



Smarter Analytics Live 2013

Turning information and insight into actionable business outcomes.

Analytics in the Cloud

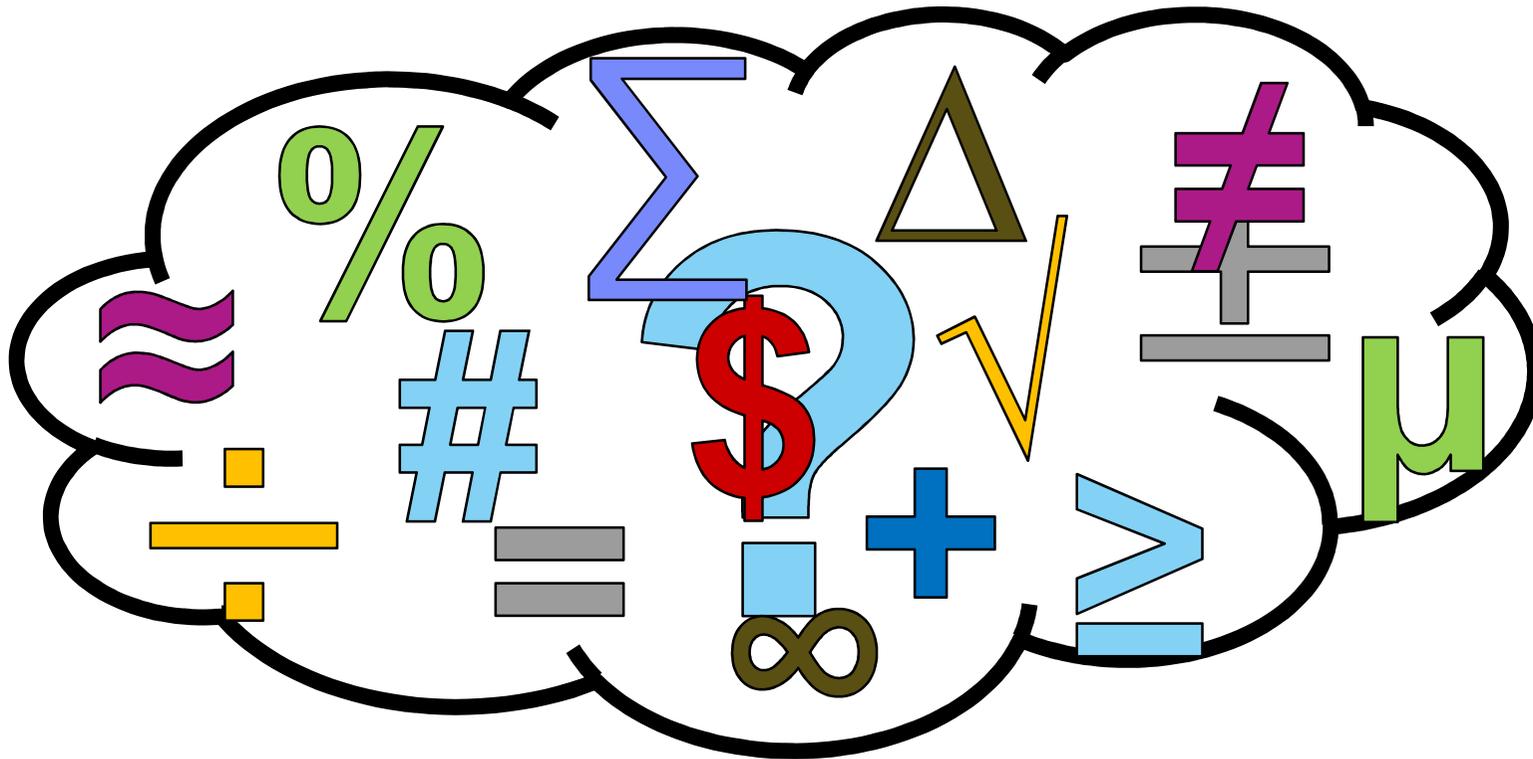
Karen Hardie – Senior Technical Sales Consultant

August 2013

 #SALive2013 @ibmbaanz

Smarter**Analytics**

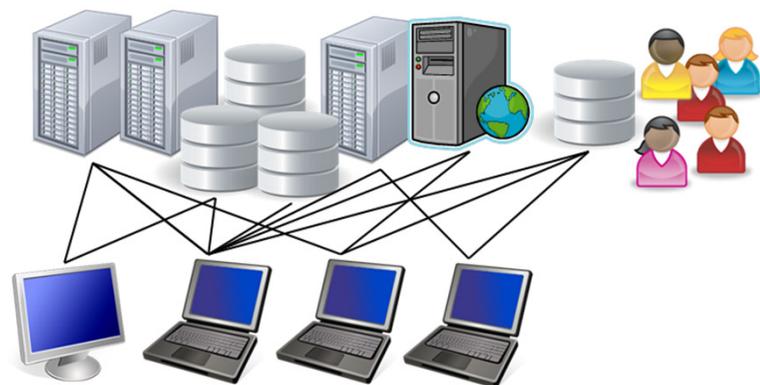






What is the Cloud?

- Also known as Cloud Computing
- It is an approach, not a technology
- Provides computing resources via the internet
- Incorporates Software as a Service (SaaS)



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Challenges with Adopting Technology



Cost

- Software licenses
- Servers and hosting
- Maintenance
- Services



Dependence on IT

- Budgeting/approval
- Resourcing
- Integration with IT/data infrastructure

Challenges with Adopting Technology



Cost

- Licenses
- Servers and hosting
- Maintenance
- Services

No up-front investment



Dependencies

- Integration/approval
- Resourcing
- Integration with IT/data infrastructure

Minimal IT involvement

Challenges with Adopting Analytics



Cost

No up-front investment

- Licenses
- Servers and hosting
- Maintenance
- Services



Deployment

Minimal IT involvement

- Configuration/approval
- Resourcing
- Integration with IT/data infrastructure



Need for Analytical Expertise

- Hiring
- Training



Time to value

- Need all these in place before starting work
- Complete analysis and deploy results

Challenges with Adopting Analytics



Cost

- Licenses
- Servers and hosting
- Maintenance
- Services

No up-front investment



Deployment

- Integration/approval
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- Integration with IT/data infrastructure

Minimal IT involvement



Need for Analytics Expertise

- Hiring
- Training

No analytical skills required



Time to Value

- Time to get use in place
- Time to start work
- Complete analysis and deploy results

Minimizes time to value





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Analytic Answers

A portfolio of subscription-based, cloud-hosted solutions that deliver actionable predictive/prescriptive information directly to the line of business

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Our Clients Realise Huge Value from Predictive Analytics



- ROI: 629%
- Payback: 2 months
- Average annual benefit: \$6,559,000



Nucleus found that for every dollar a company spends on analytics, it gets back **\$10.66**.



