Social Media
AND THE
Enterprise Business Intelligence/ Analytics Connection

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Introduction

S**OCIAL IS AT WORK,** in the home, and just about everywhere else, literally, given the rise of mobile devices and near-global wireless telephone and Internet access. We capture experiences and interactions—personal and commercial—in video, photos, and messages and status updates, as well as in forms that now seem old—email, blogs, online news, and documents—and we share this electronic record with contacts, extended social networks, and often anyone who cares to look.

It is obvious that social networks—our connections across social platforms such as Facebook, Twitter, YouTube, and LinkedIn—and the messages we exchange—status updates, retweets, videos, email, blogs—contain immense business value for marketing, customer experience, product design, quality, service planning and provisioning, compliance and fraud: the spectrum of enterprise concerns.

For years, enterprises have looked to business intelligence (BI) techniques and solutions to deliver insights on customer interactions and corporate performance, yet mainstream business intelligence, designed to operate on transactional and operational data main-

Social networks contain immense business value for the spectrum of enterprise concerns.

tained in enterprise data warehouses and analytical databases, is ill-equipped to deal with the torrent of enterprise-relevant social information. Tools are evolving, however, to bring social data to enterprise analyses; to front-line existing analytical data stores to support social-

platform customer engagement; to permit social sharing of BI and net-worked, collaborative BI; and even to expose enterprise data resources for community and partner use. In short, we're seeing a socialization of data and a socialization of business intelligence.

The trend is clear, toward *Social BI*. To keep up, we—users, solution providers, and industry watchers—need to understand the type and extent of adoption, to understand recent, current, and likely future market directions. To that end, this study, *Social Media and the Enterprise BI-Analytics Connection*, was con-ducted through TechTarget's BeyeNETWORK in July-September 2010.

Findings provide a benchmark for *Social BI*. Individuals are using social platforms for both personal and pro-fessional purposes—this much is obvious—and enterprises, while they have been "listening" to social chatter, have been slow to build out official social presences or to incor-porate social-derived data or social methods into BI analyses. Some see little social-presence correlation

with their business missions while others appear not to have deter-mined a best way forward. The latter point perhaps explains non-integration, to date, of social data or methods in BI analyses. Nonethe-less, early enterprise social-BI adopters have valuable guidance to share.

Social is the fastest-growing source of enterprise analytical data.

Social is the fastest-growing source of enterprise analytical data; social approaches are altering enterprise work practices; social channels, with engagement informed by analytics, are changing how corporations interact with cus-tomers and the public. BI and ana-lytics are adapting to a social world, creating competitive advantage for enterprises that embrace the Social BI vision. Study findings suggest how. ∎

The Corporate-Social Connection

THE ONLINE SOCIAL world is comprised of networkers making connections and exchanging messages via social platforms.

The corporation is a social platform. Old-style organization charts position the internal corporate players while interconnections are defined by in-person, telephone, instant-messaging, and email exchanges as well as by information sharing via intranets and document-management systems and on paper. (Decades of knowledge management initiatives have tried and failed to map information holdings and flows, perhaps because knowledge management has always been perceived as a cost center that has never been aligned with revenue-producing activities.)

Add outward-facing elements— storefronts, websites, contact centers, sales organizations, marketing and public relations—and you have a picture of a social enterprise that encompasses employees, business partners, customers, and the public, interacting via a wide variety of traditional and electronic touchpoints. This is a very expansive view of the social enterprise. It sees as artificial the distinction between in-person and online customer and stakeholder interactions.

BUSINESS INFORMATION AND ANALYTICS

Whether interactions are facilitated by and recorded in a customer relationship management (CRM) system, or whether they are (often undetected and not responded to) online forum postings, they generate potentially valuable business information. If the right data can be recorded and produced, the business information can be understood, and interactions and larger scale strategy can be optimized, via analytics.

What information?

Social participants are individuals and organizations. They may be identified by a screen name or, in the case of online forums, they may be anonymous although potentially describable via clues drawn from

Content is king, but context and connections provide the power.

their postings and potentially traceable, by both the social-platform host and third-party services, via IP addresses captured in web-server logs, web-browser cookies, and web beacons embedded in viewed pages.

Where there's a screen name, there's a greater possibility of tracing social activities over time, and there's a likelihood of access to an associated profile that may include name, age, sex, email address, and short bio. But profile information is often closely held by the platform provider and shared only with the user's social-platform friends.

Some social participants want to be found, especially on platforms designed to provide information openly, such as Twitter, LinkedIn, public forums, and public blogs. Some social participants are selling themselves and their expertise—think LinkedIn—while others post

anonymously (or close to it), for instance, on consumer review sites. Some participation is public, on Twitter or open forums, while other participation, such as text messaging, is private or narrowcast to a limited audience. Extending an old saying, content is king, but context and connections provide the power behind the throne.

