



Social Media Convergence and Mobility

Executive Summary

Done right, business intelligence and analytics can have a direct and positive impact on an organization's performance. BI is particularly strategic and significantly improves the ability of the business to accomplish its mission, survive in the downturn and thrive in the upturn. Tools that enable faster, better and more informed decisions are particularly valuable.

However, internally collected and analyzed data is no longer enough for companies looking to make smarter and more proactive business-critical decisions, particularly as the global economy gyrates. An increasing number of business leaders are interested in creating a convergent view of all relevant insights, fusing the structured data contained within conventional databases with unstructured insights gleaned from fast-proliferating social media platforms. These decision makers require a complete and accurate understanding of their customer landscape, markets and business to develop effective strategies, make the right decisions and enact mid-course corrections. Getting started requires companies to first understand and then seize advantage from the growing volume of tangible business insights emerging on the social media front.

In today's interconnected and dynamic global economy, good news travels fast; however, bad news travels even faster. Organizations need to

extract intelligence from social media chatter to obtain early-warning signals that they can use to proactively shape and respond to ever-changing customer sentiment. This white paper will demonstrate how organizations across industries can begin to measure the incremental business value of social media intelligence.

Getting Social

Business use of social media is no walk in the park. Applying compelling and powerful information about existing and potential customer needs, product improvement opportunities and valuable revelations on customer experience requires digging into a panoply of social media platforms (such as YouTube, Twitter and Facebook); corporate and third-party Web sites (such as wikis, blogs, microblogs and comments on review and rating sites); and media interactions (such as RSS and widgets). There are challenges that need to be dealt with and opportunities that need to be capitalized upon.

As consumers become more acquainted with social networks to interact with brands directly, it's important that businesses are at least aware of the negative conversations that take place in social media. The majority of consumers use social media as the quickest way to voice a complaint and then get the complaint resolved. The need for a targeted, sustainable social media strategy, and an effective monitoring and engagement solution, should be a high priority on all consum-

er-facing companies' communications agendas. The reasons are manifold:

- Twitter now has 200 million users generating 350 million tweets a day.¹
- YouTube says that over 48 hours of new videos are uploaded to the site every minute and that around three-quarters of the material comes from outside the U.S.²
- As of July 2011, Facebook had more than 750 million active members.
- Wikipedia has 19 million articles (over 3.6 million in English) written collaboratively by volunteers around the world, and almost all of its articles can be edited by anyone with access to the site. As of July 2011, there were editions of Wikipedia in 282 languages.
- In 2010, Internet users spent nearly a quarter (22.7%) of their online time on social networking sites – a 43% increase from the previous year.³

Customer Centricity Means Mobility

Analytics increases organizational performance by bridging the strategy and execution gap, enabling balance between risk and opportunities and sharpening visibility across the entire execution cycle. While analytics helps organizations listen, quantify and react to the ever-growing volumes of conversational data generated across social media, the world is changing with lightning speed. Customers are now in charge.

Organizations that fail to meaningfully engage with informed consumers will lose market share, particularly as smart devices with various operating systems replace standard Windows PCs and laptops for a multiplicity of purposes. As a result, organizations will need applications to monitor and manage brand perception and reputation to ensure that they can factor in the unstructured inputs from on-the-go consumers in a uniform and real-time way that can be easily integrated with structured data already residing within their customer relationship management systems. Social media and mobility, therefore, need to be treated as extensions of an organization's business-technology strategy and culture.

Applying Analytics

Text analytics is essential for maximizing the customer experience, effectively monitoring the social media world, conducting first-class data analysis and research, and improving the business decision-making process. Text analysis tools extract insights from data contained in social media posts to enable organizations to better understand consumer sentiment and to facilitate more informed interactions with customers across social platforms. By gathering information on customer needs, opinions and desires from social media and responding quickly, organizations can control their messaging, evaluate and target relevant customers and increase market share.