- Crime rate reduction of 35%
- Annual ROI: 1301%
- Annual benefit \$1.3 million
- Payback in 1.5 months



- Saved an estimated \$1 million annually in staffing costs
- Gained \$600,000 in revenue per year from a combination of member retention and new member acquisition.
- 30%+ lift rate on direct mail campaigns.



- 60% improvement in revenue retention rates
- Realizing millions of dollars in annualized revenue protection



- 600% ROI through more efficiently allocated marketing resources
- 3.1% increase in marketing response rate
- 20% reduction in mailing costs and 17% reduction in printing costs

IBM Analytic Answers - Available Today

Prioritized Collections



Increase successful receivables collections rate ...

Which of my overdue debtors are likely to pay? How much can I recover from them, and which treatment will be most effective for each?

Donor Contribution Growth



Maximise donor generosity ...

What is the likelihood that my current donors or constituents will pledge a donation, how much are they likely to contribute, and what is the best approach to maximize their generosity?

Student Retention



Sustain student enrollment levels ...

Which of our students are at risk of disengaging? How should we intervene to get them back on track and avoid the possibility of their dropping out?

IBM Analytic Answers - Available Today

Insurance Renewals



Retain policyholders ...

Which of my insurance policy holders are unlikely to renew next month? How could I persuade each one to stay loyal?

Purchase Analysis & Offer Targeting



Increase customer spend ...

Which products do my customers tend to buy together? Can I leverage that knowledge to create combination offers and promotions that increase basket size and revenue per customer visit?

Telco Churn



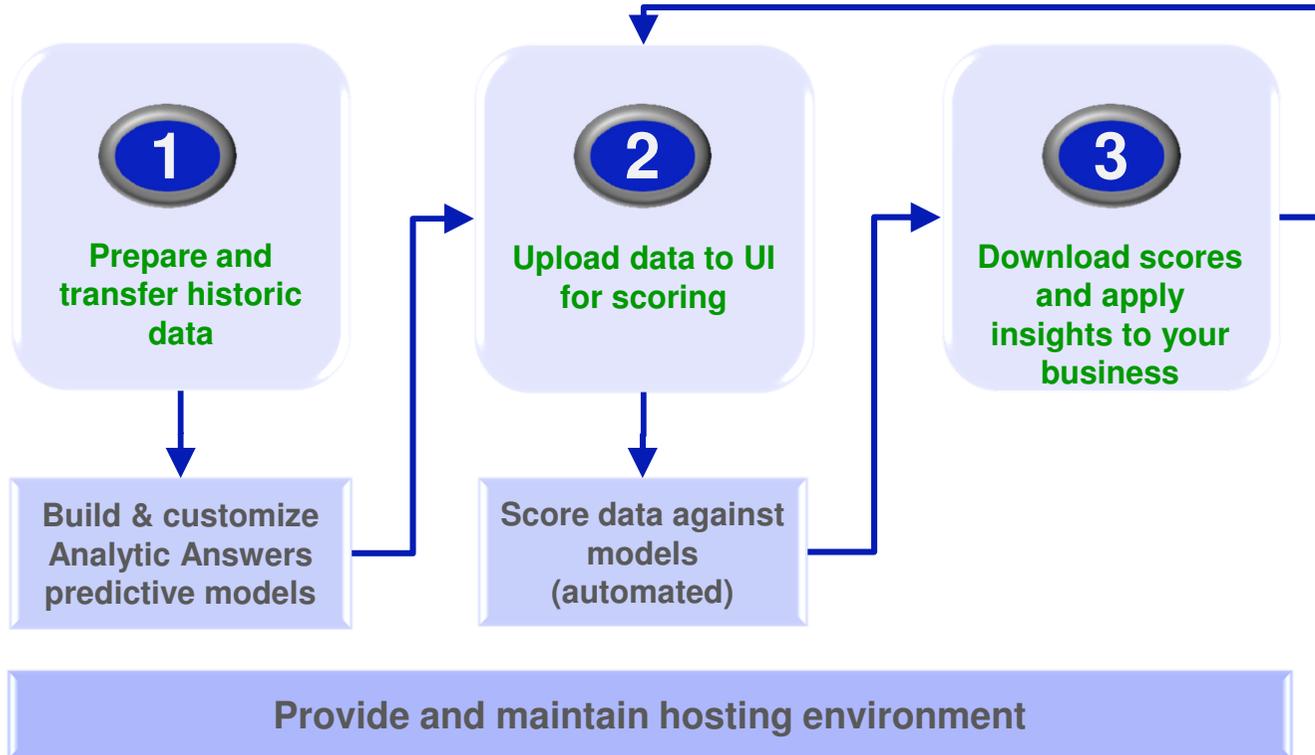
Increase customer retention ...

Which of my customers are likely to defect to another carrier in the coming months? What is the right program or incentive I could extend that would keep them loyal?

Analytic Answers in three simple steps



Subscriber



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Analytic Answers Example: Insurance Renewals



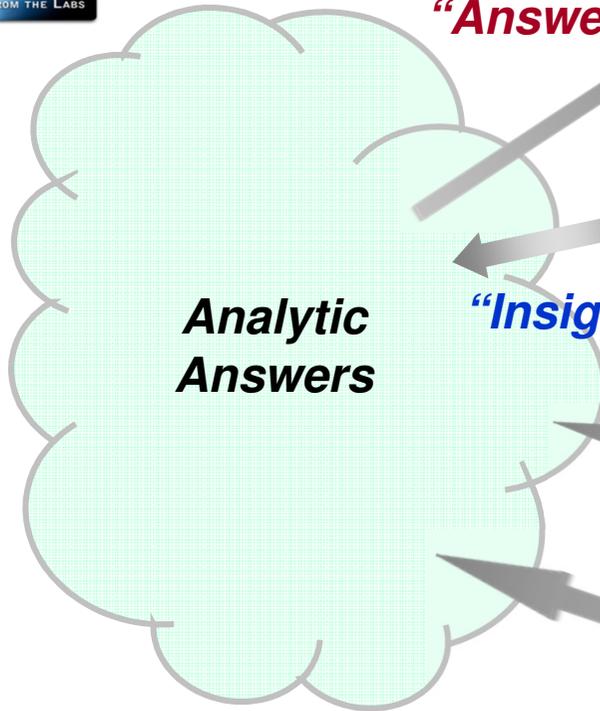
*Risk of non-renewal for each customer (predictive)
Recommended action for each (prescriptive)*



Retention actions

“Answers”