We have, in sum, a dynamic, ever-evolving social graph that includes:

- **Nodes:** People and organizations
- **Edges:** Connections
- **Flows:** How the network is used
- **Content:** The genie in the bottle, the reason for, and the source of greatest business value, in social media

How do we unlock social's business value?

SOCIAL BUSINESS ANALYTICS
Social business analytics can be defined as the study of each aspect of the social graph in an attempt to discover business-relevant insights.

Social business analytics may include a number of practices. Search and "listening" allow businesses to better understand current and prospective customers and other stakeholders. Further, by understanding how stakeholder-participants are interconnected, and how messages propagate through

social networks, across social platforms, businesses will improve their ability to hear and reach stakeholders and build communities. By studying social content, businesses will better understand both stakeholder needs and interests, and also issues and concerns.

Social business analytics allows organizations to hear and respond to what's called the *voice of the customer*, complementing and extending conventional, BI-reliant techniques that support:

- Product design
- Quality initiatives
- Customer service and support
- Marketing, advertising, and public relations
- Competitive intelligence
- Prospecting and lead generation

Social enterprises collect and analyze social data to support business operations and decision making, yet operations, and customer interactions, are rarely limited to, or even primarily focused on, social platforms. For this reason, we need to consider a more complete definition of the social enterprise and the role BI can and should play, and we need to consider metrics and key per-

formance indicators that go beyond social-only quantities such as number of friends, followers, and *likes*; number of *retweets*, page views, and comments; and number, nature, and growth of online company and brand mentions. These are interesting and useful quantities, but only in

Social business analytics allows organizations to hear and respond to the voice of the customer.

exceptional cases do they represent revenue-generating enterprise outcomes. Visibility, extent of network, and mindshare don't generate profit: sales and cost savings do.

Analysis of measured revenues and expenses as recorded in enterprise operational systems has until now—prior to the emergence of online, social computing—been the province of enterprise business intelligence initiatives. Naturally, a next step is to extend enterprise BI to encompass social interactions, data, metrics, indicators, outcomes and also social methods: *Social BI*. ∎

BI and the Social Enterprise

ENTERPRISES NEAR UNIversally look to business intelligence to support operational, tactical, and strategic decision making, to optimize sales, marketing, manufacturing and logistics, financial management, customer service, and a host of other functions and initiatives. Many of these applications rely on information drawn from corporate transactional and operational systems, information about current and potential customers, business partners, and other stakeholders, in addition to information generated by internal business processes.

BI BOUNDARIES
BI draws primarily on structured databases and data files—on data warehouses, data marts, operational databases, and also spreadsheets and flat files. Conventional BI supports data access, exploration, analysis, and visualization via a variety of tools that include spreadsheets, reports, dashboards, "cube" views, and graphics. Conventional BI capabilities are delivered via desktop and web interfaces and, in recent years, by progressive solution providers, via mobile devices.

Conventional BI has been slow, however, to embrace unconventional data and sources: network data, text and rich media, clickstreams and other high-velocity data. Even uptake of location and time-series analytics—the ability to crunch geospatial and time-varying data—has been slow despite rapidly growing data availability, accelerating with the proliferation of sensors and mobile devices.

The picture is changing, however, as BI evolves to cover unconventional data sources that enable enterprises to:

- Bring social data to enterprise analyses,

- Front-line existing analytical data stores to support social-platform customer engagement,
- Permit social sharing of BI and net-worked, collaborative BI, and
- Expose enterprise data resources for community and partner use.

SOCIAL-ENTERPRISE COMMON GROUND

A first step toward *Social BI* should be to find online and enterprise common ground. Consider the questions: What online information can improve enterprise outcomes, and where can that information be found? Further, before we can assess possible social-enterprise analytical integration points, we need to understand what insights organizations are already deriving from social data. (Study readers are very likely already familiar with the application of BI to derive business insights from conventional enter-prise information sources, from data collected in transactional and opera-tional systems.) And we need to understand where and how to join analyses, creating insights uniquely enabled by an enterprise-*social* bridge.

The premise is that, for instance, the volume and tone of online brand mentions, and in particular senti-ment attached to product and serv-ice features, are linked to design and quality, customer service, marketing

> **We need to understand where and how to join analyses, creating insights uniquely enabled by an enterprise-social bridge.**

and advertising reach and effective-ness, and other managed, data-gen-erating business processes, and that we can generate analytical lift— more complete, accurate, and useful results—when we extend analyses.

A further step, beyond data, met-rics, and analyses, is to explore how analytical methods can be improved via the adoption of *social* practices that include sharing, collaboration, and community building.

These points, these needs, are considered in this study. ∎

The Study

THE BALANCE of this report covers the study done to elicit views about the themes explored to this point. The study consisted of a survey conducted between late July and mid-September 2011. The questionnaire had twenty-one questions as follows. (Response options are not shown here but will be listed in the Study Findings section that follows.)

