IBM BusinessConnect
Realize the art of the possible.

Find the “Voice of Your Customer” with IBM Content Analytics

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Agenda

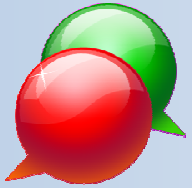
- What is Voice of Customer?

- Why is it important to you?

- What is the Content Analytics Solution?

Agenda

- What is Voice of Customer?



- Why is it important to you?

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What is “Voice of Customer”?

- Many definitions, but all generally converge towards a common theme:

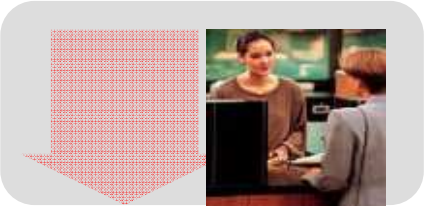
  Gaining insight into your customers’:
  - Experience
  - Sentiment
  - Expectations
  - Needs
  - Preferences
  - Aversions
  - Suggestions

- Put another way, it is **“Customer Insight”**

What is “Voice of Customer”?

- Voice of Customer is much more than sentiment
  - Opinions
  - Complaints and compliments
  - Evaluations
  - Suggestions
- Includes all forms of customer contact
  - Traditional and new Social media:
    - eMail
    - Internal reports
    - Call center logs
    - Complaints
    - Customer correspondence
    - Blogs
    - Forums
    - Tweets
    - Posts

Why Do We care?



Customers have lost confidence in institutions

- *76% of customers believe companies lie in advertisements*
- *Growing trust gap in many consumer focused industries*

Technology is changing how customers interact

- *Social media changed purchaser influence; opinions viewable instantly*
- *Mass customization and personalization of products and services*

Expectations have changed

- *Focus is on value, transparency and accountability*
- *Customers want to be seen holistically across the enterprise*

Institutions need to rediscover their customers

- *Consumers are experiencing brands in new ways though new channels*
- *Micro-targeting: the move beyond 1 on 1 is accelerating*

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Why is it important?

A Major Convenience Store Retailer

Extracting market insights from social media

The Need

Major Japanese convenience chain of 10,000+ stores must decide what items to stock from a dizzying array of fresh and prepackaged items. Make stocking decisions based on what people will buy and not waste shelf space on items that will spoil or sell poorly

The Solution

IBM Content Analytics applied to huge volumes of social media feeds and posts. The retailer can now:

- Identify, categorize and respond early to emerging customer interests and preferences
- Rapidly analyze customers' requests and complaints
- Drive planning and development of new products and services

The Benefit

The Content Analytics solutions allows this retailer to:

- Increase gross profit by half a point Y/Y
- Enable early response to changing consumer preferences and quick correction of customer product- and service-related issues
- Provide decision support to finely tune marketing and supply chain

Why is it important?

Tire Manufacturer

Understanding customer sentiment

The Need

- Reducing costs to improve the company's operating profit ratio
- Measure and improve sales campaign effectiveness
- Evaluate and analyze content from social media sources

The Solution

With Content Analytics, this manufacturer can now make changes to its campaigns based on near-real-time analysis of information in social media postings. The solution captures and reveals previously obscured opinions, giving the company new insight into how and why its campaigns succeed or fail. With this enhanced consumer insight, this company expects to increase sales and improve its image by developing a more flexible and cost-effective marketing strategies.

The Benefit

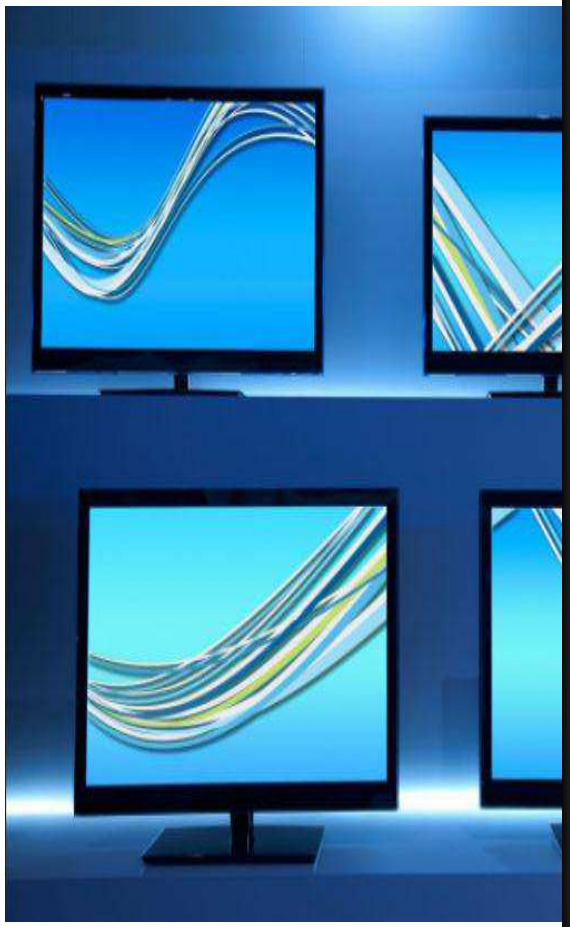
By understanding their customers' feedback, this organization expects to:

- Achieve 120 percent sales growth, 190 percent operating profit growth and 160 percent profit rate growth compared with a similar period three years earlier
- Increase public awareness of new products through campaign strategies that are modified in response to consumer feedback
- Make product changes or rectify any new-product issues in a more timely manner

Why is it important?

Consumer Electronics Manufacturer

Leveraging customer feedback to develop new products



The Need

How to get a stronger understanding of its customers' product needs relative to their lifestyle changes. Use social media content to capture the plethora of data and extract actionable insights to keep the product portfolio in line with customer needs.

The Solution

Implemented Content Analytics to distill real product ideas from the social media world, giving its product planning and development staff a window into what customers want. Rapidly and accurately gauge what customers are thinking about them and what they're demanding from products, helping the business become more responsive in the marketplace

The Benefit

- Expects a 31 percentage point improvement in its net profitability rate from year to year based in part on improved product development made possible through market insights
- Improved the ability to accurately gauge customer perceptions, enabling a more targeted marketing communications response
- Reduced the amount of time required to gather consumer data and extract practical insights

Why is it important?

Electronic Equipment Manufacturer

Preventing customer attrition by understanding their customer

The Need

To get to the root of customer attrition, to understand declining brand trust, to reestablish collaboration between sales and product teams and to regain the “voice of the customer”.