Customer ID	Risk Score	Recommended Action
C001	High	Offer discount
C002	Medium	Send reminder
C003	Low	Standard renewal
C004	High	Call agent
C005	Medium	Offer loyalty
C006	Low	Standard renewal
C007	High	Offer discount
C008	Medium	Send reminder
C009	Low	Standard renewal
C010	High	Call agent



Analytic Answers

“Insights”

*Patterns of defection
Profiles of leavers
Success of answers & actions*



*Who's at risk of going?
How do we keep them?*

“Questions”

Customers due for renewal



Customer/Policy data
Renewals history

LoB

IT

Success of retention actions

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Prioritized Collection example



DebtCurrent.csv - Microsoft Excel

File Home Insert Page Layout Formulas Data Review View

A1 AccountID

	A	B	C	D	E	F	G	H	I
1	AccountID	Acc Age	DebtValue	RepaymentProfile	HadDishonouredPayment	PaymentMethod	ProductType	ProductCode	PrimaryContactChannel
2	ID003	4.870913	835.204419	Regular	F	Cheque or Cash Payment	C	C2	Phone
3	ID004	9.023449	631.919888	Regular	F	Standing Order Plan	C	C1	Phone
4	ID007	6.552271	198.703759	LumpSumOverpayer	F	Debit Card Payment	D	D4	Mail
5	ID0011	8.519854	205.62692	RegularOverpayer	F	Debit Card Payment	D	D2	Mail
6	ID0012	5.409104	389.86751	Regular	F	Direct Debit Plan	D	D4	Phone
7	ID0013	6.560631	327.442832	LumpSumOverpayer	F	Credit Card Payment	D	D3	Mail
8	ID0015	8.038609	342.399315	Regular	F	Standing Order Plan	V	V2	Mail
9	ID0016	5.322939	730.319554	Regular	F	Credit Card Payment	C	C2	Mail
10	ID0019	11.026814	467.089341	Struggler	F	Cheque or Cash Payment	D	D1	Mail
11	ID0022	8.045062	343.767956	Regular	F	Credit Card Payment	D	D7	Mail
12	ID0024	12.219815	707.858348	Regular	F	Credit Card Payment	D	D3	Mail
13	ID0027	9.831348	628.159563	Regular	F	Credit Card Payment	D	D6	Mail
14	ID0028	6.885244	136.983624	Regular	F	Direct Debit Plan	D	D6	Phone
15	ID0031	5.613471	511.096423	Struggler	F	Credit Card Payment	D	D7	Email
16	ID0032	7.857441	462.862728	Regular	F	Direct Debit Plan	D	D5	Phone
17	ID0035	7.184732	521.595929	Struggler	F	Credit Card Payment	D	D1	Mail
18	ID0036	6.922837	1212.270027	Regular	F	Credit Card Payment	D	D6	Phone
19	ID0037	9.723995	775.738296	Regular	F	Credit Card Payment	D	D7	Phone
20	ID0039	4.639222	940.727498	Regular	F	Credit Card Payment	D	D4	Mail
21	ID0043	4.469205	565.679444	Struggler	F	Credit Card Payment	D	D7	Mail
22	ID0046	8.366911	182.408922	Regular	F	Credit Card Payment	D	D2	Mail
23	ID0048	9.096619	316.416059	Regular	F	Credit Card Payment	V	V3	Column: A

DebtCurrent

Login to Analytics Answers



IBM Analytic Answers

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Home My Questions

Dashboard

Current Month	History
Total Questions: 3 Total Records: 24928 Maximum Records: 1000000 Overage Records: 0	Total Questions: 3 Total Records: 24928

My Answer Services

My Answer Services 1-1 of 1 items



Prioritized Collections(3 Questions, 24928 Records)
Enables prioritized debt collection by predicting, for each outstanding debt, the probability of payment, the amount that can be recovered, and the most effective collection approach.

[Detail](#)

Create a new query and upload data



Connecting... +

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Home My Questions

My Questions

New Question Refresh

1 - 3 of 3 items 10 |

Question No.	Answer Service
11030	Prioritized Collections
11029	Prioritized Collections
11028	Prioritized Collections

New Question

Select answer service

Prioritized Collections

Select data source file

DebtCurrent.csv

Upload progress

 Uploading...

Insight

Answers are returned



IBM Analytic Answers

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Home My Questions

My Questions

New Question Refresh

1 - 4 of 4 items 10 | 25 | 50 | All

Question No.	Answer Service	Status	Submitted By	Submitted Time	Records	Answer	Insight
11032	Prioritized Collections	Completed	MBI AR	10/12/12 5:41 AM	8958		
11030	Prioritized Collections	Completed	MBI AR	10/12/12 2:40 AM	7012		
11029	Prioritized Collections	Completed	MBI AR	10/12/12 2:28 AM	8958		
11028	Prioritized Collections	Completed	MBI AR	10/12/12 2:26 AM	8958		



Answers are at the individual level



Debt_Analysis.cdd*

Style | Insert | Get Data | Explore | ?

MBI telecom

AccountID

- ID00854
- ID003736
- ID0015648
- ID0017438
- ID0013942
- ID0014547
- ID0017001
- ID007529
- ID00786
- ID001284
- ID003669
- ID0014884
- ID009257
- ID0014140
- ID008168
- ID0012367
- ID008106
- ID007425
- ID0017702
- ID007502
- ID008878
- ID00451
- ID004360
- ID009233
- ID005759