1. Does your organization use official corporate accounts or pages on [any of a list of social platforms]?

2. Does your organization use, internally, a non-public [social platform]?

3. Which of the following [list of] public/community platforms do you, personally, use *for work purposes*?

4. Does your organization use social media, externally, for [any of a list of business needs]?

5. How does your organization track social-media mentions of its brands, competition, and/or concerns? Choose [from a list of business uses].

6. How does your organization quantify the value of its social presence? Choose one or more [of a list of approaches].

7. How important or beneficial is having an official, organizational social-media presence?

8. Does your organization use a social-media listening or analytics platform, that is, services (usually hosted software) that, in their basic forms, allow you to track and compute statistics for keywords mentioned on social platforms?

9. If your organization uses a social-media listening or analytics platform, how useful or effective is it?

10. Does your organization use web

analytics software, that is, allowing you to track and compute statistics for use of your own websites?

11. Does your organization use business intelligence (BI) software, software that supports analysis of operational and transactional data to support business decision making?

12. Does your organization's BI software allow users to post BI objects—reports, tables, charts or other visualizations—online to blogs, web pages?

13. What "signals" would your organization like to derive from social media, or match to social-media postings, that you currently can't?

14. Does your organization's BI software support?

15. Does your organization use text-analytics software or services, that is, to automate processing and analysis of "natural language" or "unstructured data"?

16. What is your *best estimate* of your organization's July 2010 and July 2011 monthly spending (U.S. dollars) on software, services and staff related to:

- Online presence, e.g., websites, official use of social media for customer engagement.
- All forms of marketing, advertis-

ing, and public relations, social and traditional.
- Online monitoring and analysis, of brand mentions, for competitive intelligence and market research.
- All forms of BI and analytics.
- Customer/product support via social/online platforms ("Social CRM").
- Total customer/product support via all touchpoints.

17. What are the top three benefits you see in incorporating social data in BI analyses?

18. What are the top three biggest challenges you see in incorporating social data in BI analyses?

19. Comments? What are the most useful/lucrative aspects of combining social tools, data, and methods and BI, and what are the pitfalls? What guidance would you offer to others?

20. What is your primary job function?

21. In what industry do you work?

METHODOLOGY AND TOOLS
This survey should be considered qualitative, for heuristic purposes, an aid in a discovery process that will guide organizations in their social-BI implementations.

FIGURE 1: Geographic Distribution of Respondents

The sample design was not scientific, not designed to provide a statistically accurate picture of the business population. No selection of respondents was conducted, and qualifications or restrictions were placed on responses. Responses to questions about respondent background will help readers in understanding any skew seen in results.

TechTarget conducted the survey with the SurveyGizmo online tool. There were 283 complete survey responses and 261 partial responses. The graphic above gives an idea of the geographic distribution of respondents as discerned by IP address. (Clearly the projection used misplaces, toward the equator, locations with high northern or southern latitude.) Analyses draw on all 530 responses, but not on the large number of abandoned survey sessions. All questions included a "Don't know" option; the count of

those selections is not included in the totals from which selection percentages are computed.

The author did basic tabulations and charts in Excel and further analyzed survey responses with Super-CROSS, a data-analysis and visualization tool, part of the SuperSTAR suite from Space-Time Research of Melbourne, Australia (www.space-timeresearch.com). The author is grateful to STR for allowing use of the software for this report.

The author created many of the graphics in the following report section with ManyEyes, "An experiment brought to you by IBM Research and the IBM Cognos software group" (http://www-958.ibm.com/software/data/cog-nos/manyeyes/visualizations/). ManyEyes is a free online tool that allows the public to upload and analyze data and share visualizations. ∎

Study Findings

THE FOLLOWING is a presentation of study findings and a number of conclusions. The survey starts with basic questions, essentially, Who's using social media for business purposes and for what purposes? Is business social-media use worthwhile? It then asks about analytics use, both tied to social analyses and not, and about the business insights that respondents (would) look to derive from social analyses. The remainder of the survey is qualitative, an exploration of top benefits and challenges in *Social BI* and an invitation to respondents to provide guidance drawn from experience. The Findings section concludes with charts on respondent job function and industry.

BUSINESS USE OF SOCIAL PLATFORMS: CORPORATE AND PERSONAL
A pair of questions contrasts offi-cial, corporate and personal use of social platforms, worded as follows with the number of responses (other than "Don't Know") in [square brackets]:

Q1: Which of the following does your organization use official corporate accounts or pages on? [n=507]

Q3: Which of the following public/community platforms do you, personally, use for work purposes? [n=529] See figure 2 for chart of responses.

SEE **FIGURE 2** FOR CHART OF RESPONSES.

