

Audience and ID:
Bill Middleton, 1234567

Products of Interest:
NanoPhone

Product Education: 80

Likelihood to Purchase: 86

Churn Risk: 65

Welcome, Bill Middleton!
Not Bill? Sign out.

Plans **Phones** **Accessories** **My Account**

Video **Features** **Specs**

Watch this video to see the new NanoPhone in action!

This includes an overview of the all the standard smartphone features, like email, social networking, and apps, as well as some of the exclusive new NanoPhone functionality.

PLAY VIDEO

Accessory Information

Enhance your handset with these accessories, specifically designed to work with your new NanoPhone.

Get a new wireless headset, travel phone chargers, screen protectors, customized shock-proof cases, and much more.



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Audience and ID:

Bill Middleton, 1234567

Products of Interest:

NanoPhone

Product Education: 60



Likelihood to Purchase: 65



Churn Risk: 65



Special Offer

Bill, as a valued customer, we'd like to offer you a **special deal on a new NanoPhone.**

Would you like to view the offer, or discuss the offer with a customer service representative via video chat?



VIEW OFFER

VIDEO CHAT



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Real Time Web Behaviors to Address Churn: Client D.N.A

Audience and ID:
Bill Middleton, 1234567

Products of Interest:
NanoPhone

Product Education: 60

Likelihood to Purchase: 65

Churn Risk: 65

Smart Call Center Find customer: 800-000-0021 Logout IBM

Notifications

Alerts Actions

Premium phone: 64 MB media edition
Offer Accepted

Submit Response

Predicted Profit: \$247.09

Customer Info

Name	Gender	Age	Id
Bill Middleton	Male	43	1234567
Education	Marital Status	Location	
Masters Degree	Married	Map	

Customer Details

Profile Usage Billing Case Detail

Churn Propensity

54%

0% 25% 75% 100%

Churn Score

Customer Satisfaction

50%

0% 25% 75% 100%

Satisfaction Score

Customer Lifetime Value (CLTV)

50%

0% 25% 75% 100%

CLTV Ratio

Social Network Influence

50%

0% 25% 75% 100%

Influencer Authority

Plan Details

- Segment
- PLATINUM
- Contract
- Freedom 60
- Current Offer
- Premium phone



Map and Update the Customer Information

Service Profile:

Current Handset = uPhone
 Next Upgrade = March 2014
 Data Plan = International Roam
 Features = Custom

Customer Insights:

Customer Seg = SME
 Customer Value = High
 Influencer Score = High
 Churn Risk = Low
 Loyalty Member = Yes

Preference:

Movies & video
 Sports
 International Travel
 Social Media (Facebook)



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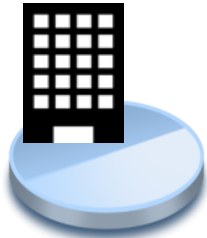


Telemetry - “Connected Cars”



