March 14, 2012

#ContentAnalytics

Using Content Analytics

To Amplify The *"Voice Of The Customer"*

retail TouchPoints

IBM

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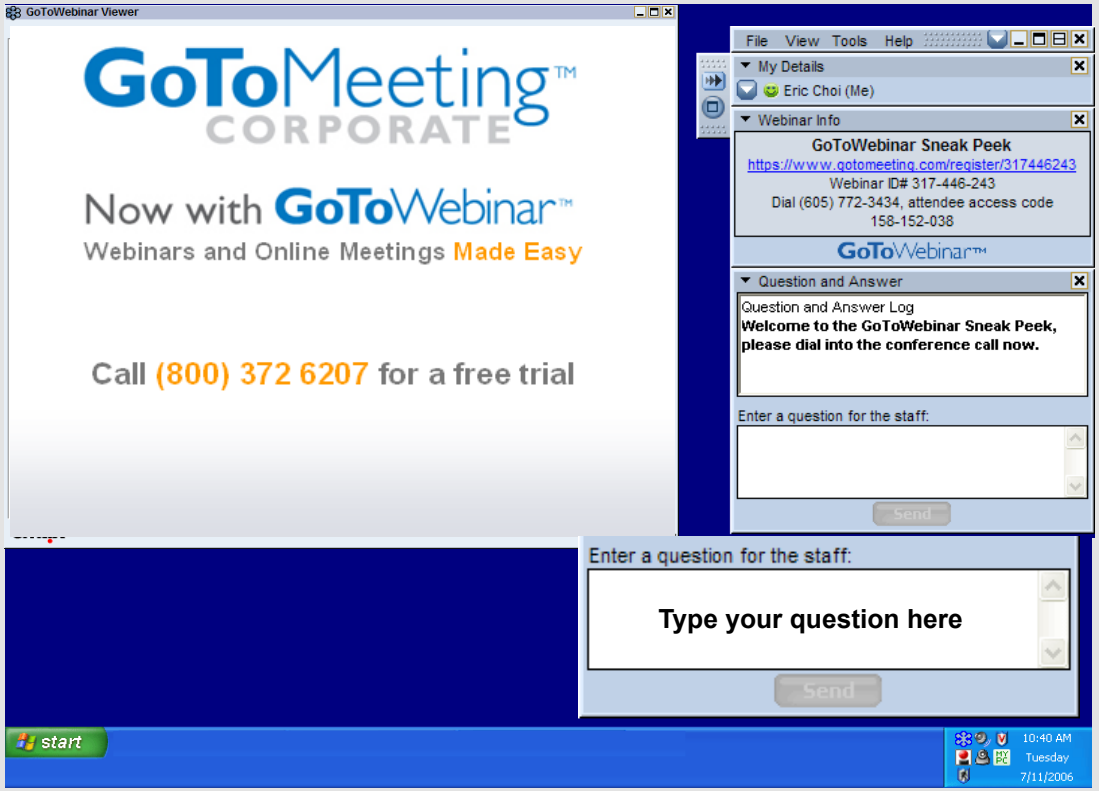

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#ContentAnalytics *hashtag.*

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

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IBM retail TouchPoints

Panelists

Rashmi Vittal
IBM Content Analytics
Product Marketing

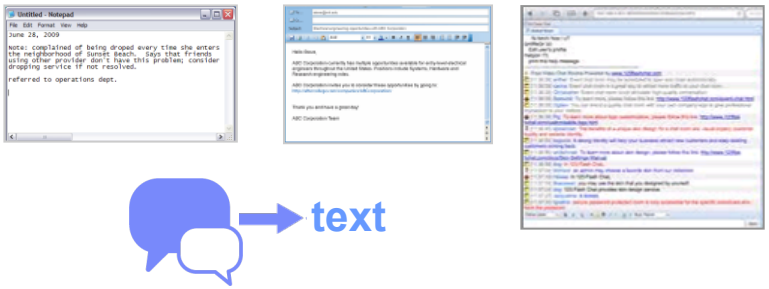
Dan Bigos
IBM ECM Industry Strategy & Solutions – Retail

MODERATOR

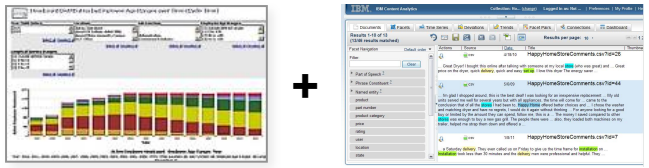
Debbie Hauss
Editor-in-Chief
Retail TouchPoints

Key Points of Today's Session

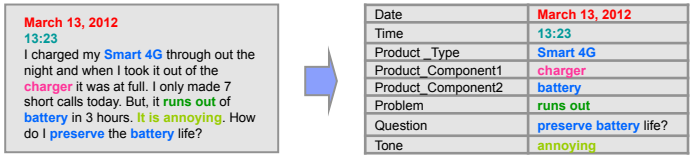
- Understand how to analyze and exploit market, customer, product, service and competitive insight that resides in volumes of "unstructured" information contained in email, call center logs, chats and voice converted to text



- 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

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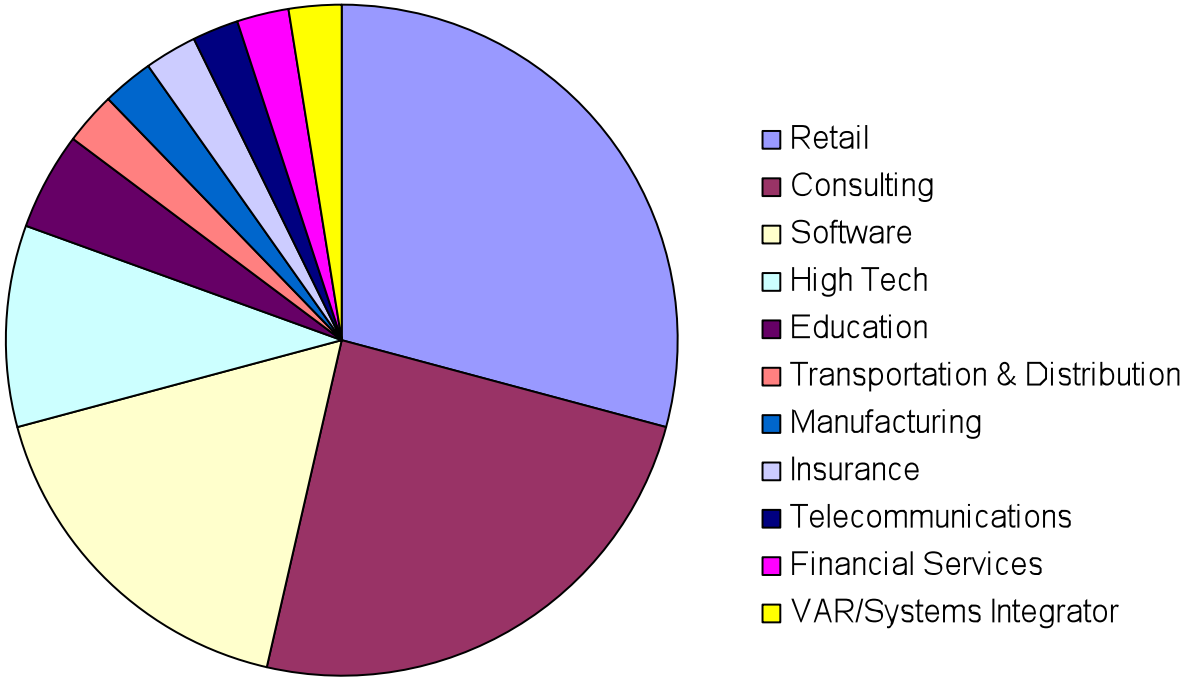
Who's Interested in Content Analytics?



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

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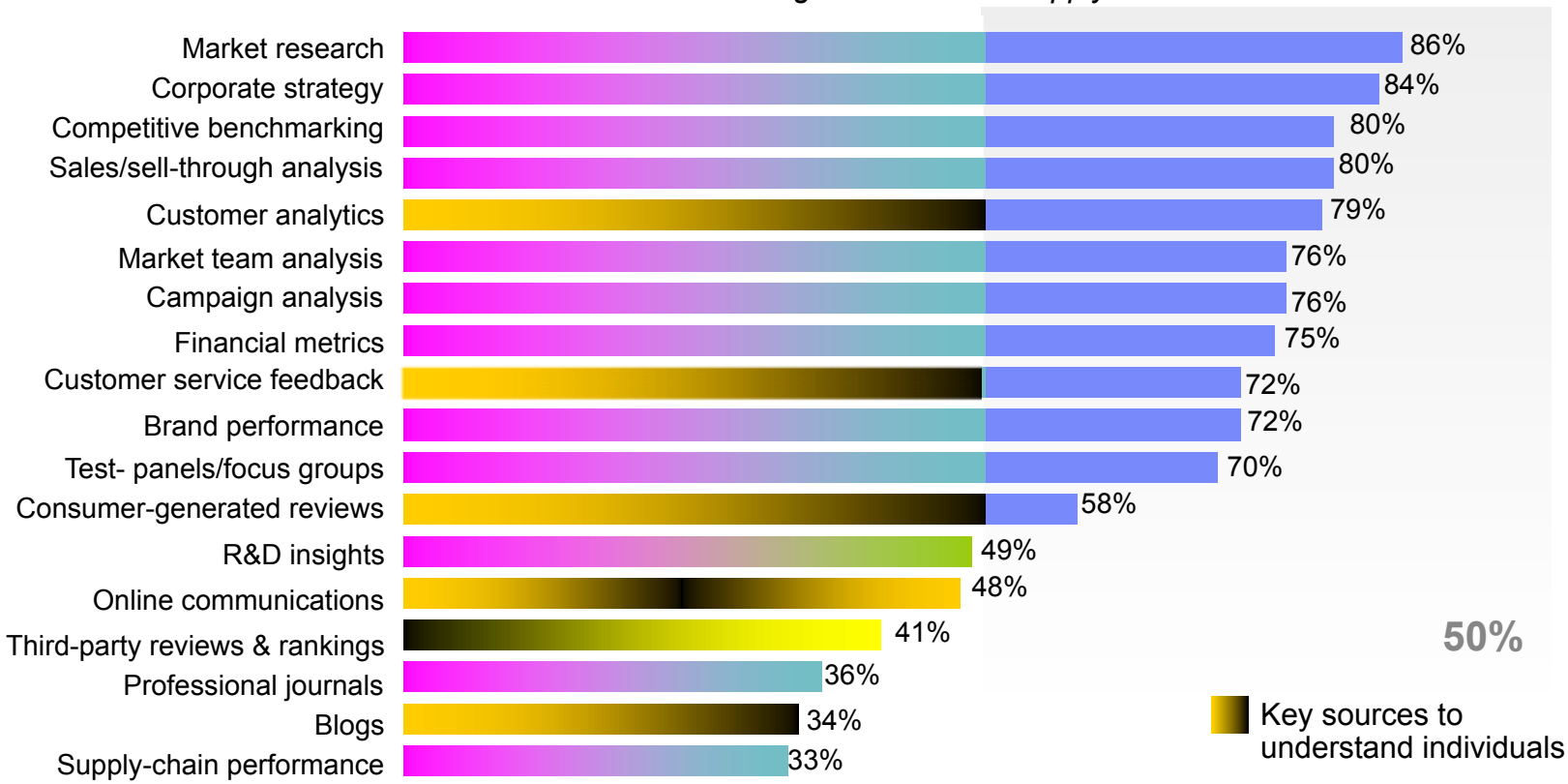
Retail CMOs lead the way by focusing now on individuals to shape their strategy versus understanding just markets