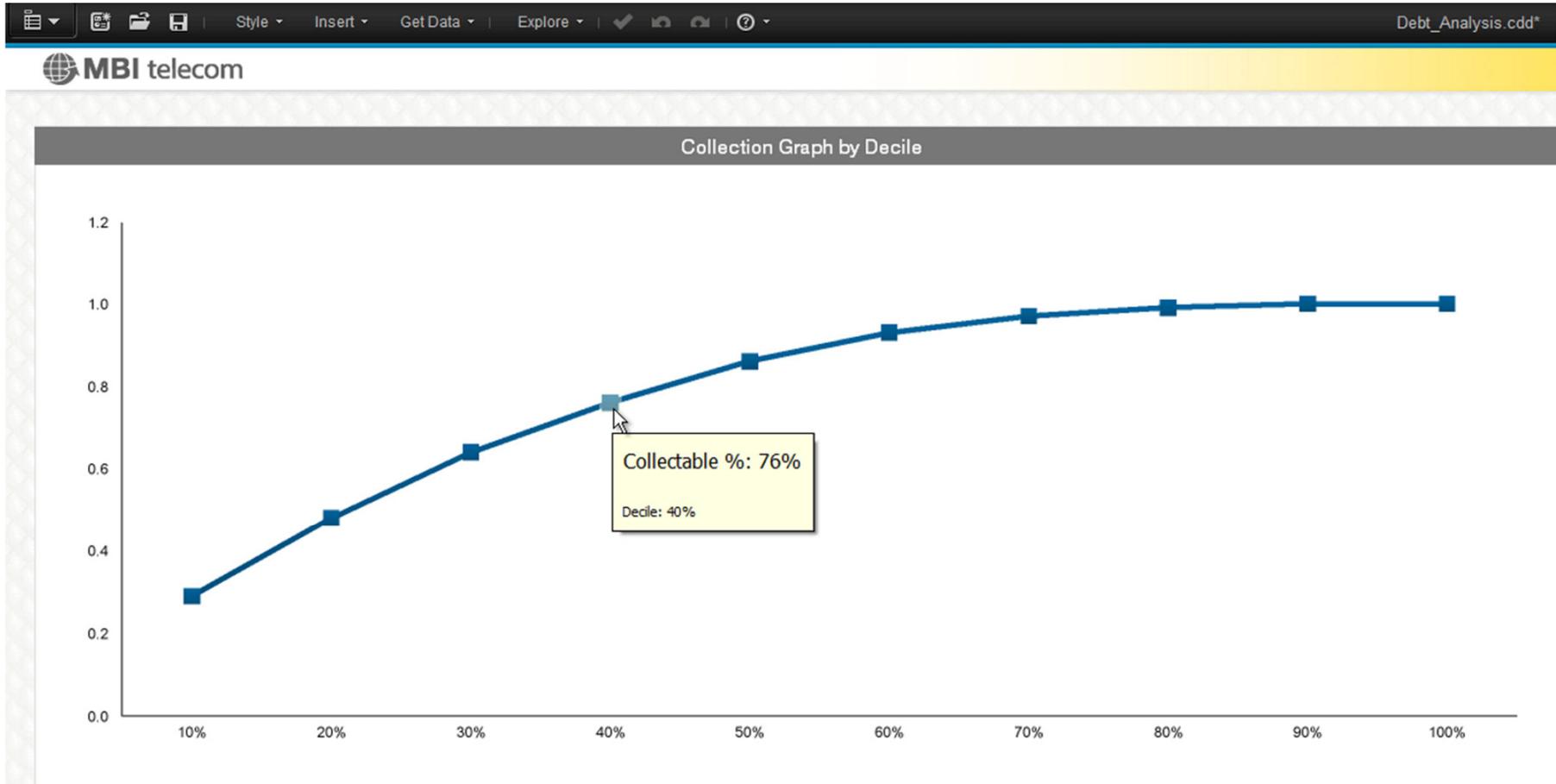
Customer Debt

AccountID	Recoverable Amount	Collection Probability	Best Method
ID00854	\$1,132.57	99.6%	Court Action
ID003736	\$1,090.64	99.6%	Court Action
ID0015648	\$1,057.83	99.6%	Court Action
ID0017438	\$1,055.53	99.6%	Court Action
ID0013942	\$1,051.40	92.5%	Field Team
ID0014547	\$1,005.96	97.1%	Court Action
ID0017001	\$1,001.21	89.8%	Field Team
ID007529	\$1,000.39	99.6%	Court Action
ID00786	\$977.88	99.6%	Court Action
ID001284	\$953.40	99.6%	Court Action
ID003669	\$938.99	99.6%	Court Action
ID0014884	\$923.15	92.5%	Field Team
ID009257	\$920.65	99.6%	Court Action
ID0014140	\$907.93	99.6%	Court Action
ID008168	\$903.69	99.6%	Court Action
ID0012367	\$893.31	99.6%	Court Action
ID008106	\$879.94	96.8%	Court Action
ID007425	\$877.28	99.6%	Court Action
ID0017702	\$865.35	99.6%	Court Action
ID007502	\$850.99	72.8%	SMS
ID008878	\$840.45	99.6%	Court Action

Collection % by Collection Method

Collection Method	Collection %
Court Action	21%
Field Team	27%
SMS	32%
Pass	20%

Quantify results





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Social Media Analytics

Go beyond social media “listening” by transforming massive volumes of social media data into business insights

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Smarter**Analytics**



571 new websites are created every minute of the day

**VOLUME OF BUSINESS DATA
WORLDWIDE *DOUBLES EVERY*
1.2 YEARS**

**EVERY DAY, WE CREATE
2.5 QUINTILLION BYTES
OF DATA**

Brands and organisations on Facebook receive 34,722 Likes **EVERY MINUTE**

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

Twitter sees 12 Terabytes of Tweets **EVERY DAY**

BY 2020, BUSINESS TRANSACTIONS ON THE INTERNET - B2B AND B2C WILL REACH 450 BILLION PER DAY



IBM Social Media Analytics

- Analyse social media channels “on the fly” (eg blogs, discussions forums, Twitter, Facebook, LinkedIn...)
- Determine affinity to multiple analytic dimensions
- Provide related topics above and beyond your search
- Seamlessly integrated with Cognos BI

