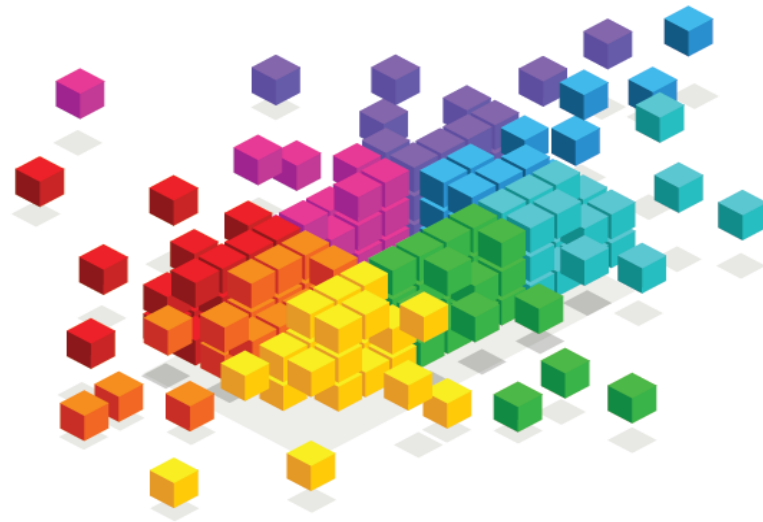


Unlock Valuable Insight from Enterprise Content with Content Analytics

Julie Vaccaro, Rashmi Vittal, Paul O'Hagan
Bart Emanuel, Kathleen Grave

Putting Content to Work
ECM UserNet 2011

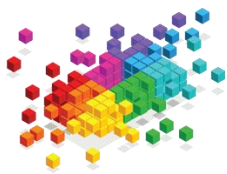
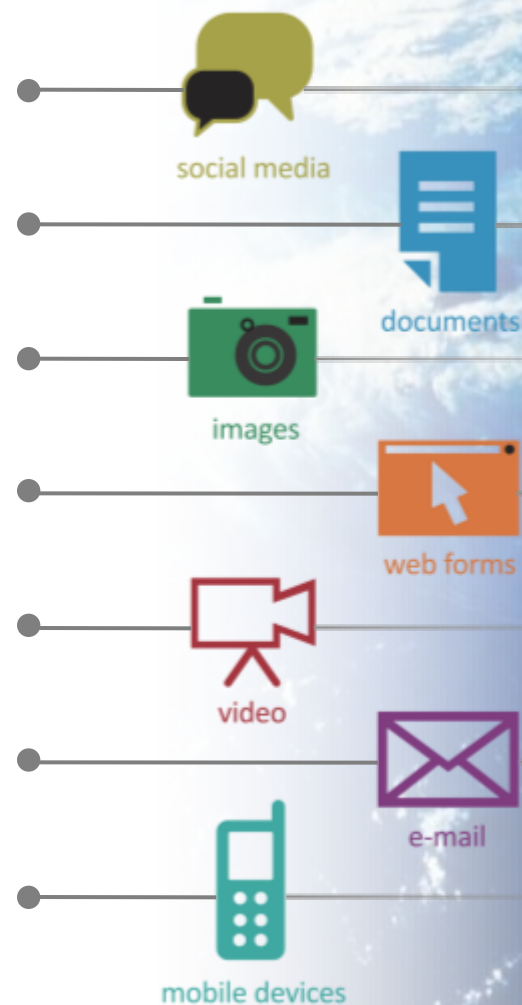


Agenda

- The Business Value of Content Analytics
- Content Analytics Rapid Insight
- Content Analytics Deep Insight
- Content Analytics Solutions and Partners

Separate the **signal** from the noise

Leveraging content requires the ability to **search, assess** and **analyze** large volumes of **text** in order to understand and determine relevant **insight** quickly ... from multiple information sources **inside and outside the firewall**.



Unlock **valuable insight** from content

What our clients are doing with Content Analytics

Understand what customers want **before they ask.**



Detect fraudulent claims before they are paid.



Dynamically deploy resources to the areas of greatest threat.



Save lives by quickly identifying critical safety defects.



Are you unlocking the value of your unstructured content?

A Telecommunications Company

Smart is: **reducing** customer churn

“Insight into customer interaction logs is an information gold mine for us.”

— General Manager
Japanese Telecomm Business

Industry context: telecommunications
Value driver: improve customer service
Solution onramp: content analytics

Business Challenge

Adopt a customer-oriented business strategy to offer highly satisfying products and services based on real voice of customers (VoC).

What's Smart?

They process call center notes and customer emails to detect likely candidates for customer churn. A rules-based text analysis engine in IBM Content Analyzer detects the customer churn candidates. An alerting engine then automatically sends reports to a department that deals specifically with customer churn situations.

Smarter Business Outcomes

Improved rates for model and service upgrades to loyal customers. Started new Premium Club points program based on VoC. Set initial parameters of mobile phones based on VoC.



Is this your content reality?

Information retrieval and understanding is poor ...

- ❑ Can't find the right content when needed; decisions are being made based on the wrong information ... the search and hope model is broken.
- ❑ The keep everything forever model has failed; it's well beyond human capacity to address ... driving up costs and governance risks by storing unnecessary content.