The Solution

Implemented IBM Content Analytics to:

- Extract and mine unstructured text from call center logs and structured data from CRM systems
- Identify similar phrases and topics in text using advanced natural language technology
- Detect product issues, product feature requests, competitive comparisons and customer preferences

The Benefit

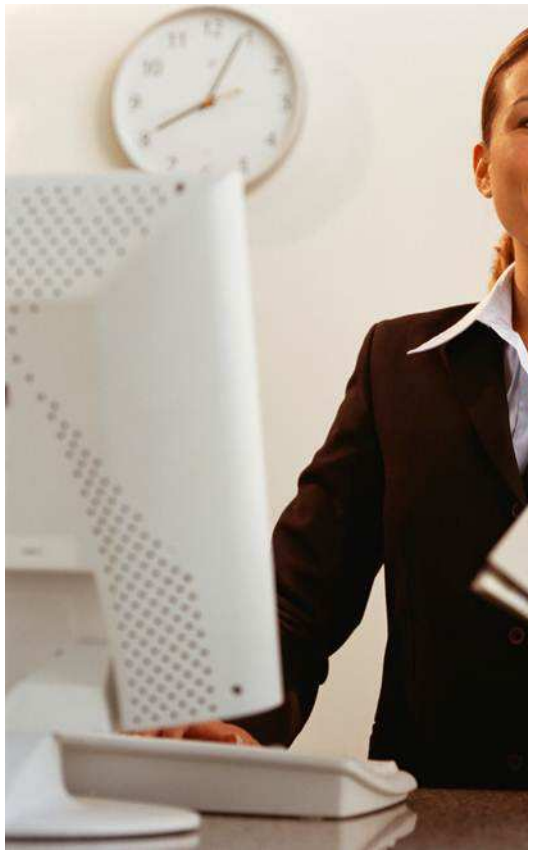
By understanding customer comments in call center logs and CRM data this organization has:

- Improved product quality through early defect detection
- Developed new product features/model based on customer information and preferences
- Rebuilt market share
- Provided a feedback loop for sales, marketing and manufacturing to listen to and act upon the voice of the customer

Why is it important?

A Car Rental Agency & Mindshare Technologies

Quickly identifying customer satisfaction trends



The need

A car rental company needed to better understand customer feedback to adapt its business accordingly. Most of its valuable information was trapped inside free-form customer feedback surveys and the company's staff was required to read each customer comment submitted via email or phone and then manually categorized it.

The solution

The company created a "Voice of the Customer" analytics system to automatically capture customer experiences

- Customer comments are captured in real time to be transformed into actionable intelligence
- Linguistic rules automatically analyze and tag unstructured content into meaningful service reporting categories

The benefits

- Improved accuracy and speed of the customer feedback analysis process
- Quick identification of trends or issues and adjustment operational service levels accordingly
- Focused attention by field managers to perform deep-dive analysis of customer comments

Why is it important?

Social Media Marketing & Communications

Leveraging Social Media at Security First Insurance

The Need

- Leverage social media for client marketing and communications in the regulated financial services industry.
- Enable marketing and financial advisors to engage with customers while maintaining compliance with FINRA and SEC regulations.

The Solution

IBM Partner, Integritie uses IBM Content Analytics in their SMC4 solution to understand the content within messages, enabling a firm to monitor and control social media communications and meets all key industry compliance and marketing requirements.

The Benefit

By understanding the content from various social media applications, organizations can:

- Reach clients through growing social media outlets
- Harness the opportunities of social media through a controlled process and interface
- Avoid communication mistakes than can embarrass or harm an organization
- Analyze content of messages and gain insight to the sentiment expressed in customer interactions

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Gaining Insight from Content

Uncover business insight through unique visual-based approach

Aggregate and extract from multiple sources

… to form large text-based collections from multiple internal and external sources (and types), including ECM repositories, structured data, social media and more.

Organize, analyze and visualize

… enterprise content (and data) by identifying trends, patterns, correlations, anomalies and business context from collections.

Search and explore to derive insight

… from collections to confirm what is suspected or uncover something new - before customizing models and integrating with other systems and processes

Text vs. Content Analytics

What is Text Analytics?

Text Analytics 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** throughout 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.

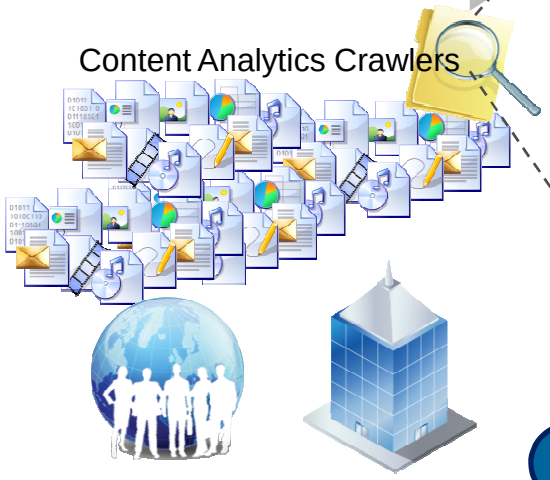
How It Works

1

Real-time NLP REST API

Content Push API

Content Analytics Crawlers



Source Information

Email, Documents, Call Center notes, Social Media, CRM, ECM, Databases and more

2

Component Issue: “Engine Light”
Situation: “Refueling”

Extracted Concept

Person | Issue | Warning | Driver action

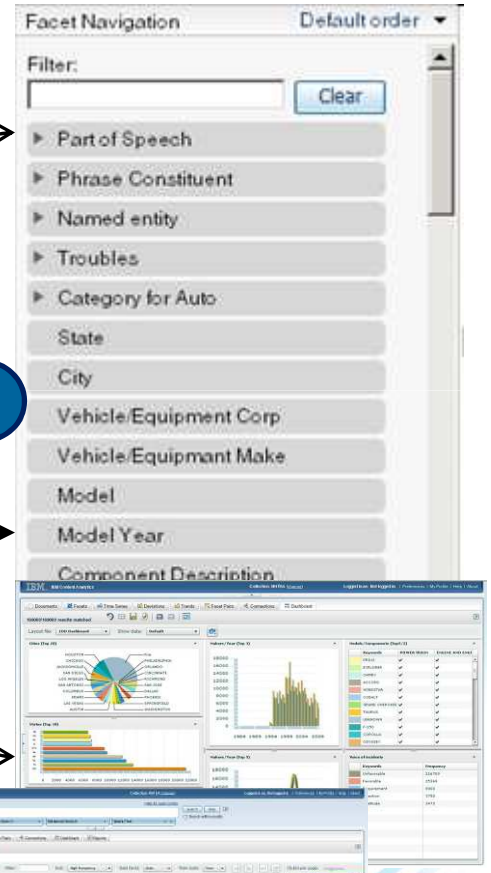
Noun | Verb | Noun Phrase | Prep Phrase

“Owner” “reports” “check engine lite” “flashes” “after refueling”

…

Content Analytics
UIMA Pipeline + Annotators

3



4

Analyzed Content (and Data)

