



IBM Software Group

# IBM Content Discovery Solutions for the Banking and Financial Services Sector

*Joel Waterman*

*Program Director, Enterprise Search Solutions*

*IBM Silicon Valley Lab, San Jose, CA*

*[jwaterma@us.ibm.com](mailto:jwaterma@us.ibm.com)*



**ON** DEMAND BUSINESS™

# Topics

- Information Discovery and finding new insights
- Banking Experts Speak
- Structured and Unstructured Data in a Financial Services Company
- Content Discovery Solutions relevant to BFS Sector
  - ▶ CUSTOMER CARE (2)
  - ▶ CALL CENTER (3)
  - ▶ LEGAL DISCOVERY (1)
  - ▶ ONLINE BANKING (3)
  - ▶ ONLINE MEDIA ANALYSIS (1)
- Content Discovery Solutions Matrix
- For more information...

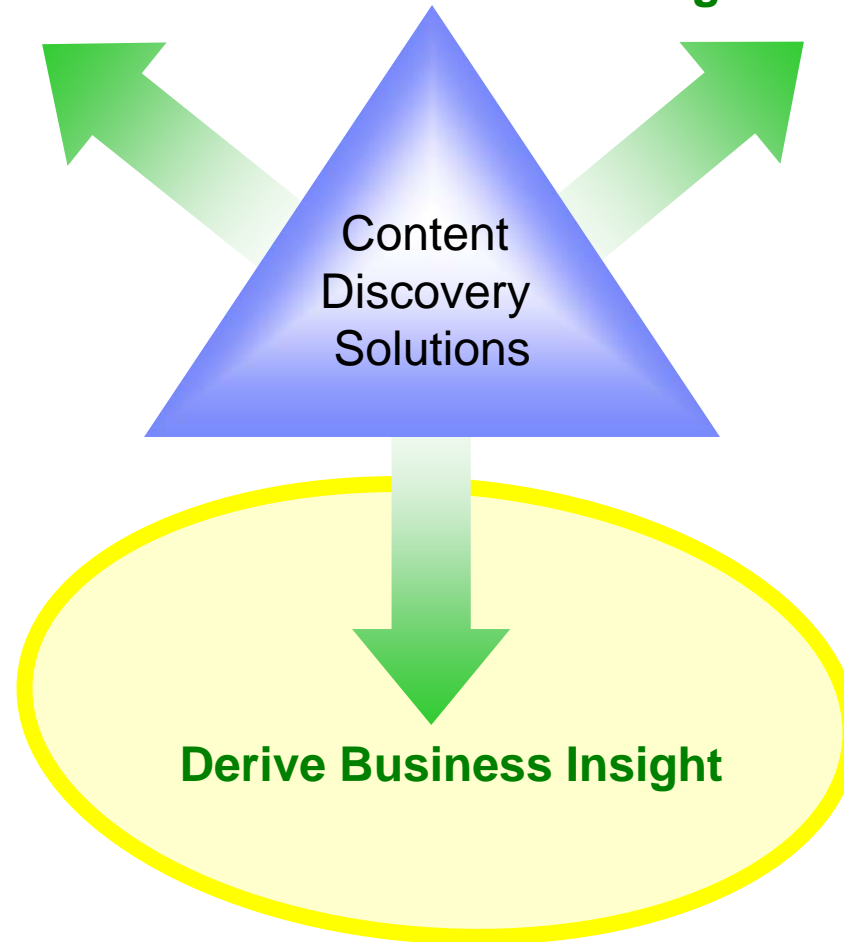




# Content Discovery Drives New Business Value from Existing Content

**Improve Content Access**

**Organize Unstructured Content**





# The Enterprise Information Challenge...

- Do have the right information at hand to take timely, effective action?
- Is enterprise content being leveraged effectively to improve business performance?