Business decisions not leveraging text based information ...

- ❑ Business Intelligence and Data Warehouse initiatives limited to data only; no visibility into 80 percent of needed information (content) for effective decisions.
- ❑ Current text analysis systems are too complex, require model building and take months to deploy; no ability to easily respond to changing conditions.



Traditional approaches are **converging**

More than keyword search is needed

“Making unstructured data searchable is now a presumed primary interface for applications of all kinds, as well as for intranets and content repositories.”

– Whit Andrews, Rita Knox Gartner

Increasing in business importance

“Early adopters of [text analytics] are already gaining a competitive advantage. Organizations that fail to do so will be at risk.”

– Sue Feldman IDC

Analyzing unstructured content no longer optional

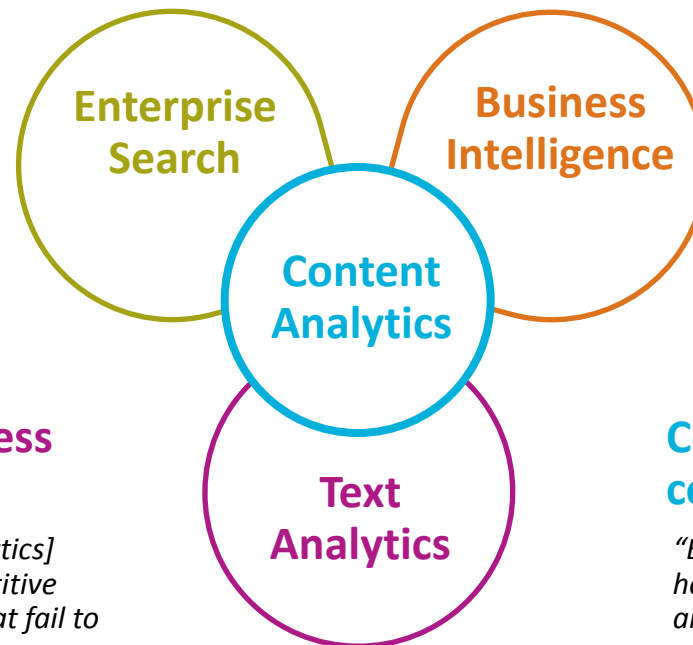
“For many business process professionals, access to structured data, even when supported by BI or predictive analytics, lacks sufficient context for customer service, finance, and other areas where communications with customers involves many channels”

– Craig Le Clair Forrester

Converging toward content analytics

“Every enterprise should understand how content analytics can produce answers to its critical questions; understanding this now will make it possible to exploit these tools as their availability proliferates.”

– Rita Knox Gartner



Going from raw information to **Rapid Insight**

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 without being forced to build models or deploy complex systems.

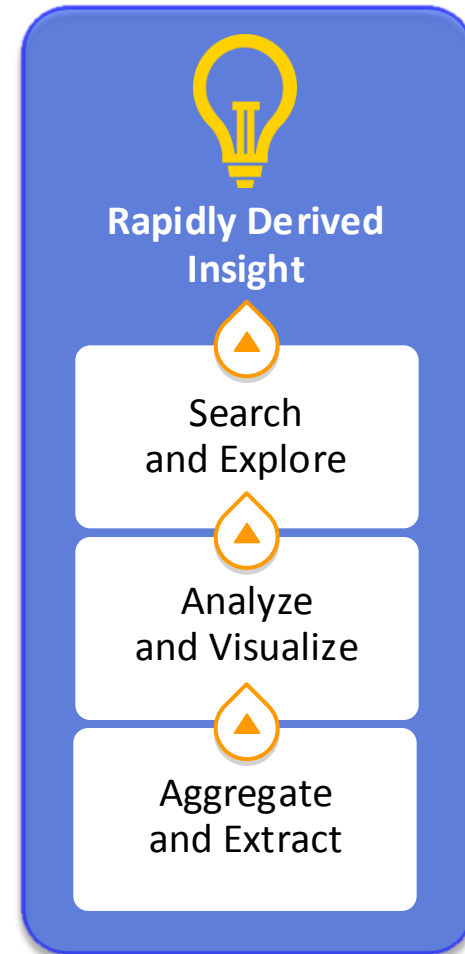


Agenda

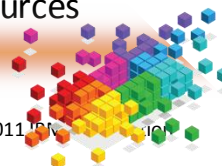
- The Business Value of Content Analytics
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IBM Content Analytics is a platform to derive rapid insight

- 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.