Fine grain control over the entities and facets that are created

RDB

SPSS AN IBM COMPANY

NETEZZA an IBM Company

Cognos. software

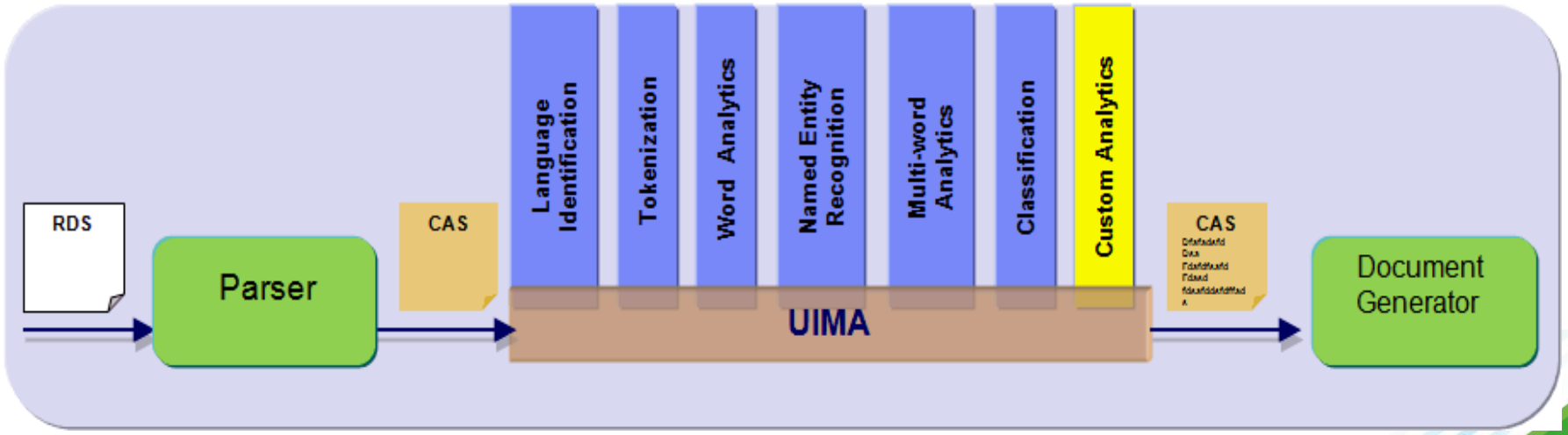
i2

Master Data

How It Works: UIMA

Unique, Powerful Analysis Pipeline

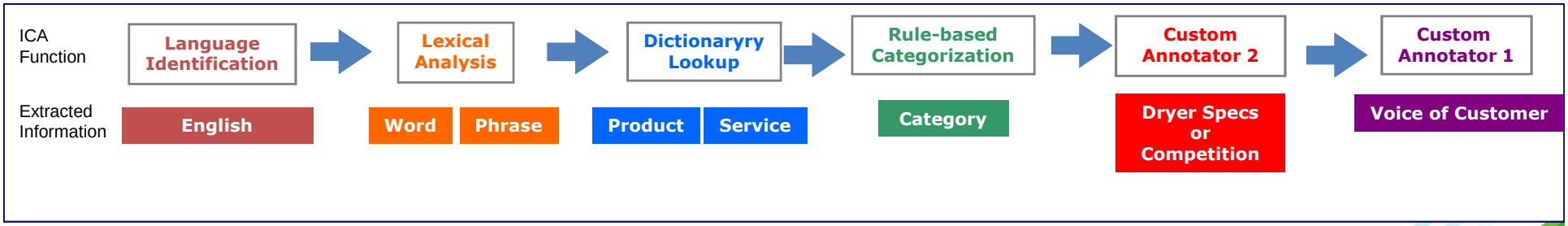
- The Open Standard for text analysis
- Developed by IBM
- Pipeline for analysing text (structurd and unstructured)
- Highly customizable and extensible annotators
- CA Studio modeling tools is graphical, not query based
- Extend with Java annotators
- Supprts a highly iterative modelling process



How It Works: Example

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

I could not be happier with this dryer. It is very roomy and dries clothes much faster than the Moreken it replaced. This machine is quiet and has many different settings including wrinkle release and energy saver. I use the energy saver and my loads still dry faster than with my old machine. Best of all, you can't beat the price. Free delivery and haul away doesn't hurt either. How frequently should I clean the vents?