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"

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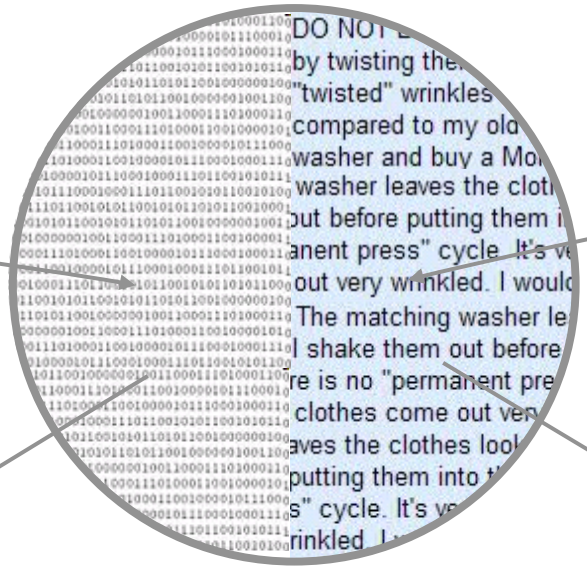
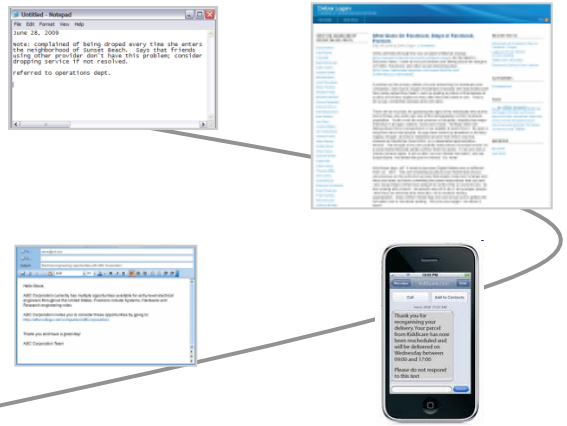
Content Analytics Complements Business Intelligence

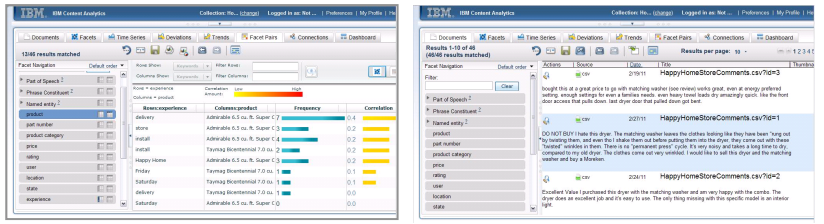




WHAT THEY DO

WHAT THEY THINK

+



market strategy, campaign design, product & service offering

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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

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Content Analytics Delivers Insight to Multiple Lines of Business

- Customer Satisfaction
- Early Warning Product Issues
- CSR Training & Monitoring
- Competitive Assessment

- Identify Product Gaps
- Monitor FAQs
- Effective Promotions
- Improve Self Service

Customer Service

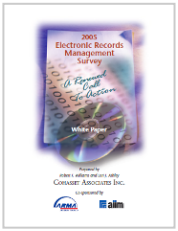
Service Management

Marketing

Product Management

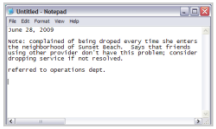
Sales

Suppliers

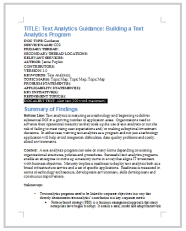


Industry Reports

Market Research Transcripts



CSR Logs



Internal Docs and Reports

Web

Blogs

Email

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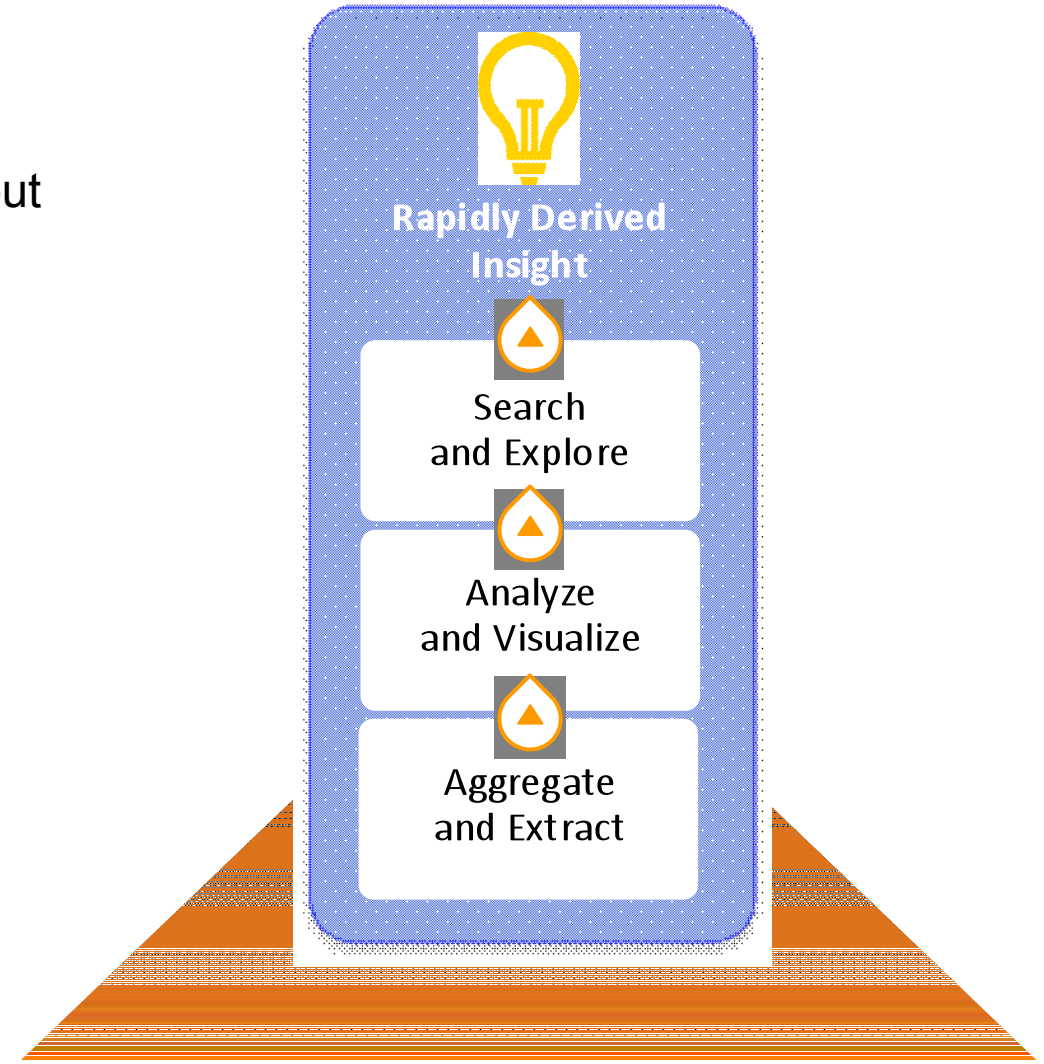
IBM Content Analytics is a platform to derive rapid insight

- 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.



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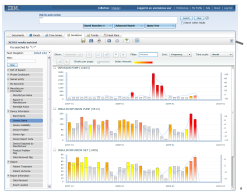
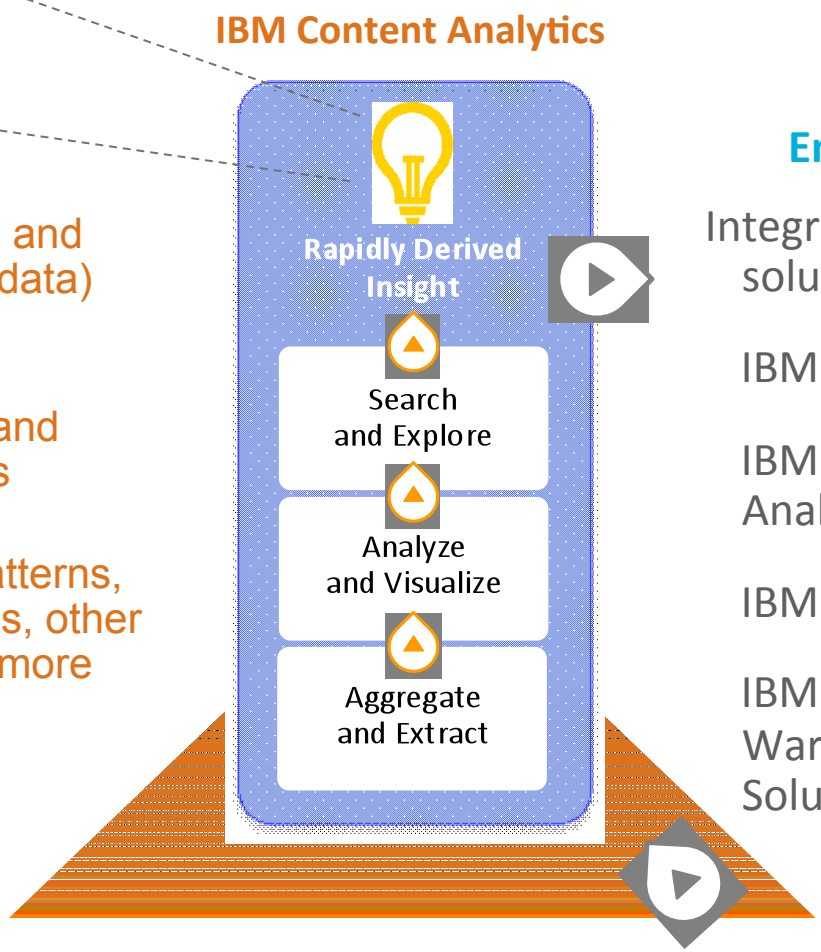
Enable Deeper Insight by extending Content Analytics



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

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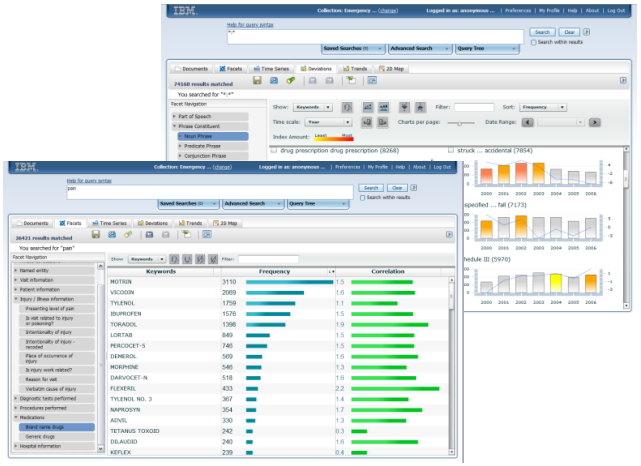
What is Text or Content Analytics, anyway?