# ...the Solution: Business Insight from Enterprise Content



- What if you could understand the meaning of content?
- Turn content into actionable information
- Deliver breakthrough business insight:
  - ▶ **Discover** new insights into customers, suppliers, operations, and more
  - ▶ **Differentiate** from the competition
  - ▶ **Improve** business results

...it's all possible with IBM OmniFind solutions



# Banking Industry Experts Speak

"Traditionally, banks have used business intelligence in a compartmentalized manner. Now, **banks need to get together on a strategic level.**" - Betsy Burton, VP and Research Area Director at Gartner



"Banks have very **disparate content, it's all over the place.**" - Guillermo Kopp, VP, cross industry, for TowerGroup



"For years, banks have talked about **cross-selling.** The real key to cross-selling lies in **being able to determine what will motivate which customers to buy a new product or service.**" - Kelly Pennock, CEO of Intelligent Results Inc.



"We are challenged with the complexity of cultivating **millions of individual customer relationships** across multiple channels with **increasing volumes of data.**" - Matt Harris, head of CRM for London-based Barclays Bank



"Decision makers at banks are asking for **BI systems that predict the future.** BI is going up steps from **reactive to proactive.**" - Ronnie Ray, VP, marketing for Infovista





## Translating Business Insights to the Financial Services Sector....



- What are major areas of complaints by account holders and how are these changing over time?
- What is the satisfaction level of customers with specific services?
- What are the frequent issues that lead to customer churn?
- What key segments provide higher up-sell opportunities?
- Are there early warnings of compliance related issues in customer contacts through email or call center?
- Is there a high incidence of undesirable terms being offered to clients by advisors in specific zones?
- What is the expertise available in-house and how can this be tracked from the email exchanges?
- What is the view of the company expressed by some of the well-regarded members of the financial press? How is this changing over time?



# Structured & Unstructured Data in a Financial Services Company

a) Contact center records relating to account holders

Customer id	MCD223455	Customer complained re. interest on cash advance. Lower rate offer from XYZ Bank. Prior calls not answered. Likely to switch. Customer is irate.
Date of call	15-6-06	
Reason for call	PRC6	
Resolution code	CL44	

b) Internal and external emails

fromID	xyz@bnk1.com	Hi. FYI. Yesterday a deal was submitted to the California Commission to restructure XYZ. More details to come ... knowing that you're actively engaged in negotiations. Assuming a 10.01.00 approval date
toID	<a href="mailto:abc@bnk1.com">abc@bnk1.com</a>	
Date	20070101	
Size	28000B	

c) Websites and blogs

URL	http://....	...Let's say you know a CEO. He seems like a smart guy. He's good with the press. He's also quotable and brash. And he remains so, even after he's sold more than \$100 million worth of company stock....
Date	3-23-07	

d) ... and many others



# Example Analysis Scenario in a typical FSS company

SEARCH CONDITION "Searched documents: 616 documents"

KEYWORD: Please ... recip: 161 docs [DELETE](#)

KEYWORD: Please ... see: 173 docs [DELETE](#)

KEYWORD: Please ... send: 168 docs [DELETE](#)

KEYWORD: Pts ... have: 164 docs [DELETE](#)

KEYWORD: Pts ... review: 223 docs [DELETE](#)

KEYWORD: Pts ... send: 114 docs [DELETE](#)

KEYWORD: please ... advise: 236 docs [DELETE](#)

KEYWORD: please ... recip: 294 docs [DELETE](#)

KEYWORD: please ... see: 337 docs [DELETE](#)

KEYWORD: please ... send: 199 docs [DELETE](#)

KEYWORD: Payment related call: 476 docs [DELETE](#)

AND: 616 docs [DELETE](#) OR: 1930 docs [DELETE](#)

Search	Keywords	Frequency	Correlation
<input type="checkbox"/>	claim	71	80.4
<input type="checkbox"/>	follow	95	36.0
<input type="checkbox"/>	Primary care	85	34.0
<input type="checkbox"/>	Error	53	26.0
<input type="checkbox"/>	claim	20	12.6
<input type="checkbox"/>	please	360	11.2
<input type="checkbox"/>	account	62	0.2
<input type="checkbox"/>	planOne	116	0.2
<input type="checkbox"/>	submission	279	0.2
<input type="checkbox"/>	comment	279	0.4



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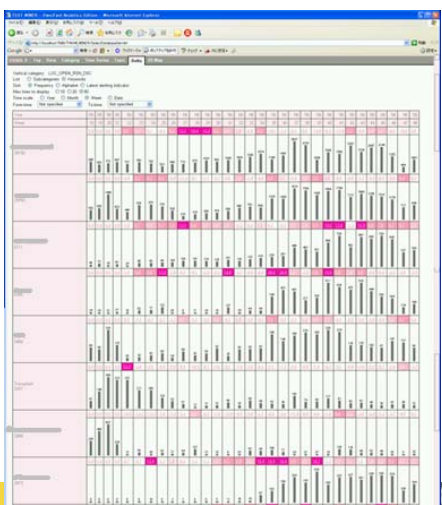


1) Find all customer contacts regarding cash advances on credit cards

2) Find the contacts where the customer complains about the service ("high rate", "overcharge" etc).