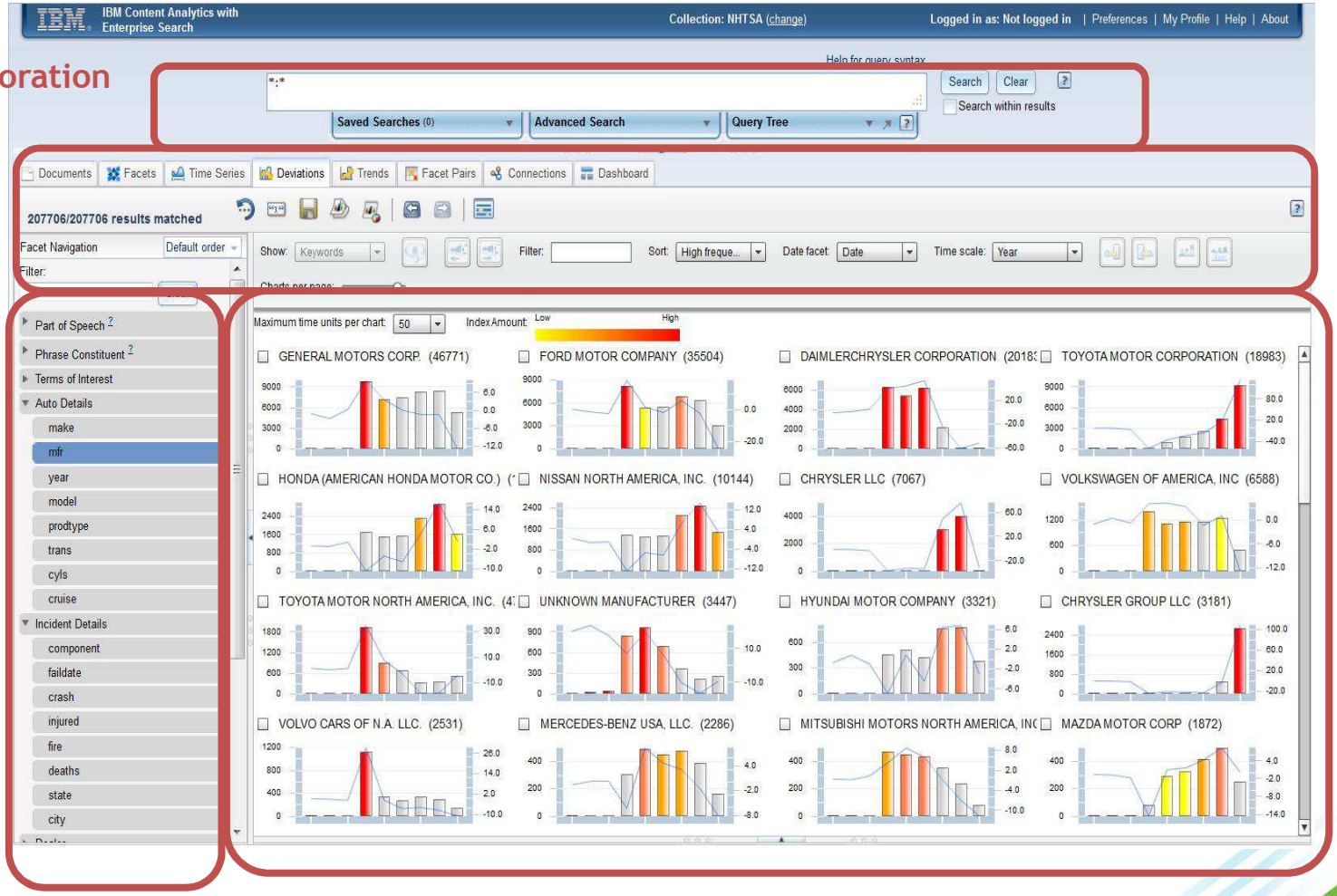


How It Works: Content Analytics Miner

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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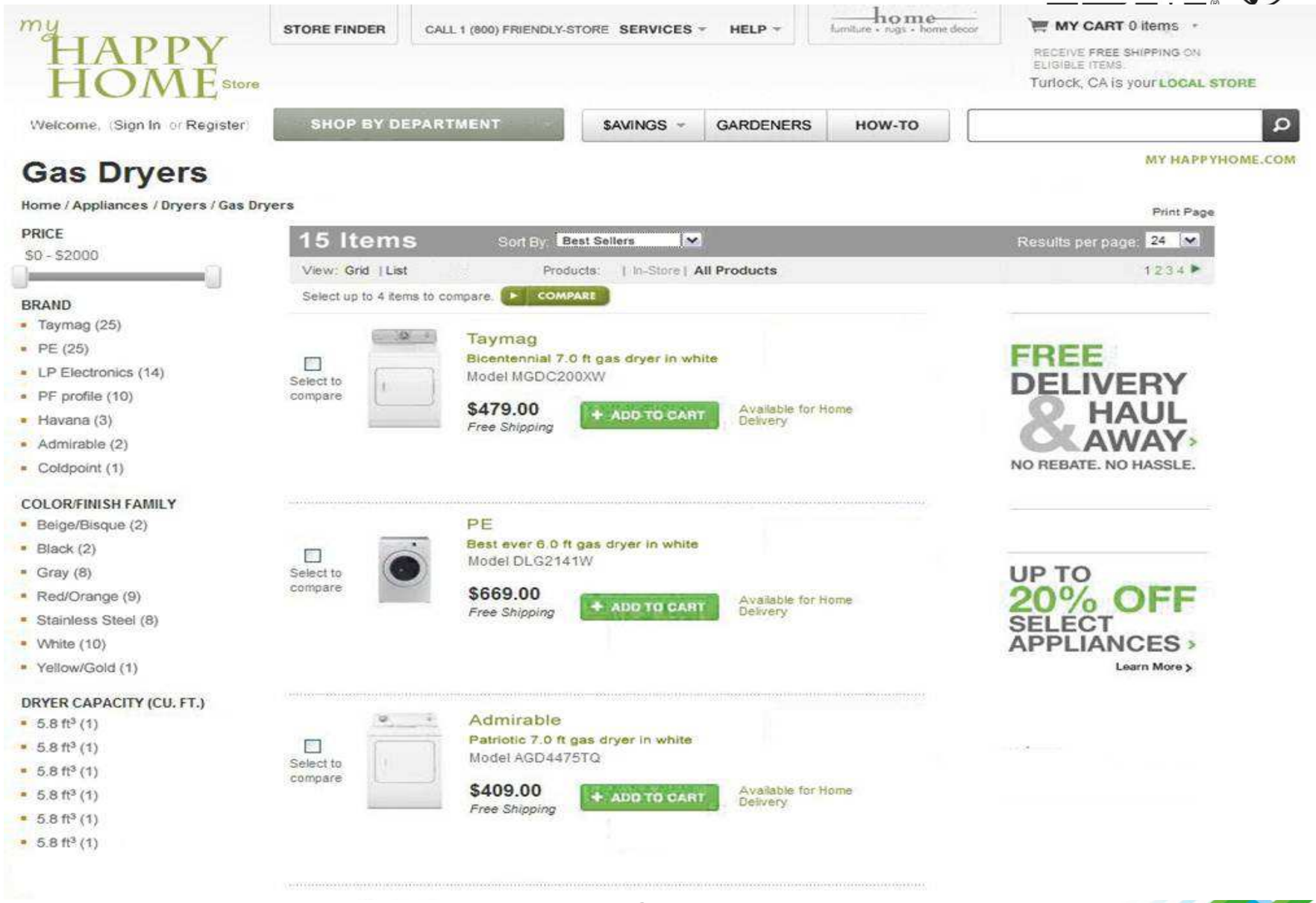
Analyzing Sentiment at Happy Home



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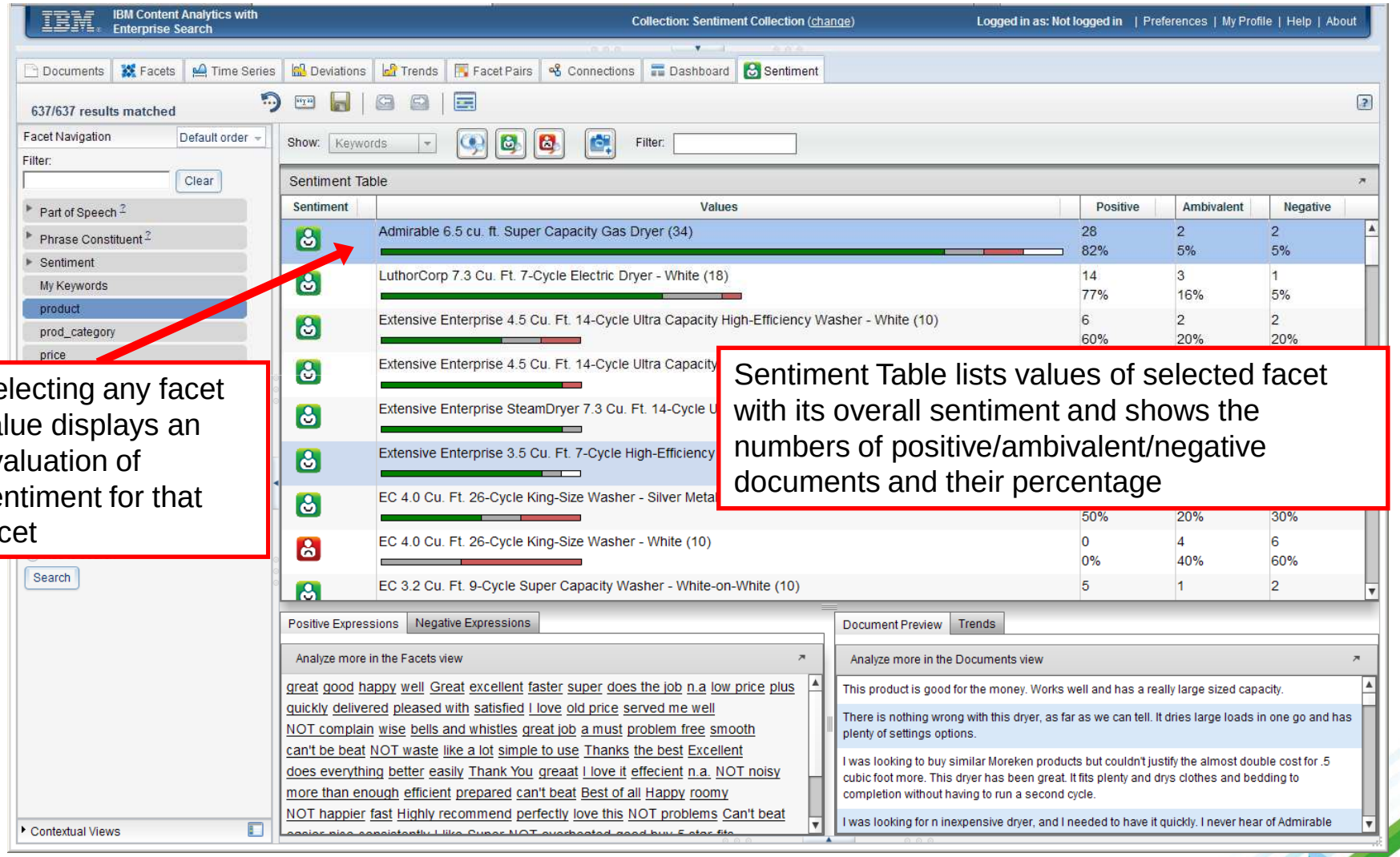
Analyzing Sentiment at Happy Home



Selecting any facet value displays an evaluation of sentiment for that facet

Sentiment Table lists values of selected facet with its overall sentiment and shows the numbers of positive/ambivalent/negative documents and their percentage

