

March 14, 2012

 #ContentAnalytics

Using Content Analytics

To Amplify The “*Voice Of The Customer*”

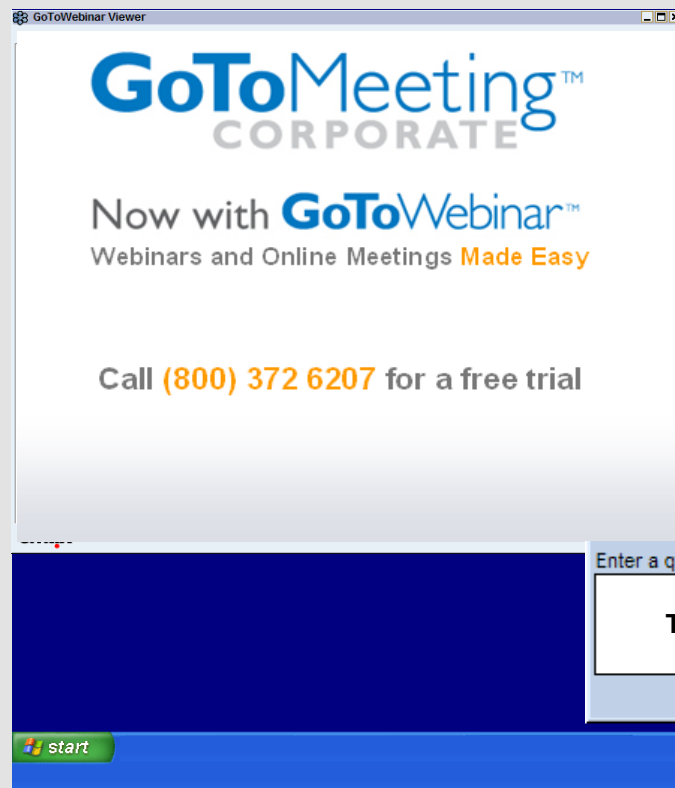
retail
TouchPints



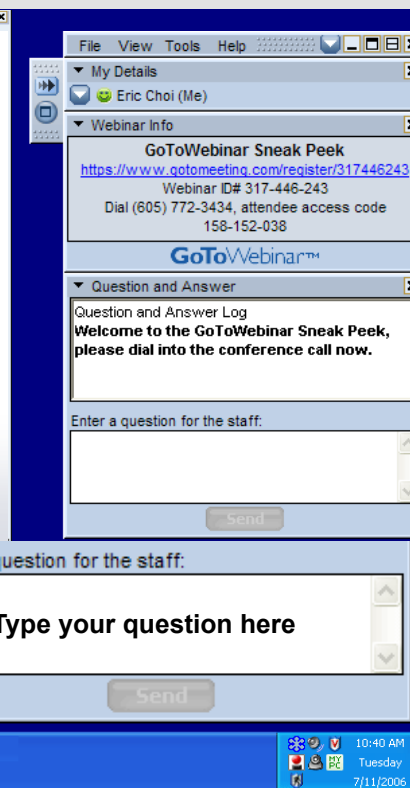
Welcome to the Webinar

Your GoToWebinar Attendee Viewer is made of 2 parts:

1. Viewer Window



2. Control Panel



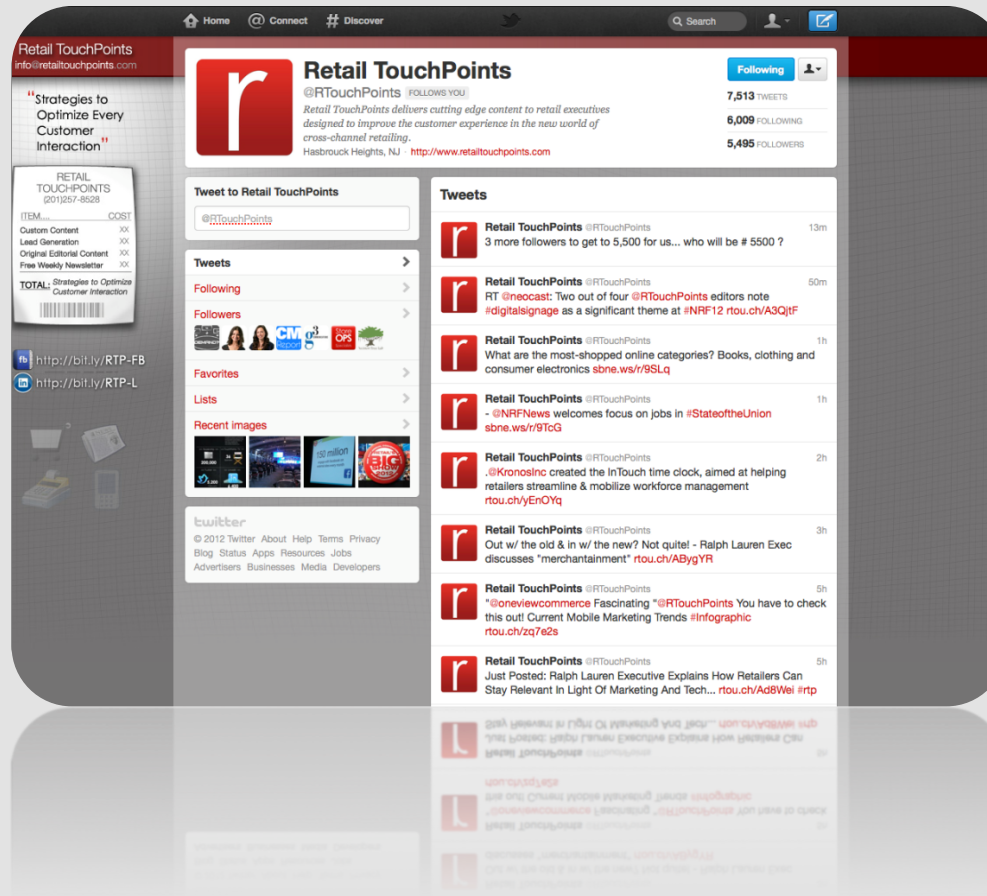
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retail
TouchPoints

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About Retail TouchPoints

- ✓ Launched in 2007
- ✓ Over 20,000 subscribers
- ✓ To provide executives with relevant, insightful content across a variety of digital medium

Free subscription to our weekly newsletter:
www.retailtouchpoints.com/signup



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Panelists



Rashmi Vittal
*IBM Content Analytics
Product Marketing*



Dan Bigos
*IBM ECM Industry Strategy &
Solutions – Retail*

MODERATOR



Debbie Hauss
Editor-in-Chief
Retail TouchPoints



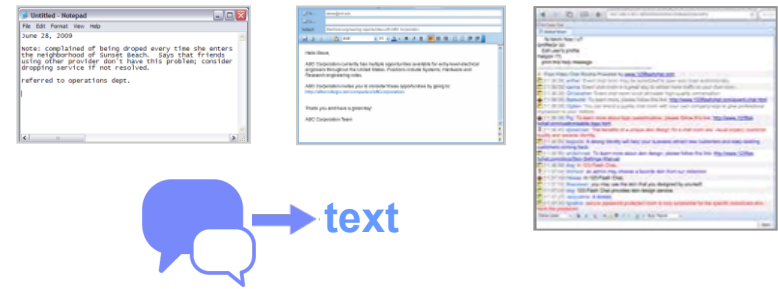
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Key Points of Today's Session

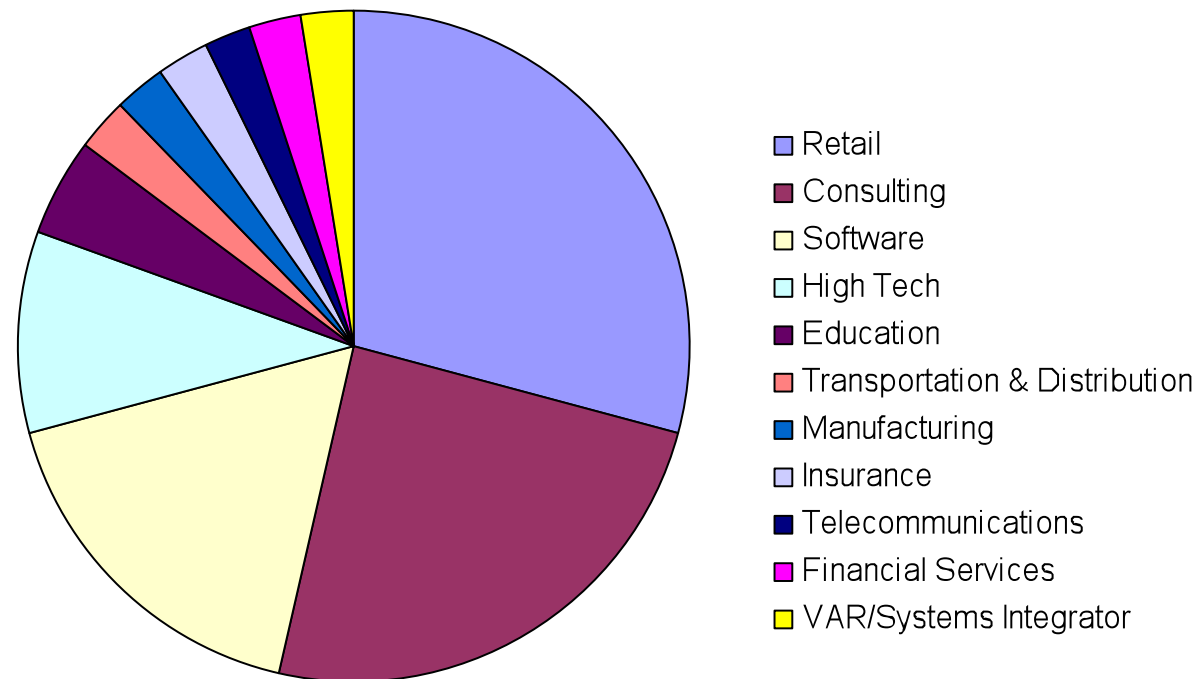
- Understand how to analyze and exploit market, customer, product, service and competitive insight that resides in volumes of “unstructured” information contained in email, call center logs, chats and voice converted to text
- Insight obtained from unstructured sources complements business intelligence to obtain a more detailed and accurate understanding of market and customer needs.
- IBM Content Analytics is significantly more sophisticated and beneficial than “keyword search”
- Multiple lines of business can benefit from content analytics
 - Customer service
 - Product management & merchandising
 - Marketing
 - Suppliers & Vendors



March 13, 2012
13:23
I charged my Smart 4G through out the night and when I took it out of the charger it was at full. I only made 7 short calls today. But, it runs out of battery in 3 hours. It is annoying. How do I preserve the battery life?

Date	March 13, 2012
Time	13:23
Product_Type	Smart 4G
Product_Component1	charger
Product_Component2	battery
Problem	runs out
Question	preserve battery life?
Tone	annoying

Who's Interested in Content Analytics?