3) Correlate information about account status against these complaints

4) Identify higher correlation between customer complaints about cash advance rate and inactive accounts



**As a result of the analysis:**

- Develop new rate structure and offer to premium account holders
- Resulting in reduced churn from this segment



# Content Discovery Solutions relevant to BFS Sector

- CUSTOMER CARE SOLUTIONS
  - Improving Cross and Upsell effectiveness
  - Predictive Analysis on Customer behavior and preferences
- CALL CENTER SOLUTIONS
  - Call Center Agent Performance Analysis
  - Complaints Analysis
- LEGAL DISCOVERY
- ONLINE BANKING SOLUTIONS
  - Employee and Customer Self-service
  - Customer email Response Solutions in Contact Centers
- ONLINE MEDIA ANALYSIS
  - Correlate investment advice to public opinion



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# HDFC Bank: Customer Care Project improving upsell/cross sell

## CHALLENGE

- Financial Service organizations (can) optimize decision-making by gathering critical insights into their customer trends.
- Current infrastructure do not enable seamless, automatic association of structured and unstructured data needed to generate these analytical insights.



"Working with IBM has enabled us to unlock useful knowledge and derive tremendous value out of the customer information already being captured across our organization," said C. N. Ram, head, information technology, HDFC Bank. "The ability to associate this information with emerging customer needs will help our bank deliver superior service to our more than 10 million customers and will be a massive competitive differentiator for us."

## PROJECT

- Enrich the data warehouse with information extracted from customer emails and call records

## RESULTS

- Improved customer contactability, e.g. 23% of customers interacting via emails were deemed "Not contactable" by the bank
- Extracted customer interest in products for targeted marketing, e.g. out-of-country services
- Enabled personalized service to high-net-income clients contacting via email

# 'Large Financial Services company': Customer Satisfaction Analysis

## CHALLENGE

- How to improve customer satisfaction?
- Implement a recurrence prevention plan
- Analyse information from clients to detect risk for loan or card applications
- Monitor legal and corporate compliance in client communications



## PROJECT

- Use IBM technology to analyze almost 5,200,000 items on a daily basis

## RESULTS

- The return on investment for is related to the ability to automated the analysis of a large volume of data
- Improving customer satisfaction due to the elimination of recurring problems.

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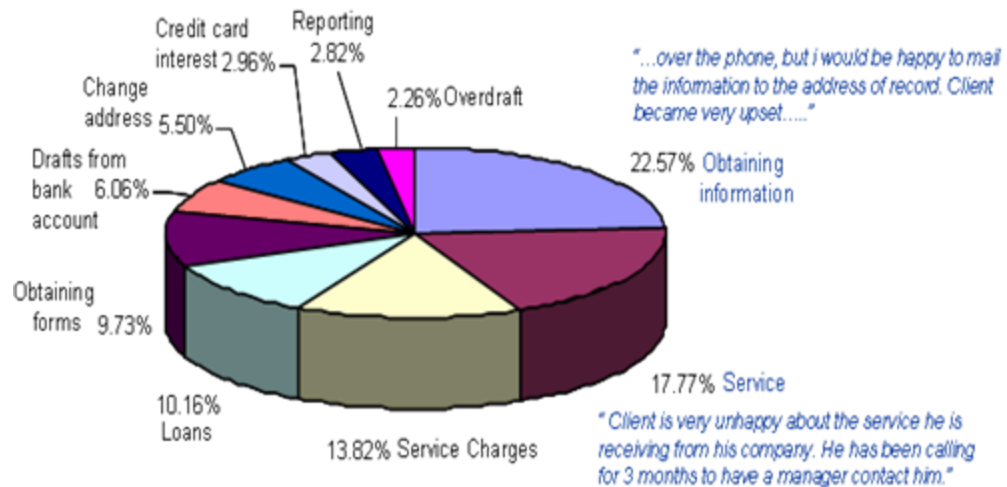


# Solution type 1: Customer Sentiment or Complaints Analysis

## CHALLENGE

- A knowledge worker uses the insight solution to create a model of words that customers use to express their emotions. The system associates these words with customer events.