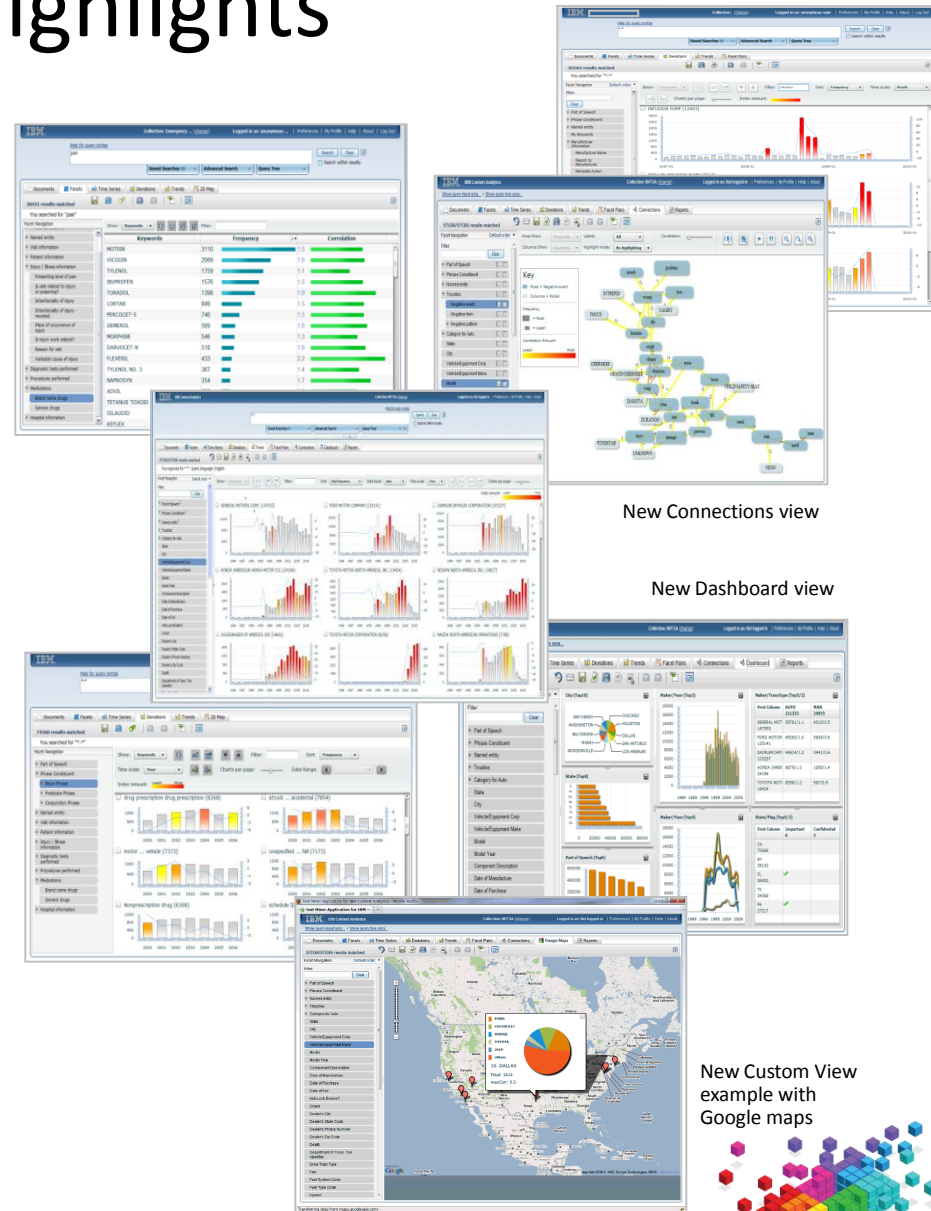
External and Internal Content (and Data) Sources
including Social Media and More



IBM Content Analytics Highlights

A platform for rapid insight

- **Dynamically search and explore content for new business insight**
 - Connections and Dashboard views to easily detect insights; plus add your own custom views
- **Interactively assess for content preservation and decommissioning to reduce storage costs and risk**
- **Powerful solution modeling and support for advanced classification tools for more accurate and deeper insight**
 - Enhanced analytics configuration tools
- **Deliver rapid insight to other systems, users and applications for complete business view**
 - Quickly generate Cognos BI reports, link between Cognos reports and ICA views; deliver analysis to IBM Case Manager solutions