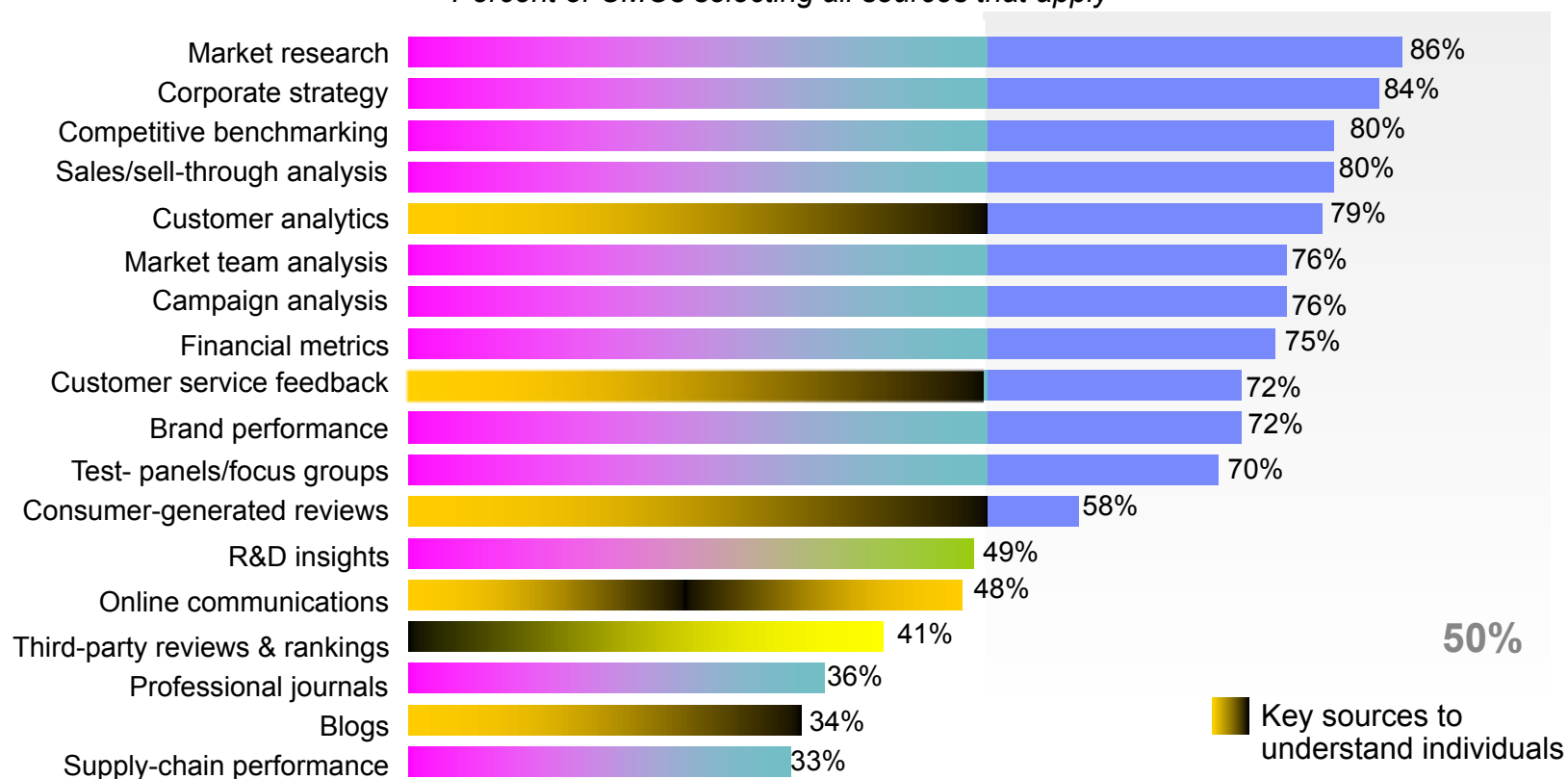


business architect, business development executive – ecommerce, business development manager, call centre operations manager, CEO, chief architect, client director, consultant, CTO, customer relations manager, developer, director, ECM architect, economist, enterprise business solution analyst, founder, head of digital strategy, marketing, MIS, practice lead, president, principal architect, professor, project manager - data mining, retail executive leader, service delivery manager, student, tech svcs mgr, VP, VP of global merchandise planning & allocation, website owner

Retail CMOs lead the way by focusing now on individuals to shape their strategy versus understanding just markets

Sources used to influence strategy decisions

Percent of CMOs selecting all sources that apply



Source: Q15 What sources of information influence your marketing strategy decisions? n=105

“From Stretched to Strengthened - Insights from the IBM Global CMO Study”

Content Analytics Complements Business Intelligence

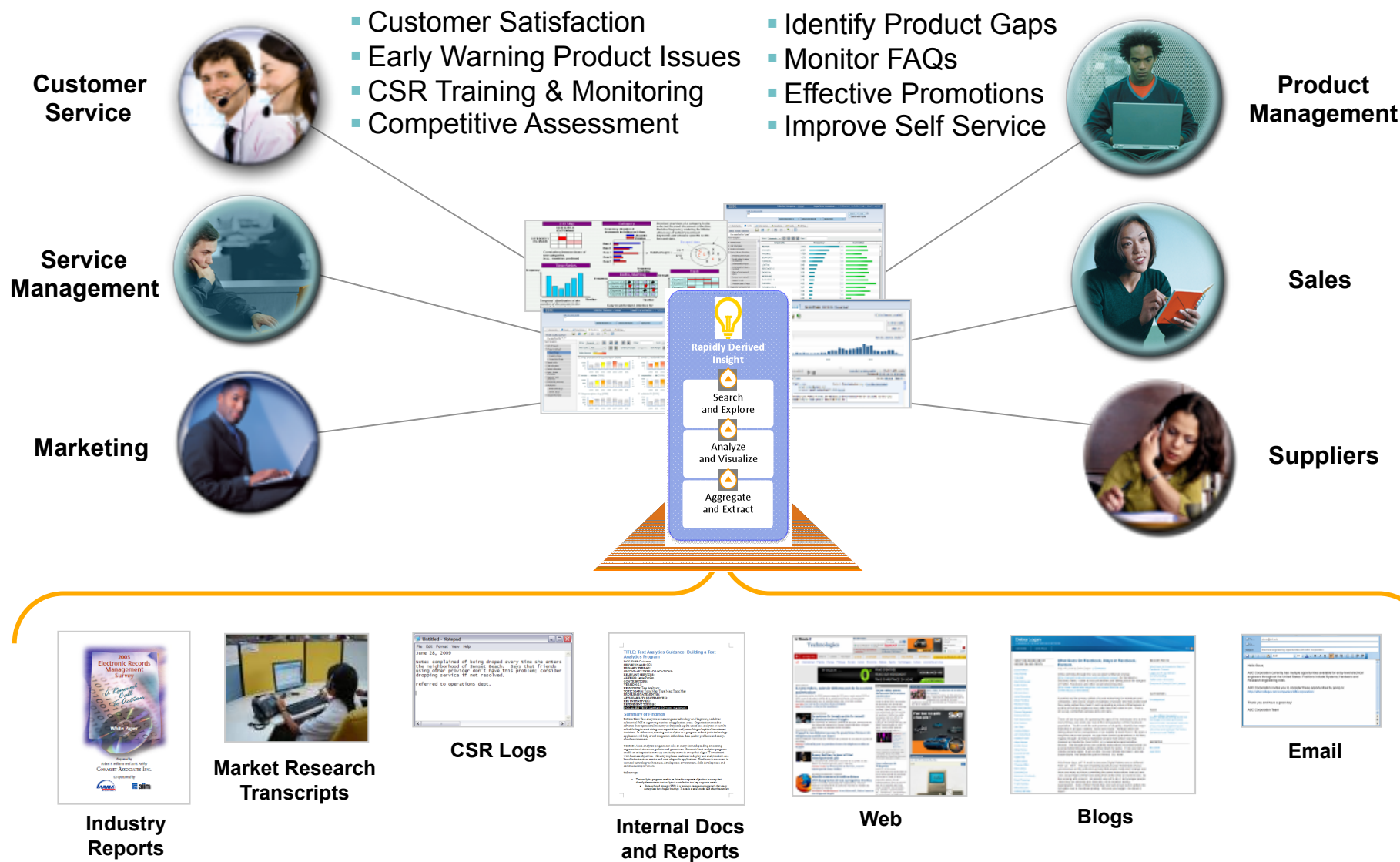


Poll

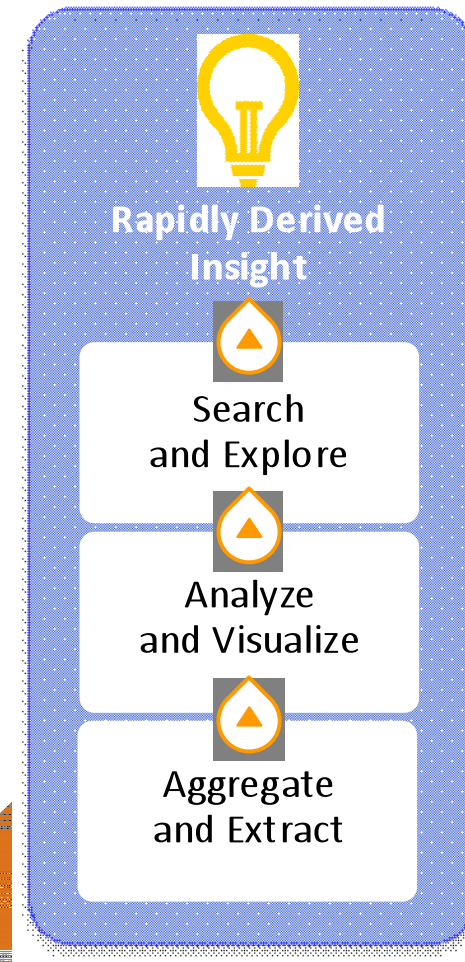
What sources of information do you utilize to gain customer understanding? *(check all that apply)*

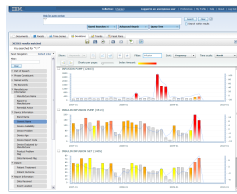
- Point of sale – store, web, mobile
- CRM – customer profiles
- Campaign metrics
- Social media – facebook, twitter, blogs, surveys
- Call center notes and “logs,” transcribed voice (voice to text), emails, chats

Content Analytics Delivers Insight to Multiple Lines of Business



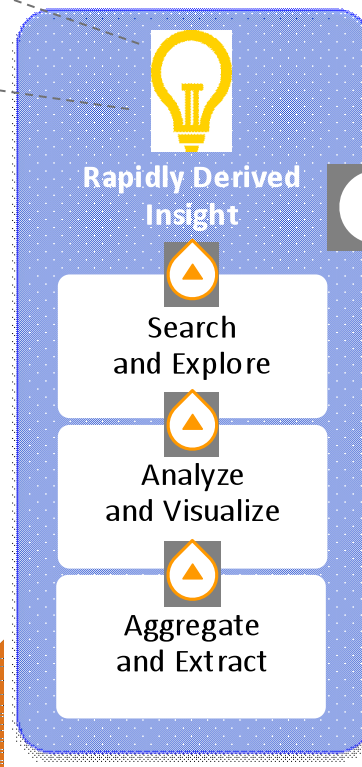
- Transform raw information into **business insight quickly** without building models or deploying complex systems.
- Derive insight in **hours** or **days** not weeks or months.
- **Easy to use** for all knowledge workers to **search** and **explore** content.
- **Flexible** and **extensible** for deeper insights.