## PROJECT



## RESULTS

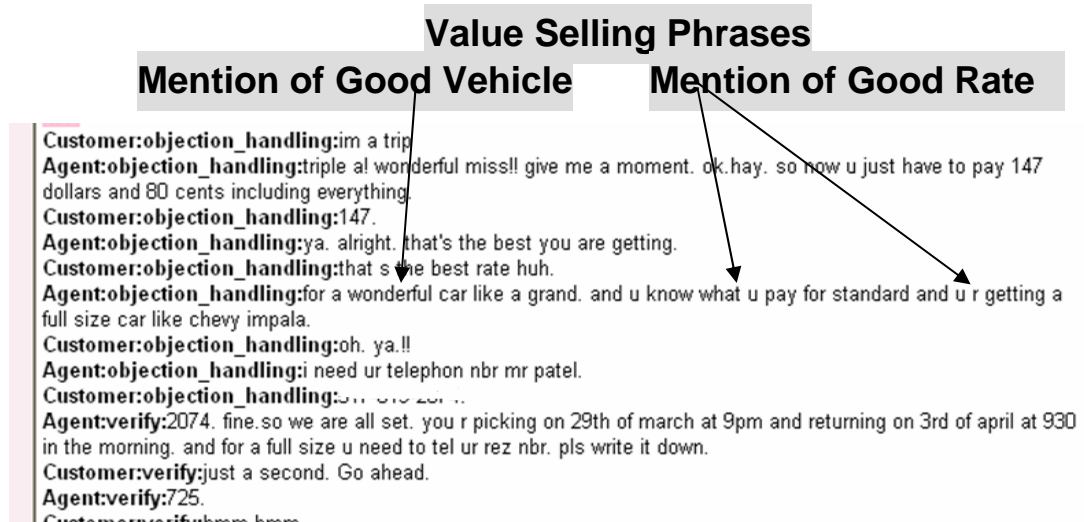
- To categorize unstructured content the system uses a model for the words that express positive, neutral, or negative sentiment.
- Customer interactions can be analyzed for negative words like upset, request supervisor, unavailable, unhappy, irate, angry, or mad. And then those negative words can be correlated against a number of items such as product line, component, geography, and so on.



# Solution type 2: Call Center Agent Performance Analysis

## CHALLENGE

- Company with agents handling car rentals wants higher check-out rate



## PROJECT

- Extract key phrases from call transcripts and correlate with actual outcomes

## RESULTS

- Compliance with transactional process
- Revision of response to customers
- Feedback for education, optimal allocation and evaluation of call takers
- 1 day work by 1-2 people becomes 15 minutes work due to automation
- New feedback to planning and development divisions