Interestingly, personal business blogging, Facebook, and Twitter use lags official, corporate business blogging, Facebook, and Twitter use.
These questions were designed to baseline business social-platform utilization—a majority of respondents and of companies they represent use social platforms—in conjunction with a third question, which
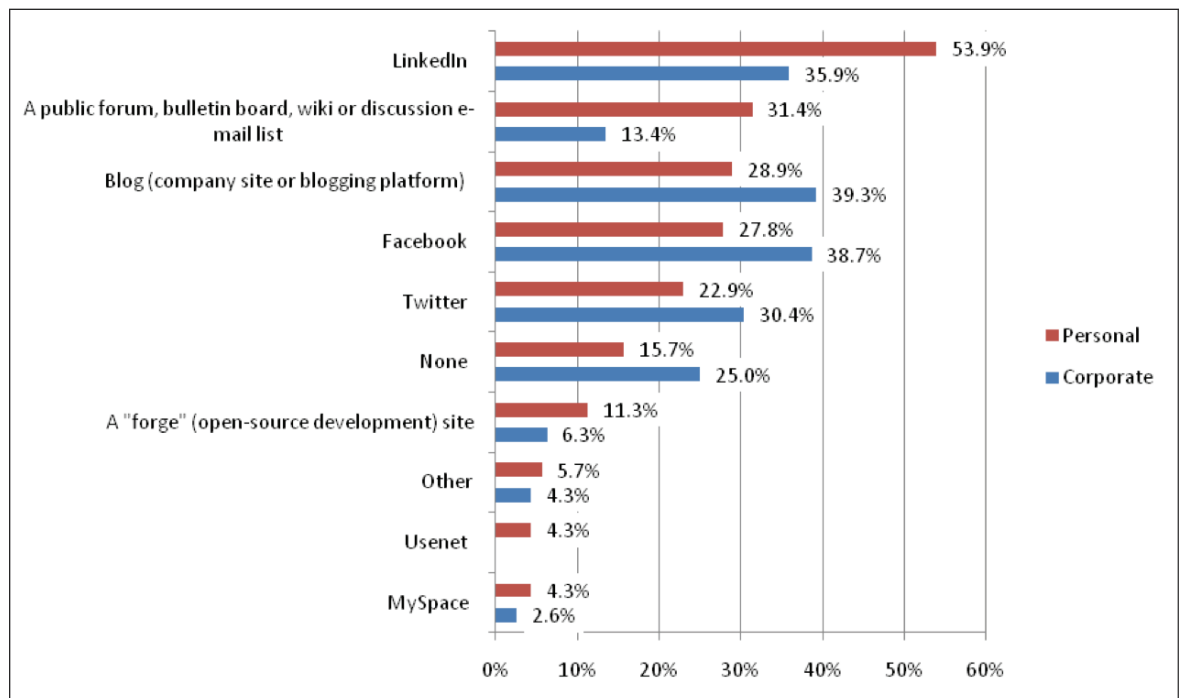
FIGURE 2: Use of Social Platforms

looks at internal corporate use of social platforms:

Q2: Which of the following does your organization use internally (not for public consumption)? [n=501]

SEE **FIGURE 3** FOR CHART OF RESPONSES.

These are not impressive rates of internal social-platform use, but then it is understandable by anyone who has been watching enterprise "knowledge management" efforts, which after decades have not proved value sufficient to prompted widespread enterprise adoption, that optional, ad hoc (rather than organized) corporate social communications would likely be the rule for enterprises.

BUSINESS SOCIAL APPLICATIONS
A variety of questions explore business social applications, as reported in the section that follows.

Q4: Does your organization use social media, externally, for ...? [n=482]

SEE **FIGURE 4** FOR CHART OF RESPONSES.

These responses mix marketing and operational use cases, ones that study social-media patterns and ones that use social media as an engagement channel. The responses do indicate a breadth of corporate social applications. That only one-fifth of respondents report that their organizations do not use external social media is encouraging.