IBM Content Analytics

1. Configure raw internal and external content (and data) sources
2. Process with natural language processing and other content analytics (UIMA)
3. Understand trends, patterns, correlations, anomalies, other business context and more



Enables Deeper Insight

Integrate to other systems and solutions as “middleware”

IBM ECM and ACM Solutions

IBM Cognos and SPSS Analytics Systems

IBM InfoSphere Warehouse

IBM Netezza Data Warehouse and Analytics Solutions

What is Text or Content Analytics, anyway?



What is Text Analytics?

Text Analytics (NLP*) describes a set of linguistic, statistical, and machine learning techniques that allow text to be analyzed and key information extraction for business integration.

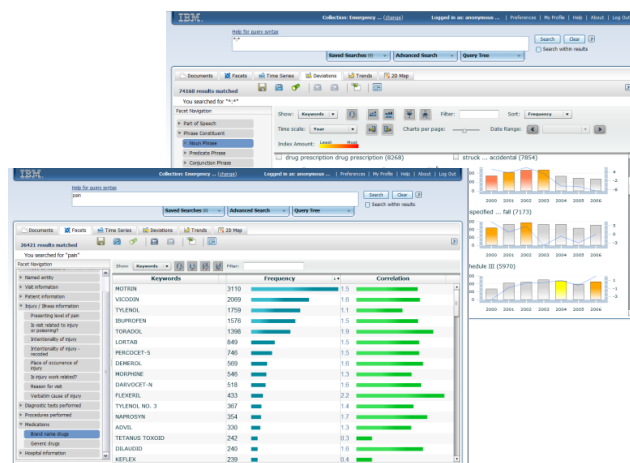
March 13, 2012

13:23

I charged my **Smart 4G** through out the night and when I took it out of the **charger** it was at full. I only made 7 short calls today. But, it **runs out** of **battery** in 3 hours. **It is annoying**. How do I preserve the **battery** life?



Date	March 13, 2012
Time	13:23
Product_Type	Smart 4G
Product_Component1	charger
Product_Component2	battery
Problem	runs out
Question	How do I preserve the battery life?
Experience	annoying



What is Content Analytics?

Content Analytics (Text Analytics + Mining) refers to the text analytics process plus the ability to visually identify and explore trends, patterns, and statistically relevant facts found in various types of content spread across internal and external content sources.

* Natural Language Processing

Fluid

Recognized for her deep, powerful, well-placed groundstrokes and ranked 3rd in prize earnings, Kim Clijsters has never won a title at the All England Club or the "French Internationals of Roland Garros"

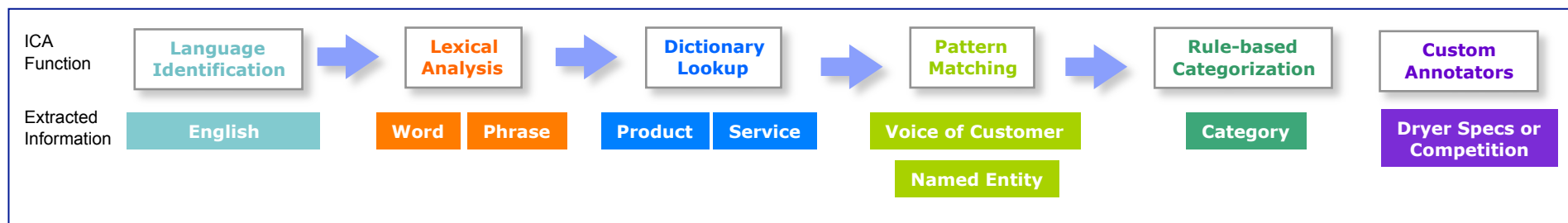
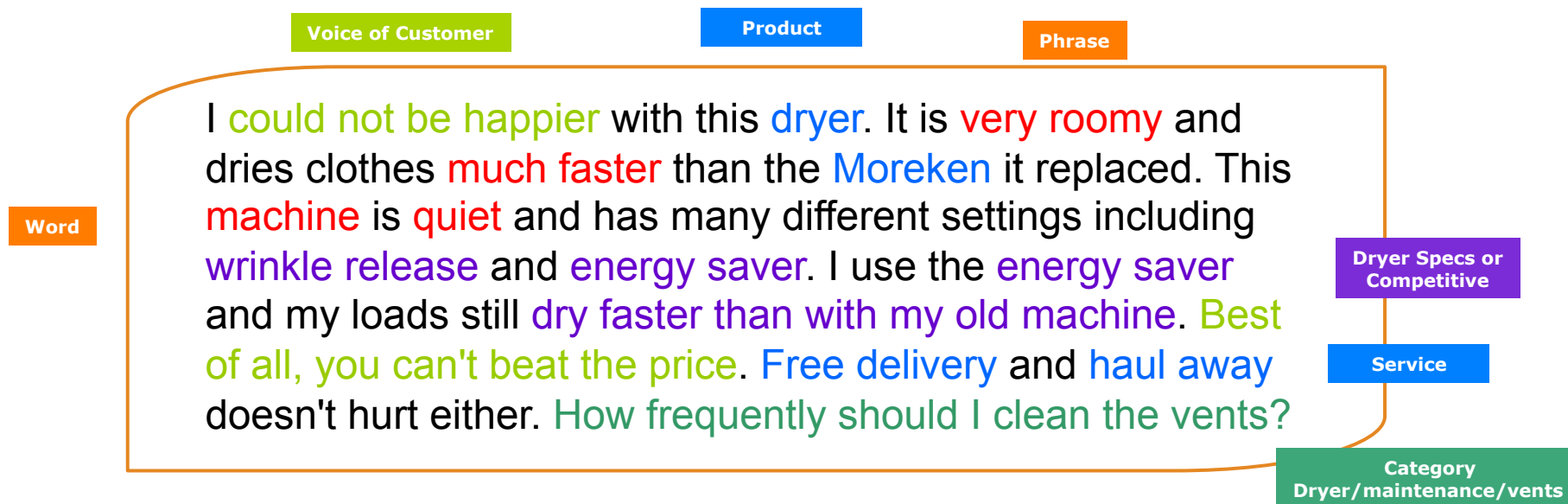
Ambiguous

cultural

Content Analytics extracts meaning from text



annotator- a software component that performs linguistic analysis tasks and produces and records annotations



Out-Of-The-Box

- Recognizes and extracts entities
 - People, places & organizations
 - Parts of speech
 - Dates & numbers
- Lemmatization, segmentation, metadata extraction, summarization, categorization...

Tailor To Your Needs

- Pattern recognition
 - Identify patterns in content (credit cards, telephone numbers, SSN, passport numbers, license plates, customer IDs...)
 - Multi-lingual regular expression capable

Leverage What You Already Know

- Master data, fact tables and other structured information can be used to identify entities of interest in content analytics processing
 - Customers, vendors, suppliers, locations, accounts, etc...
- Integrates with InfoSphere Identity Insights

► Named entity
► Troubles
► Category for Auto
State
City
Vehicle/Equipment Corp
Vehicle/Equipmant Make
Model
Model Year
Component Description
Date of Manufacture
Date of Purchase
Date of Fail
Anti-Lock Brakes?

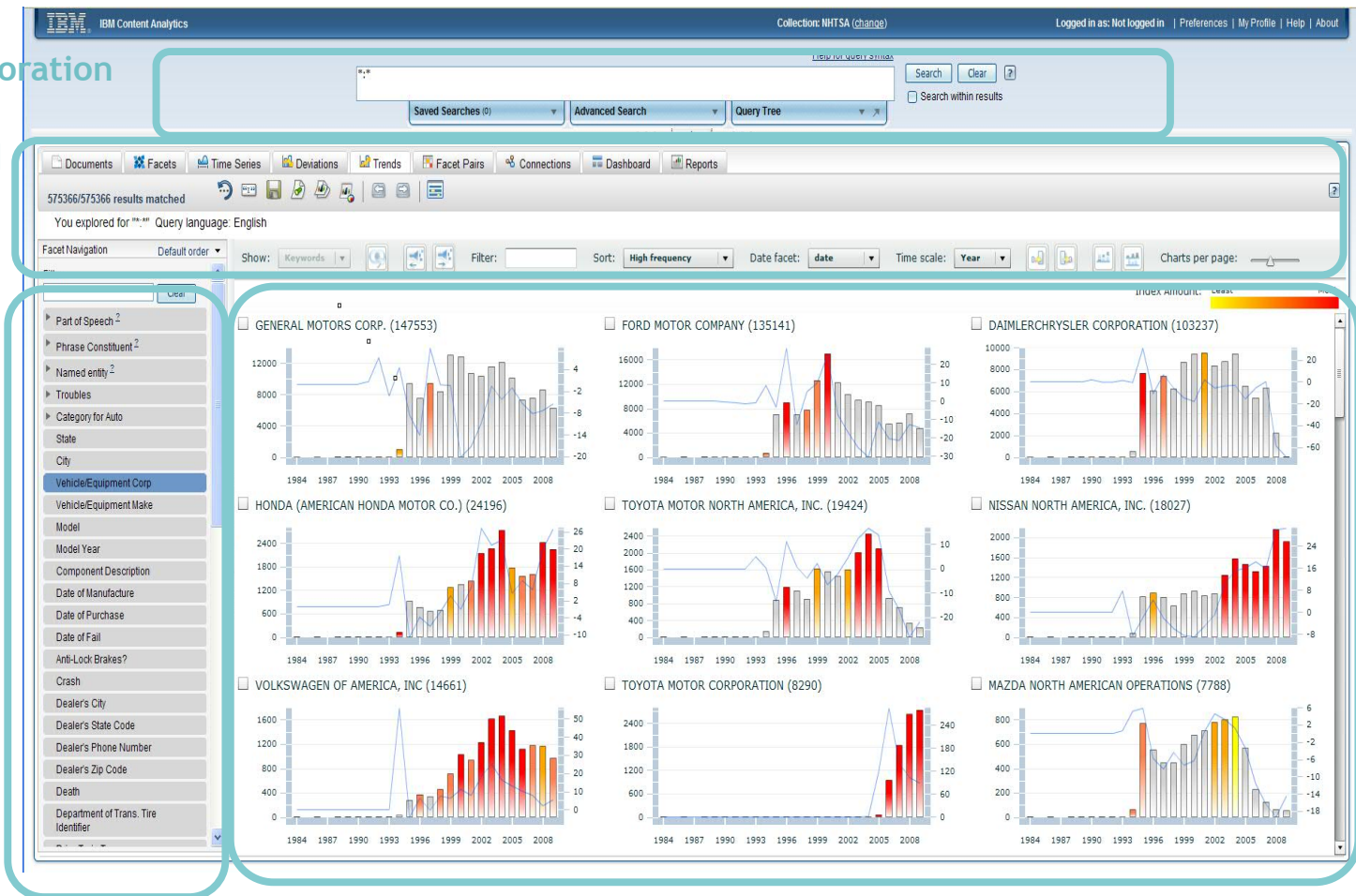
IBM Content Analytics has a powerful Text Miner UI



Search Query Exploration

Views, Filters and Thresholds

Automatically
Extracted and
Analyzed
Concepts, Entities,
Relationships,
Meta Data and
Classifications



Visualization with Drill Down for Exploration and Assessment

Example: Analyzing Happy Home Store's user reviews of Dryers



my **HAPPY HOME** Store

STORE FINDER CALL 1 (800) FRIENDLY-STORE SERVICES ▼ HELP ▼ furniture • rugs • home decor

MY CART 0 items ▼

RECEIVE FREE SHIPPING ON ELIGIBLE ITEMS.
Turlock, CA is your **LOCAL STORE**

Welcome, (Sign In or Register)

SHOP BY DEPARTMENT SAVINGS ▼ GARDENERS HOW-TO

MY HAPPYHOME.COM

Gas Dryers

Home / Appliances / Dryers / Gas Dryers

PRICE \$0 - \$2000

BRAND

- Taymag (25)
- PE (25)
- LP Electronics (14)
- PF profile (10)
- Havana (3)
- Admirable (2)
- Coldpoint (1)

COLOR/FINISH FAMILY

- Beige/Bisque (2)
- Black (2)
- Gray (8)
- Red/Orange (9)
- Stainless Steel (8)
- White (10)
- Yellow/Gold (1)

DRYER CAPACITY (CU. FT.)