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

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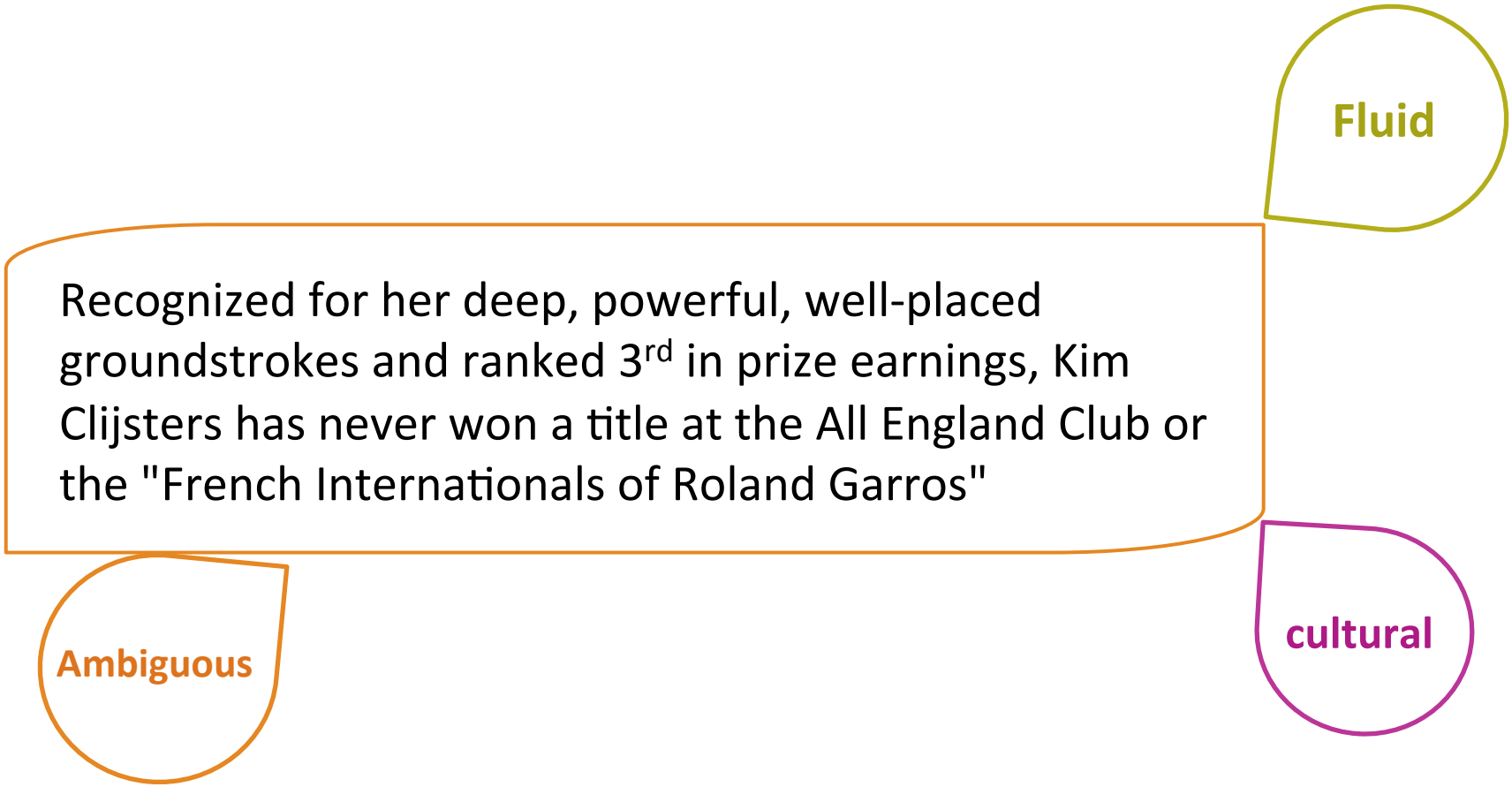
Interpreting Language is hard



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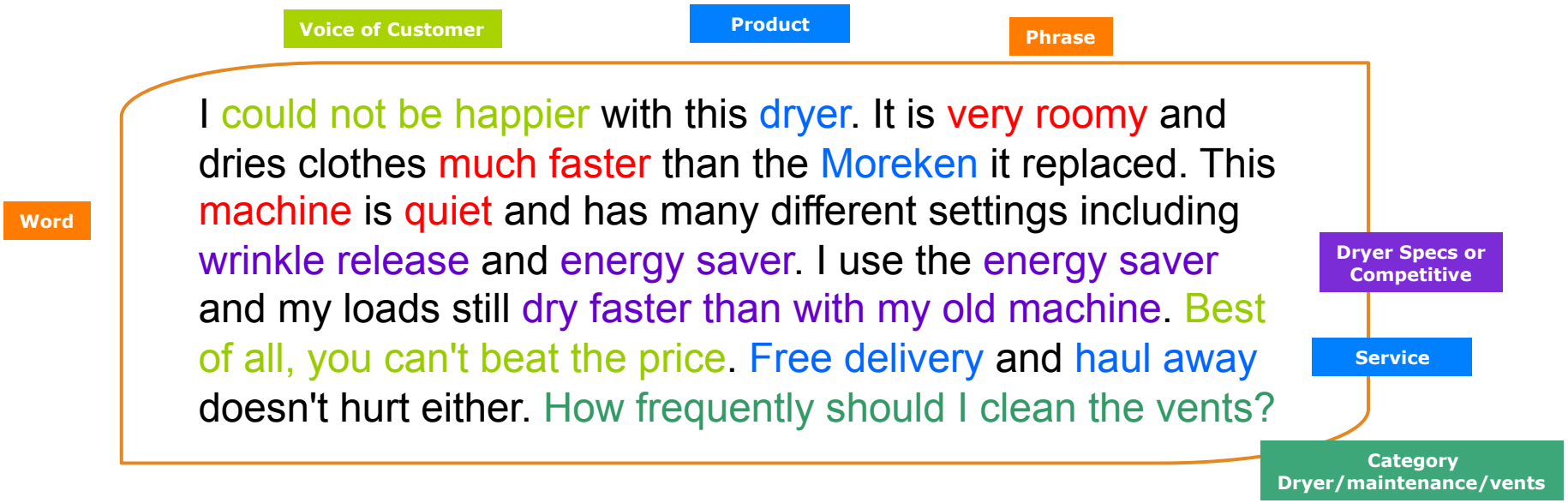
Content Analytics extracts meaning from text

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



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Multiple ways to extract meaning from text with accuracy

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

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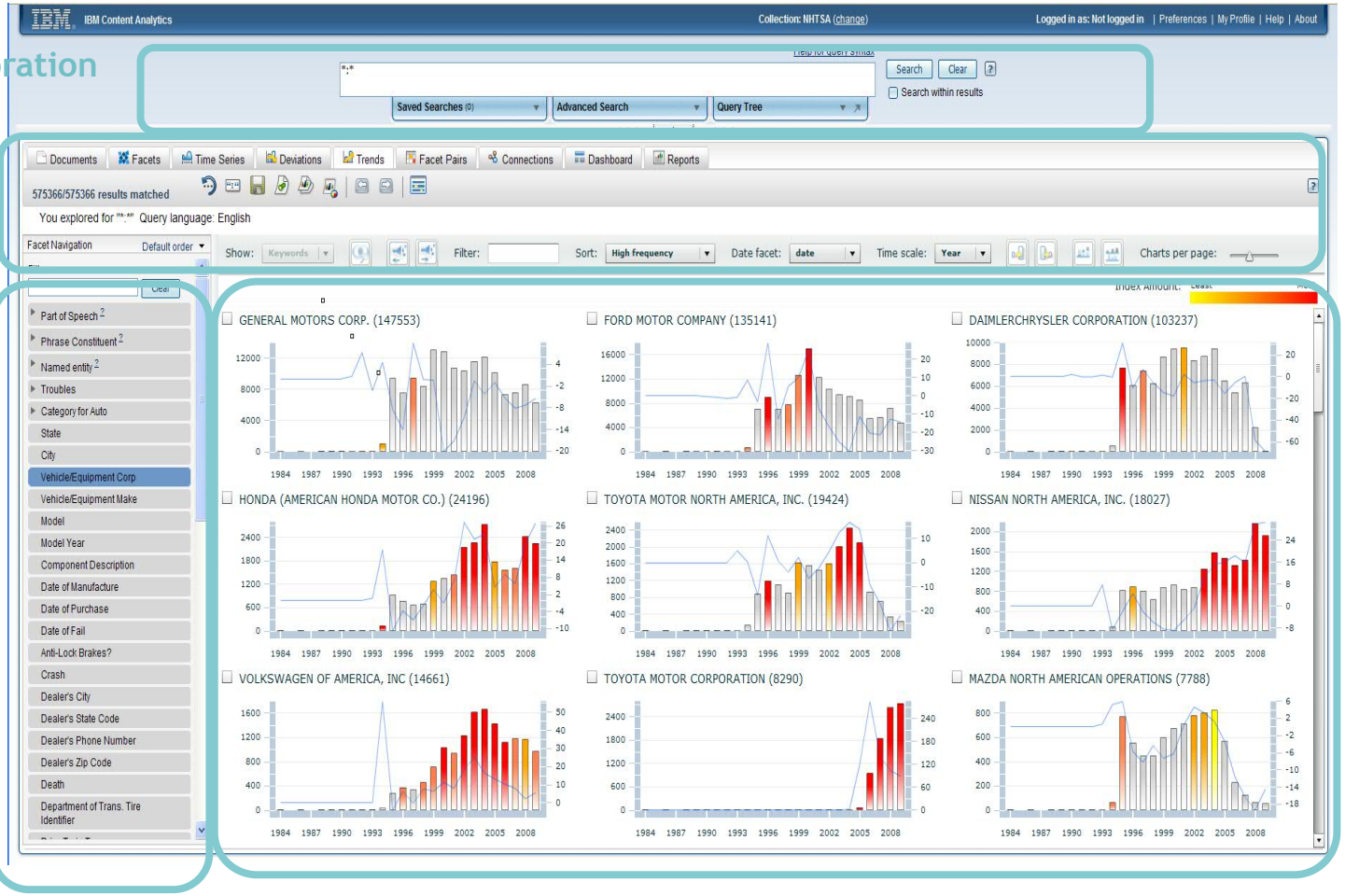
IBM Content Analytics has a powerful Text Miner UI