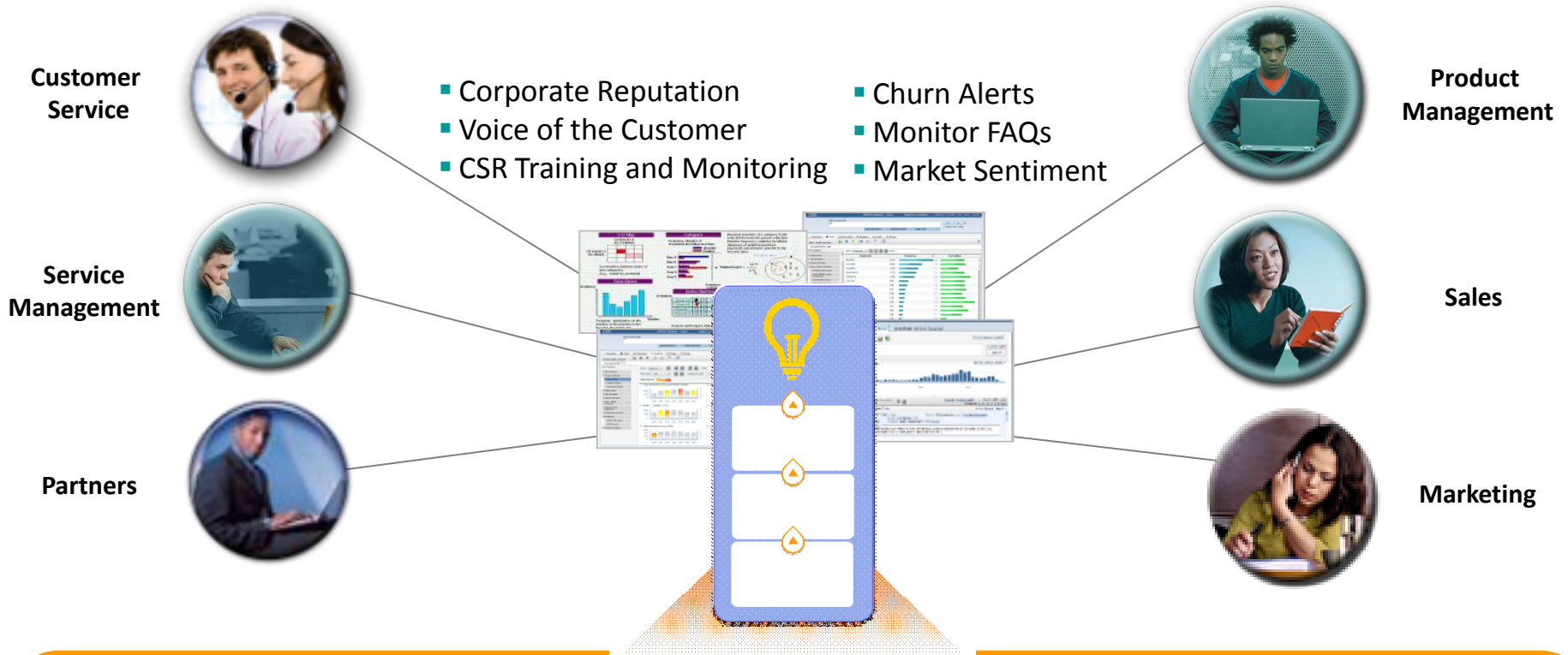


New Connections view

New Dashboard view

New Custom View example with Google maps

ICA Delivers Insight to Multiple Lines of Business



Customer Service

- Corporate Reputation
- Voice of the Customer
- CSR Training and Monitoring
- Churn Alerts
- Monitor FAQs
- Market Sentiment

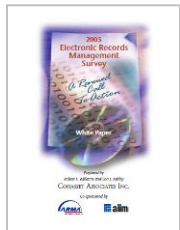
Product Management

Service Management

Sales

Partners

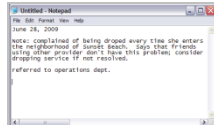
Marketing



Industry Reports



Market Research Transcripts



CSR Logs



Internal Docs and Reports



Web



Blogs



Email

A Financial institution

Smart is: creating rapid insights from content

“The demo impressed the customer so much that the customer was ready to buy ICA in a few days.”

— ECM Sales Rep

Industry context: banking and financial services
Value driver: internet fraud prevention
Solution onramp: content analytics

Business Challenge

A European financial Institution wanted to investigate fraudulent behavior by exploring internet sites for actions that might pose a threat to its members.

What's Smart?

In less than one week, using IBM Content Analytics, the IBM sales team analyzed a selected set of websites, investigated their findings and reported their findings back to the customer.

Smarter Business Outcomes

The team rapidly showed the customer types of intrusion correlating bank terms with news about a known hacker using the out of the box extraction capabilities, prevention scenarios and frequently vulnerable operation systems.



German Research Organization

Smart is: **finding** content that matters

Drive users to the knowledge they seek and enhance the visibility of content and context of unstructured information

Industry context: scientific research

Value driver: connecting researchers to content

Solution onramp: content analytics

Business Challenge

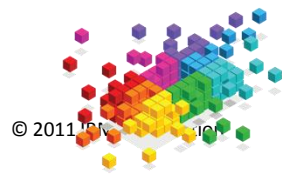
How to enable 13,000 staff scientists and engineers from 56 Institutes to securely search for and discover relevant scientific research papers to enable new business innovations

What's Smart?

In 4 months, this research organization fully implemented content analytics from IBM to enable secure semantic search and classification of research assets for their internal portal that services all Institutes, as well as their public facing website

Smarter Business Outcomes

Scientists and engineers from this institute are able to find the most relevant research papers and knowledge experts, leading to continued innovations.



IBM

Smart is: **easy & intelligent** customer support

"I need to know now!"

— *ibm.com Support Client*

Industry context: computer services

Value driver: fix "findability"

Solution onramp: content analytics

Business Challenge

Millions of global clients, thousands and thousands of products, millions of documents, millions of support calls, and tens of thousands of support professionals.

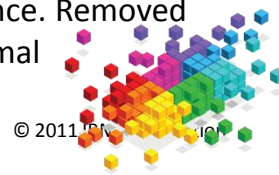
What is Smart?

Using IBM Content Analytics to perform deep natural language processing to interpret statements and interactively extract missing information or narrow in on excess facts using ontology-based reasoning.