Social Analytics Lifecycle

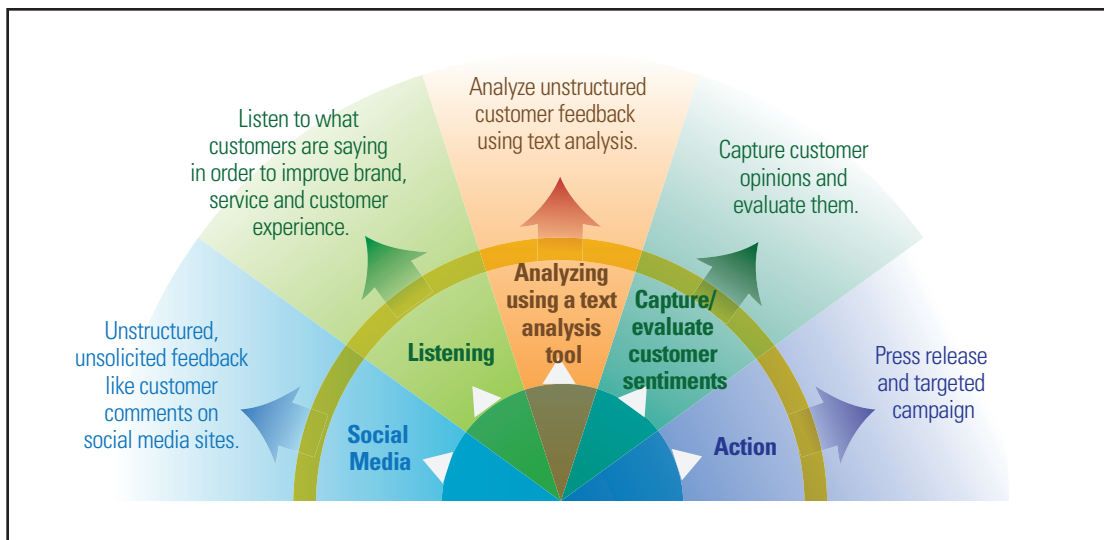


Figure 1

But watching every tweet or Facebook post can be time-consuming and costly. So, to build customer trust and loyalty in a technically-savvy, global and diverse market, companies need advanced tools for gathering intelligence on consumer needs, preferences and interaction styles. Businesses also need analytical tools that can help their organization develop products and services that address these attributes – as well as the marketing, promotion and pricing strategies that deliver these offerings.

Text analysis tools use social media to help companies listen to and learn from customer conversations. They filter key marketing signals from noise, analyze those signals, determine the most appropriate reaction and trigger that reaction automatically. It is important to isolate the contextual meaning from the collected content and achieve highly accurate categorization. Integrating social intelligence into existing data management or business intelligence systems can inform a course correction to change outcomes and ultimately influence ROI. This will enable decision-makers to more quickly grasp the information gleaned from social media and collaboratively act upon that information when it is presented in interactive visual models.

Three key elements must be addressed to properly engage with customers and best leverage their feedback. These elements are:

- **Know where to look:** Make sure you are monitoring the social media platforms and forums where your consumers are posting. Ensure monitoring of any locations where people can criticize your products or services.
- **Get your customers talking:** Encourage a two-way conversation with your customers. Make sure you are encouraging positive conversation and monitoring the dialogue.
- **Respond to customer feedback:** Be sure to address every conversation – both positive and negative – with accurate information and in a timely manner. It's important to recognize the positive side of negative feedback. For one thing, customer complaints always help you know where you stand, what went wrong and what is needed to improve. More importantly though, it gives you the power to turn unhappy customers into advocates for your brand by reframing negative situations into positive ones. It takes a certain amount of energy for a customer to provide negative feedback, and

that energy can be changed from negative to positive if the problem is acknowledged and dealt with appropriately. Actively soliciting feedback, responding in real-time, offering to make the customer experience better and following up in context will touch this customer in ways that no other marketing tactic can. And if this customer can be converted into an advocate, such outreach will have an amplification effect by dramatically improving overall brand perception.

With text analytics your organization can:

- **Extract, categorize and summarize key information from unstructured text and convert it into a structured format** so that it can be an effective data source for data integration or business intelligence and reduce the need for manual research.
- **Better understand online content regarding consumer perception of brand, competition and the market in general,** such as positive and negative opinions and judgments of consumers about your organization's brand, product or service. It can also help determine what consumers want that's not currently available.
- **Use customer feedback contained in call-center logs,** as well as in customer survey logs and the .com feedback channel to identify problems (such as what problems customers have with your product or company) and find out why customers are defecting. Another level of customer insight is requests (such as what your customer wants in terms of product features or service), as well as situations in which the organization can turn an unhappy customer into a happy one. Such information can define strategic customer service improvement programs.
- **Know the market trends and evaluate marketing campaigns to plan future campaigns.** Traditional market research may lead the firm to view customers as statistics. Managers can become so focused on the data that they stop hearing the real voice of the customer.
- **Obtain reports of product usage, when products fail, the most frequent customer enhancement requests and high-priority suggestions for quality improvements.** Tracking such detail over time yields insights into the evolution of your organization's product issues and quality.

Implementing a VoC Program

One of the more important tools for improving customer satisfaction and loyalty across the enterprise is a strong Voice of the Customer (VoC) program. VoC metrics illuminate how well the needs of particular market segments are being met, what your existing customers like about you and why a campaign did or did not generate the expected revenue targets. Over time, these results are used for trending and monitoring.

Here is a sample workflow for implementing a VoC program:

- 1. Create data sources using one of three adapters:**
 - Web site adapter: Crawls Web sites using the HTTP protocol.
 - File system adapter: Crawls directories on the file system.
 - Database adapter: Crawls database tables using the JDBC protocol.
- 2. Create a collection:** Here you can combine multiple sources within one collection, add text analytics through such services as ThingFinder and filter data as needed. You can also add a custom group entity such as problem, request and sentiment within the ThingFinder service.
- 3. Set up a crawl to extract relevant data:** You can crawl all the information (for a first-time crawl) or only a subset of new and/or modified

data for subsequent crawls. You can schedule a crawl to run at a specified time.