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

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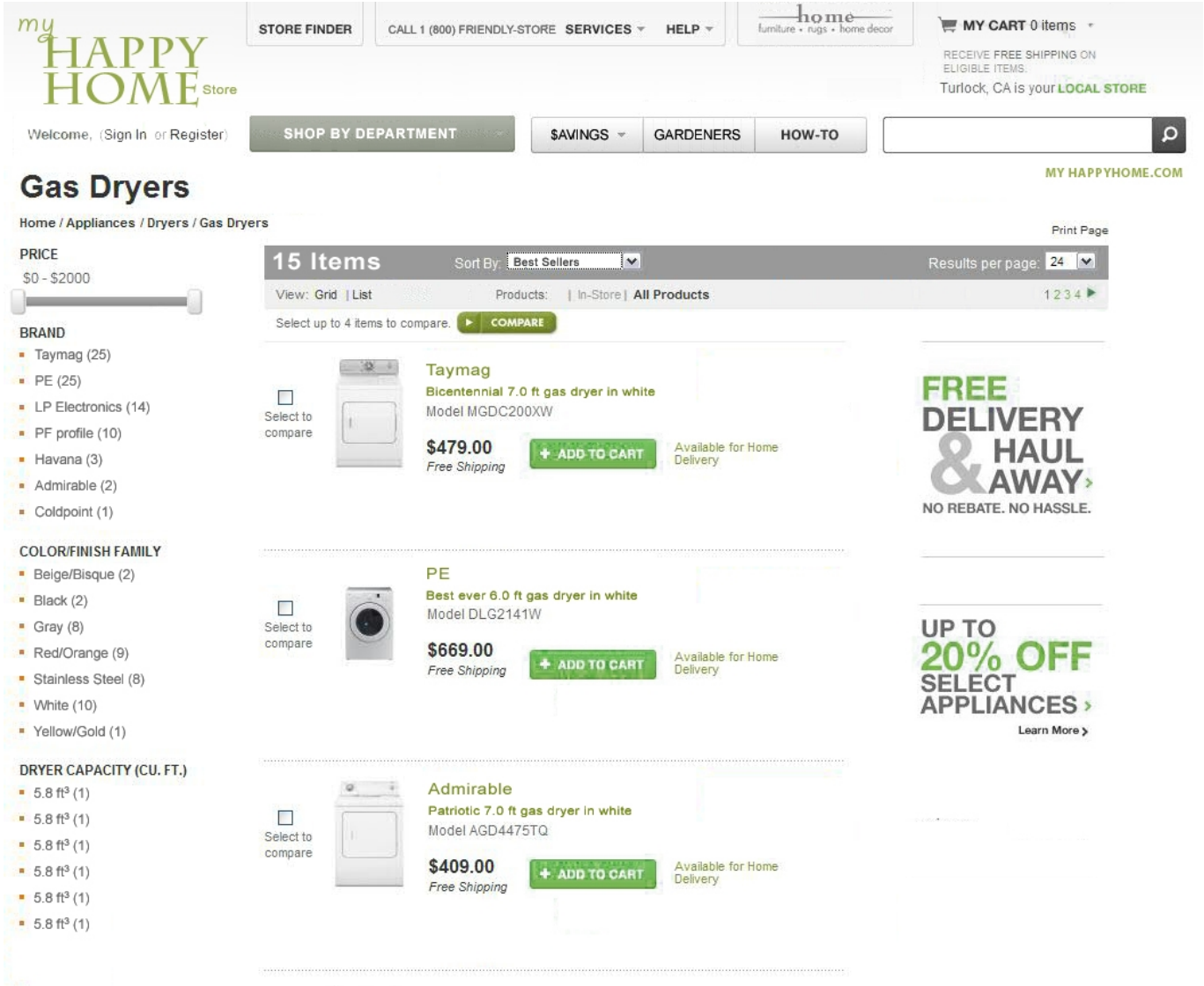
Example: Analyzing Happy Home Store's user reviews of Dryers



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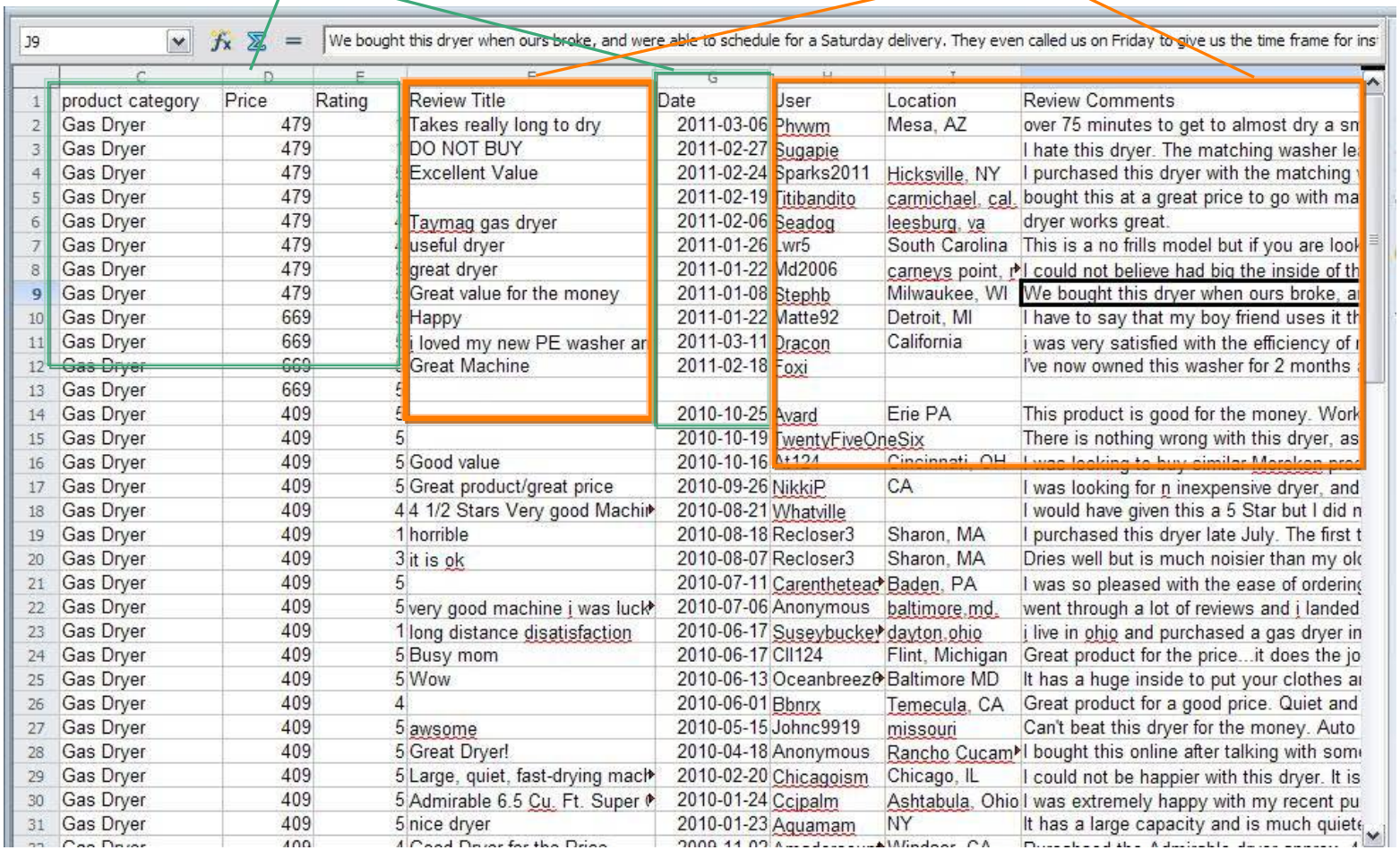
Aggregating the information

ICA supports 30+ sources and 250+ content types

Structured data or Meta data

Textual description



J9 — 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

	product category	Price	Rating	Review Title	Date	User	Location	Review Comments
2	Gas Dryer	479		Takes really long to dry	2011-03-06	Phwm	Mesa, AZ	over 75 minutes to get to almost dry a sn
3	Gas Dryer	479		DO NOT BUY	2011-02-27	Sugapie		I hate this dryer. The matching washer le
4	Gas Dryer	479		Excellent Value	2011-02-24	Sparks2011	Hicksville, NY	I purchased this dryer with the matching
5	Gas Dryer	479			2011-02-19	Titibandito	carmichael, cal	bought this at a great price to go with ma
6	Gas Dryer	479		Taymag gas dryer	2011-02-06	Seadog	leesburg, va	dryer works great.
7	Gas Dryer	479		useful dryer	2011-01-26	Lwr5	South Carolina	This is a no frills model but if you are look
8	Gas Dryer	479		great dryer	2011-01-22	Md2006	carneys point, n	I could not believe had big the inside of th
9	Gas Dryer	479		Great value for the money	2011-01-08	Stephb	Milwaukee, WI	We bought this dryer when ours broke, a
10	Gas Dryer	669		Happy	2011-01-22	Matte92	Detroit, MI	I have to say that my boy friend uses it th
11	Gas Dryer	669		i loved my new PE washer ar	2011-03-11	Dracon	California	i was very satisfied with the efficiency of
12	Gas Dryer	669		Great Machine	2011-02-18	Foxi		I've now owned this washer for 2 months
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	5		2010-10-19	TwentyFiveOneSix		There is nothing wrong with this dryer, as
16	Gas Dryer	409	5	Good value	2010-10-16	At124	Cincinnati, OH	I was looking to buy similar Maytag prod
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	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	Carentheteac	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 disatisfaction	2010-06-17	Suseybuckey	dayton,ohio	i live in ohio and purchased a gas dryer in
24	Gas Dryer	409	5	Busy mom	2010-06-17	Cll124	Flint, Michigan	Great product for the price...it does the jo
25	Gas Dryer	409	5	Wow	2010-06-13	Oceanbreez6	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	awsome	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	Chicagoism	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

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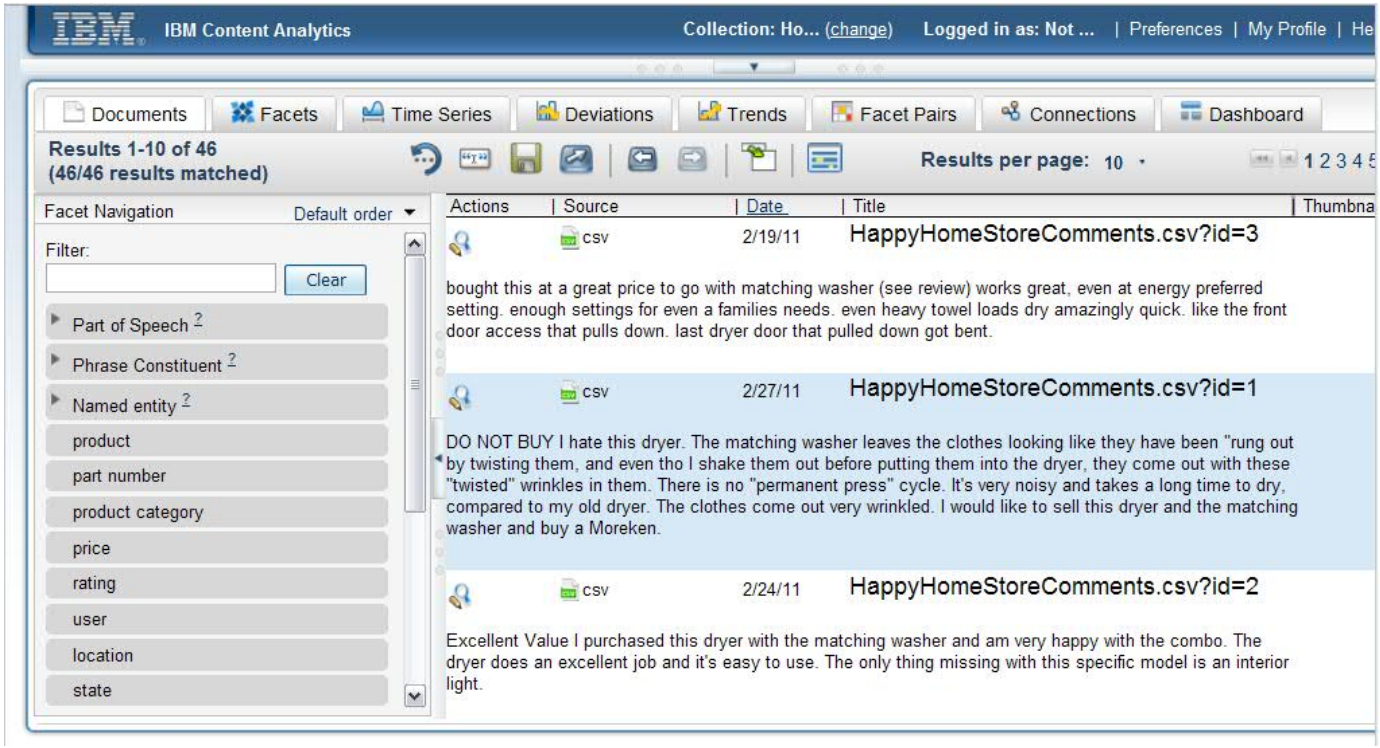
ICA will map the structured data fields to facets with additional facets built from text analytics