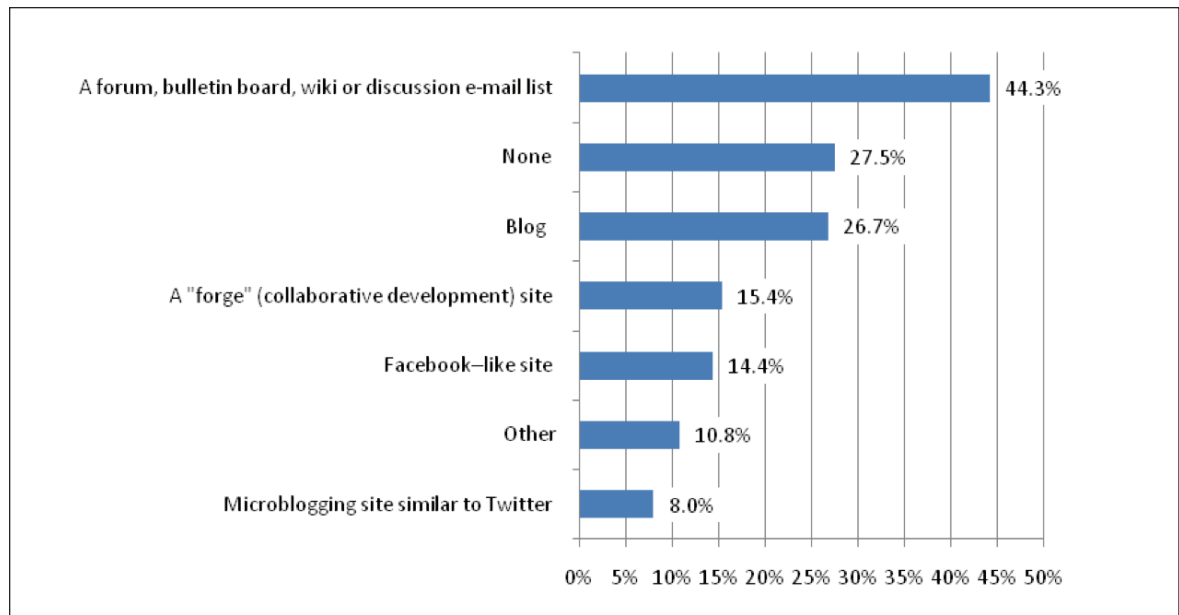FIGURE 3: Internal Corporate Use of Social Platforms
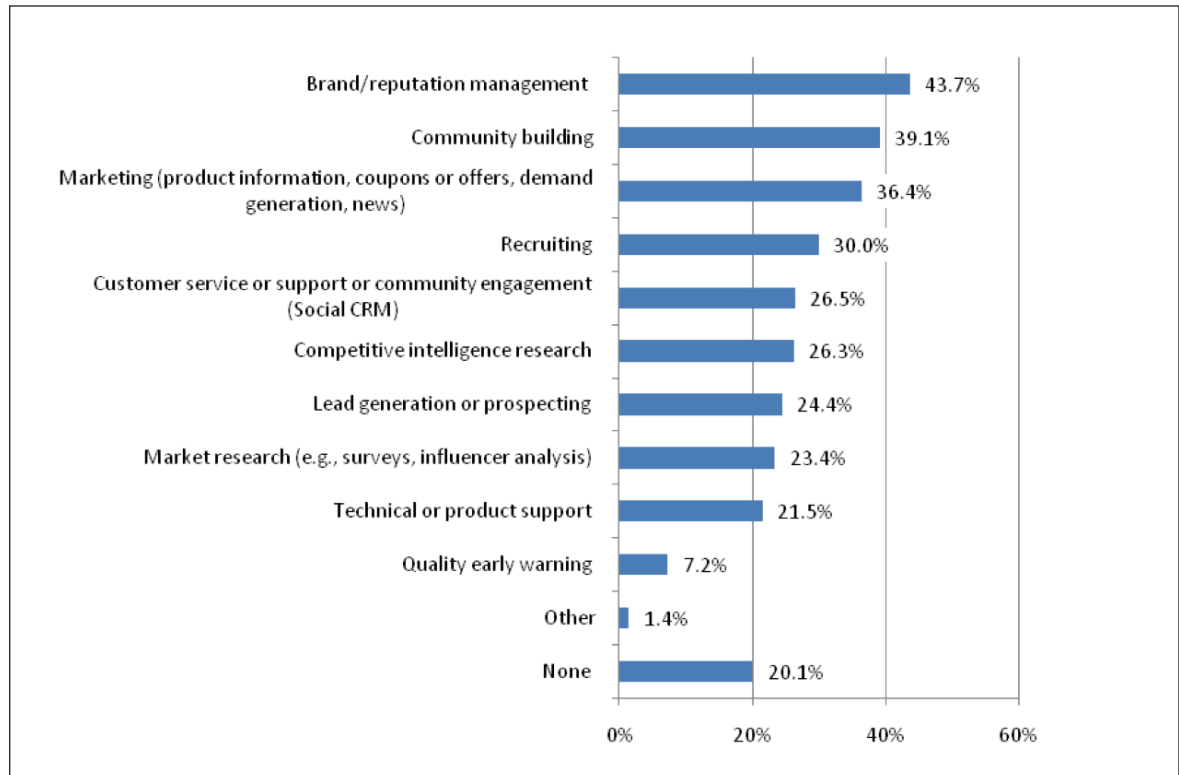
FIGURE 4: How Organizations Use Social Media Externally

How do organizations use social media?

- They may study what the public or stakeholders post to social platforms.
- They may put out their own information and wish to know what reaction is engendered.
- They may engage on a one-to-one basis, communicating privately over social channels even if not publicly.