- 4. Output to database:** VoC annotations generated by a ThingFinder service are stored in the VoC repository.
- 5. Integrate with structured data:** Create a universe (metadata layer) using the Business Objects designer tool and the VoC repository as a source.
- 6. Display and analyze:** Use BusinessObjects Web Intelligence, Xcelsius, Crystal Reports or other dashboards.

Figure 2 depicts how the components of the sample solution kit work together. As shown, the VoC annotation handler writes annotations extracted using a processing manager to the VoC repository (VoCR). Once the repository is populated, using the universe (representing VoC data), users can generate reports to illustrate various sentiments and requests associated with selected concepts, or they can view concept frequency.

Getting Started

The following text analysis components should already be installed:

- Text services platform
- Processing manager (must be installed on the same system on which you plan to install the solution kit)
- Annotation manager (optional)

Evaluating Customer Sentiment

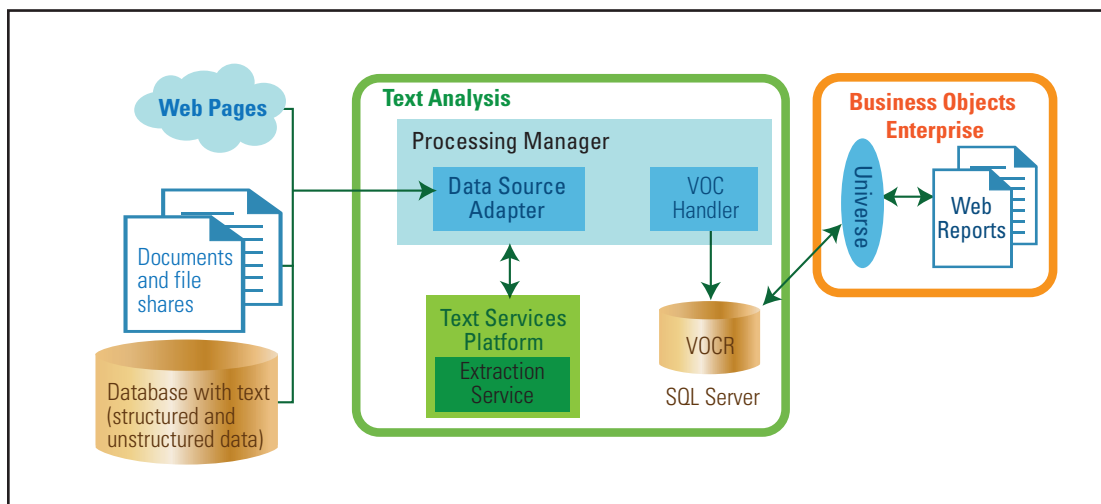


Figure 2

Minimum installation requirements for the solution kit components include:

- VoC extraction pack
- VoC repository
- VoC annotation handler
- Database and driver

- Software:
 - BusinessObjects Text Analysis XI 3.0+SP3 with VOC add-in
 - BusinessObjects Enterprise XI 3.1+SP3+Fixpack 3.3

Footnotes

- ¹ Twitter's engineering department, July 15, 2011, <https://twitter.com/#!/TwitterEng/status/91892509306920960>
- ² YouTube blog post, May 25, 2011, <http://youtube-global.blogspot.com/2011/05/thanks-youtube-community-for-two-big.html>
- ³ "What Americans do Online: Social Media and Games Dominate Activity," NielsenWire, August 2, 2010, http://blog.nielsen.com/nielsenwire/online_mobile/what-americans-do-online-social-media-and-games-dominate-activity/

About the Authors

Indrajit Chaudhuri is a BI Architect/System Administrator within the Cognizant SAP Business Intelligence (SAP BI) Practice. Indrajit holds a master's of science (MS) degree in engineering from the South Dakota School of Mines & Technology and can be reached at Indrajit.Chaudhuri@cognizant.com.

Abhishek Mishra is a Service Delivery Manager within Cognizant's Manufacturing Industry Practice. With over eleven years of industry experience, he has worked across diverse consulting engagements with leading health care and manufacturers and logistics providers. Abhishek holds a bachelor's of engineering degree in electronics from Jiwaji University, Gwalior, India. He can be reached at Abhishek.Mishra2@cognizant.com.

Amit Sharma is a Senior Consultant within Cognizant Business Consulting (CBC). He holds an MBA from Carlson School of Management at the University of Minnesota and can be reached at Amit.Sharma5@cognizant.com.

About Cognizant

Cognizant (NASDAQ: CTSI) is a leading provider of information technology, consulting, and business process outsourcing services, dedicated to helping the world's leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work. With over 50 delivery centers worldwide and approximately 118,000 employees as of June 30, 2011, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world. Visit us online at www.cognizant.com or follow us on Twitter: Cognizant.



World Headquarters

500 Frank W. Burr Blvd.
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277
Email: inquiry@cognizant.com

European Headquarters

Haymarket House
28-29 Haymarket
London SW1Y 4SP UK
Phone: +44 (0) 20 7321 4888
Fax: +44 (0) 20 7321 4890
Email: infouk@cognizant.com

India Operations Headquarters

#5/535, Old Mahabalipuram Road
Okkiyam Pettai, Thoraipakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060
Email: inquiryindia@cognizant.com