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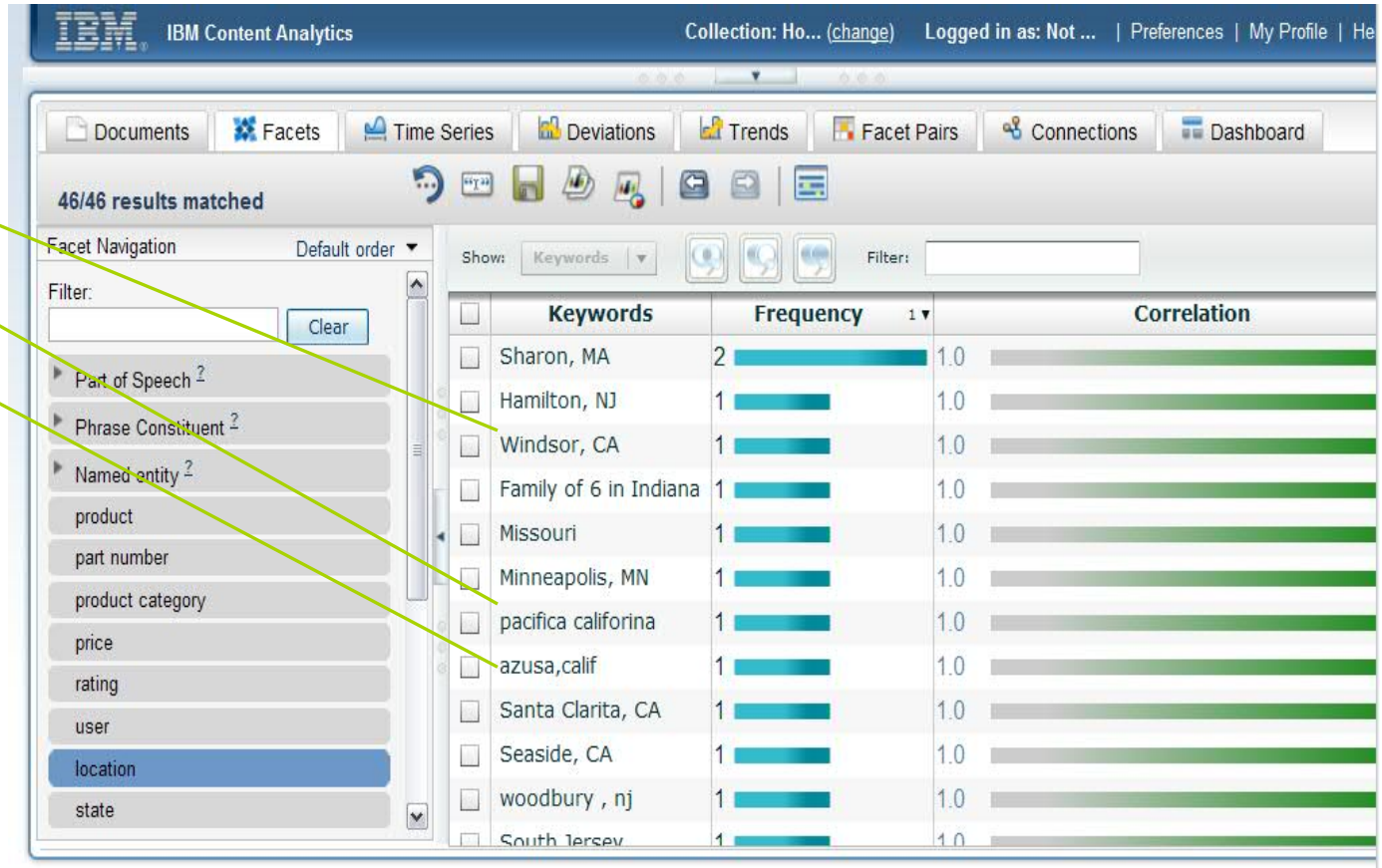
Text: unstructured, unformatted…first step is to normalize

CA

california

calif



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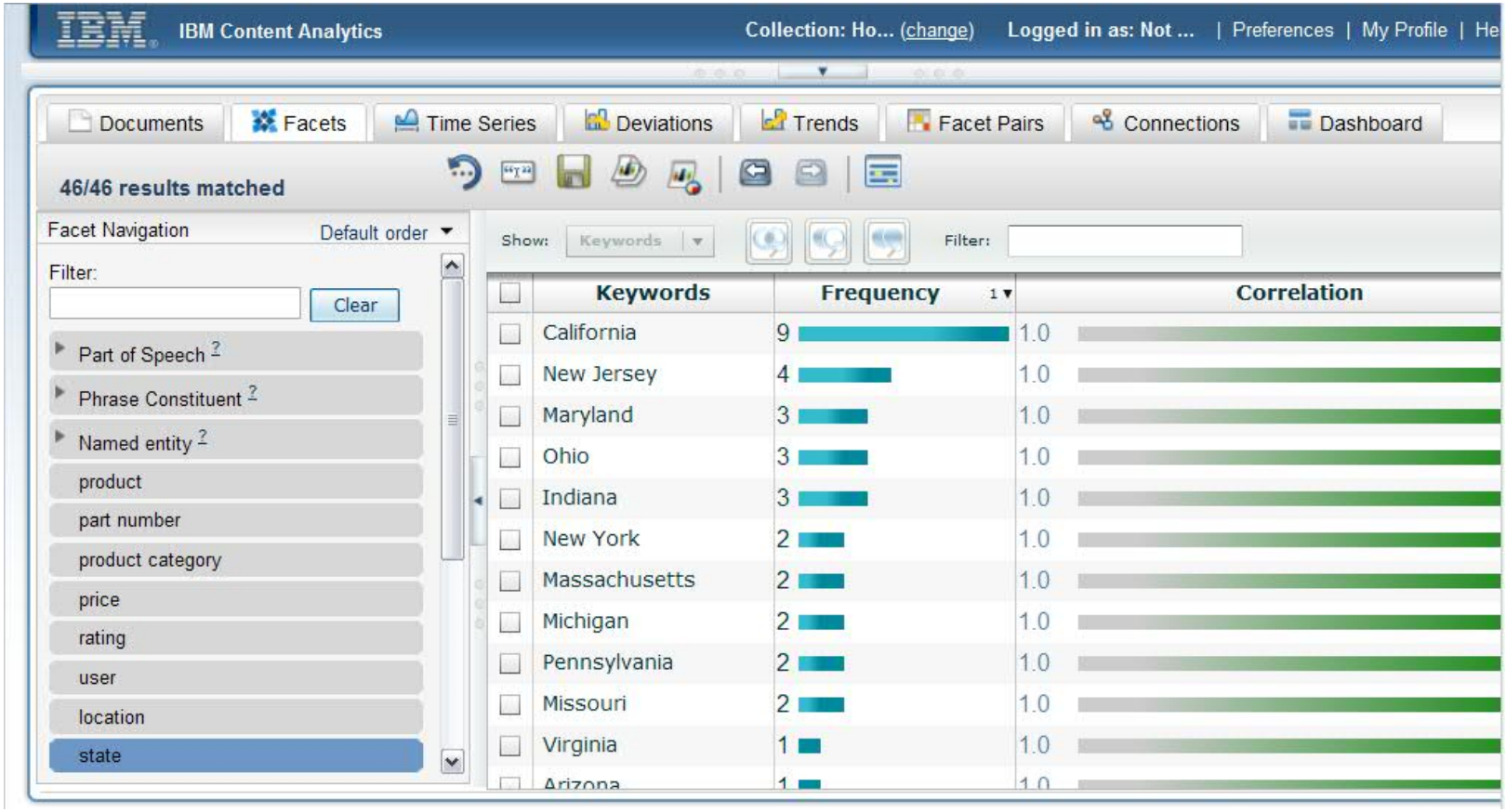
Normalization of content values improves analysis



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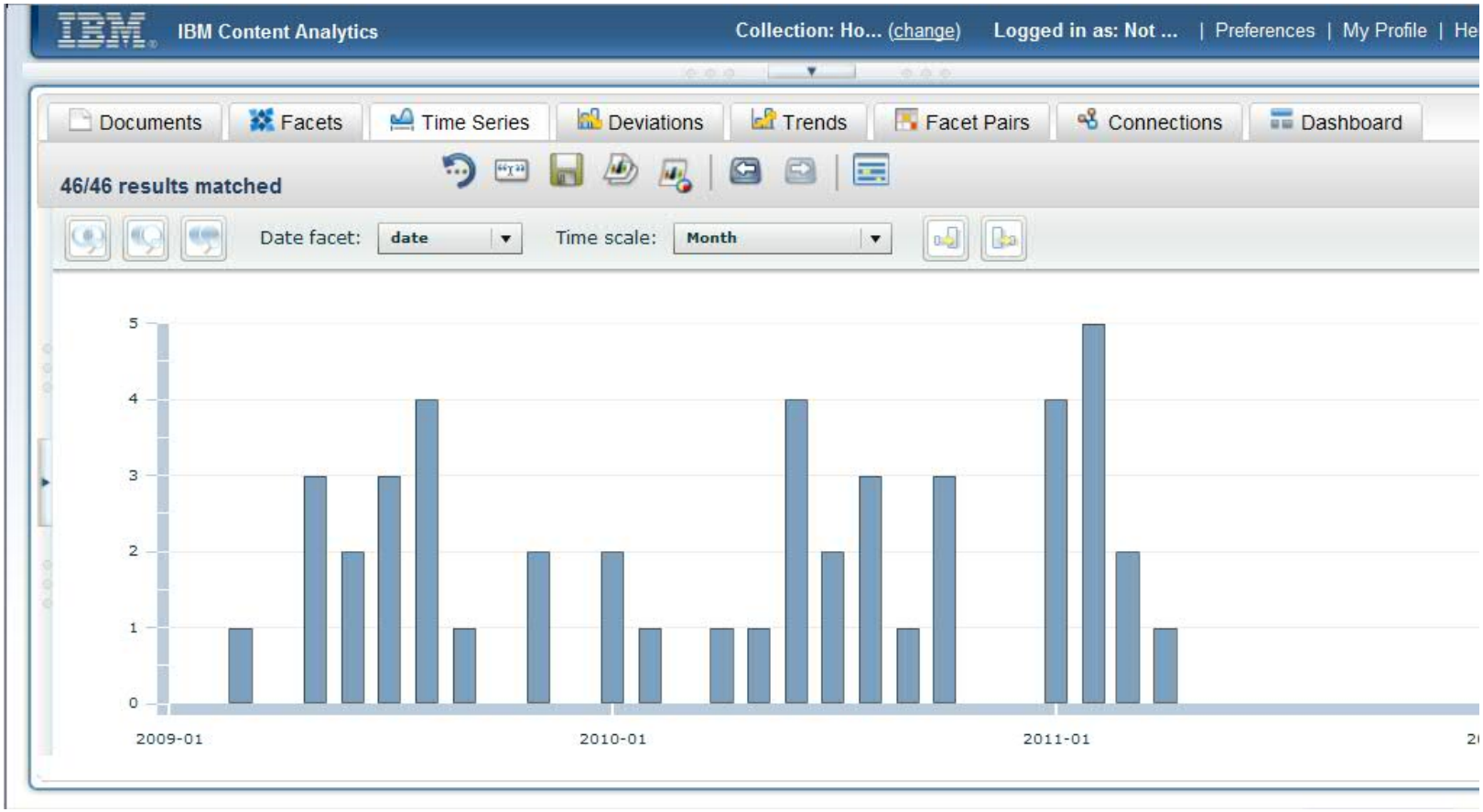
Easily see product reviews over time