- 5.8 ft³ (1)
- 5.8 ft³ (1)
- 5.8 ft³ (1)
- 5.8 ft³ (1)
- 5.8 ft³ (1)
- 5.8 ft³ (1)

15 Items Sort By: Best Sellers Results per page: 24

View: Grid List Products: In-Store All Products 1 2 3 4


Select up to 4 items to compare. [COMPARE](#)

Select to compare




Taymag
Bicentennial 7.0 ft gas dryer in white
Model MGDC200XW
\$479.00
Free Shipping [+ ADD TO CART](#) Available for Home Delivery

Select to compare



PE
Best ever 6.0 ft gas dryer in white
Model DLG2141W
\$669.00
Free Shipping [+ ADD TO CART](#) Available for Home Delivery

Select to compare



Admirable
Patriotic 7.0 ft gas dryer in white
Model AGD4475TQ
\$409.00
Free Shipping [+ ADD TO CART](#) Available for Home Delivery

FREE DELIVERY & HAUL AWAY
NO REBATE. NO HASSLE.

UP TO 20% OFF SELECT APPLIANCES
[Learn More >](#)

Aggregating the information

ICA supports 30+ sources and 250+ content types

Structured data or Meta data

Textual description

Formula bar: We bought this dryer when ours broke, and were able to schedule for a Saturday delivery. They even called us on Friday to give us the time frame for ins

	C	D	E	F	G	H	I	J
	product category	Price	Rating	Review Title	Date	User	Location	Review Comments
1	Gas Dryer	479		Takes really long to dry	2011-03-06	Phwmm	Mesa, AZ	over 75 minutes to get to almost dry a sn
2	Gas Dryer	479		DO NOT BUY	2011-02-27	Sugapie		I hate this dryer. The matching washer le
3	Gas Dryer	479		Excellent Value	2011-02-24	Sparks2011	Hicksville, NY	I purchased this dryer with the matching y
4	Gas Dryer	479			2011-02-19	Titibandito	carmichael, cal	bought this at a great price to go with ma
5	Gas Dryer	479		Taymag gas dryer	2011-02-06	Seadog	leesburg, va	dryer works great.
6	Gas Dryer	479		useful dryer	2011-01-26	Lwr5	South Carolina	This is a no frills model but if you are look
7	Gas Dryer	479		great dryer	2011-01-22	ld2006	carneys point, r	I could not believe had big the inside of th
8	Gas Dryer	479		Great value for the money	2011-01-08	Stephb	Milwaukee, WI	We bought this dryer when ours broke, a
9	Gas Dryer	669		Happy	2011-01-22	Matte92	Detroit, MI	I have to say that my boy friend uses it th
10	Gas Dryer	669		I loved my new PE washer ar	2011-03-11	Dracon	California	i was very satisfied with the efficiency of r
11	Gas Dryer	669		Great Machine	2011-02-18	Foxi		I've now owned this washer for 2 months
12	Gas Dryer	669						
13	Gas Dryer	669						
14	Gas Dryer	409			2010-10-25	Avard	Erie PA	This product is good for the money. Work
15	Gas Dryer	409			2010-10-19	TwentyFiveOneSix		There is nothing wrong with this dryer, as
16	Gas Dryer	409		5 Good value	2010-10-16	1124	Cincinnati, OH	I was looking to buy similar Moroken pro
17	Gas Dryer	409		5 Great product/great price	2010-09-26	NikkiP	CA	I was looking for n inexpensive dryer, and
18	Gas Dryer	409		4 1/2 Stars Very good Machi	2010-08-21	Whatville		I would have given this a 5 Star but I did n
19	Gas Dryer	409		1 horrible	2010-08-18	Recloser3	Sharon, MA	I purchased this dryer late July. The first t
20	Gas Dryer	409		3 it is ok	2010-08-07	Recloser3	Sharon, MA	Dries well but is much noisier than my old
21	Gas Dryer	409		5	2010-07-11	Carenthetear	Baden, PA	I was so pleased with the ease of ordering
22	Gas Dryer	409		5 very good machine i was luck	2010-07-06	Anonymous	baltimore md.	went through a lot of reviews and i landed
23	Gas Dryer	409		1 long distance dissatisfaction	2010-06-17	Suseybucke	dayton ohio	i live in ohio and purchased a gas dryer in
24	Gas Dryer	409		5 Busy mom	2010-06-17	Cl1124	Flint, Michigan	Great product for the price...it does the jo
25	Gas Dryer	409		5 Wow	2010-06-13	Oceanbreez	Baltimore MD	It has a huge inside to put your clothes a
26	Gas Dryer	409		4	2010-06-01	Bbnrx	Temecula, CA	Great product for a good price. Quiet and
27	Gas Dryer	409		5 awesome	2010-05-15	Johnc9919	missouri	Can't beat this dryer for the money. Auto
28	Gas Dryer	409		5 Great Dryer!	2010-04-18	Anonymous	Rancho Cucam	I bought this online after talking with som
29	Gas Dryer	409		5 Large, quiet, fast-drying mach	2010-02-20	Chicagoisism	Chicago, IL	I could not be happier with this dryer. It is
30	Gas Dryer	409		5 Admirable 6.5 Cu. Ft. Super	2010-01-24	Ccipalm	Ashtabula, Ohio	I was extremely happy with my recent pu
31	Gas Dryer	409		5 nice dryer	2010-01-23	Aquamam	NY	It has a large capacity and is much quiete
32	Gas Dryer	409		4 Good Dryer for the Price	2009-11-02	Anonymous	Albion, CA	Purchased the Admirable dryer... 4

ICA will map the structured data fields to facets with additional facets built from text analytics



Populated by
Text Analytics

Structured
Data fields

Populated by
Text Analytics

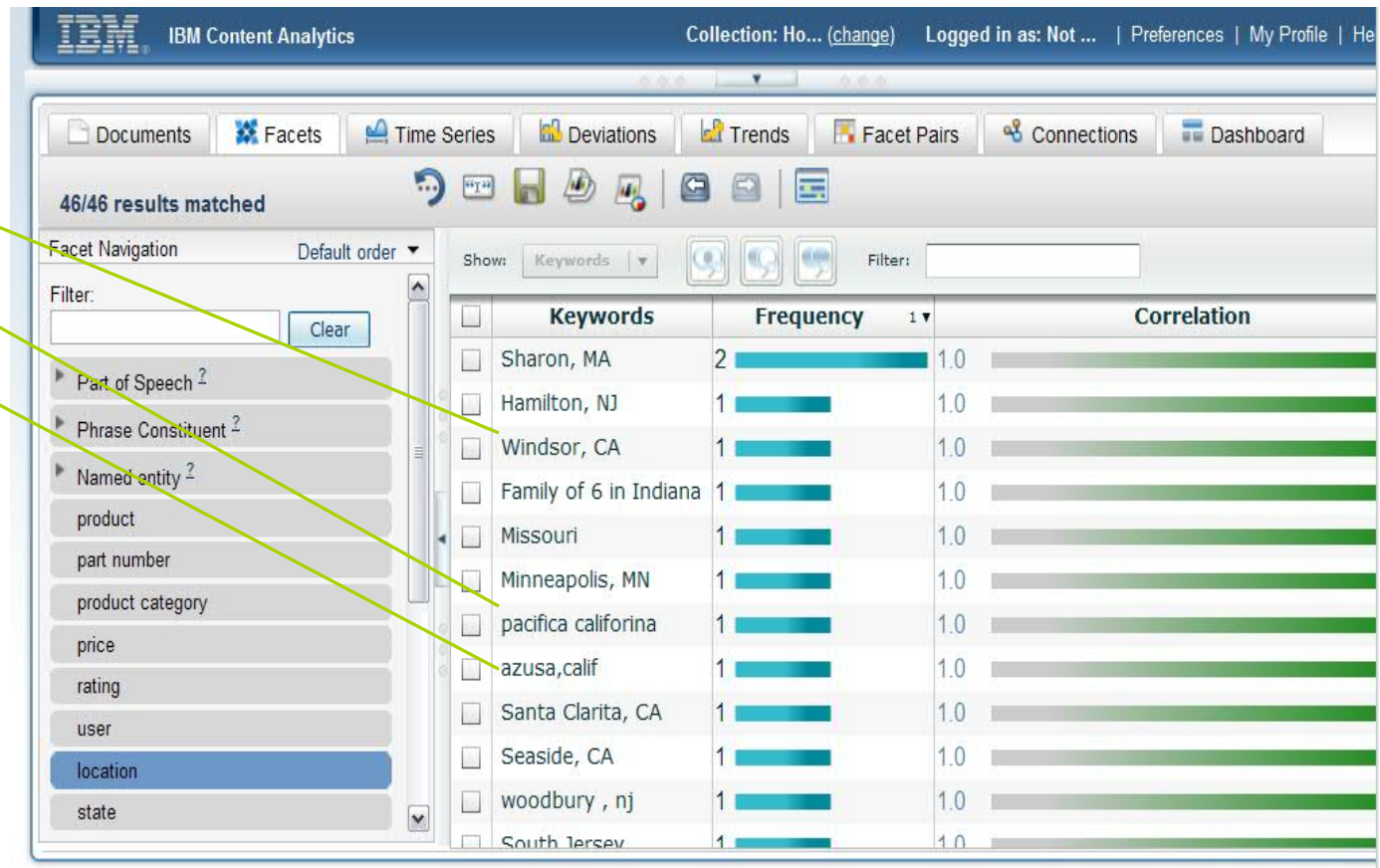
The screenshot displays the IBM Content Analytics web interface. At the top, the header includes the IBM logo, 'IBM Content Analytics', and navigation links for 'Collection: Ho... (change)', 'Logged in as: Not ...', 'Preferences', and 'My Profile'. Below the header is a toolbar with tabs for 'Documents', 'Facets', 'Time Series', 'Deviations', 'Trends', 'Facet Pairs', 'Connections', and 'Dashboard'. The main content area shows 'Results 1-10 of 46 (46/46 results matched)' with a 'Results per page: 10' dropdown. On the left, a 'Facet Navigation' panel lists facets under 'Default order'. The facets are grouped into three categories: 'Populated by Text Analytics' (Part of Speech, Phrase Constituent, Named entity), 'Structured Data fields' (product, part number, product category, price, rating, user, location, state), and 'Populated by Text Analytics' (product, part number, product category, price, rating, user, location, state). The main results table has columns for 'Actions', 'Source', 'Date', 'Title', and 'Thumbnail'. It lists three results from 'HappyHomeStoreComments.csv'. The first result is dated 2/19/11 and has a title 'HappyHomeStoreComments.csv?id=3'. The second result is dated 2/27/11 and has a title 'HappyHomeStoreComments.csv?id=1'. The third result is dated 2/24/11 and has a title 'HappyHomeStoreComments.csv?id=2'. Each result includes a snippet of text from the comment.