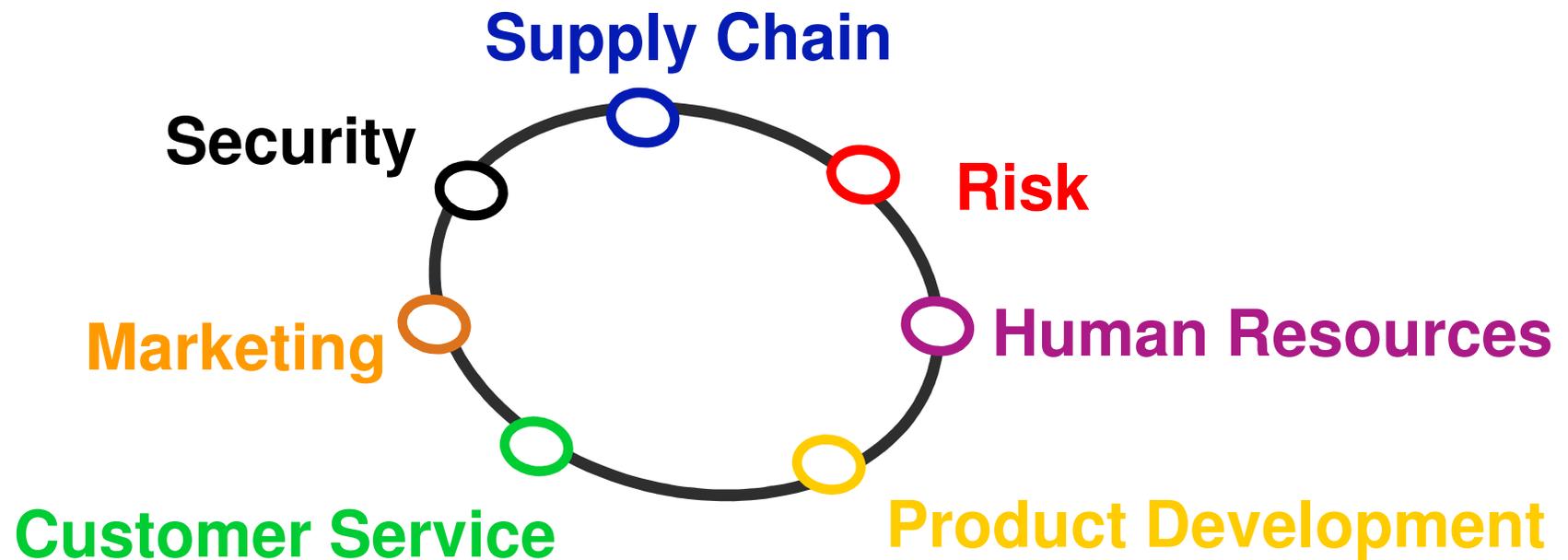


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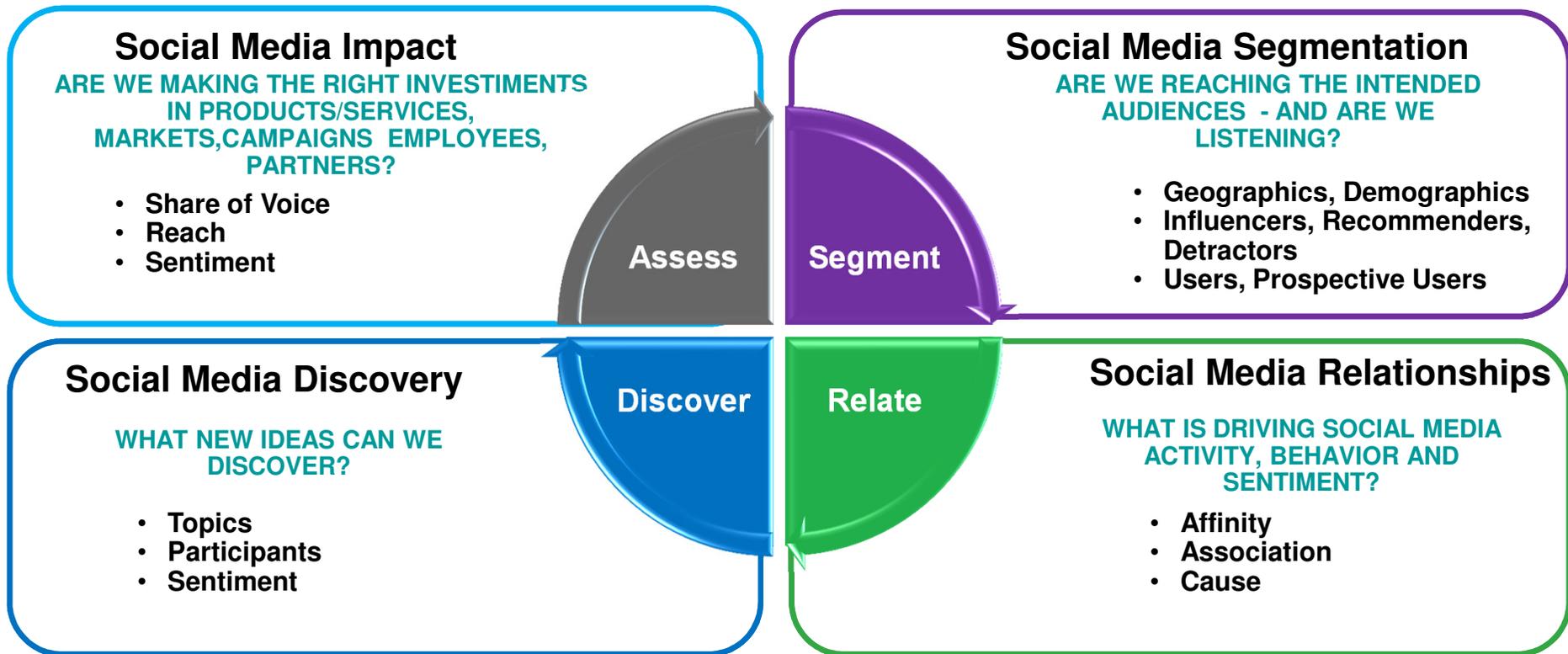
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Social Media Analytics Targets Business Issues



Social Media Analytics is NOT Just About Listening...





Firefox

IBM SPSS Social Media Analytics - Reporting

Project: ProjectC u:admin Log On

Social Media Impact

- Share of Voice
- Hotwords
- Reach
- Sentiment

Segmentation

- Demographics
- Behavior
- Top Influencers
- Influence Categories

Discovery

- Evolving Topics

SHARE OF VOICE OVERVIEW

Analyze snippet volume across Types & Concepts

Concept	Number of Snippets
Consumer Transactions	34,998
Customer Service	10,293
Dealerships	3,753
Elites	346
Impact	594
Leadership	1,162
Positioning	14,837
Product	22,474
Responsibility	7,036
Stockholders	235

SHARE OF VOICE TREND

Change in Types & Concepts Snippet Volume over Time

Year, Week	Consumer Transactions	Customer Service	Dealerships	Elites	Impact	Leadership	Positioning	Product	Responsibility	Stockholders
Jul-29	1,000	500	200	100	100	100	1,000	1,000	500	100
Aug-05	1,500	800	300	150	150	150	1,500	1,500	800	150
Aug-12	1,200	700	250	120	120	120	1,200	1,200	700	120
Aug-19	1,800	1,000	400	200	200	200	1,800	1,800	1,000	200
Aug-26	1,500	800	300	150	150	150	1,500	1,500	800	150
Sep-02	2,000	1,200	500	250	250	250	2,000	2,000	1,200	250
Sep-09	1,800	1,000	400	200	200	200	1,800	1,800	1,000	200
Sep-16	2,000	1,200	500	250	250	250	2,000	2,000	1,200	250
Sep-23	1,000	500	200	100	100	100	1,000	1,000	500	100

SHARE OF VOICE RELATIVE SENTIMENT

Compare sentiment distribution within Types & Concepts

Concept	Positive	Negative	Neutral	Ambivalent
Consumer Transactions	High	Low	Medium	Low
Customer Service	High	Low	Medium	Low
Dealerships	High	Low	Medium	Low
Elites	High	Low	Medium	Low
Impact	High	Low	Medium	Low
Leadership	High	Low	Medium	Low
Positioning	High	Low	Medium	Low
Product	High	Low	Medium	Low
Responsibility	High	Low	Medium	Low

SHARE OF VOICE BY GEOGRAPHY

Analyze geographic breakdown within Types & Concepts

Country	Share of Voice
IT	100%
ES	34%
AU	Low
NO	Low
IN	Low
MY	Low
GB	Low
RO	Low



Firefox

IBM SPSS Social Media Analytics - Reporting

IBM SPSS Social Media Analytics - Reporting

Project: ProjectC u:admin Log On Launch ? IBM.