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



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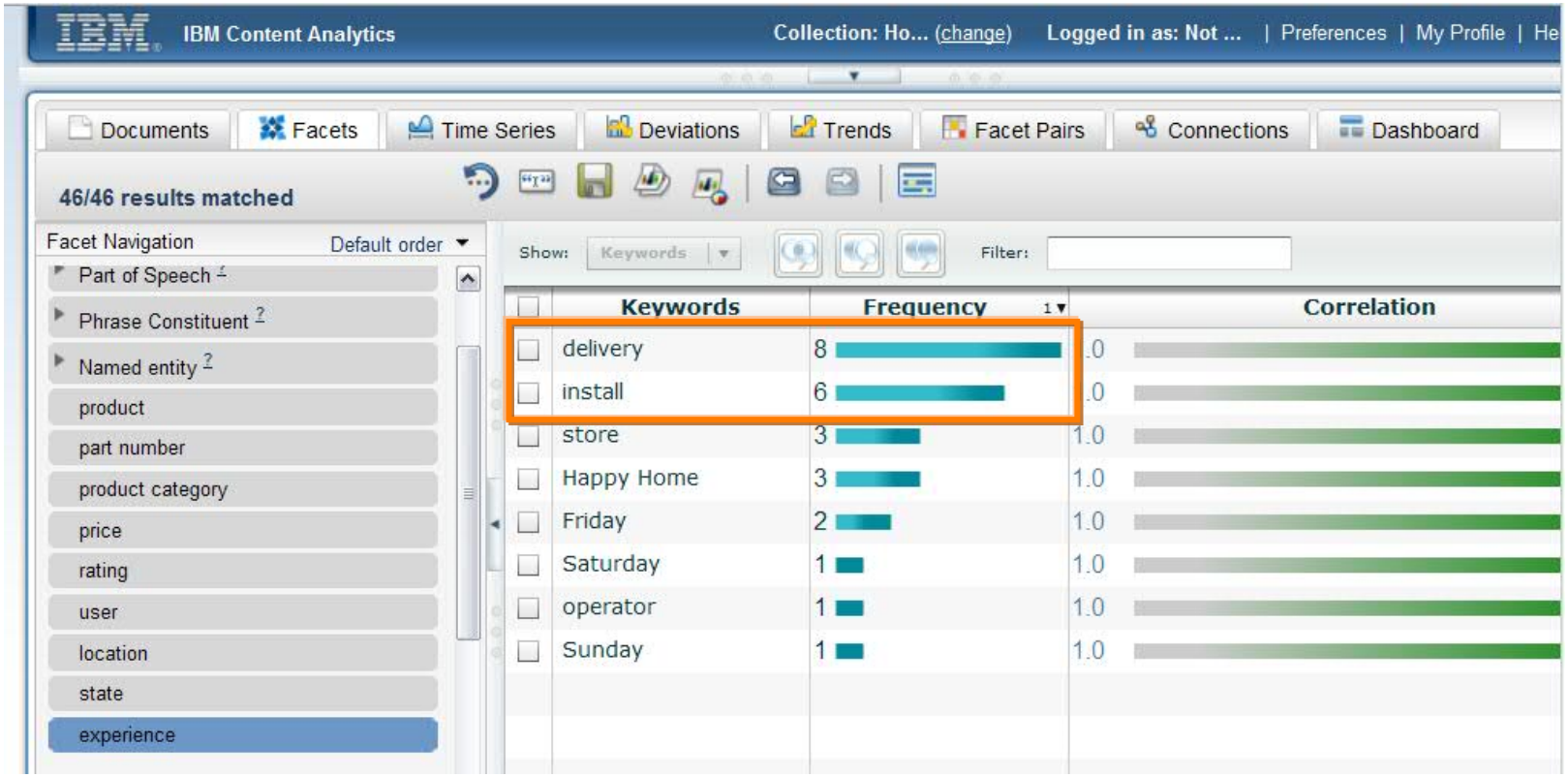
Use Content Analytics to quickly view customer's experience

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



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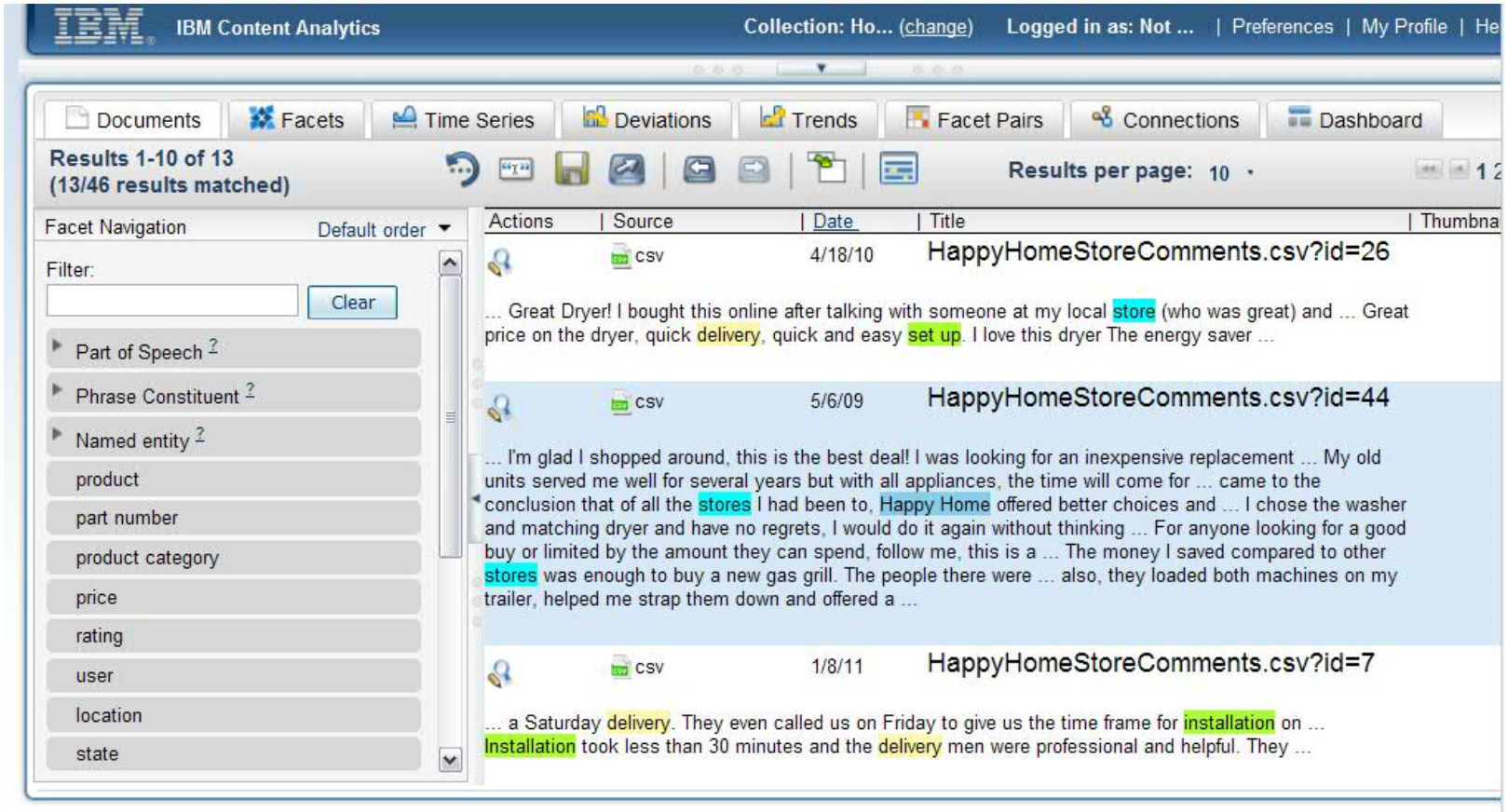
Zero in on the “Why” behind the what, where and when…

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



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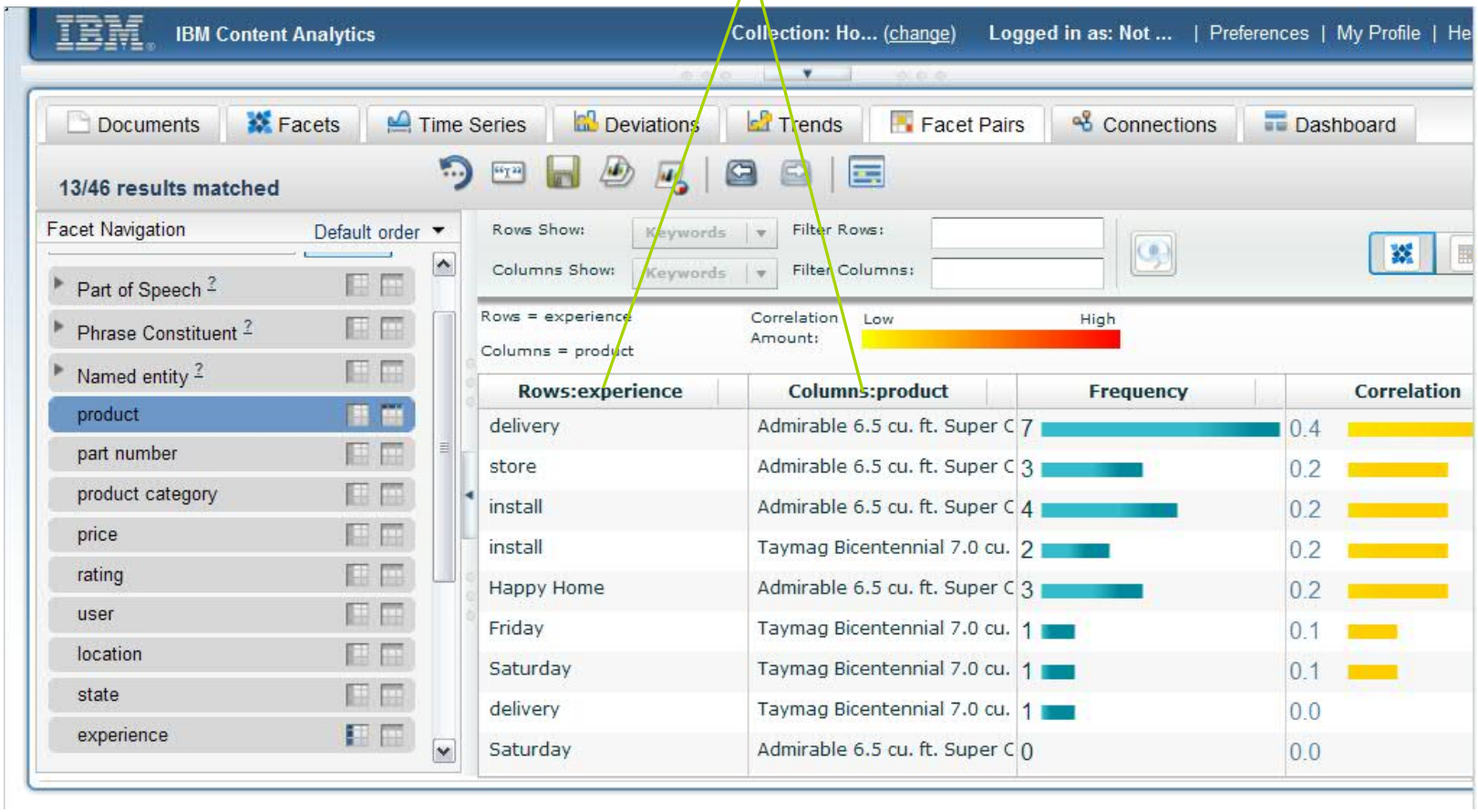
Surface correlations and hot spots easily