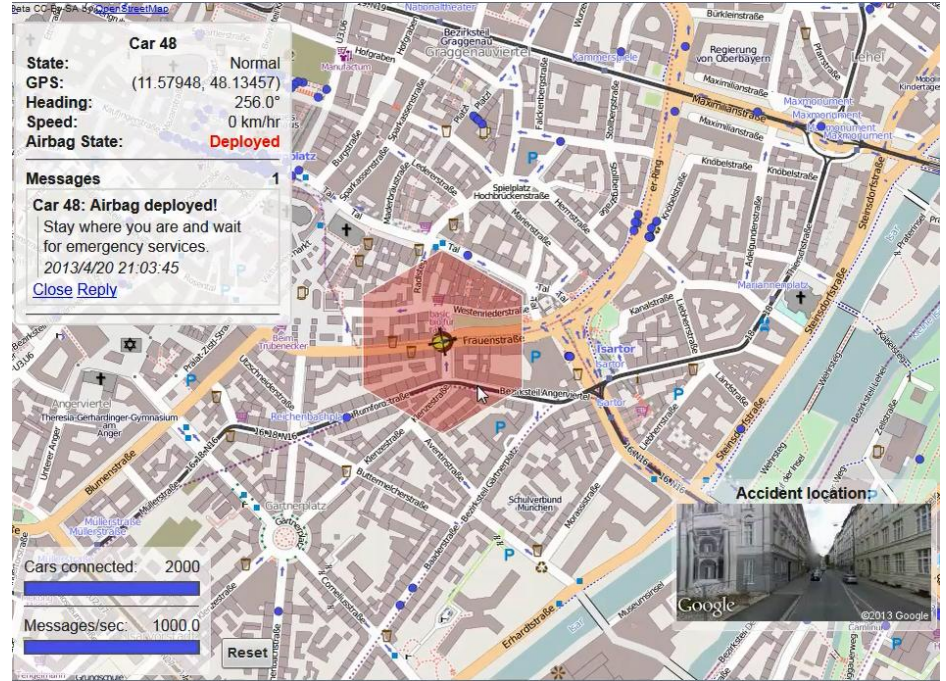
Automotive Company & Dealers

- Improve product quality
- Predict part failure
- Schedule Services



Insurance Companies

- Accident alerts
- Driver behavior
- Personalized pricing



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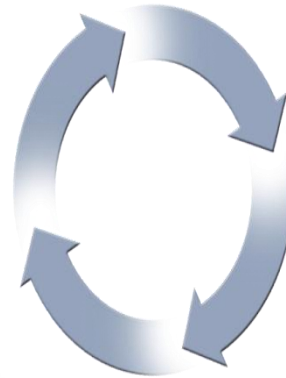
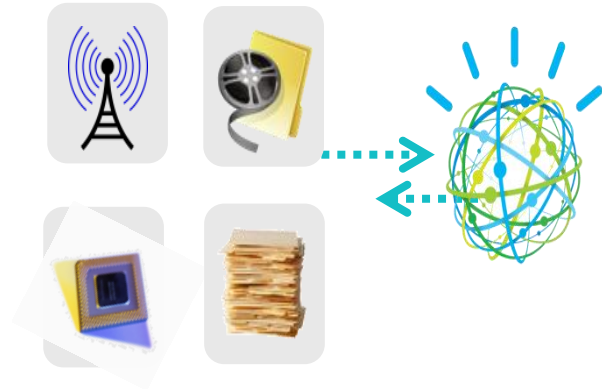
Return on Information

Leverage Big Data and Analytics for ROI

Business challenges



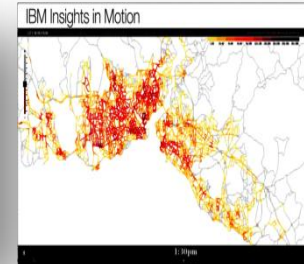
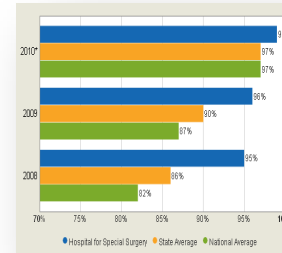
Leverage existing and new Big Data sources and apply analytics



Exploit, codify and take actions



Prove hypothesis determine patterns, build predictive models



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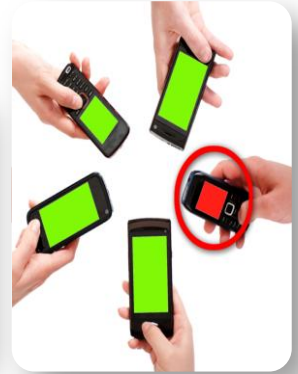
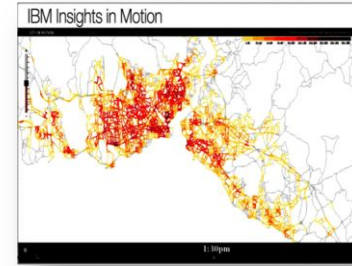
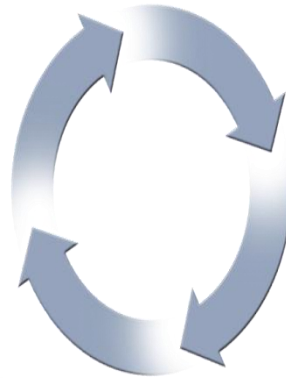
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Leverage Big Data and Analytics for ROI