Social Media Impact

- Share of Voice
- Hotwords
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Segmentation

- Demographics
- Behavior
- Top Influencers
- Influence Categories

Discovery

- Evolving Topics

GENDER OVERVIEW

Compare number of authors by gender

Gender	Number of Authors
Female	1,090
Male	3,183
Unknown	10,004

Select Demographic Attribute: Gender

- Gender
- Married
- Has Children

SHARE OF VOICE BY GENDER

Compare author distribution by gender within types and concepts

Concept	Female (%)	Male (%)	Unknown (%)
Stockholders	~10	~25	~65
Responsibility	~15	~25	~60
Product	~10	~20	~70
Positioning	~10	~20	~70
Leadership	~10	~25	~65
Impact	~10	~25	~65
Elites	~10	~25	~65
Dealerships	~10	~20	~70
Customer Service	~10	~25	~65
Consumer Transactions	~10	~20	~70

Select Demographic Attribute: Gender

GENDER RELATIVE SENTIMENT

Compare sentiment distribution across authors by gender

Sentiment	Female (%)	Male (%)	Unknown (%)
positive	~10	~20	~70
negative	~10	~20	~70
neutral	~10	~20	~70

GENDER BY GEOGRAPHY

Compare author distribution by gender across geographies

Geography	Female (%)	Male (%)	Unknown (%)
US	~10	~25	~65
CA	~10	~25	~65
GB	~10	~25	~65
IN	~10	~25	~65
MY	~10	~25	~65
DE	~10	~25	~65
AU	~10	~25	~65
IT	~10	~25	~65



Firefox

IBM SPSS Social Media Analytics - Reporting

Project: ProjectC u:admin Log On Launch ? IBM.

- Social Media Impact
 - Share of Voice
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- Segmentation
 - Demographics
 - Behavior**
 - Top Influencers
 - Influence Categories
- Discovery
 - Evolving Topics

AUTHOR BEHAVIOR OVERVIEW

Compare number of authors in each behavior category

Behavior Category	Number of Authors
User	~2000
Recommender	~10
Prospective User	~150
Detractor	~0

SHARE OF VOICE BY AUTHOR BEHAVIOR

Understand how author behavior categories contribute content to selected Types & Concepts

Type & Concept	User (%)	Recommender (%)	Prospective User (%)	Detractor (%)
Stockholders	~95	~5	0	0
Responsibility	~95	~5	0	0
Product	~85	~10	~5	0
Positioning	~95	~5	0	0
Leadership	~95	~5	0	0
Impact	~85	~10	~5	0
Elites	~95	~5	0	0
Dealerships	~95	~5	0	0
Customer Service	~95	~5	0	0
Consumer Transactions	~85	~10	~5	0

HOTWORDS BY AUTHOR BEHAVIOR

Understand which Hotwords are mentioned by each author behavior

Behavior Category	Red Car	Green Car	Blue Car	no hotword
User	~300	~300	~100	~1000
Recommender	~300	~300	~100	~1000
Prospective User	~300	~300	~100	~1000
Detractor	0	~1000	0	0

AUTHOR BEHAVIOR RELATIVE SENTIMENT

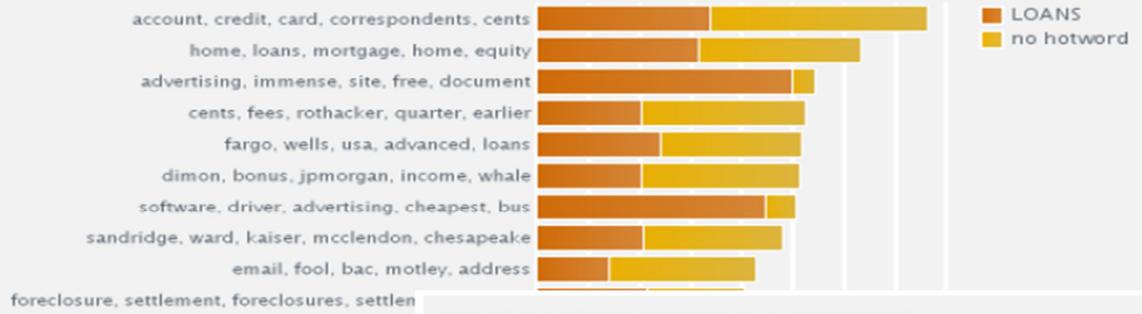
Compare author sentiment in each author behavior category

Behavior Category	Green (%)	Red (%)	Yellow (%)	Purple (%)
User	~35	~10	~55	~0
Recommender	~40	~10	~45	~5
Prospective User	~40	~15	~45	~0
Detractor	0	0	~100	0