With 43.7% as reported in the chart in Figure 4, brand/reputation management is the number one reported use according to this study. (Competitive intelligence research and lead generation/prospecting also involve studying social postings.) So the question arises,

Q5: How does your organization track social-media mentions of its brands, competition, and/or concerns? [n=382]

SEE **FIGURE 5** FOR A CHART OF RESPONSES.

Brand and competitive tracking should be seen as a form of business intelligence, even though driven by unconventional data. (Conventional BI is draws from enterprise operational and transactional systems.) Now we consider social presence, which describes organizational use of social platforms, whether for information dissemination, community building, or
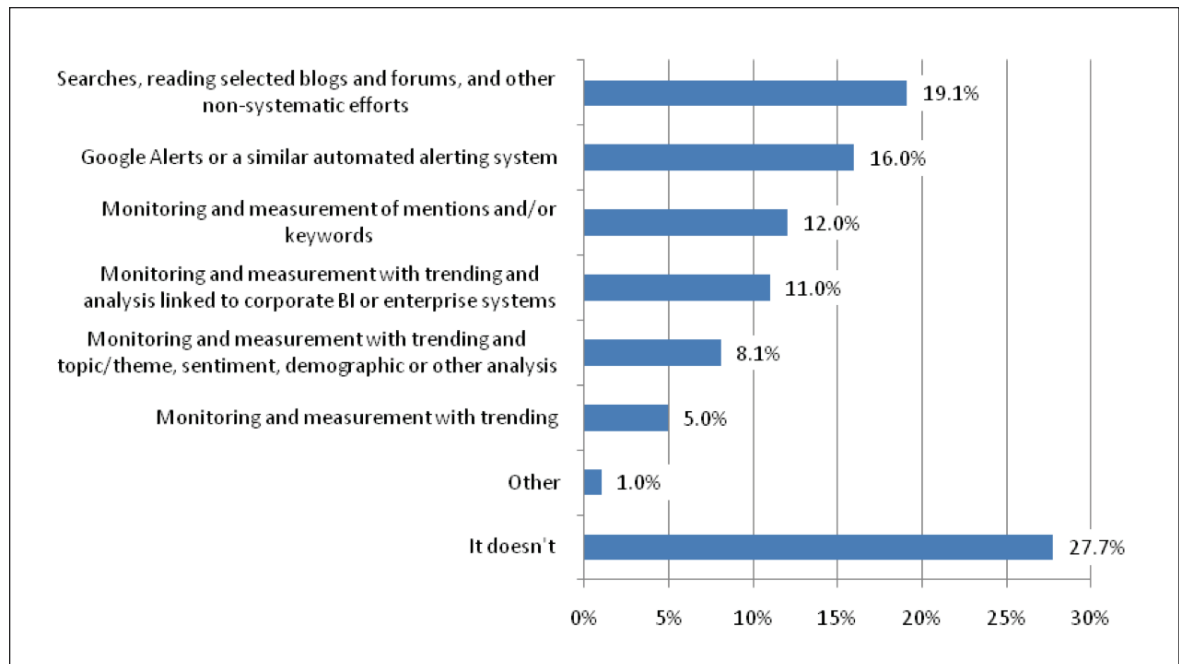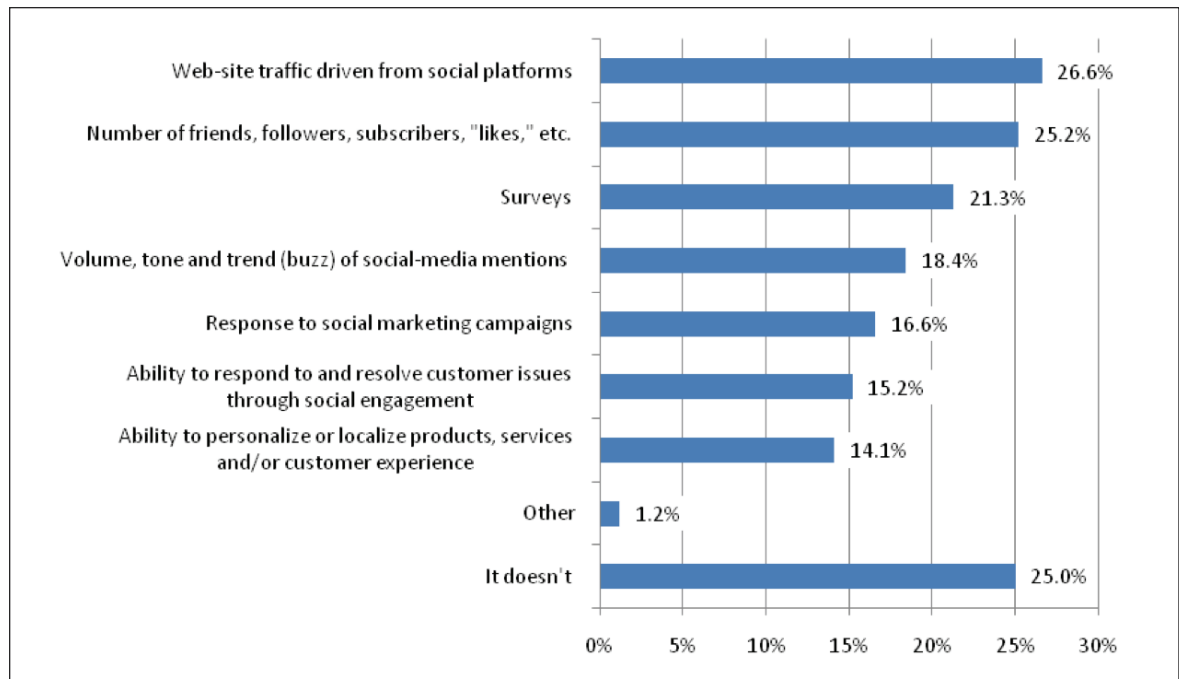
FIGURE 5: Methods Used to Track Social-Media Mentions