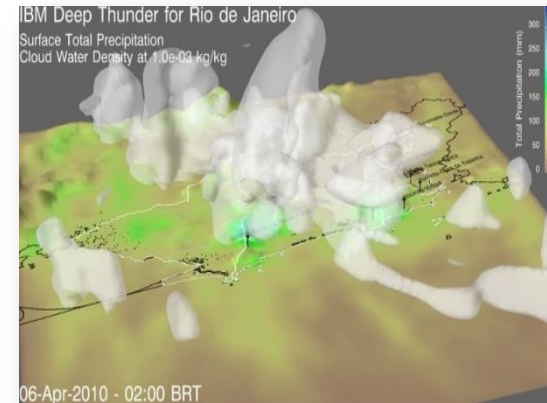
Business challenges



Exploit, codify and take actions



1. System needs to analyze the **PAST**, and **predict the FUTURE**, leveraging all available data



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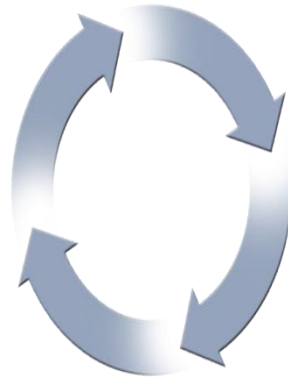
Business challenges



“What neurological condition contraindicates the use of bupropion?”



1. Systems needs to *process complex natural languages* and perform deep analysis.



Exploit, codify and take actions



“2 b, r nt 2 b
dat iz d Q.
LOL!”



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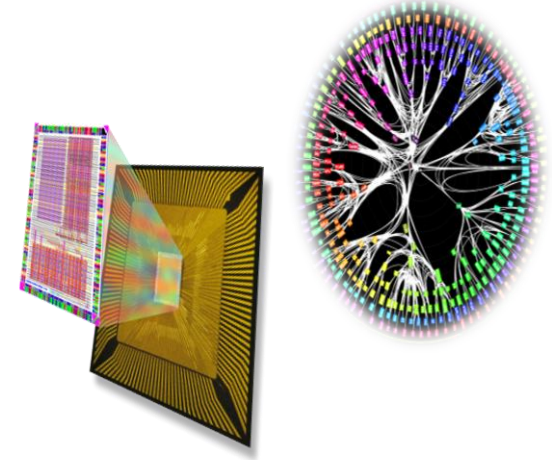
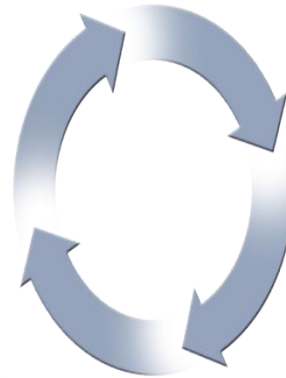
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Leverage Big Data and Analytics for ROI