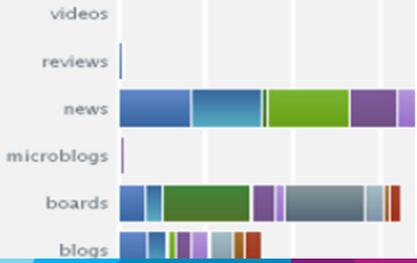
EVOLVING TOPICS BY HOTWORDS

Analyze hotwords within evolving topics



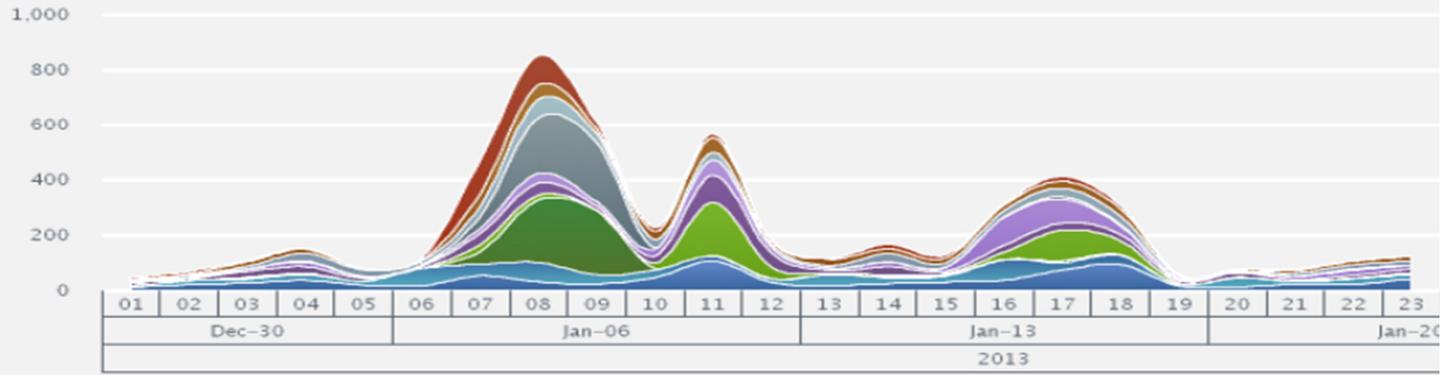
EVOLVING TOPICS REAC

Compare evolving topics weights by source



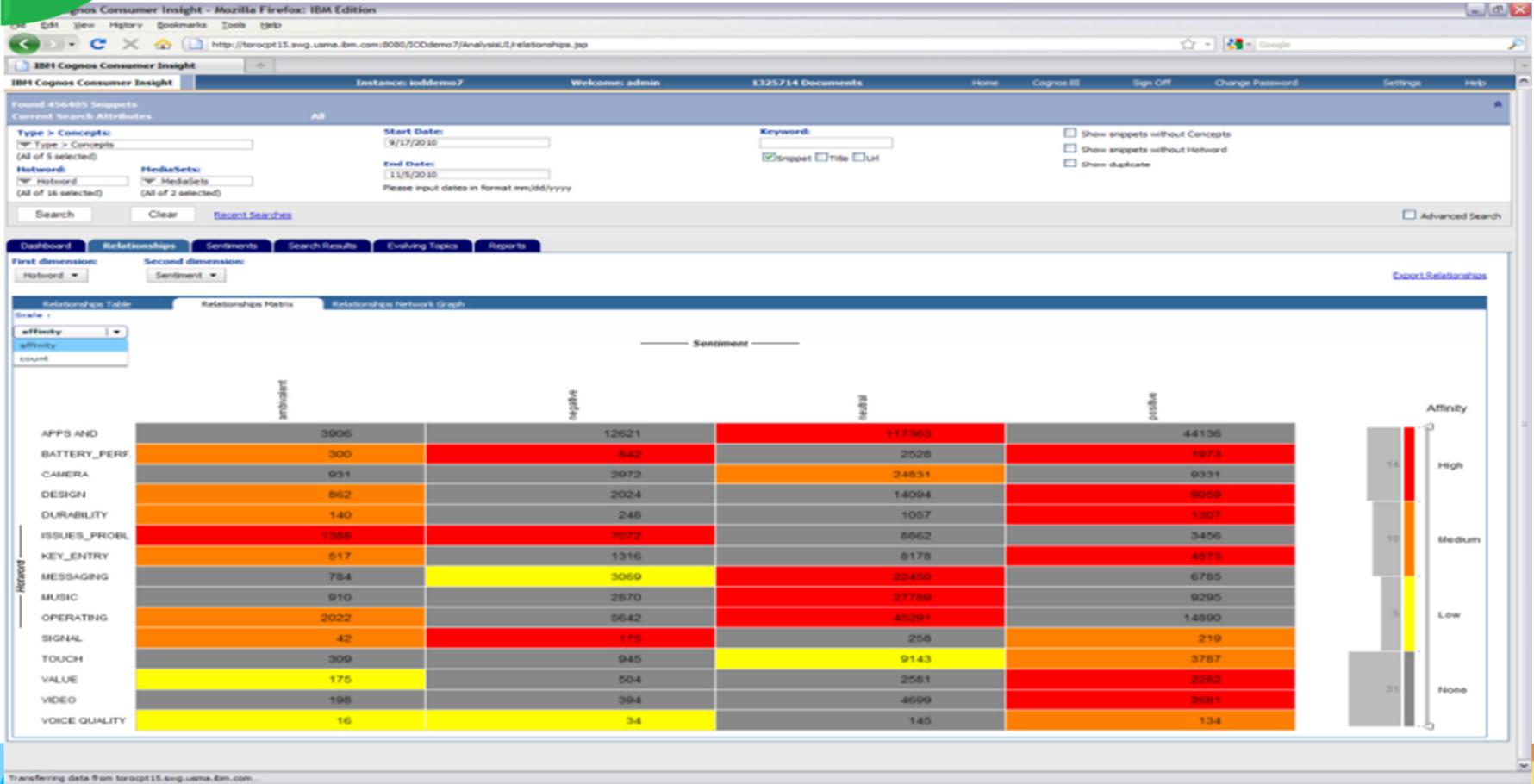
EVOLVING TOPICS TREND

Analyze topics weight over time



Time scale: Day

Relate





Social Media Workspace - IBM Cognos Business Insight - Mozilla Firefox

Product Warranty - Social Media Workspace

GENDER OVERVIEW

Compare number of authors by gender

Gender	Number of Authors
Female	3,788
Male	9,288
Unknown	27,369

Number of Authors
Select Demographic Attribute: Gender

Search

Sentiment tab

Sort

Positive or Neg... Relative Sentim...