Actions	Source	Date	Title	Thumbnail
	csv	2/19/11	HappyHomeStoreComments.csv?id=3	
bought this at a great price to go with matching washer (see review) works great, even at energy preferred setting. enough settings for even a families needs. even heavy towel loads dry amazingly quick. like the front door access that pulls down. last dryer door that pulled down got bent.				
	csv	2/27/11	HappyHomeStoreComments.csv?id=1	
DO NOT BUY I hate this dryer. The matching washer leaves the clothes looking like they have been "rung out by twisting them, and even tho I shake them out before putting them into the dryer, they come out with these "twisted" wrinkles in them. There is no "permanent press" cycle. It's very noisy and takes a long time to dry, compared to my old dryer. The clothes come out very wrinkled. I would like to sell this dryer and the matching washer and buy a Moreken.				
	csv	2/24/11	HappyHomeStoreComments.csv?id=2	
Excellent Value I purchased this dryer with the matching washer and am very happy with the combo. The dryer does an excellent job and it's easy to use. The only thing missing with this specific model is an interior light.				

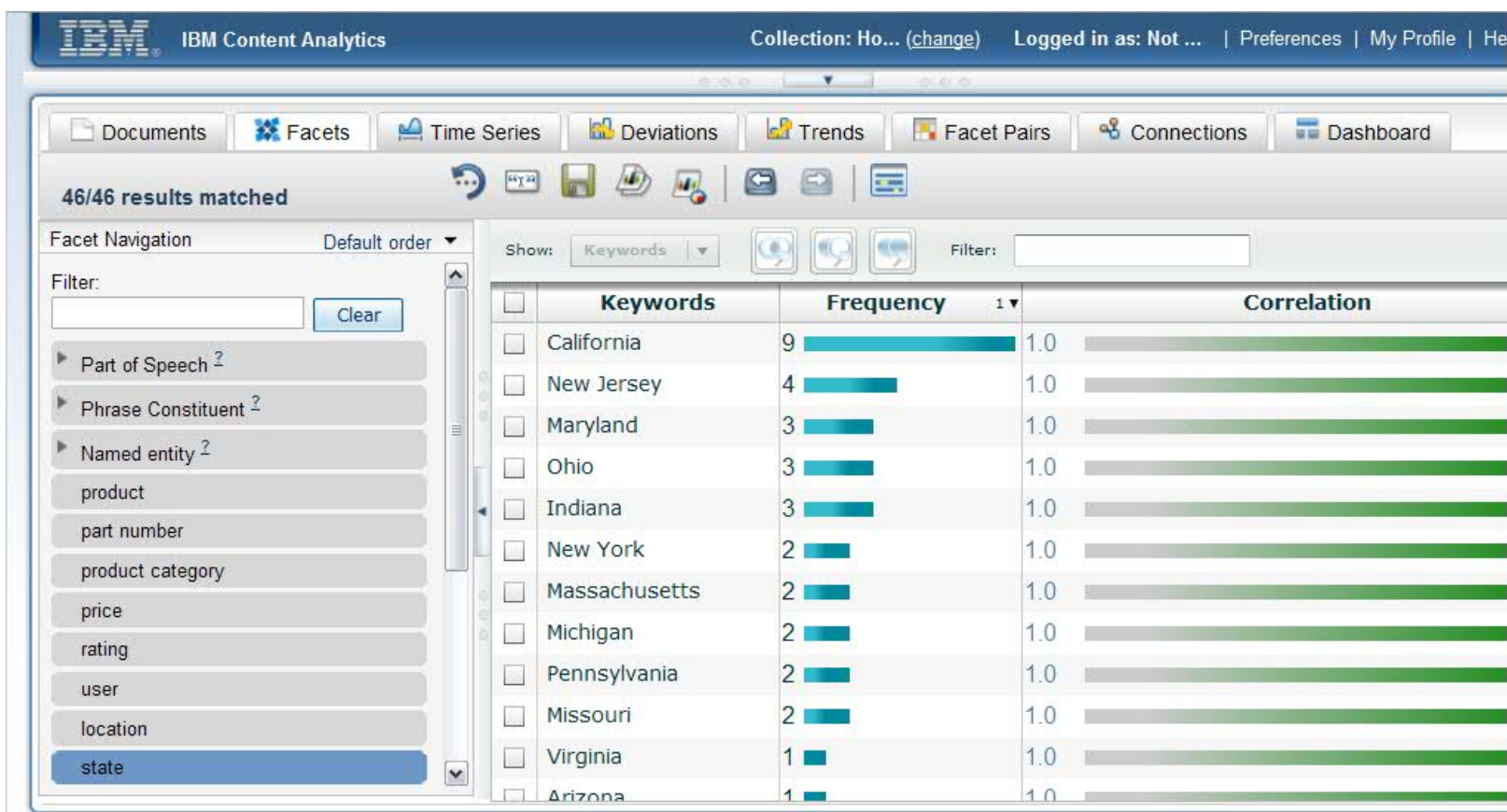
Text: unstructured, unformatted...first step is to normalize



CA
california
calif

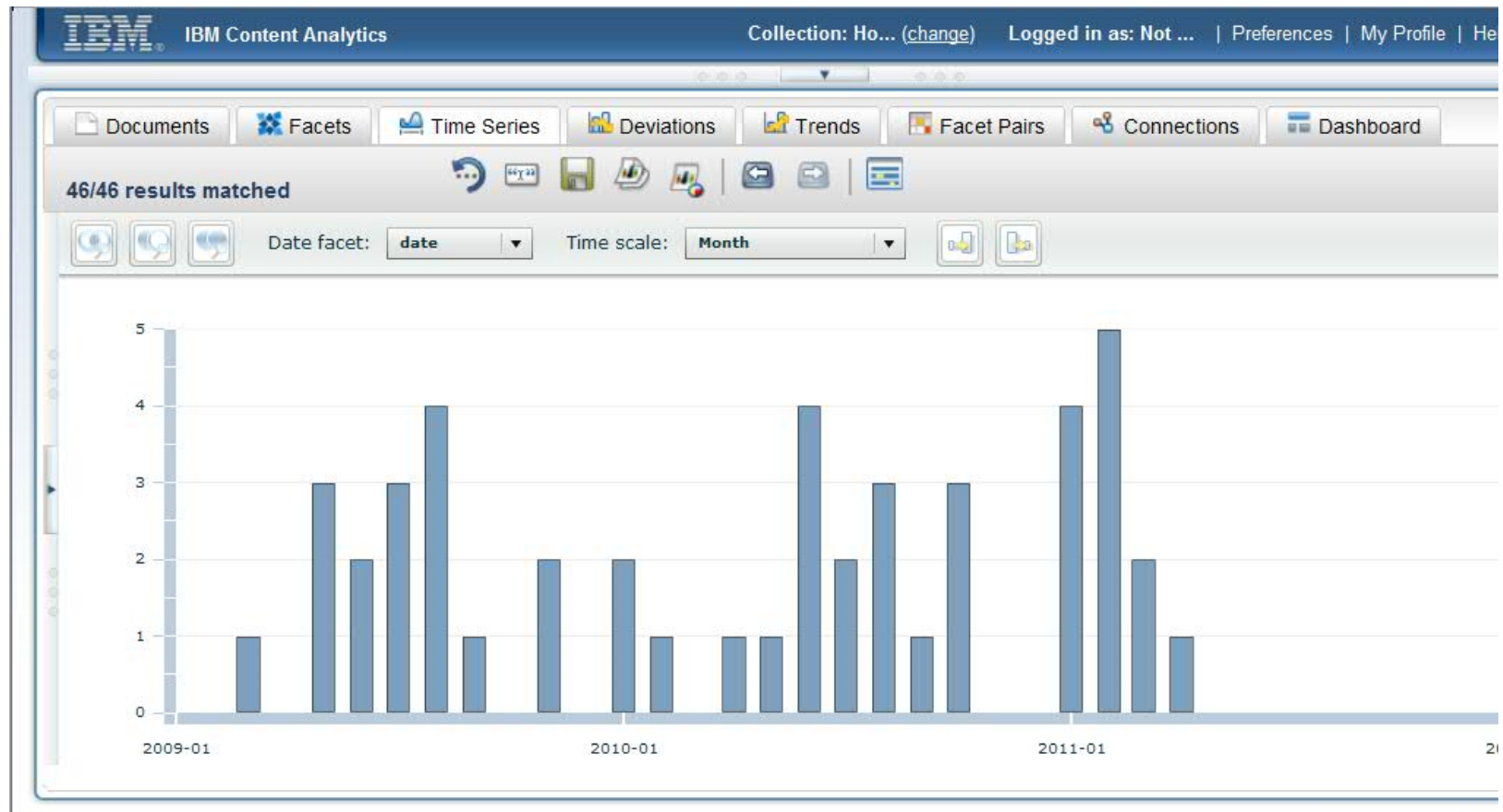


Normalization of content values improves analysis



Easily see product reviews over time

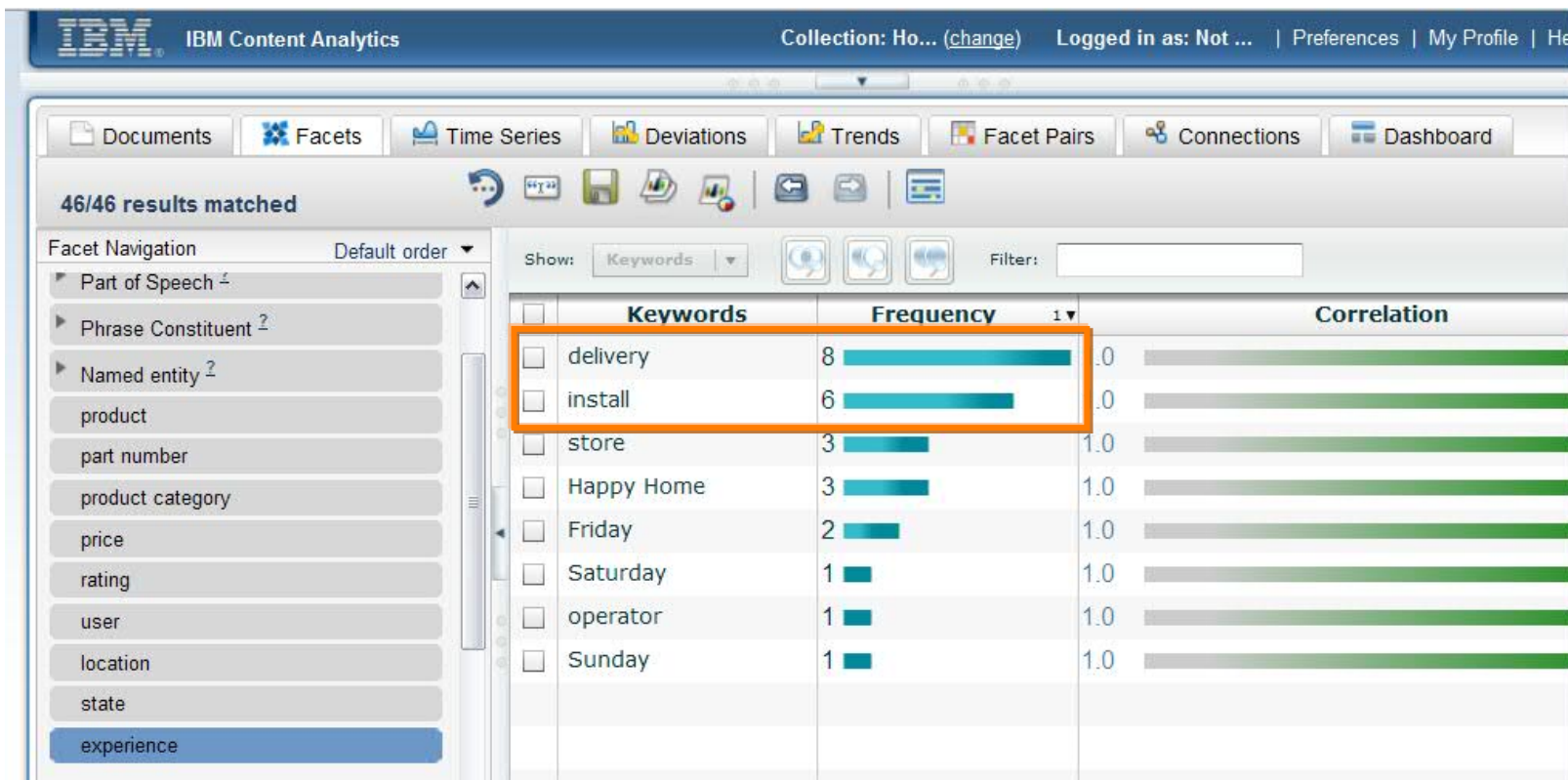
- Dynamically switch to year, month, day and seasonal view
- Multi-select bars and drill into any particular time period