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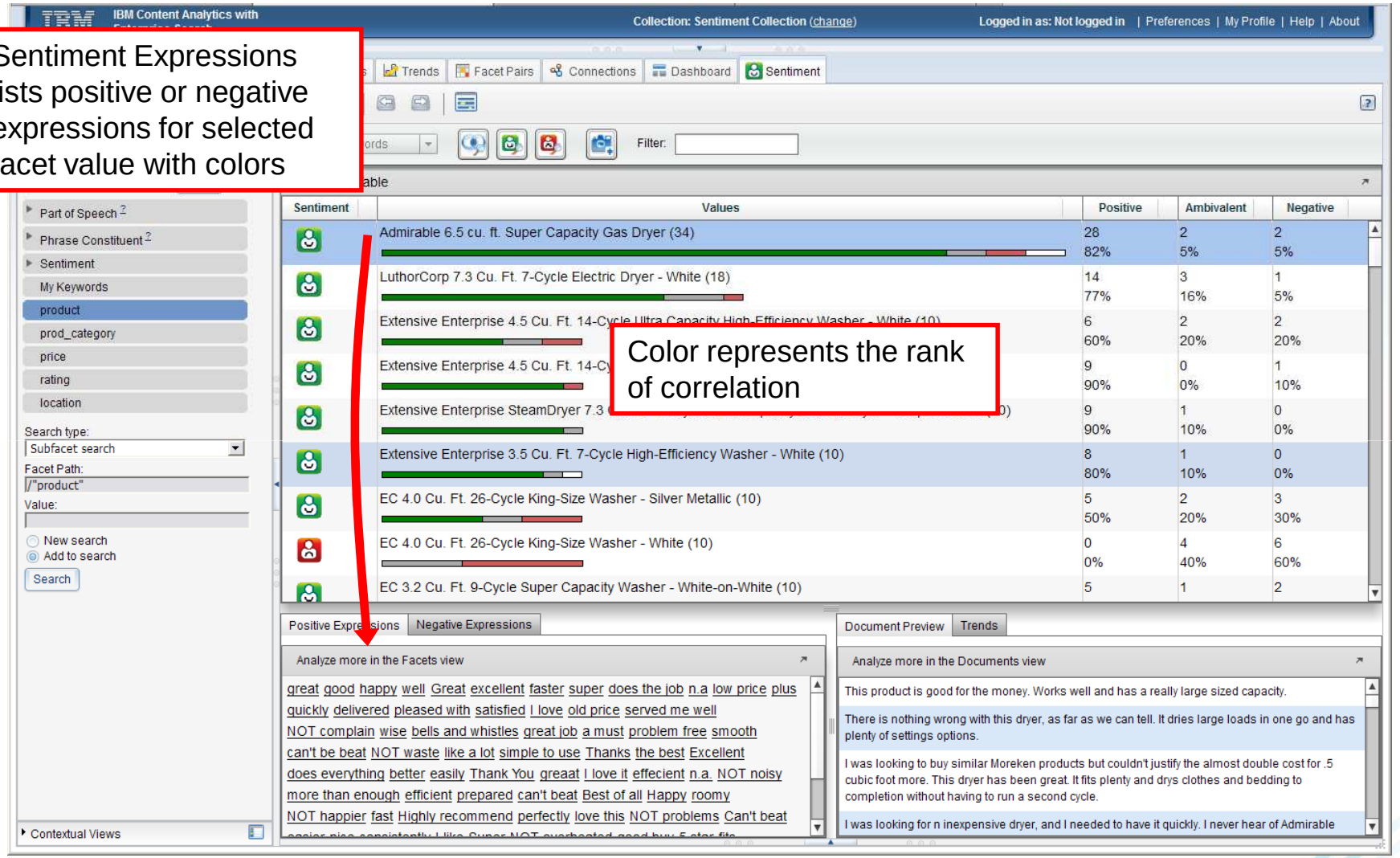
Analyzing Sentiment at Happy Home



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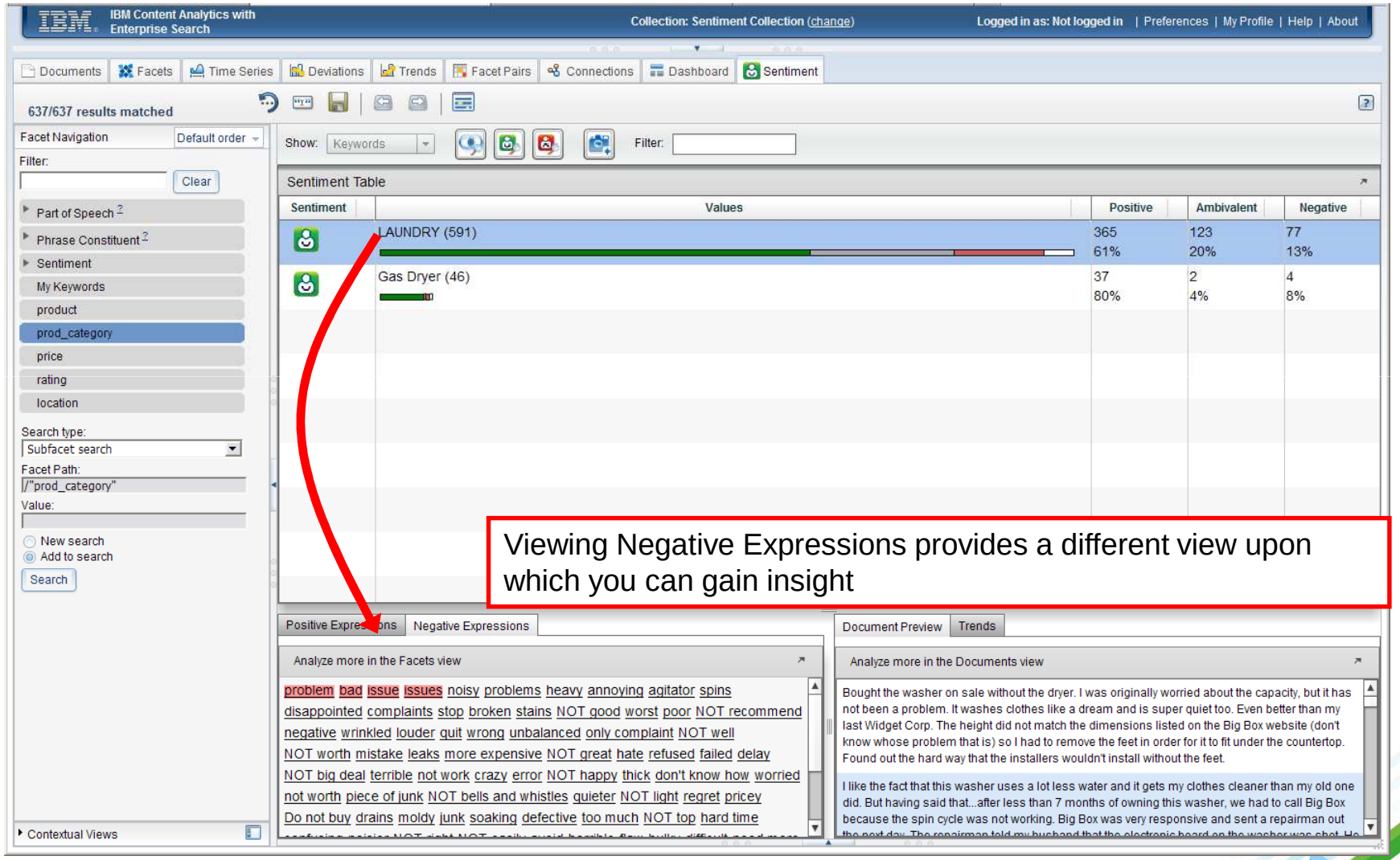
Analyzing Sentiment at Happy Home