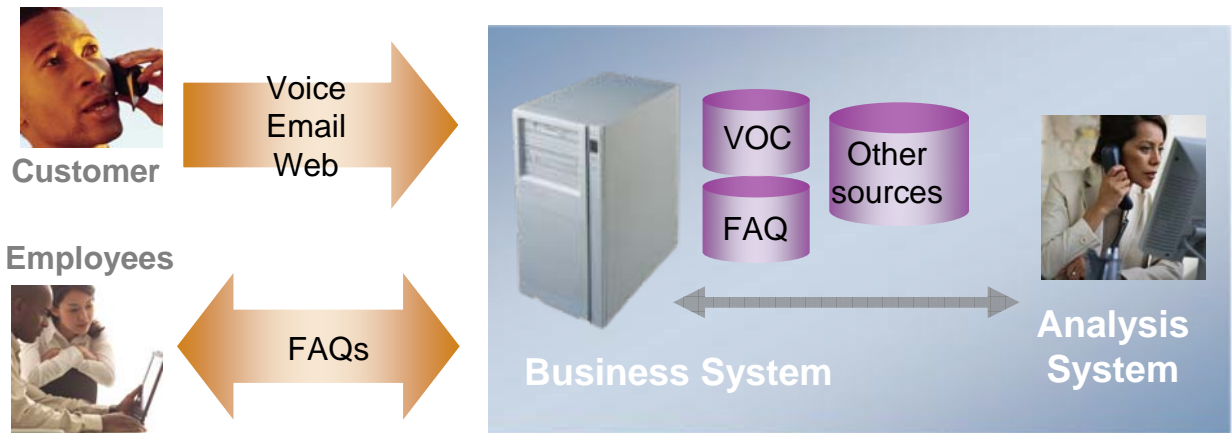


# Major Mobile Phone Carrier: Solutions Types 1 & 2 Combined

## CHALLENGE

- Significant rates of customers dropping service -- very costly for mobile telecommunications carriers
- A desire to automate the creation of reusable information to power self-service

## PROJECT



## RESULTS

- Churn prediction:
  - ▶ Voice of Customer analysis for customer calls, emails, and chat sessions
  - ▶ Alerting system to indicate customers likely to drop service
- Self-service:
  - ▶ Automated generation of FAQ topics from analysis of customer inquiries
  - ▶ Workflow to have FAQs published to self-service environment
- Changed business practices (**billing, calling plans**) when survey analysis indicated they were poorly understood by subscribers



# Solution Type 1: Outsourced Customer Care



## CHALLENGE

- ◆ A car rental company wants to identify key trends in car rental rates analyzing both the agents and the customer dialogs
- ◆ The business wants to determine leading indicators for car rental pickup, relationship of agent and customer call content to pick up effectiveness, and other correlations

## PROJECT



## RESULTS

- ◆ We can determine the probability that the customer will pick up a reserved car based on the words the customer uses at the start of the call
- ◆ This allowed the rental company to modify their agent interaction with specific customers to increase the percent of rentals, improving the bottom line



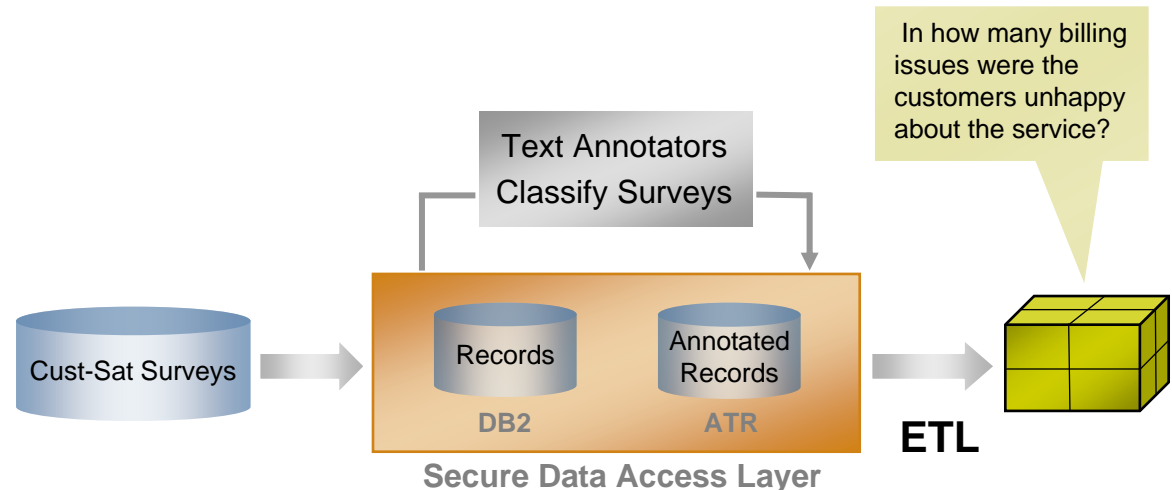
## Solution Type 2: Automated Survey Analysis



### CHALLENGE

- ◆ Analysis of Customer Satisfaction feedback surveys requires 20 full time specialists to analyze 1500 C-Sat records per week
- ◆ Across Daksh, 100 employees are dedicated to C-Sat analysis
- ◆ Analysis and feedback took a long time