Correlate customer experience with particular products



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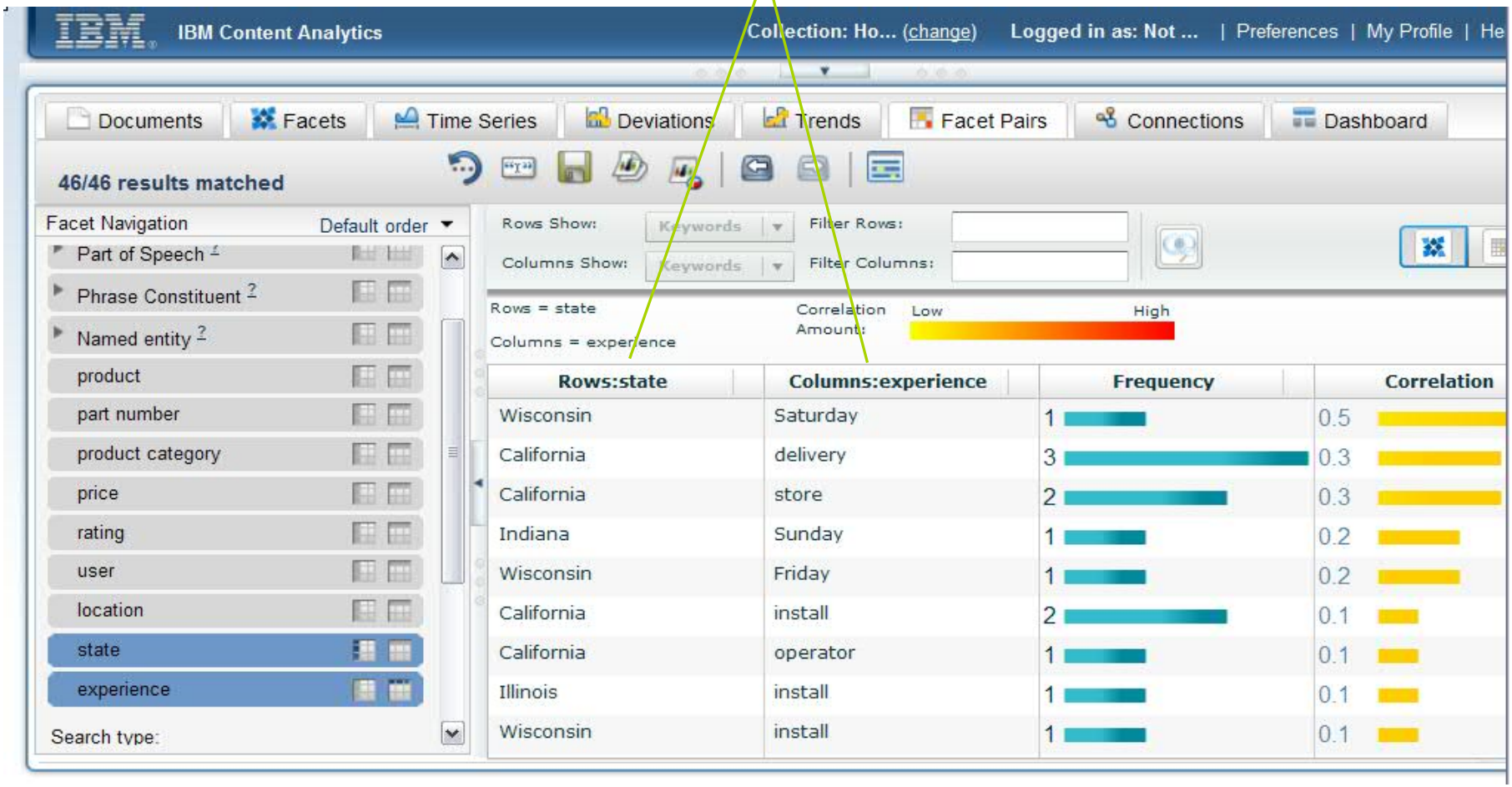
Interactively analyze and understand from different angles.

Correlate customer experience with Location.



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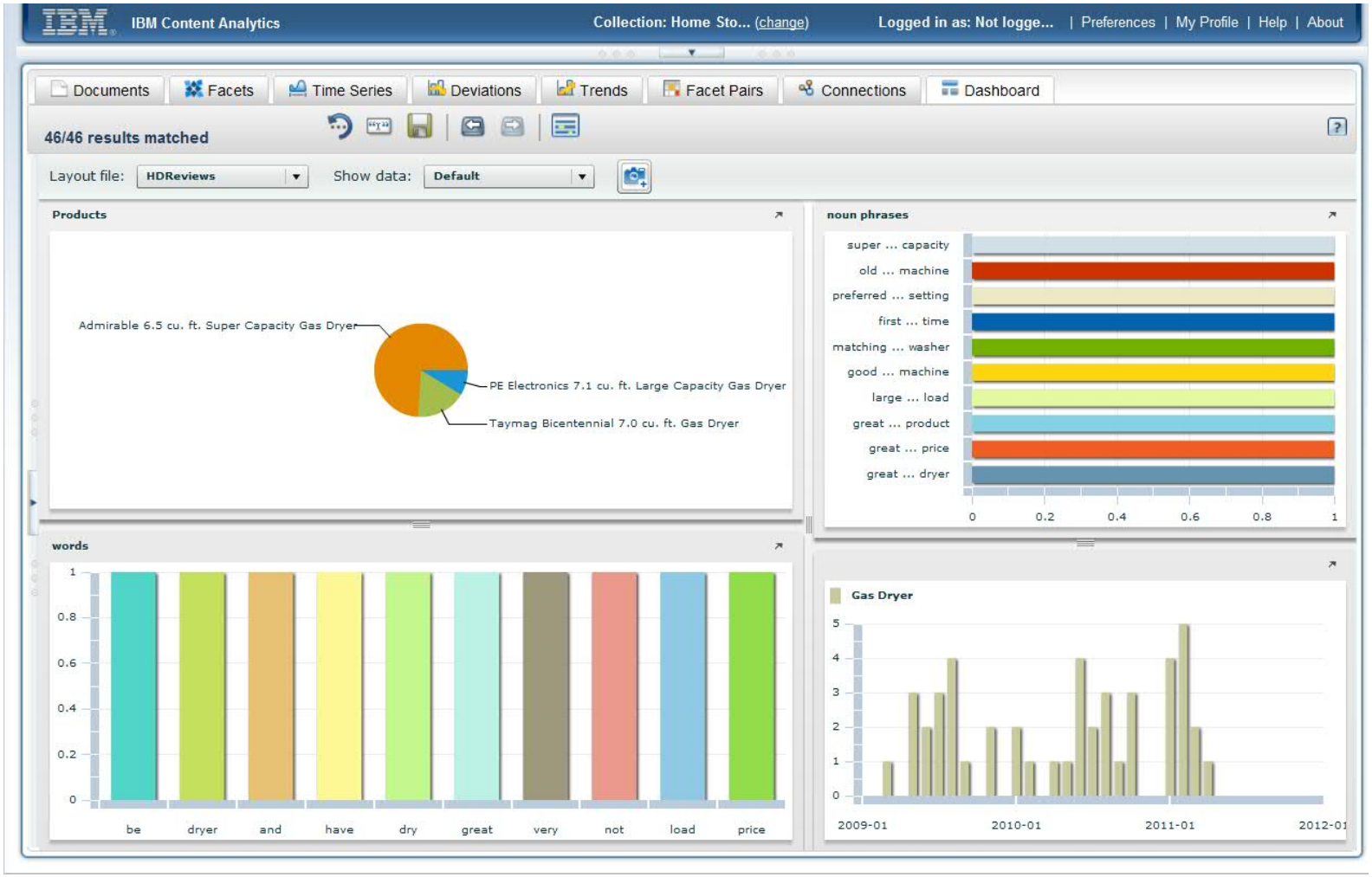
Multiple visualizations can be combined for a custom Dashboard view



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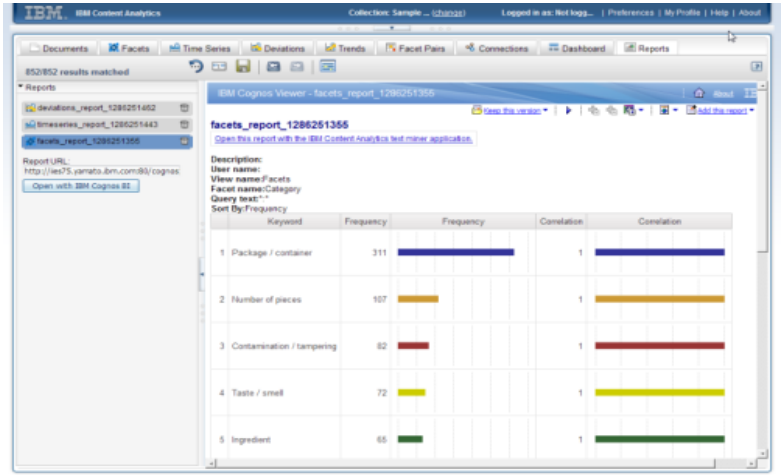
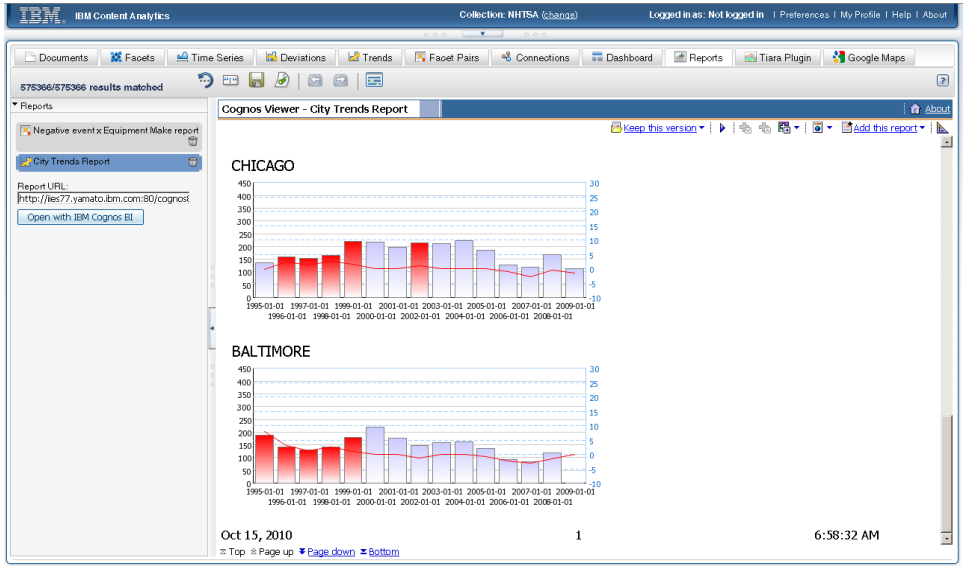
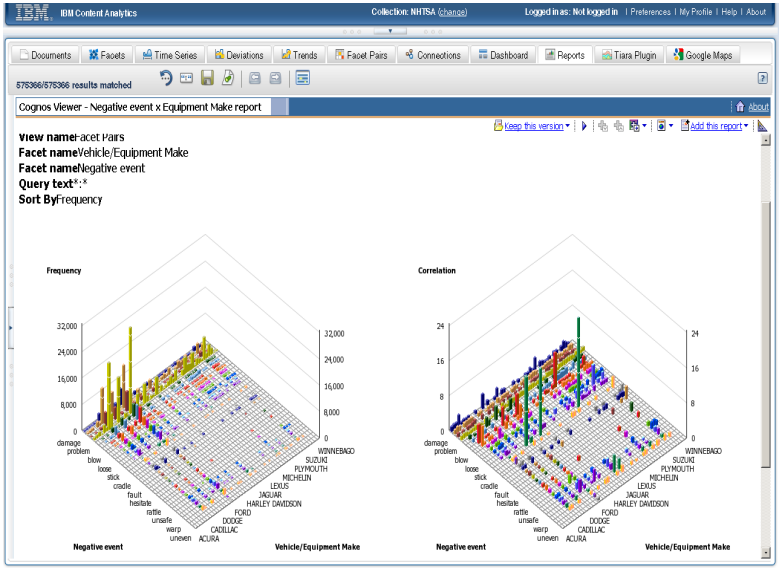
IBM Content Analytics integrates with Cognos BI reports