Changing Facets presents a different roll-up of the sentiment data



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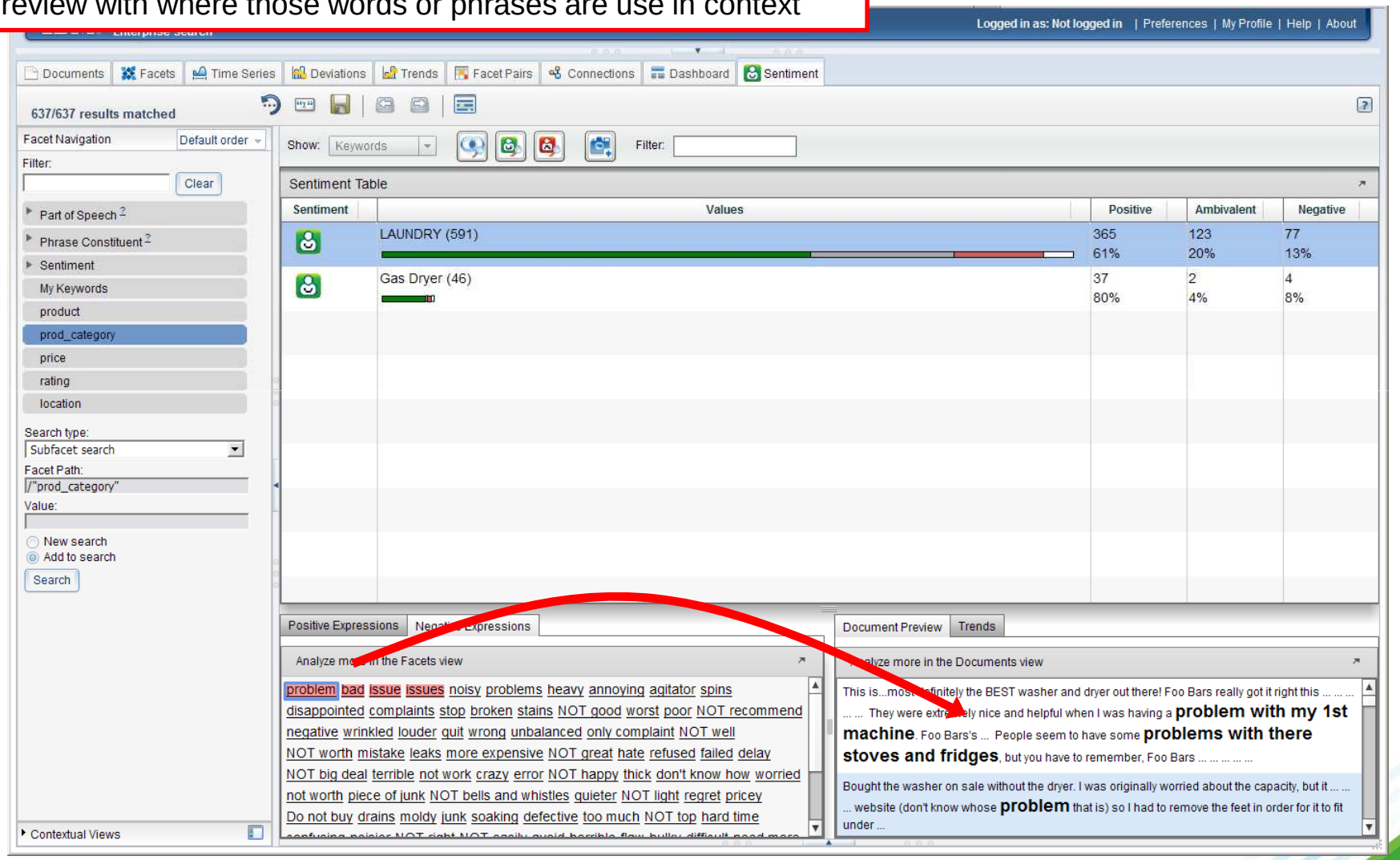
Analyzing Sentiment at Happy Home

Selecting a Sentiment word of Phrase updates the document preview with where those words or phrases are use in context



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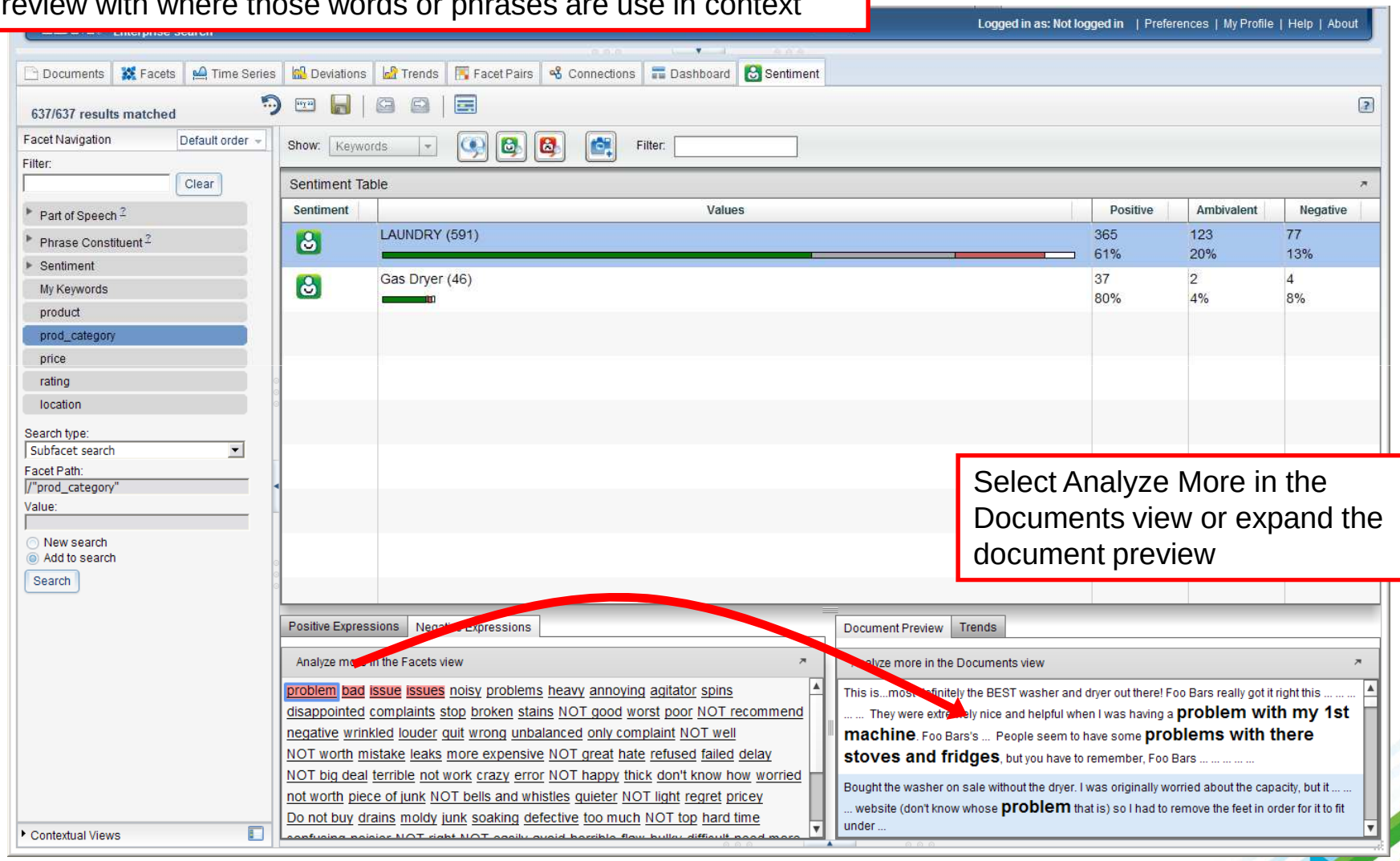