### PROJECT



### RESULTS

- ◆ Automatic analysis using text analysis is 85% accurate
- ◆ Can automate at least 30-50% of work load of 120 SMEs
- ◆ Speed up feedback and process redesign for higher customer satisfaction

# Content Discovery Solutions relevant to BFS Sector

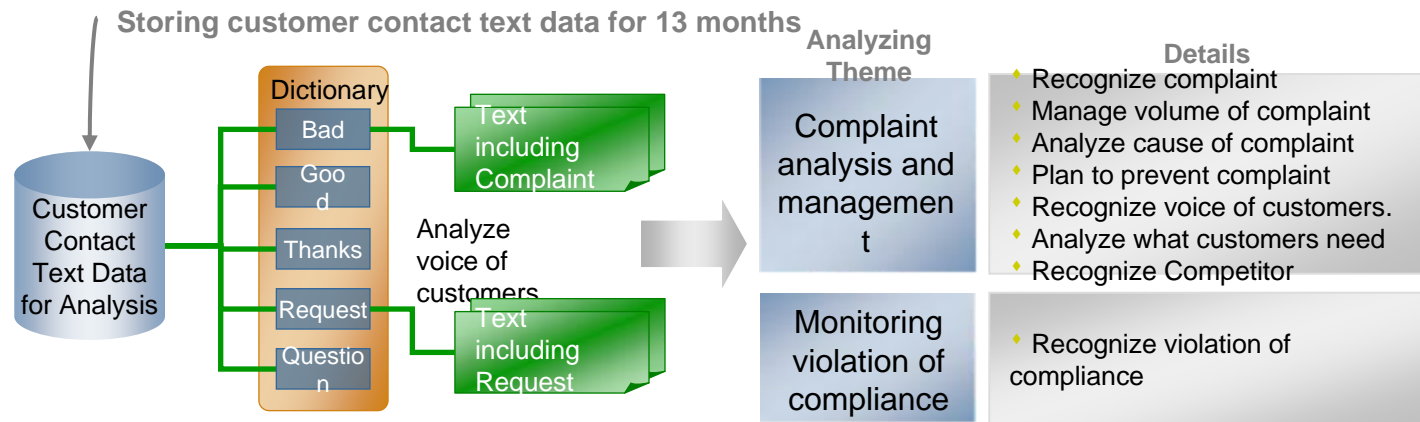
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# Major Wall Street Investment Bank – Legal Discovery

## CHALLENGE

- US law requires Bank to archive the last 3 yrs of email.
- Reduce the costs of detecting potential illegal activity and finding emails that are relevant to a particular legal investigation (legal discovery)
- Identify customers likely to switch service to another bank, to prevent loss of their business
- Automated client needs analysis, segmentation, and targeting



## PROJECT

- Early identification of emerging compliance issues
- Email census and automatic Expertise location
- Eliminate unnecessary manual scanning of irrelevant emails for surveillance and investigation

## RESULTS

- 'concept queries' allow investigators to start with a vague idea of what they are looking. After that they can select items to build a complex query to more accurately filter the emails
- Business transformation initiative:
  - automated voice of customer analysis and instituted workflows to address issues
  - Recognition of "the client's voice", automated client needs analysis
  - Analysis systems for segmentation and market targeting

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# Mellon Bank : Increase Employee and Customer self-service Effectiveness

## CHALLENGE

- Integrate with an environment that supports internal and external Web sites running disparate applications on multiple platforms.
- Provide out-of-the box functionality that was easy to configure and scale and had to support implementations ranging from basic to very complex whilst being fast, flexible and easy to deploy.
- Provide users with an end product that was reliable and easy to use.