Perform simultaneous searches across heterogeneous knowledge bases, forums, & web sites while mapping across synonyms, acronyms and variability in product terminology.

Smarter Business Outcomes

Improved ability to quickly find the right solution: document, product, process, or maintenance. Removed the need for clients to understand the formal terminology or having to know the right repositories.



Dayhuff Group

Smart is: **preserving** only what matters

“Dayhuff has multiple solutions available; bring us your client problem and we’ll give them a solution”



Industry context: cross industry
Value driver: improve content insight
Solution onramp: content analytics

Business Challenge

Business struggles to manage rising storage/infrastructure costs, compliance/legal risks and operational complexity.

What is Smart?

Smart customers want to try before they buy – Dayhuff answers this need. Dayhuff’s multiple solution offerings deliver dynamic analysis to aggregate, correlate, visualize and explore unstructured content, unlocking valuable insight from all content sources.

Smarter Business Outcomes

Provides linguistic understanding of business content. Provides a deep understanding of trends, correlations and deviations hidden within the content. Provides organization, classification, discovery and decommissioning of enterprise content.

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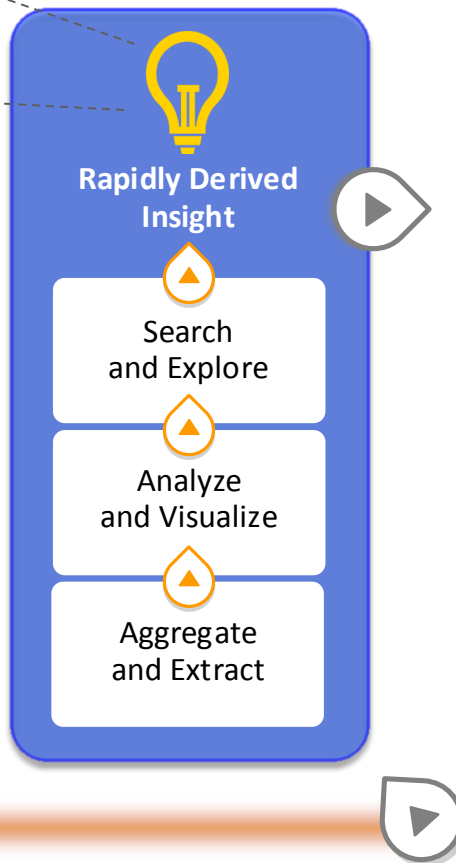
Enable **Deeper Insight** by extending Content Analytics

Powered by Rapid Insight



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

A Top-Ranked Research University

Smart is: **finding** new business opportunities

“What makes the solution so powerful is its ability to go beyond conventional online search methods by factoring context into its results.”

Industry context: higher education
Value driver: identify new opportunities
Solution onramp: content analytics

Business Challenge

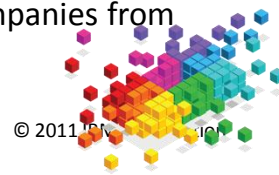
A major university needed to efficiently mine and analyze vast quantities of data to better identify companies that could bring the university’s research to the public. The solution needed to parse the content of thousands of unstructured information sources, perform data and text analytics and produce a focused set of useful results.

What’s Smart?

Identifying new commercialization opportunities. By obtaining insight into their extensive content sources, the university’s research department was able to find more effective ways to license technologies created through research conducted at the university.

Smarter Business Outcomes

Using IBM Content Analytics, this university was able to reduce the time needed to find target companies from months to days.



A Healthcare and University Partnership

Smart is: **unlocking** biomedical informatics answers

“IBM Content Analytics enables Healthcare and University researchers answer biomedical questions that were not answerable before”

Industry context: healthcare

Value driver: access to biomedical trends, insight

Solution onramp: content analytics

Business Challenge

Existing Biomedical Informatics (BMI) resources were disjointed and non-interoperable, available only to a small fraction of researchers, and frequently redundant. No capability to tap into the wealth of research information trapped in unstructured clinical notes, diagnostic reports, etc.

What's Smart?

Capitalizing on the untapped, unstructured information of clinical notes and reports by using IBM Content Analytics with IBM InfoSphere Warehouse.

Smarter Business Outcomes

Researchers now able to answer key questions previously unavailable. Examples include *Does the patient smoke?, How often and for how long?, If smoke free, how long? What home medications is the patient taking? What is the patient sent home with? What was the diagnosis and what procedures performed on patient?*

A Japanese Business Services Provider

Smart is: **gleaning insight** about customers

“Insight into customer interaction logs is an information gold mine for us.”

— General Manager
Japan Business

Industry context: computer services
Value driver: improve customer service
Solution onramp: content analytics

Business Challenge

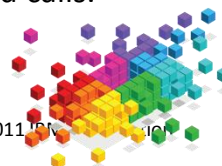
A Japanese business services provider operates multiple customer service centers and needed ways to analyze large volumes of information to improve agent training and deliver better customer support.

What’s Smart?

They implemented content analytics from IBM to understand and process natural language. The solution analyzes customer interactions based on consolidated logs of phone calls, email and Web, identifying keywords.