Select Analyze More in the Documents view or expand the document preview

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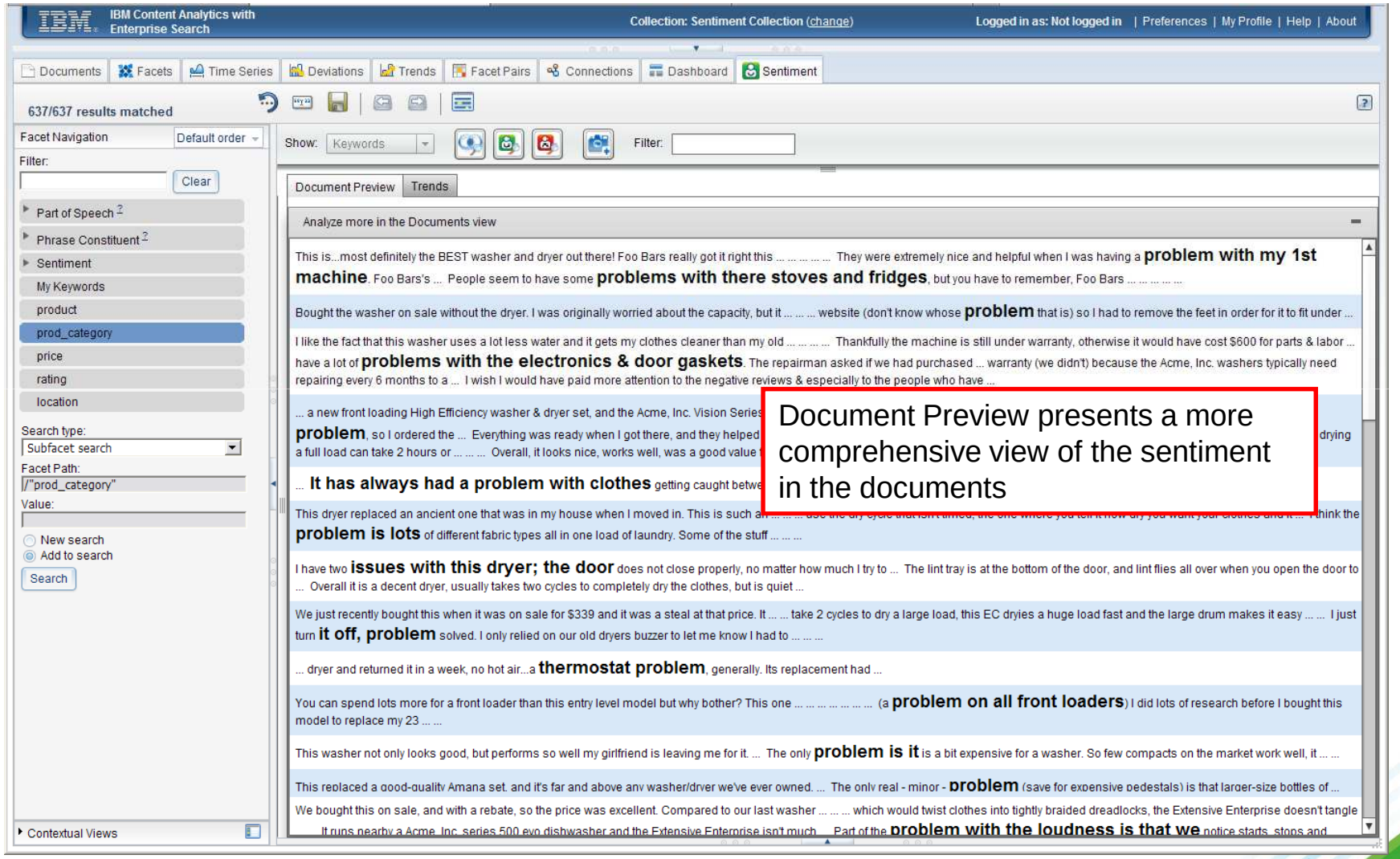
Analyzing Sentiment at Happy Home



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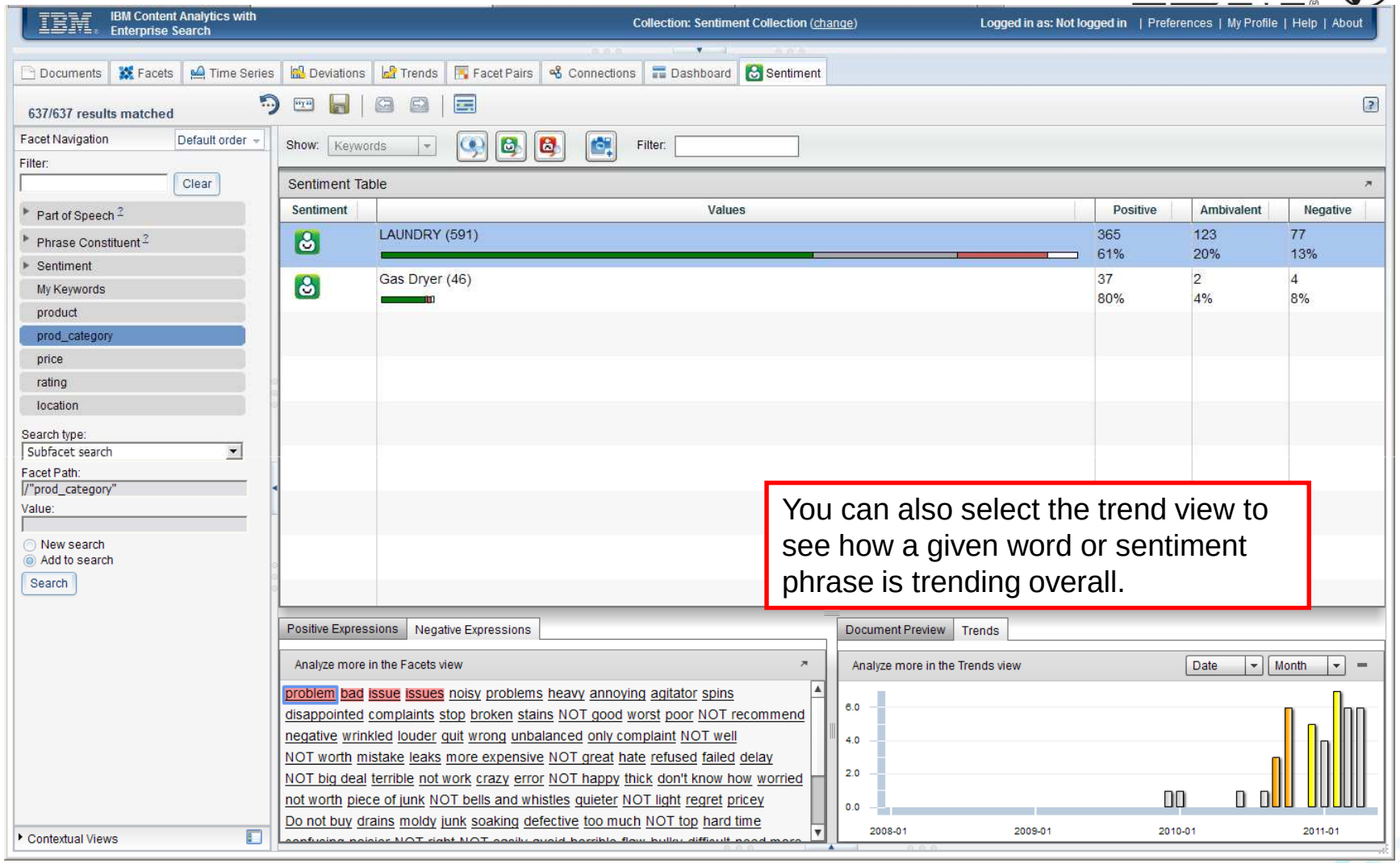