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







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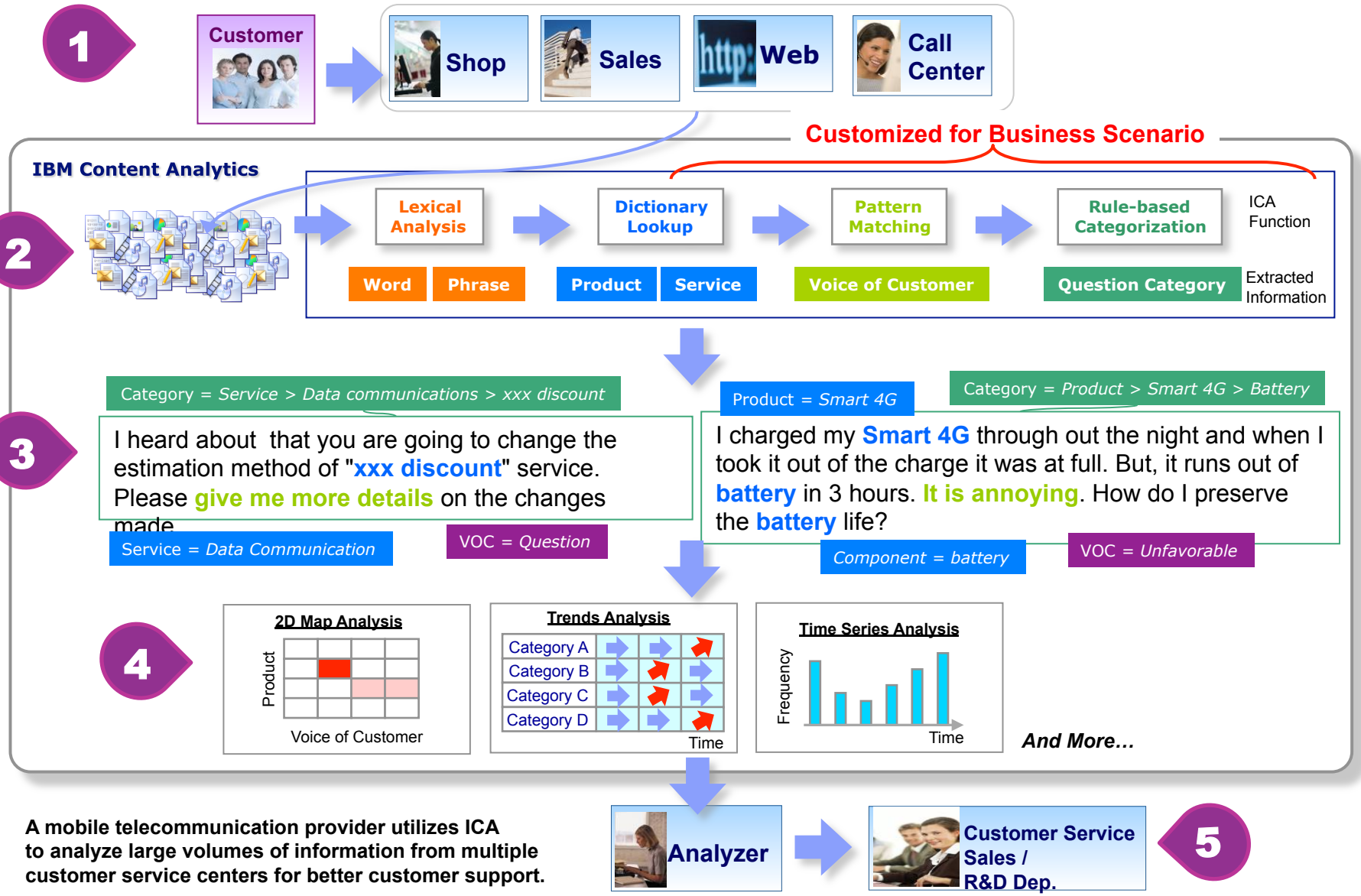
Summary: Voice of Customer System



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Line of Business Applications for Content Analytics

Customer Service

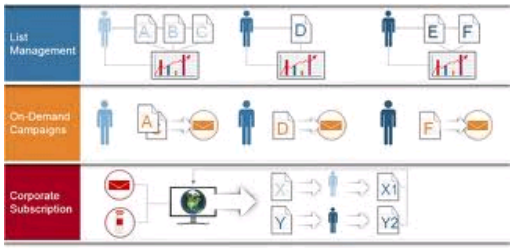
- What products/services are customers asking about?
- How quickly can we identify and act on nascent trends?
- Do we have accurate, concise answers for most frequently asked questions?
- How can we use “voice of customer” to reduce service costs?
- Who are we being compared to?

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?



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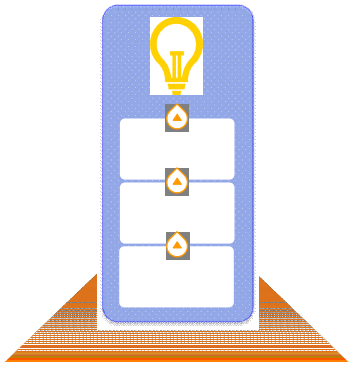
Start unlocking the insight trapped in your content today

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



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

Document imaging & capture

- Document capture automation
- Production imaging
- Enterprise report Management

Advanced case management

- Comprehensive case management
- Integrated collaboration and rules
- Case analytics
- Content-centric BPM

Social content management

- Office document management
- Social content & collaboration
- Platform standardization & consolidation

Content analytics

- Content analytics and assessment
- Enterprise search
- Classification / tagging
- Master content
- Watson

Information lifecycle governance

- Smart archive
- Records management
- eDiscovery
- Disposition & governance

Capture **Activate** **Socialize** **Analyze** **Govern**

Content at Rest = Cost… Content in Motion = Value

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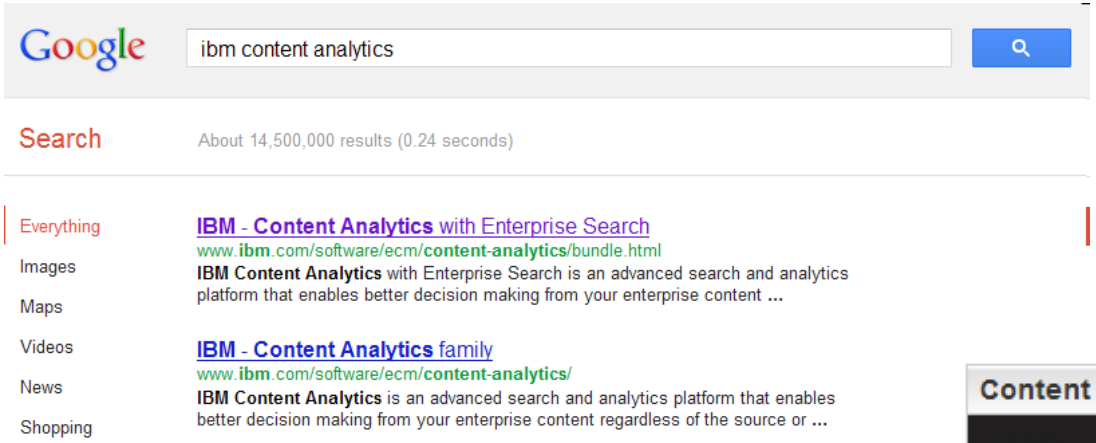
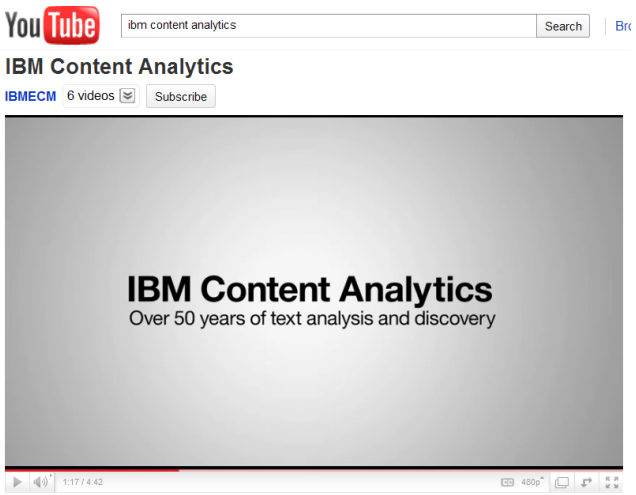
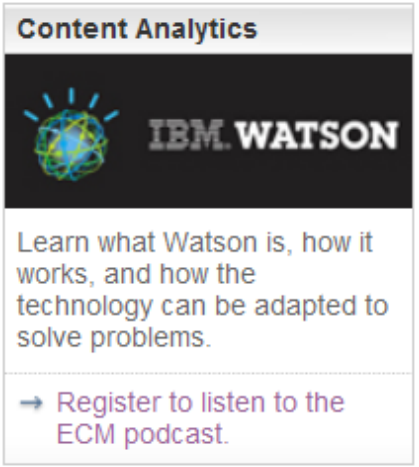
Where to find more information about ICA







More Information @ IBM.com

- *Solution Briefs*
- *Press Releases*

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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/cmostudy2011/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/zzs03023usen/ZZS03023USEN.PDF

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Thanks for attending!

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