Smarter Business Outcomes

Improved agent skills and training, resulting in a 92% reduction in call transfer and 88% improvement in volume. Provides new insights about product issues, resulting in an 88% decrease in product-related calls.



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IBM Content Analytics adds value to ...



Healthcare Analytics

- **Analyzing:** E-Medical records, hospital reports
- **For:** Clinical analysis; treatment protocol optimization
- **Benefits:** Better management of chronic diseases; optimized drug formularies; improved patient outcomes



Crime Analytics

- **Analyzing:** Case files, police records, 911 calls...
- **For:** Rapid crime solving & crime trend analysis
- **Benefits:** Safer communities & optimized force deployment



Automotive Quality Insight

- **Analyzing:** Tech notes, call logs, online media
- **For:** Warranty Analysis, Quality Assurance
- **Benefits:** Reduce warranty costs, improve customer satisfaction, marketing campaigns



Customer Care

- **Analyzing:** Call center logs, emails, online media
- **For:** Buyer Behavior, Churn prediction
- **Benefits:** Improve Customer satisfaction and retention, marketing campaigns, find new revenue opportunities



Insurance Fraud

- **Analyzing:** Insurance claims
- **For:** Detecting Fraudulent activity & patterns
- **Benefits:** Reduced losses, faster detection, more efficient claims processes



Social Media for Marketing

- **Analyzing:** Call center notes, SharePoint, multiple content repositories
- **For:** churn prediction, product/brand quality
- **Benefits:** Improve consumer satisfaction, marketing campaigns, find new revenue opportunities or product/brand quality issues



Partner Solution Snapshot



- **Mindshare**
 - VOC, sentiment, service quality, product issues, loyalty, reputation management



- **Dayhuff Group**
 - Content Analytics for Mergers and Acquisition
 - Analysis, assessment, consolidation, decommissioning, mergers and acquisitions, litigation
 - Contest Assessment skills with Records Management



- **Oceanus**
 - Social networking for securities and investments



- **Syscom IBIG**
 - Exploit insight lock in images - extract text for fully searchable Reflection Repository



- **Wipro WiQTr (victor)**
 - Uses text analytics to perform automotive warranty claims analysis



- **HCL America**
 - iGOVERN Child Care for collaborative management and childcare program execution
 - Leverages OmniFind EE to meet information findability requirements



- **JSYMMETRIC**
 - Multi-industry workplace safety management solution
 - Leverages OmniFind EE to meet information findability requirements



- **Prolifics Legal Accelerator**
 - Tailored solution for legal analysts and business operations
 - Leverages OmniFind EE to meet information findability requirements

Oceanus

Smart is: **social media** marketing & communications

“Addressing social networking is a top agenda item within banking and financial services”

oceanus
Connecting people, process and content

oceanus SocialView

Engage Search...

Home Active Pending Unclaimed Closed Management Reports Help Log Out

Welcome, Pam
There are currently **60** unclaimed messages, [view now](#)
You have **2** active conversations, [view now](#)

Unclaimed Conversations

Susan Hilton 11 days ago

Terry Ryan Can you tell me if there are any product changes coming out soon?
posted 11 days ago

Susan Hilton Terry - I think we will have some adjustments to our product portfolio later in Q1
posted 10 days ago

MYM Investments 14 days ago

Greg McCormick I am interested in Australian mutual funds ...
posted 14 days ago

Pending Messages
No Pending Messages

Industry context: banking and financial services
Value driver: reach customers thru social media
Solution onramp: content analytics

Business Challenge

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.

What's Smart?

Oceanus SocialView uses IBM Content Analytics 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.

Smarter Business Outcomes

Firms can now reach clients through a preferred medium, social media and can access a financially savvy, younger demographic, e.g. 90% of Facebook users are younger than 55 and 69% own mutual funds.

Fast Food Restaurant and Mindshare Technologies

Smart is: **discovering** emerging trends and patterns

*Transform raw information
into business insight quickly and easily*



Industry context: retail customer surveys

Value driver: faster, deeper insights

Solution onramp: content analytics

Business Challenge

Provide immediate feedback from surveys, which is then translated into actionable intelligence through powerful and incisive reporting.

What's Smart?

Exposing additional insight currently not available through their manual survey review process enabling local operations leaders to improve operations every day.