Use Content Analytics to quickly view customer's experience



- Identify mentions of words that indicate the reviewer's experience related to the dryer



Zero in on the “Why” behind the what, where and when...



- Drill deeper to see in the customer’s words the experience they had.
- Validate indicators instantly

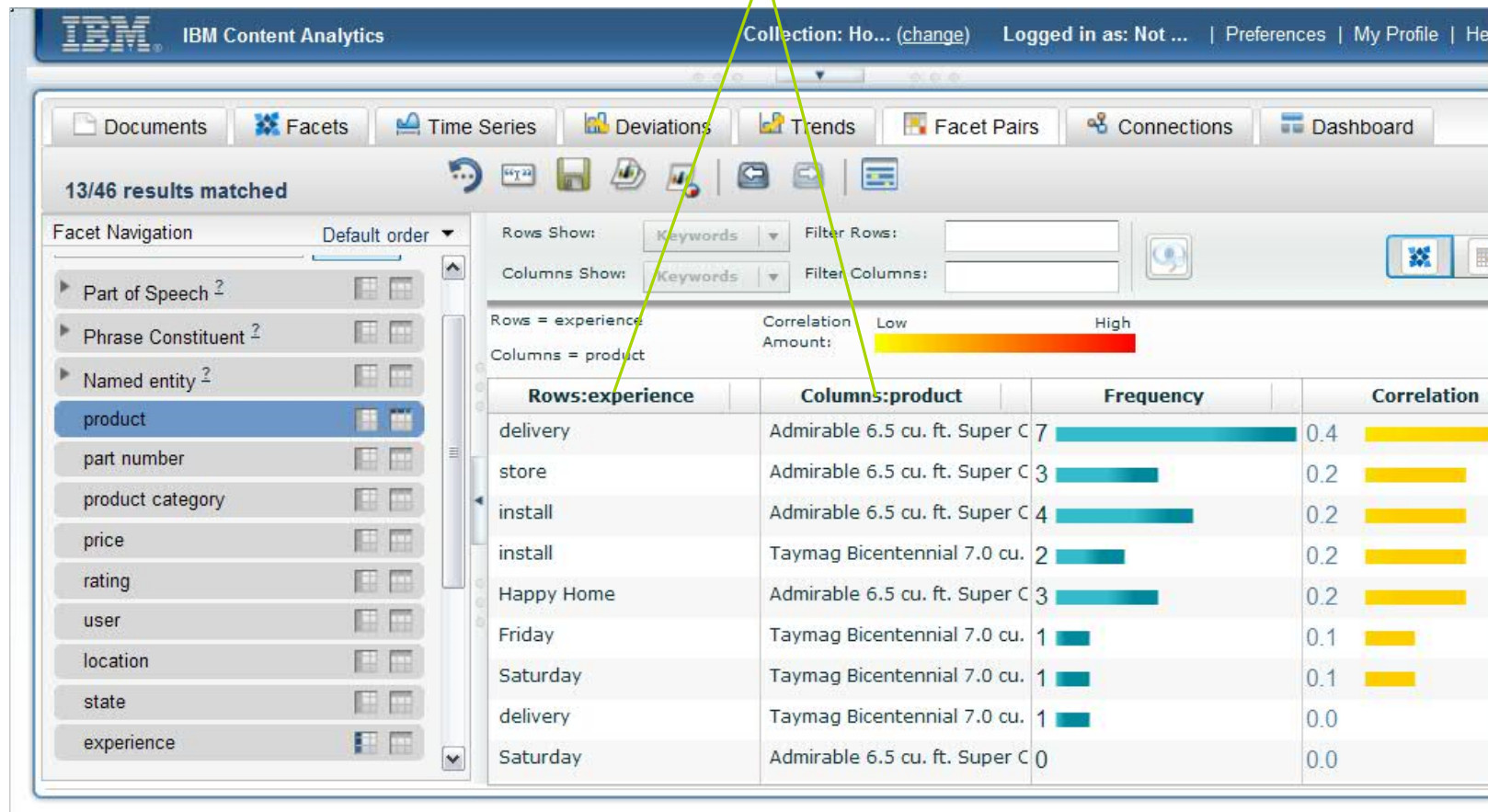
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Actions	Source	Date	Title	Thumbnail
	csv	4/18/10	HappyHomeStoreComments.csv?id=26	
... Great Dryer! I bought this online after talking with someone at my local store (who was great) and ... Great price on the dryer, quick delivery , quick and easy set up . I love this dryer The energy saver ...				
	csv	5/6/09	HappyHomeStoreComments.csv?id=44	
... I'm glad I shopped around, this is the best deal! I was looking for an inexpensive replacement ... My old units served me well for several years but with all appliances, the time will come for ... came to the conclusion that of all the stores I had been to, Happy Home offered better choices and ... I chose the washer and matching dryer and have no regrets, I would do it again without thinking ... For anyone looking for a good buy or limited by the amount they can spend, follow me, this is a ... The money I saved compared to other stores was enough to buy a new gas grill. The people there were ... also, they loaded both machines on my trailer, helped me strap them down and offered a ...				
	csv	1/8/11	HappyHomeStoreComments.csv?id=7	
... a Saturday delivery . They even called us on Friday to give us the time frame for installation on ... Installation took less than 30 minutes and the delivery men were professional and helpful. They ...				

Surface correlations and hot spots easily



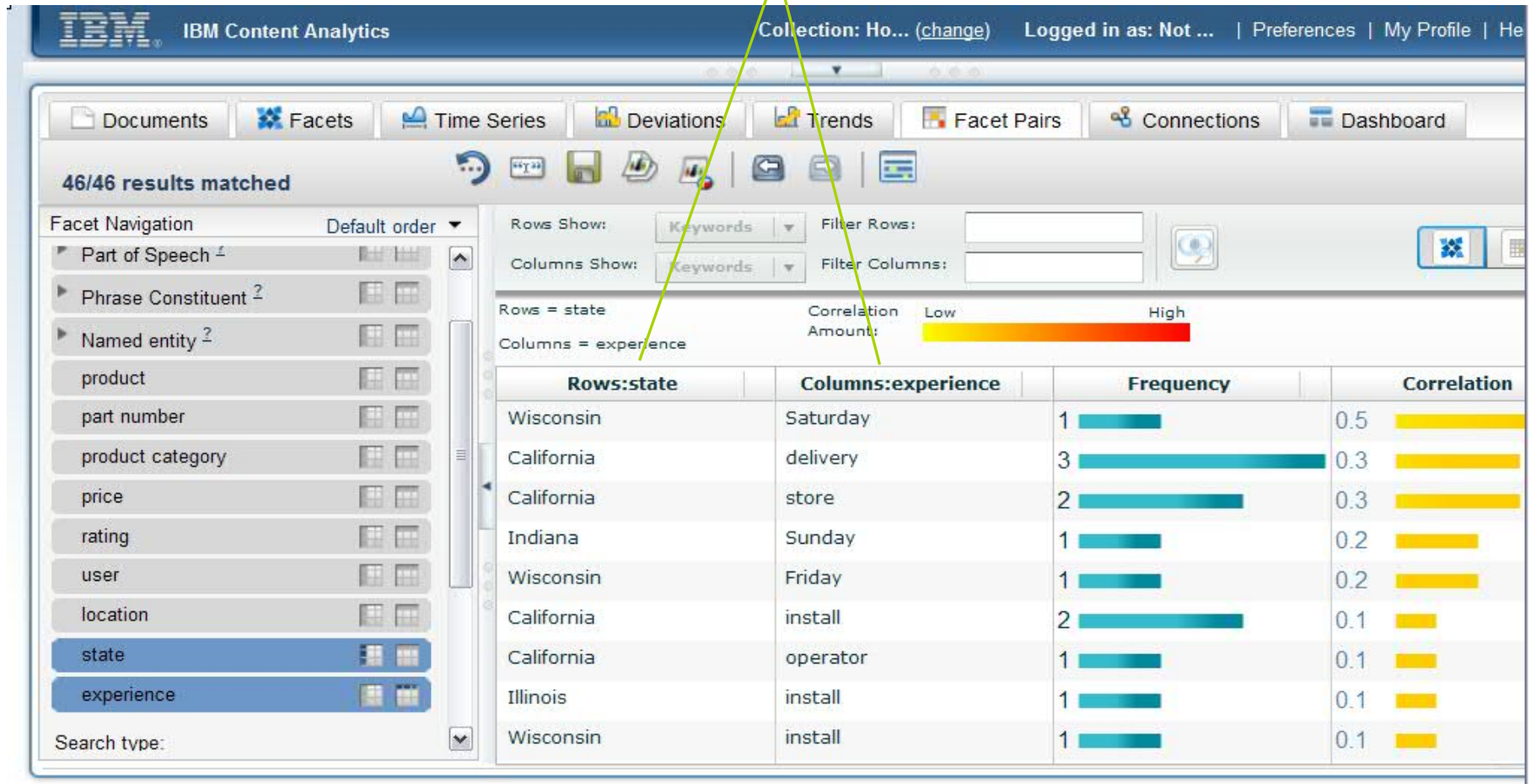
Correlate customer experience with particular products