Web-site traffic driven from social platforms	26.6%
Number of friends, followers, subscribers, "likes," etc.	25.2%
Surveys	21.3%
Volume, tone and trend (buzz) of social-media mentions	18.4%
Response to social marketing campaigns	16.6%
Ability to respond to and resolve customer issues through social engagement	15.2%
Ability to personalize or localize products, services and/or customer experience	14.1%
Other	1.2%
It doesn't	25.0%

FIGURE 6: How Social Presence is Quantified

one-to-one engagement. These uses are operational in nature and the insights they generate, together with the data collection and analysis processes, should also be considered BI. So we ask,

Q6: *How does your organization quantify the value of its social presence? [n=397]*

SEE **FIGURE 6** FOR A CHART OF RESPONSES.

Is a social-media presence—rates and applications reported in Figure 6—important? We ask,

Q7: *How important or beneficial is having an official, organizational social-media presence? [n=488]*

SEE **FIGURE 7** FOR A CHART OF RESPONSES.

Further analysis shows, however, that if we limit to respondents who currently use BI software that extends analyses to social data, fully 50% see having an official, organization social-media presence as extremely beneficial.

Two questions address the utilization and perceived effectiveness of social-media listening/analytics platforms:

Q8: *Does your organization use a social-media listening or analytics platform, that is, services (usually hosted software) that, in their basic forms, allow you to track and compute statistics for keywords mentioned on social platforms? [n=287]*

and

Q9: *If your organization uses a social-media listening or analytics platform, how useful or effective is it? [n=43]*

SEE **FIGURE 8** FOR A CHART OF RESPONSES.