The screenshot displays the Mellon Bank website interface. At the top left is the Mellon logo. To the right, there is a search bar containing the text "investment banking" and a "GO" button, and a dropdown menu labeled "I Want To ...". Below these are five main navigation tabs: "ABOUT US", "PRODUCTS & SERVICES", "NEWS & EVENTS", "INVESTOR RELATIONS", and "CAREERS". The "INVESTOR RELATIONS" tab is active, showing a dropdown menu with links to "Financial Reports", "Press Releases", "SEC Filings", "Stock Information", "Analyst Coverage", "Events and Presentations", "FAQs", "Alerts", and "Contacts". To the right of the navigation is a "Client Access" dropdown menu with a list of services: "ASSET MANAGEMENT", "PRIVATE WEALTH MANAGEMENT", "ASSET SERVICING", "WORKING CAPITAL SOLUTIONS", and "INVESTOR SERVICES". Below this is a "RESOURCES FOR:" section with options for "INDIVIDUALS" and "INSTITUTIONS & CORPORATIONS". The main content area features a large image of a smiling woman with the text "Your solution. Built to perform." Below the image are three columns of text: "EXPERIENCE MELLON" (with a link to "Business Leadership Awards"), "OUR THINKING ON..." (with links to "The Economy", "Investment Management", "Wealth Management", and "Working Capital Solutions"), and "CONFERENCE CALL WEBCASTS Archived Presentations" (with links to "Fourth Quarter 2006 Financial Results" and "Mellon and The Bank of New York").

## PROJECT

- The eCommerce group was tasked with upgrading the search capabilities on both the external Web site (www.mellon.com) and the employee intranet site

## RESULTS

- Increased speed of deployment
- Improved search access to secure Web sites
- Reduced maintenance costs
- Increased user acceptance and usage

# RBC Financial Group: Customer email Response Solution

- CHALLENGE**
- “Our customers were rapidly adopting the Web as an alternate channel. On the one hand, that was good news for us as the Web was proving to be a more efficient, lower cost channel. However, if our quality of service suffered, those cost savings would be rapidly lost through customer defections.”, Mark Langlois, Director of eBusiness Application Solutions



## PROJECT

- Email management application
- Use one knowledge base across multiple channels

## RESULTS

- Productivity increased 180% despite a 45% increase in email volumes
- The first day, the system received what would appear to be a very confusing message:

*“Hi, I just noticed my Visa account was overdrawn, so I transferred \$100 from my Savings account to my Visa account. When I went back to my Visa account, it did not show the money had been transferred. Did I just lose my money?”*

- In this case, the system recommended the ‘Transfer Question’ category with 80% confidence. It noticed the word Visa present throughout, but only suggested the ‘Visa Question’ category with 30% confidence. The system was able to clearly distinguish between the words in the inquiry and the intent, which in this case was different.



# Wells Fargo: Customer email Response Solution

## CHALLENGE

- Automatically respond to web inquiries
- Intelligently route email messages to the appropriate business unit
- Suggest responses to email and phone agents
- System that was low in maintenance and easy to use



## PROJECT

- Self-learning important to keep maintenance costs down
- System only learns from senior agents, improving learning abilities

## RESULTS

- Delivers appropriate answers with upwards of a 90% success rate
- Investment paid for itself in < 12 months
- New agents are able to successfully respond to live customer e-mails after less than a day of training

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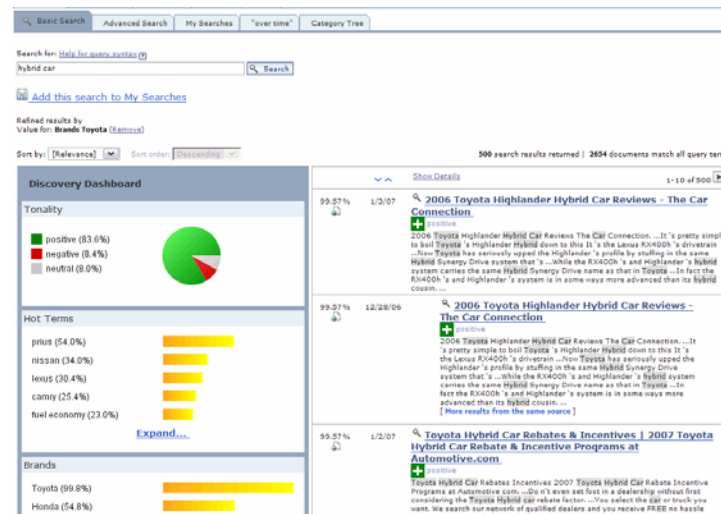
# ONLINE MEDIA ANALYSIS :