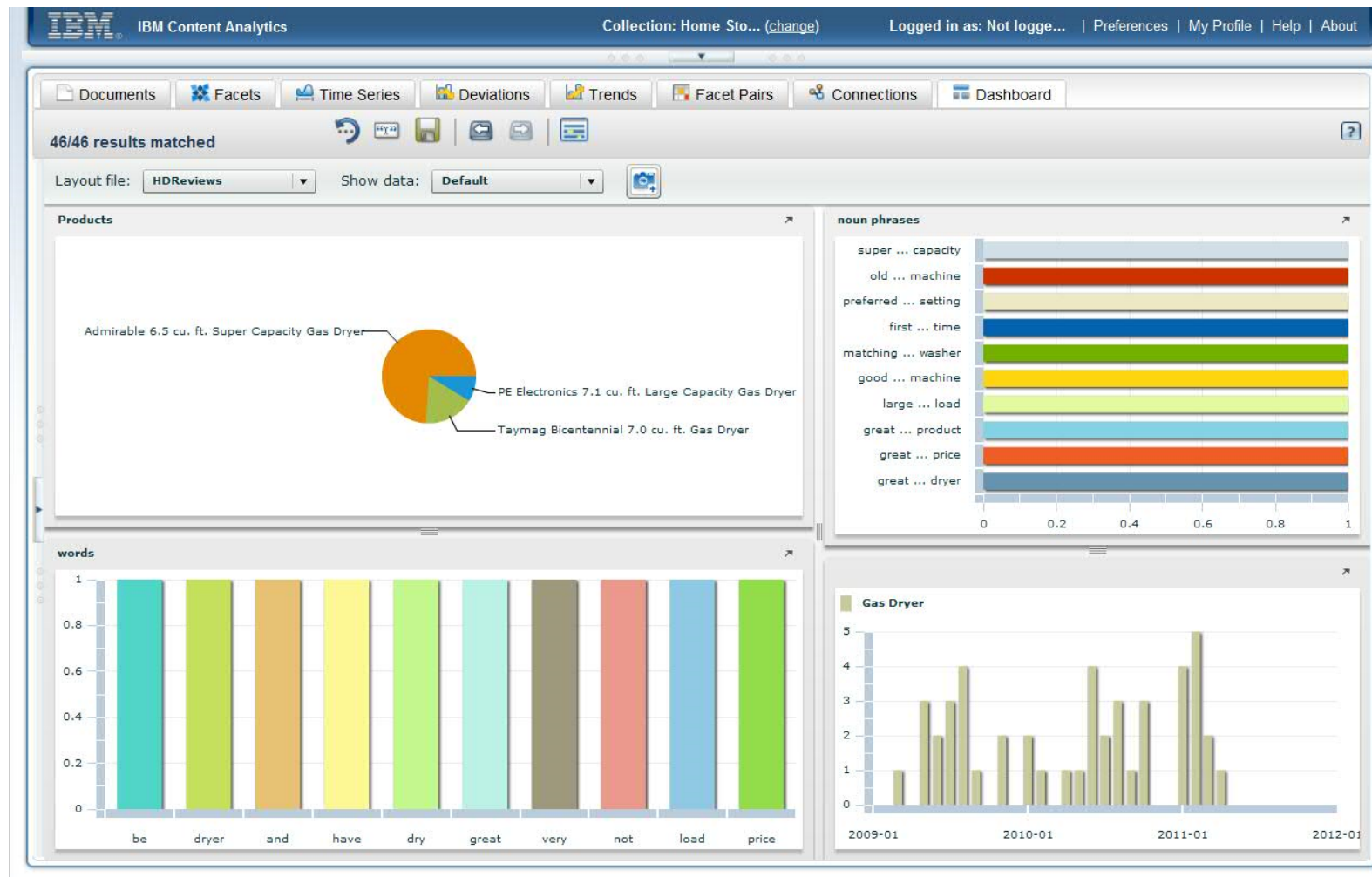
Interactively analyze and understand from different angles.



Correlate customer experience with Location.



Multiple visualizations can be combined for a custom Dashboard view

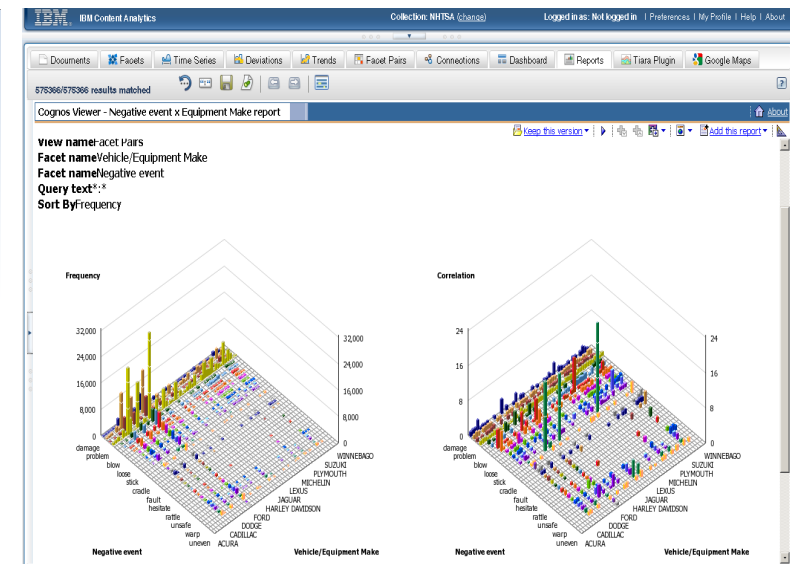
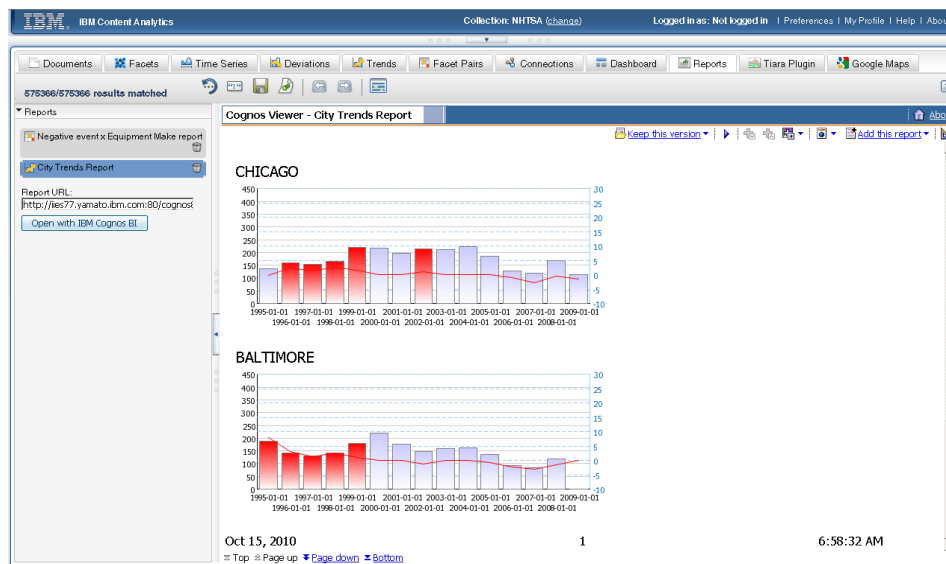
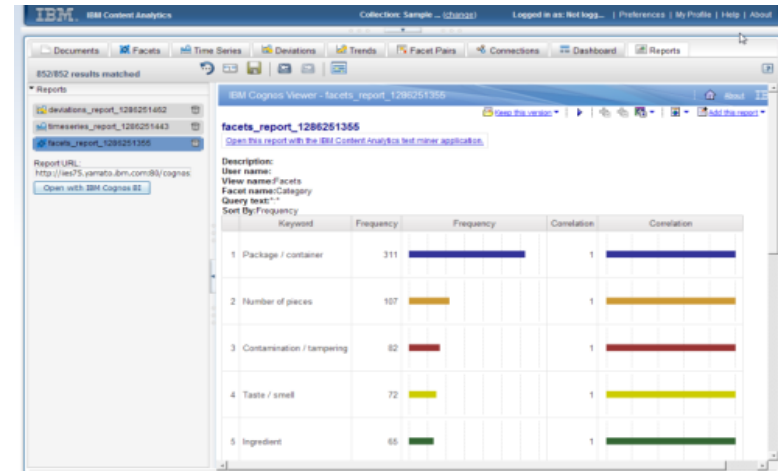


IBM Content Analytics integrates with Cognos BI reports

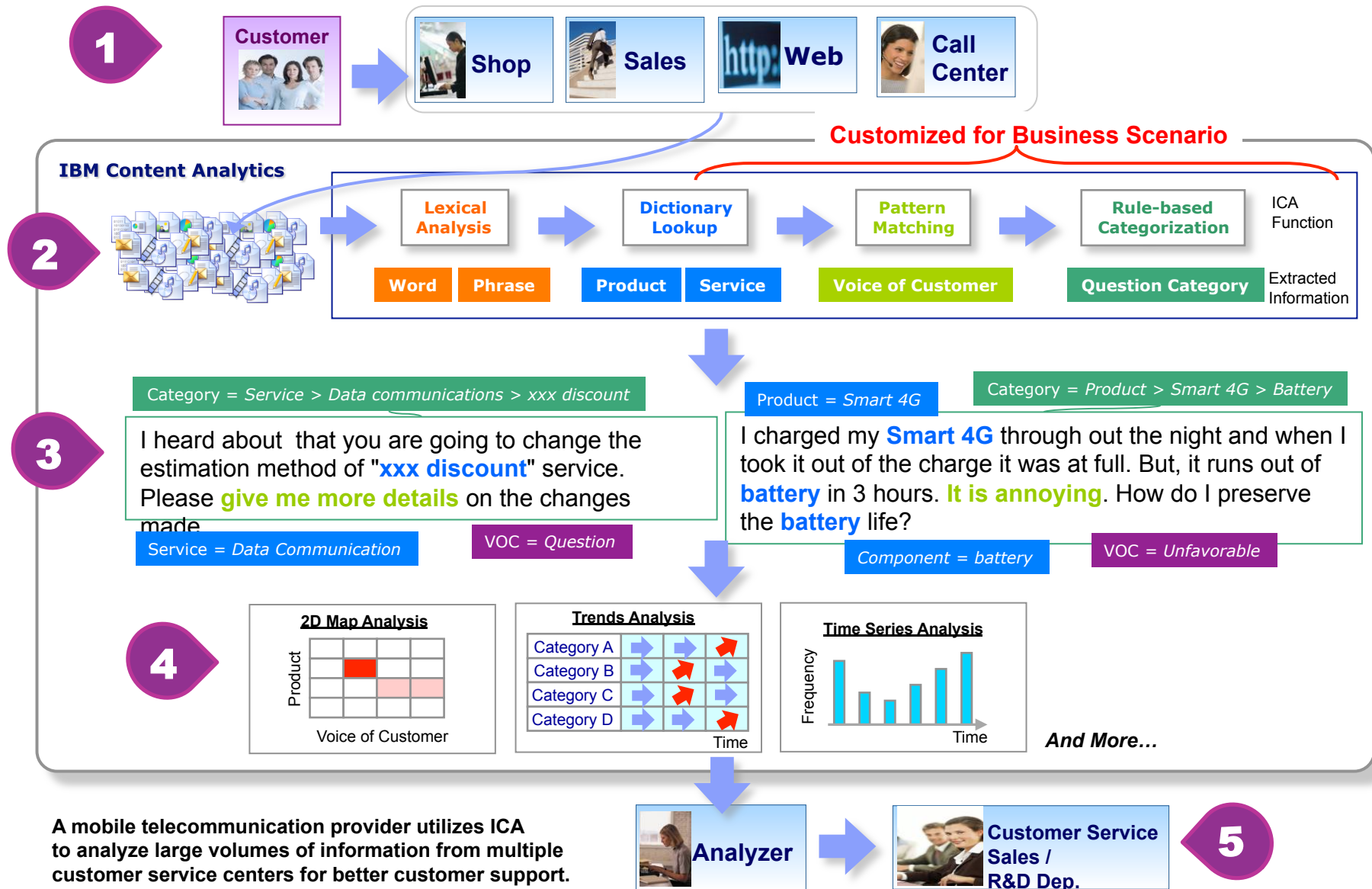


From Content Analytics, a user can:

- Issue a request to create a report
- List the created reports
- Open the created report
- Delete the created report
- Cognos reports can link to and from Content Analytics UI



Summary: Voice of Customer System



Customer Service

- What products/services are customers asking about?
- How quickly can we identify and act on nascent trends?
- Do we have accurate, concise answers for most frequently asked questions?
- How can we use “voice of customer” to reduce service costs?
- Who are we being compared to?