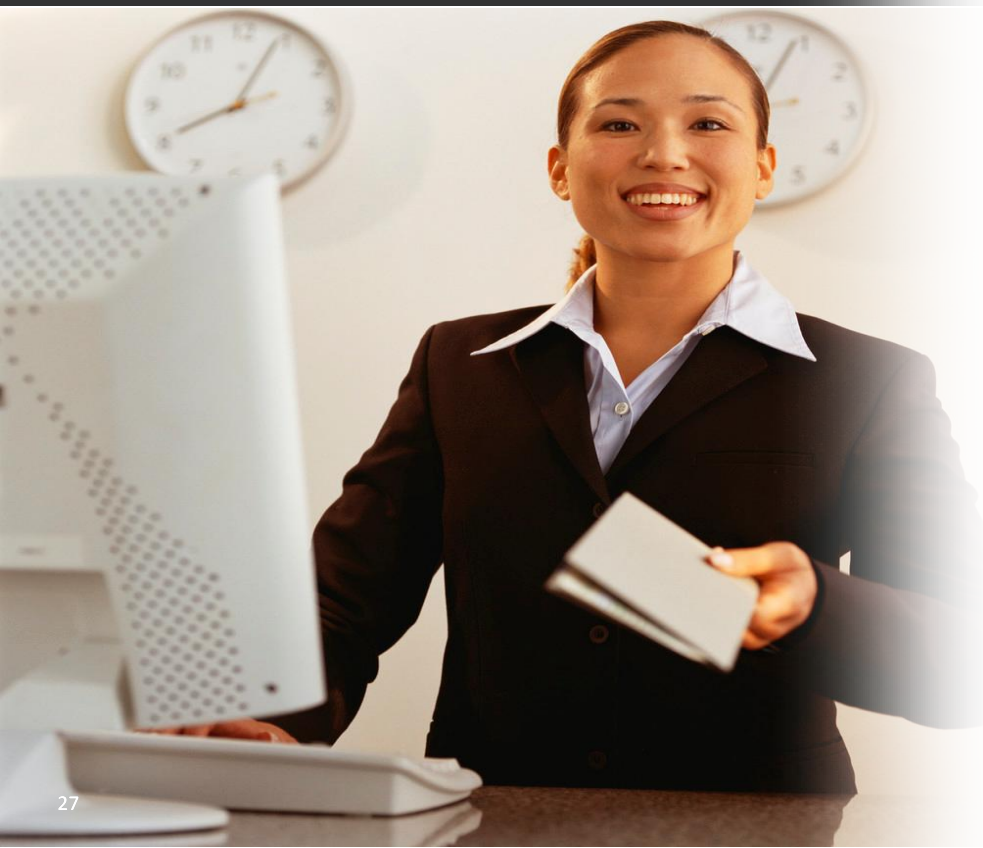
Smarter Business Outcomes

Mindshare Technologies, using IBM Content Analytics, received a prestigious partnership award from the company for discovery of new emerging trends/patterns and delivering key insights into new products, customer demographics and visit frequency.

A Car Rental Company and Mindshare Technologies

Smart is: **identifying** customer satisfaction trends

“We wanted to leverage this insight at both the strategic level and the local level to drive operational improvements”



Industry context: travel services, car rental
Value driver: access to customer survey data
Solution onramp: content analytics

Business Challenge

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. This company's location managers read each customer comment submitted via email or phone and then manually categorized it, proving to be very labor-intensive and inconsistent.

What's Smart?

Transforming customer information into actionable intelligence. Using IBM Content Analytics together with Mindshare Technologies sentiment-based tagging solution, the company created a “Voice of the Customer” analytics system to automatically capture customer experiences in real-time.

Smarter Business Outcomes

The company realized improved accuracy and speed of the customer feedback analysis process, almost doubling what had been achieved manually.



Legislative document company

Smart is: accurately changing documents

“Speed plus accuracy are the keys to competitiveness.”

Industry context: government
Value driver: improve speed, accuracy
Solution onramp: content analytics

Business Challenge

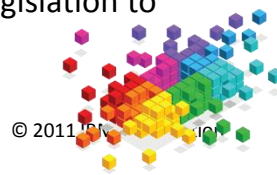
With more than 1,200 of the country’s 1,800 local governments as clients, the company needed to improve the accuracy and speed of its regulation update service in order to stay ahead of new competitors and technology improvements.

What’s Smart?

The company transformed its regulation management and updating system with natural language analysis technology. The new system can automatically recognize changes to regulations, updating them automatically, replacing a time-consuming, error-prone human process.

Smarter Business Outcomes

Automatically amends legislation and regulations.
Improves accuracy and speed of regulation revision.
Shortens the time to bring new updated legislation to local governments by 50%.



Text Analytics Group

Accelerate your time to value

- Text Analytics Group, an ECM services group, focuses on solving client needs with content analytics
- Provides solution engagements to quickly deliver deeper insights (or rapid insights)
 - Client-driven development and delivery of tailored, vertically-targeted solutions
 - Skilled professionals in text and content analysis
 - Proven track record implementing text and content analytic solutions that deliver smarter business outcomes
- Industry solution examples:

Medical Records Text Analysis (MRTA)

Solution for healthcare payers and providers

Analyzes medical records to enable better patient care, more efficient plans, accelerated research, trials and more