## Investment validation and review

### CHALLENGE

- Access blogs, news sites, feeds, competitor sites, customer information sites
- See overall tone, news types, hot topics, brands, products, most vocal sources
- See development of discussion of each investment topic over time

### PROJECT



### RESULTS

- Monitor a wide variety of sites for voiced opinions about investment objects by customers and opinion makers
- Detect trends and swings in opinion more quickly and be able to react earlier
- Drill down to find the root of public image
- Discover new topics related to companies and prospects

# Customer Success



Fortune 500 PC  
Company

- Increased satisfaction by 58% and online resolutions by 38%

Leading Online  
Self-Service  
Brokerage

- Reduced call volume by 13% for a set of common inquiry topics within one quarter of going live

Top 3 US  
Brokerage

- Initial savings of \$125,000/month, now up to double through increased exposure and traffic

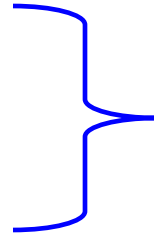
“At LifeCare we are in the business of providing our customers with information they need to manage their lives. With [the solution] powering our search capabilities and enabling self-service, we have seen an increase in customer satisfaction, an immediate decline in support inquiries, and a measurable return on investment in less than a year.”

*Jay Hartley, COO LifeCare*



# Content Discovery Solutions Matrix

- ONLINE BANKING SOLUTIONS
  - Employee and Customer Self-service
  - Customer email Response Solutions in contact Centers



IBM OmniFind Discovery Edition  
IBM Classification Module

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- ONLINE MEDIA ANALYSIS



IBM OmniFind Enterprise Edition  
IBM OmniFind Analytics Edition\*  
+ Custom Annotors and UI

\*OmniFind Analytics Edition currently only available in Japan, US, Canada, UK, Ireland, South Africa, India (limited).

See last slide for more information and contacts if you have an opportunity, also outside these countries



# More Information + How to Help you with Opportunities

- You can help clients turn content into **actionable insight** with solutions based on the IBM OmniFind portfolio. Check out our home pages on ibm.com:
  - <http://www-306.ibm.com/software/data/enterprise-search>
- Financial Services demo's (flash) demo's and Web info:
  - [http://demos.dfw.ibm.com/on\\_demand/Demo/en/IBM\\_Demo\\_IBM\\_Contact\\_Center\\_Module\\_for\\_OmniFind\\_Discovery\\_Edition-Nov06.html](http://demos.dfw.ibm.com/on_demand/Demo/en/IBM_Demo_IBM_Contact_Center_Module_for_OmniFind_Discovery_Edition-Nov06.html)
  - [http://demos.dfw.ibm.com/on\\_demand/Demo/en/IBM\\_Demo\\_IBM\\_Self-Service\\_Module\\_for\\_OmniFind\\_Discovery\\_Edition-Nov06.html](http://demos.dfw.ibm.com/on_demand/Demo/en/IBM_Demo_IBM_Self-Service_Module_for_OmniFind_Discovery_Edition-Nov06.html)
- Content Insight Solution sales are **high-value sales** (\$200K+and up)
  - be sure to ask for solution sales & tech support and contact your local Content Discovery sales leader:

**Joel Waterman**  
Worldwide Sales Leader  
+1-408-463-4063  
[jwaterma@us.ibm.com](mailto:jwaterma@us.ibm.com)

**Chuck Ott**  
Sales Leader AG East  
+1-410-703-3604  
[cott@us.ibm.com](mailto:cott@us.ibm.com)

**Michel Caussanel**  
Sales Leader, France  
+33-014905 38 59  
[michelcaussanel@fr.ibm.com](mailto:michelcaussanel@fr.ibm.com)

**Ippei Komi**  
Sales Leader, Japan  
+81-3-5459-9362  
[ikomi@jp.ibm.com](mailto:ikomi@jp.ibm.com)

**Nigel Freeman**  
Sales Leader, UK  
+44-20-7202-3048  
[nigel\\_freeman@uk.ibm.com](mailto:nigel_freeman@uk.ibm.com)

**Sharon Cerkar**  
Sales Leader AG West  
+1-858-587-5010  
[cerkar@us.ibm.com](mailto:cerkar@us.ibm.com)

**Wolfgang Jung**  
Sales Leader, Germany  
+49-681-3095-229  
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