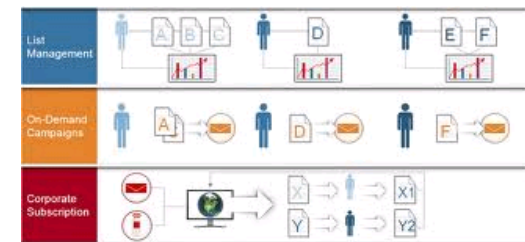
Product Management, Merchandising and Suppliers

- Do customer comments confirm or refute our understanding of customer needs?
- Are there “gaps” in our product/service offerings?
- What are the specific problems?
- Do our suppliers know about these issues?
- Do customers use products in new or unique ways?
- Do customers express a preference for competitor’s products?
- Which products are the most problematic (function, quality, price, availability, returns, packaging) ?



Marketing

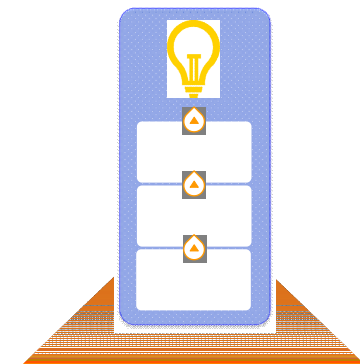
- Additional insights regarding market segments?
- What concepts, terminology, ideas resonate with customers?
- How can we plan more effective positioning, collateral and campaigns?
- What aspects of our loyalty program could be improved?



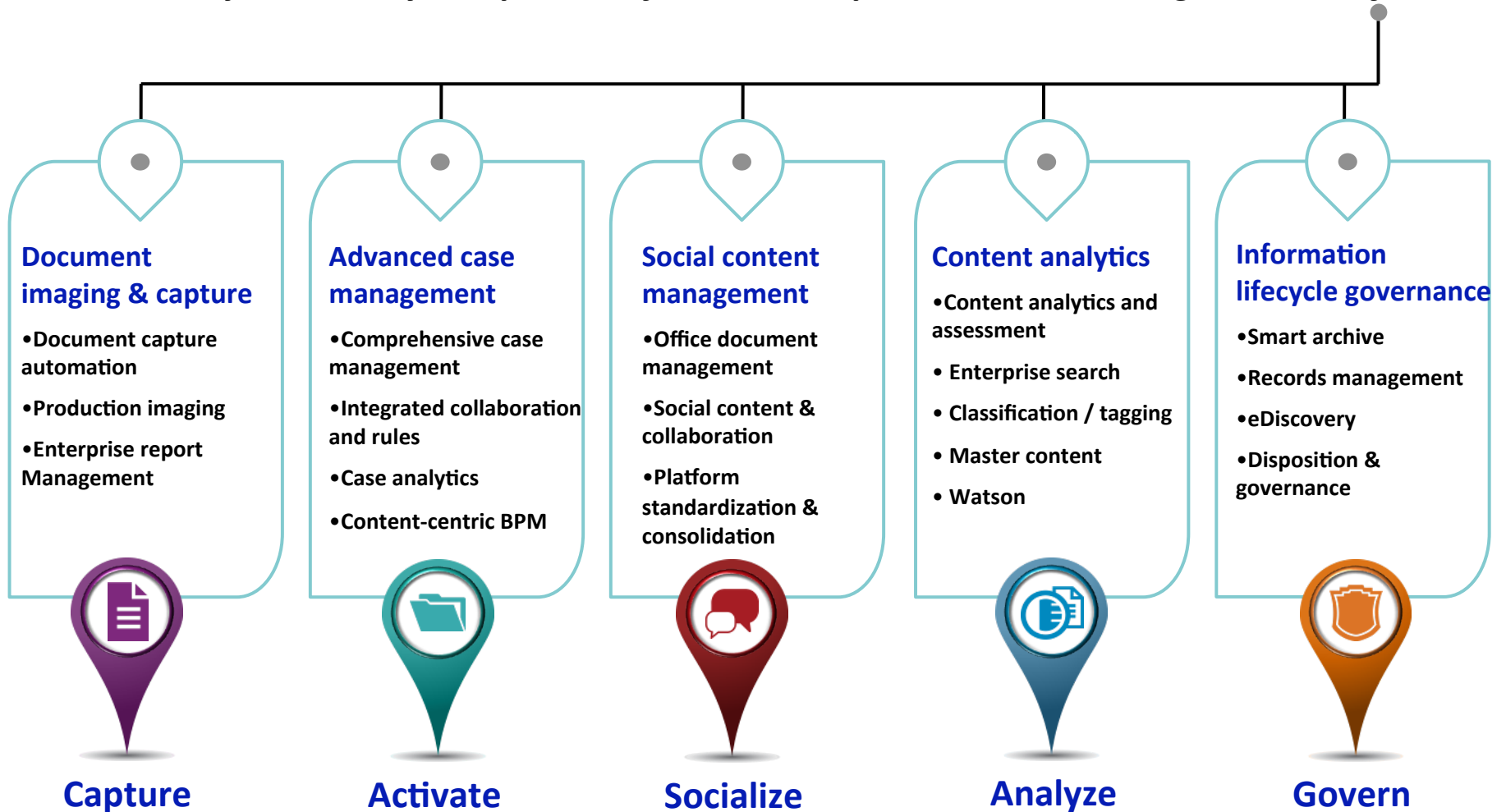
Uncover business insight quickly to improve product quality and customer service, detect fraud, optimize decision making and more

IBM Content Analytics

- Exploit the significant volumes of customer-generated communication – email, call logs, chat, voice to text that contain the “voice of the customer
- Deliver relevant insight available to line of business people who can act upon it
- Customize rapid insight to industry and customer specific needs
- Enable deeper insights through integration with other systems and solutions



Content Analytics is a key component of IBM's Enterprise Content Management Portfolio



Content at Rest = Cost... Content in Motion = Value

Where to find more information about ICA

Google search for "ibm content analytics" results in approximately 14,500,000 results in 0.24 seconds.

Everything
[IBM - Content Analytics with Enterprise Search](#)
www.ibm.com/software/ecm/content-analytics/bundle.html
 IBM Content Analytics with Enterprise Search is an advanced search and analytics platform that enables better decision making from your enterprise content ...

Images

Maps

Videos
[IBM - Content Analytics family](#)
www.ibm.com/software/ecm/content-analytics/
 IBM Content Analytics is an advanced search and analytics platform that enables better decision making from your enterprise content regardless of the source or ...

News

Shopping

YouTube
 Search for "ibm content analytics" results in 6 videos from IBM ECM. A video player shows a thumbnail for "IBM Content Analytics" with the text "Over 50 years of text analysis and discovery".

Content Analytics

Learn what Watson is, how it works, and how the technology can be adapted to solve problems.

→ Register to listen to the ECM podcast.

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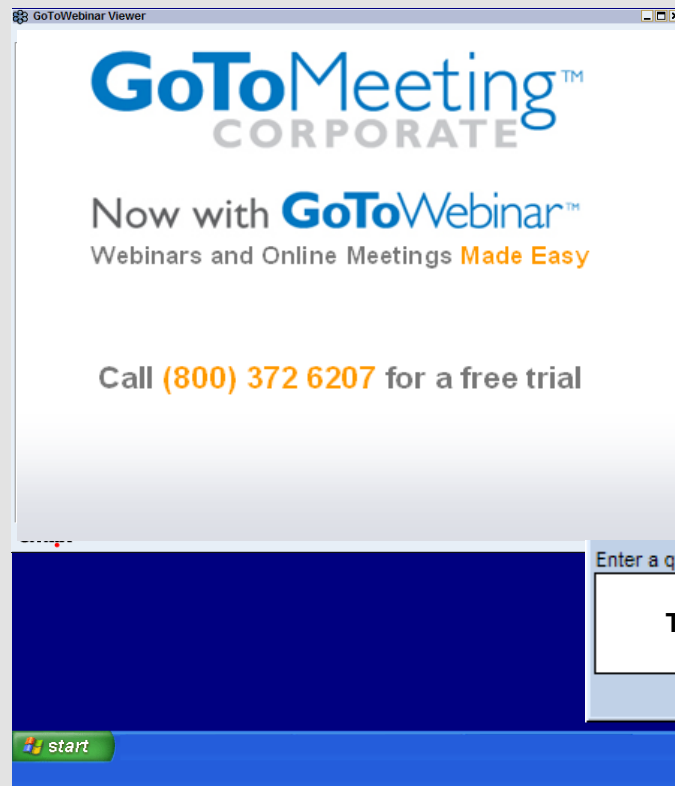
Additional Resources

- IBM Content Analytics - <http://www-01.ibm.com/software/ecm/content-analytics/>
- IBM Institute for Business Value “ From Stretched to Strengthened - Insights from the IBM Global CMO Study” -
<http://www-935.ibm.com/services/us/cmo/cmstudy2011/cmo-registration.html>
- Watson - <http://www-03.ibm.com/innovation/us/watson/index.html>
- IBM Enterprise Content Management -
<http://www-01.ibm.com/software/data/content-management/?lnk=mhpr>
- IBM Enterprise Content Management in Retail -
<ftp://public.dhe.ibm.com/software/uk/itsolutions/information-management/retail/it/ibm-ecm-for-retail.pdf>
- IBM Enterprise Content Management in Smarter Commerce -
<http://public.dhe.ibm.com/common/ssi/ecm/en/zs03023usen/ZS03023USEN.PDF>

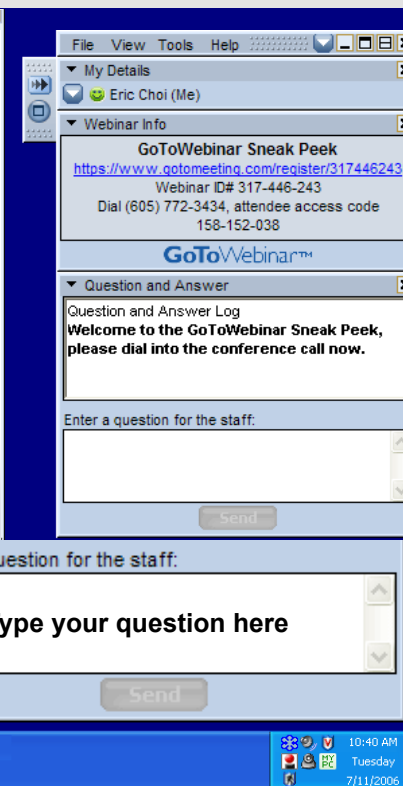
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Thanks for attending!

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<http://rtou.ch/ContentAnalytics>