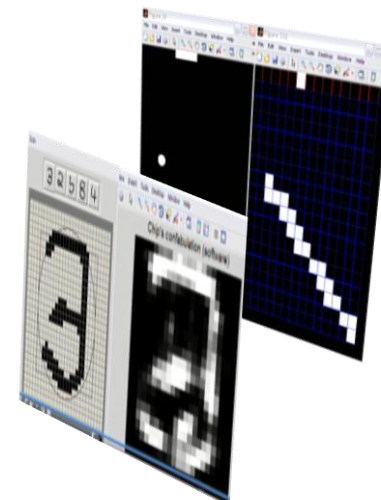
Business challenges



Exploit, codify and take actions



3. Systems needs to process **images**, **audio** and **video** streams to detect patterns

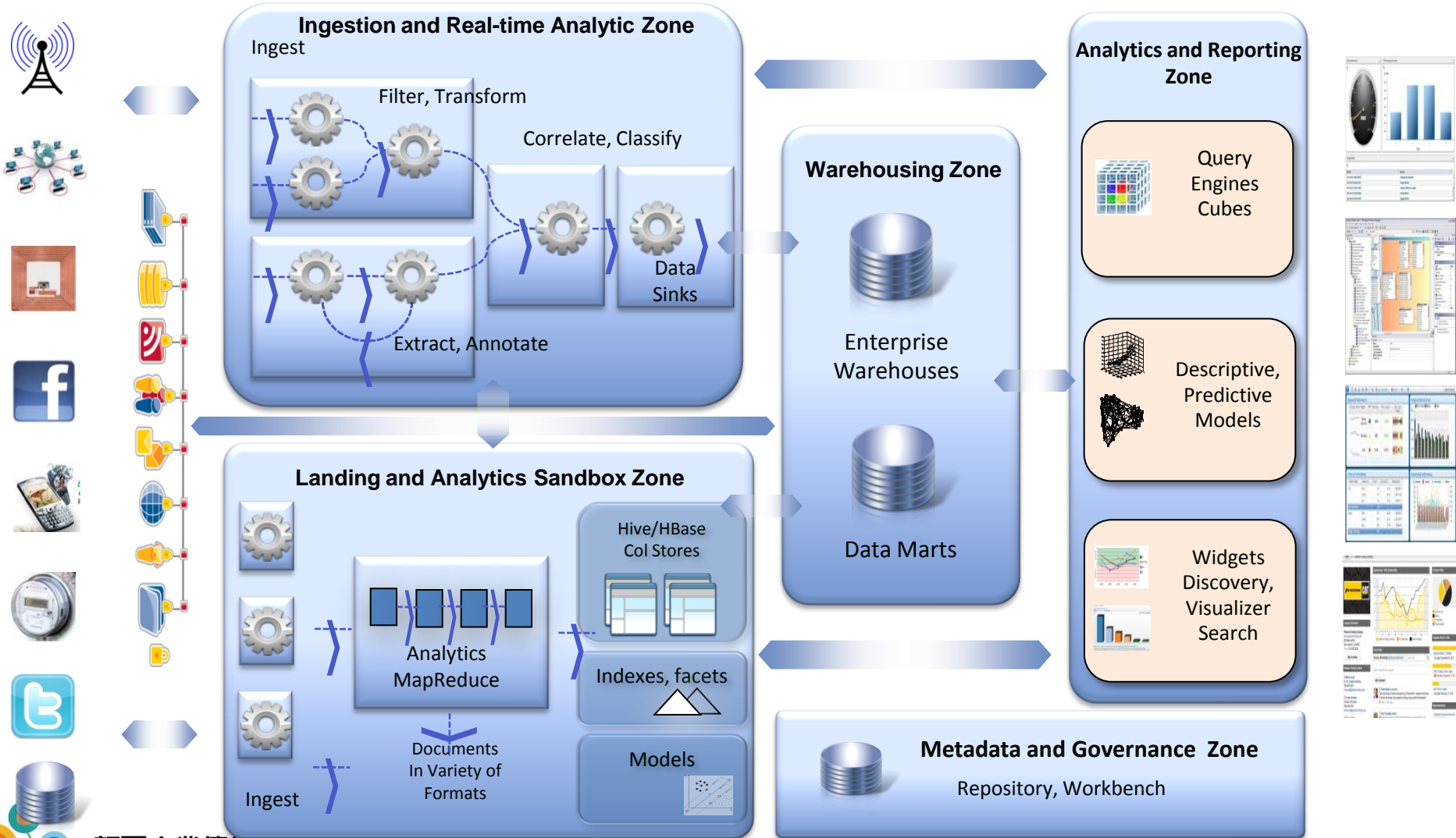


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Pattern of Big Data and Analytics Implementation



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Get Started. Be Bold. Think Big.



Organizations competing on information and analytics are more likely to outperform their peers.

Source: IBM IBV Analytics Study 2012