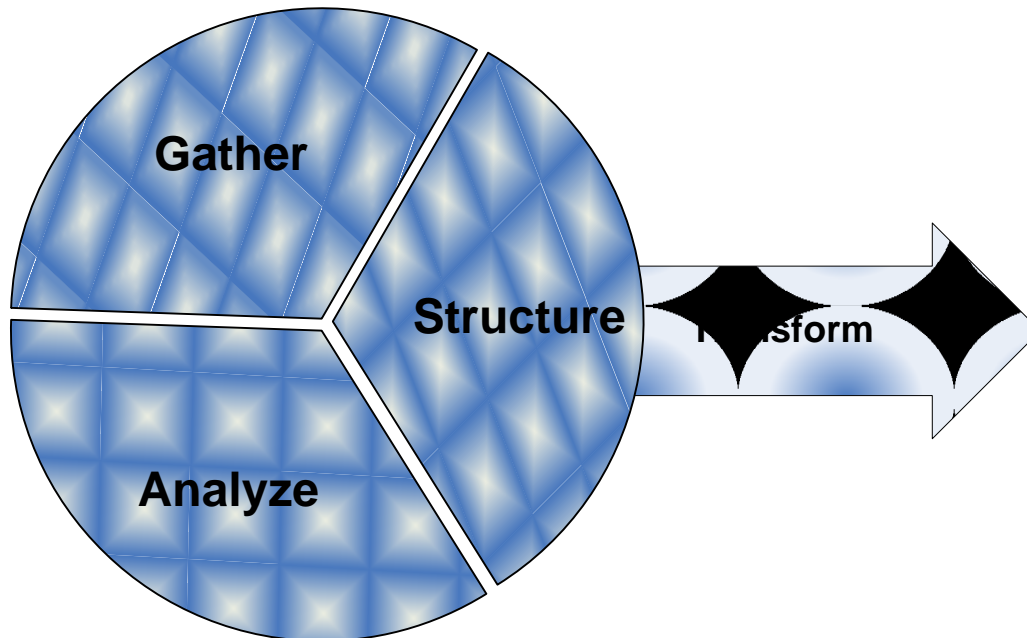
Intelligence Bundle

- Solution for police, security, intelligence, and customs agencies
- Combines IBM Content Analytics with key services assets to deliver unique (rapid, deeper, better) insights



Medical Records Text Analytics Solution

- Integrates IBM Content Analytics, TAG Lab Services annotators and Health Language with IBM Healthcare Integration Framework
- Enables payors and providers to unlock the valuable information of unstructured clinical data by gathering, analyzing and structuring content
- Transforms content into medical ontology based (SNOMED, ICD-9, ICD-10, RxNorm, etc) information and provides rapid, actionable business insights



Actionable Information

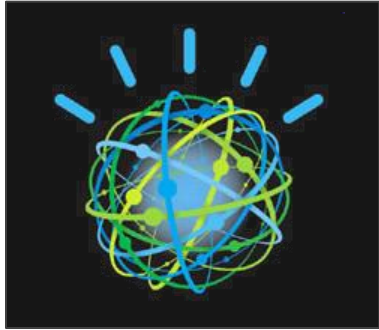


Crime Intelligence Solution

- Provides state, county and large city Police Departments with a well-organized, fast, and easy to access repository of statistics and reports.
- Integrates information related to Incidents, Offenses, Arrests, and Calls for Service for use by users within the Department to make more timely and informed decisions about crime fighting and force deployments.
- Information is shared by authorized personnel and the police department speaks with “one voice”
- Better use of existing information drives more proactive policing, improves officer safety and reduces crime on the streets



Smart is: **breakthrough** content analysis



IBM Watson (Jeopardy)

Business Challenge

Advance the state of the art in broad domain Question Answer (QA) systems to enable breakthrough applications in many different industries.

What's Smart?

Uses **IBM Content Analytics (LanguageWare)** in conjunction with other technologies to read, analyze and understand vast sources of unstructured content. Runs many algorithms in parallel to create, compare and determine confidence in candidate answers. Presents answers with a confidence level attached.

Smarter Business Outcomes

Coming to your industry soon! Will deliver value in limitless applications starting with clinical healthcare, customer care, government intelligence and beyond.

Industry context: broad industry value
Value driver: improve business decisions
Solution onramp: content analytics

"... an information seeking tool that's capable of understanding your question to make sure you get what you want and then deliver's that content through a naturally flowing dialog"

*Dr. David Ferrucci
 Principal Investigator
 Watson project*



IBM Content Analytics helps you to ...



Improve information retrieval and understanding through Rapid Insight

- ✓ Deliver the right content when requested ... this is a must have, not a nice to have.
- ✓ Decommission what is unnecessary and govern the content that matters.

Enhance business analysis and decision making through Deeper Insight

- ✓ Unlock and integrate content insights with other applications and systems like social media, Business Intelligence and Data Warehouse for complete business context.
- ✓ Rapidly deploy and derive text-based insight without cost and complexity of model building and lengthy deployments ... dynamically react and adapt to changing conditions.

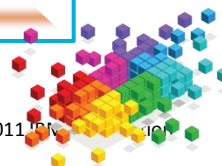
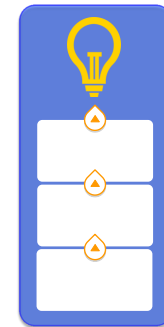
Start **unlocking the insight** trapped in your content today

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



IBM Content Analytics

- Find relevant enterprise content quickly and securely
- Assess enterprise content to decommission the unnecessary and govern the content that matters
- Customize rapid insight to industry and customer specific needs
- Enable deeper insights through integration to other systems and solutions



Additional IBM Content Analytics Sessions

- Technical Track Session One:
 - Create Rapid business Insight with Content Analytics
- Technical Track Session Two:
 - Create Content Analytic Solutions that Deliver Deep Business Insight

BACKUP