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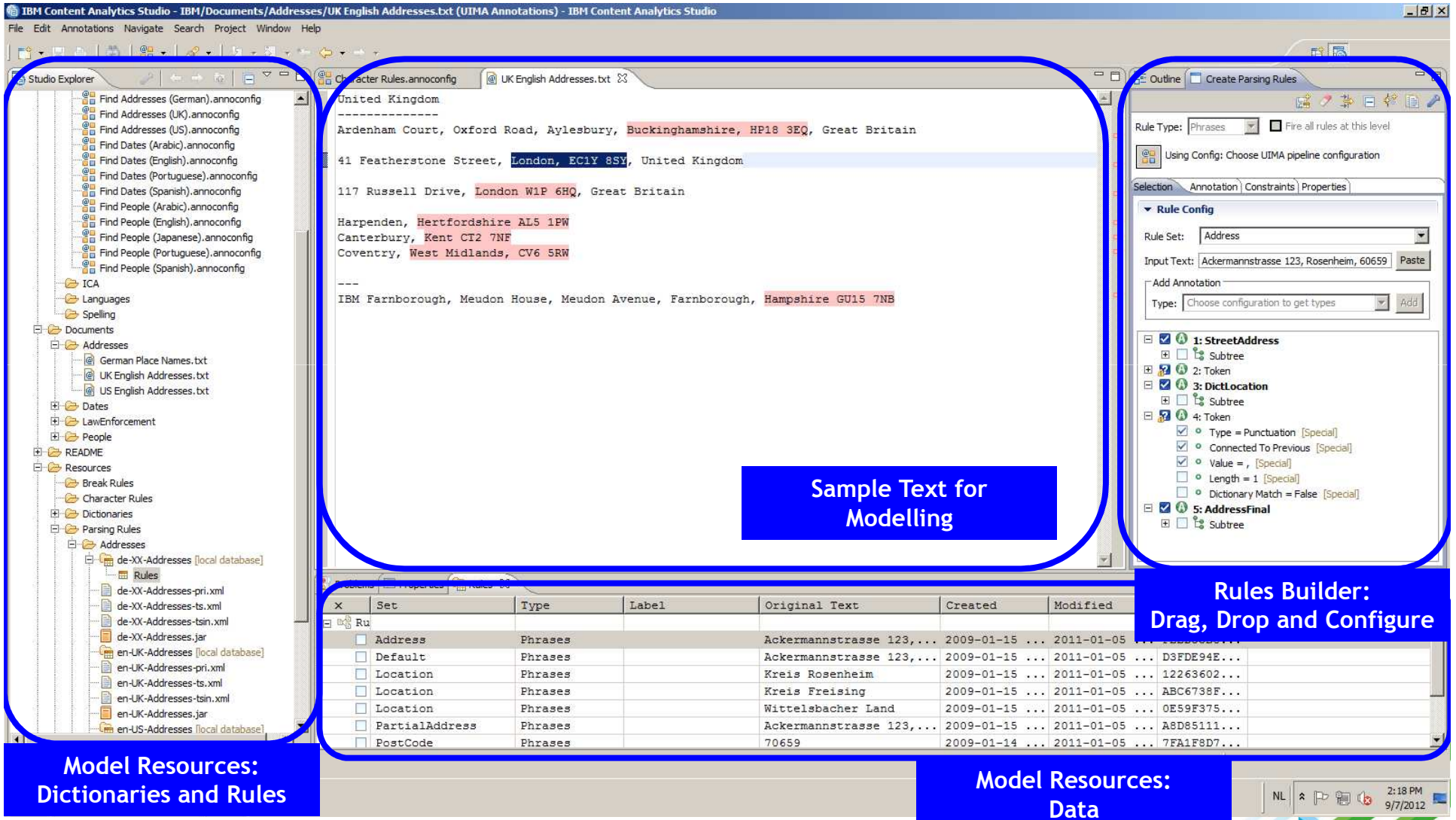
CA Studio: Modelling, Not Programming



Summary - Voice of Customer

1

Customer

Shop | Sales | Web | Call Center

Customized for Business Scenario

IBM Content Analytics

2

Lexical Analysis → Dictionary Lookup → Pattern Matching → Rule-based Categorization (ICA Function)

Word | Phrase | Product | Service | Voice of Customer | Question Category (Extracted Information)

Service = *Communication* | Category = *Service > Communications > discount*

Product = *Smart 4G* | Category = *Product > Smart 4G > Battery*

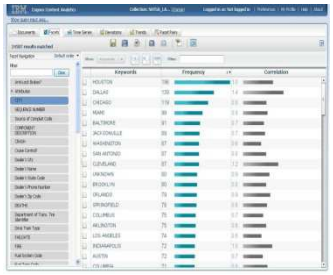
3

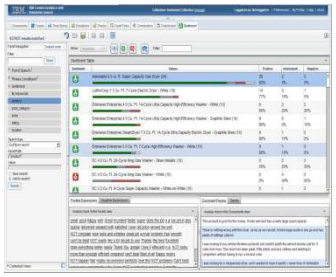
I heard about that you are going to change the estimation method of "**xxx discount**" service. Please **give me more details** on the changes made.

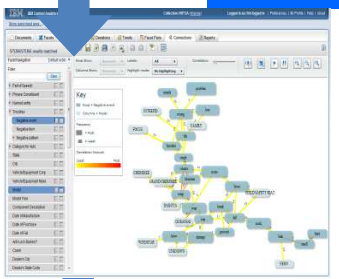
I charged my **Smart 4G** through out the night and when I took it out of the charge it was at full. But, it runs out of **battery** in 3 hours. **It is annoying**. How do I preserve the **battery** life?

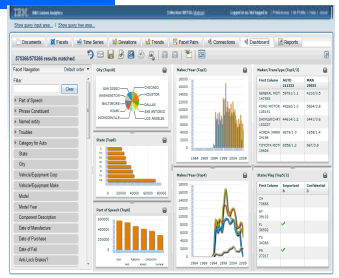
Service = *Discount* | VOC = *Question* | *Component = battery* | VOC = *Unfavorable*

4









And More…

A mobile telecommunication provider utilizes ICA to analyze large volumes of information from multiple customer service centers for better customer support.

Analyst → Customer Service / Sales / R&D Dep.

5

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Thank You!

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