Sentiment by Geography - Modified: Oct 5 2012 2:17:53 PM

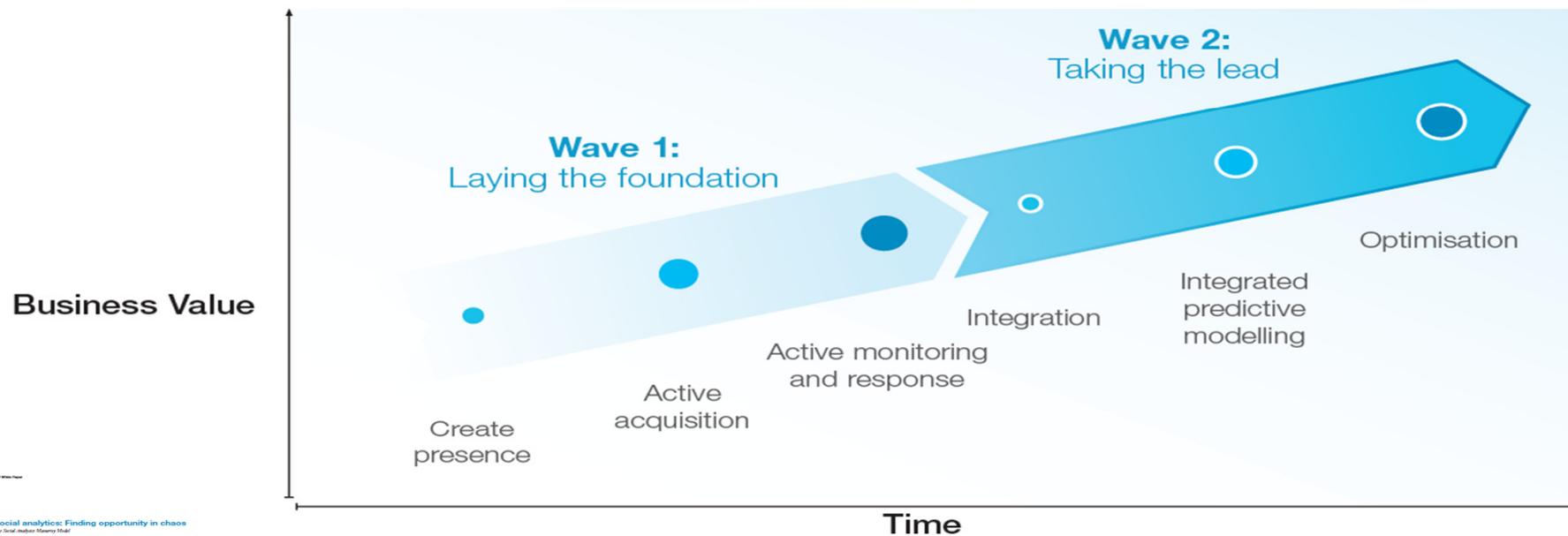
Sentiment by G... Sentiment Distri...

Sentiment Reac...

Content Toolbox



Social Analytics Maturity Model



Social analytics: Finding opportunity in chaos
The Social Analytics Maturity Model



Social Analytics: Finding opportunity in chaos

The Social Analytics Maturity Model

<http://ow.ly/bd71P>

Smarter**Analytics**





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Data Collection

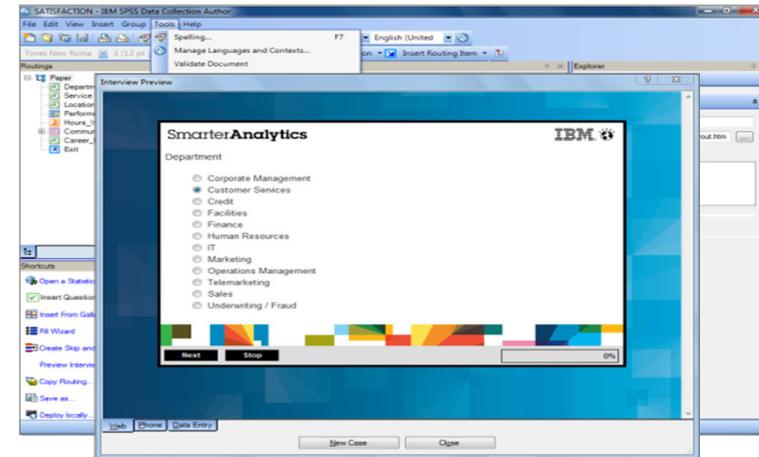
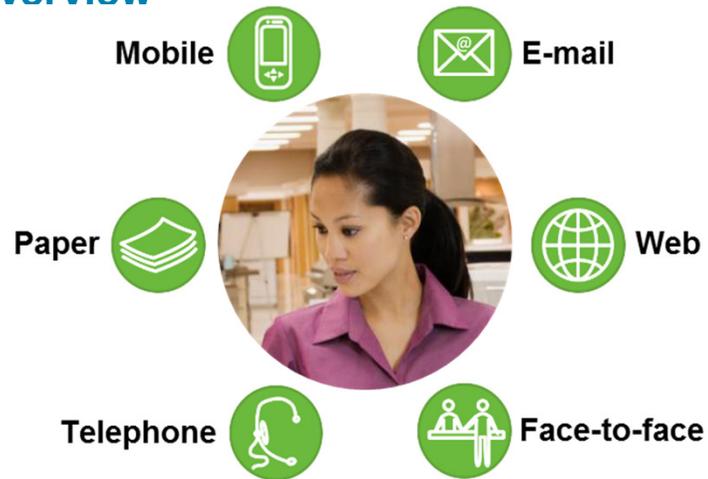
- *Subscription-based, cloud-hosted solution that allows you to quickly author and manage online, phone and face-to-face data collection projects with minimal investment upfront.*

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Smarter**Analytics**



IBM SPSS Data Collection Overview



IBM SPSS Data Collection

- Delivers an accurate view of customer attitudes and opinions
- Combines a robust market research survey tool with enterprise-level multichannel customer feedback management capabilities

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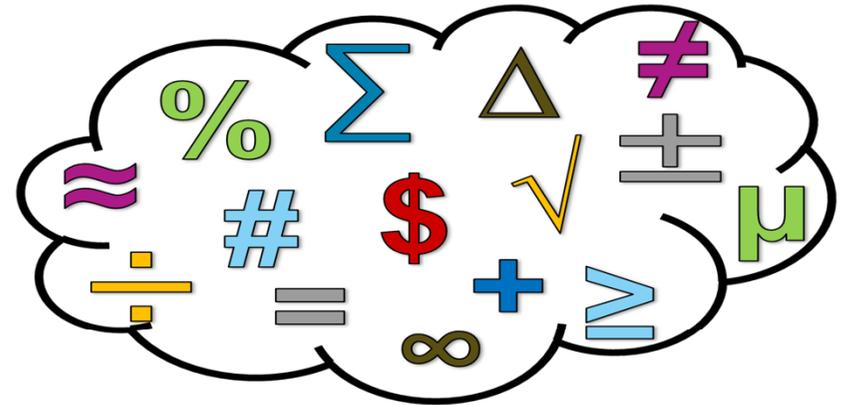
Analytics in the Cloud

Analytic Answers

- Benefit of Predictive Analytics
- Applications focused on
 - Insurance Renewals
 - Purchase Analysis & Offer Targeting
 - Student Retention
 - Prioritized Collections
 - Donor Contribution Growth
 - Telco Churn

Social Media Analytics

- Capitalise on the increase in Social Media
- Provides the ability to
 - Assess the impact in social media
 - Segment social audiences
 - Discover new ideas
 - Understand relationships and drivers



Data Collection

- Capture information in a timely fashion :
 - In the appropriate mode web, phone, in person
 - In the appropriate language
 - Author once, deploy to many
 - Instant access to data



Q&A

 #SALive2013 @ibmbaanz

Smarter**Analytics**





Smarter Analytics Live 2013



Become part of the dialogue.

Join us on: [#SALive2013](#) [@ibmbaanz](#)

Tweet your questions for the panel discussion this afternoon.