As can be seen from Q8 responses shown in Figure 8, both utilization rates (as shown), at only 15%, and also awareness rates (over 201 responded "Don't know" and another hundred did not respond to this question) are low. A count of 44 responded that their organization is using a social-media listening or analytics platform, and 43 of those 44 responded to Q9 with no negative experiences in their platform use.
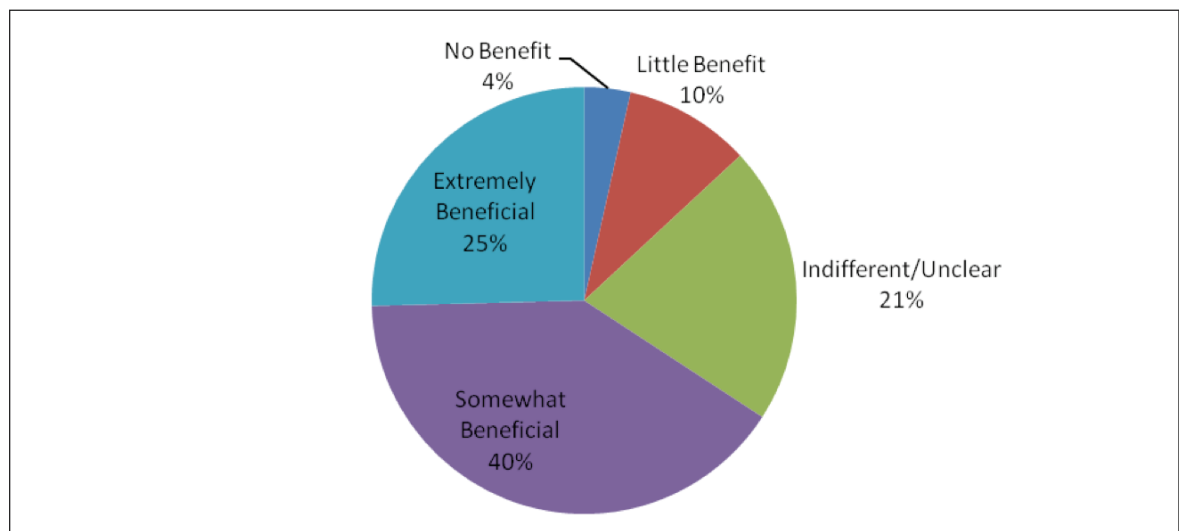
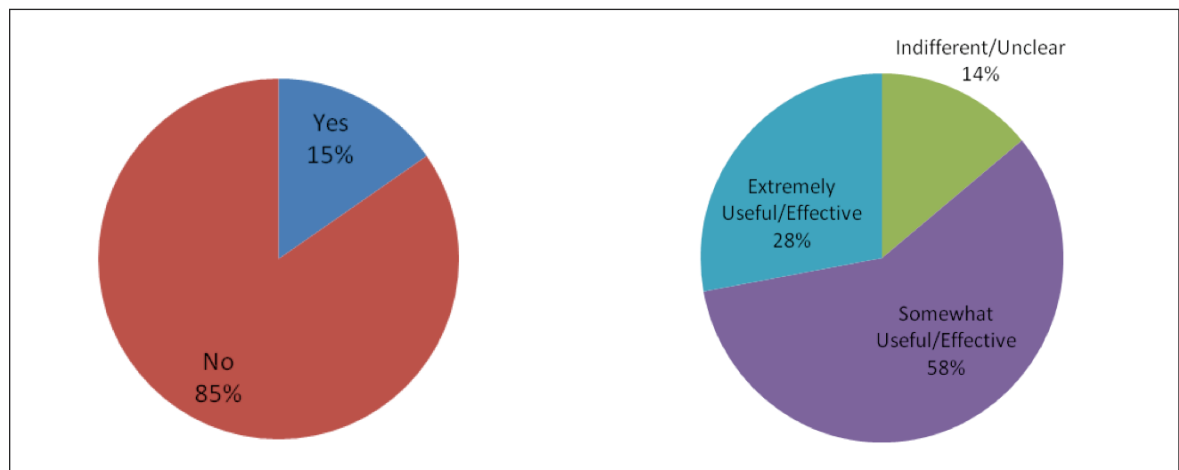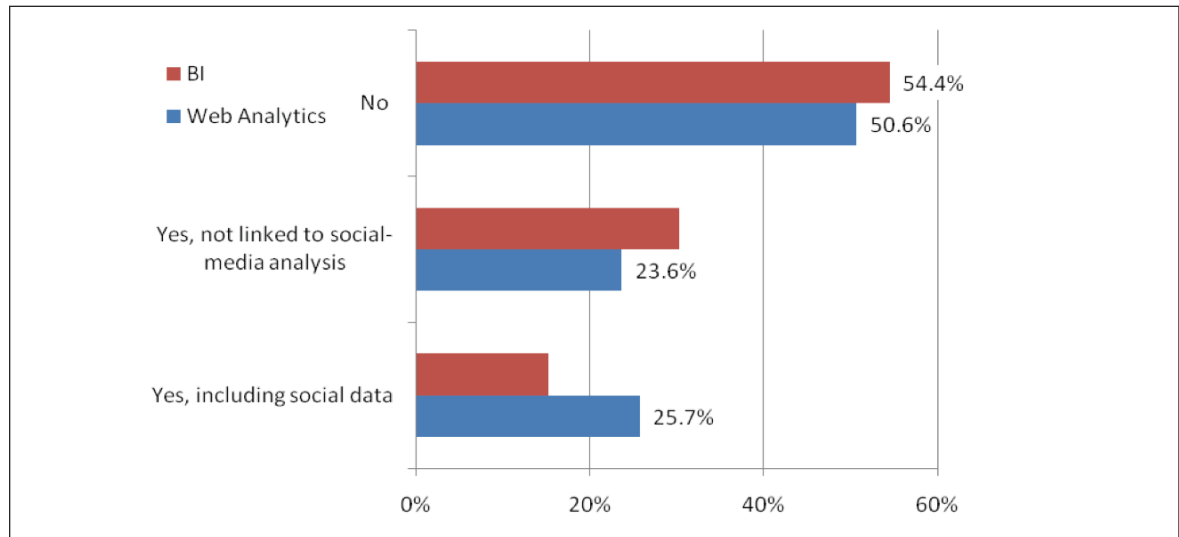*FIGURE 7: Importance of Having an Official, Organizational Social-Media Presence*

FIGURE 8: Utilization and Perceived Effectiveness of Social-Media Listening/Analytics Platforms

FIGURE 9: Enterprise Analytics Use

Of the minority of respondents whose employer is using a social-media listening or analytics platform, the vast majority see the platform as at least somewhat useful or effective.

BUSINESS/WEB ANALYTICS UPTAKE AND THE SOCIAL LINK
Two questions look at enterprise analytics use—at web analytics and BI—including whether analytics is linked to social data.

Q10: Does your organization use web analytics software, that is, allowing you to track and compute statistics for use of your own websites? [n=237]

Q11: Does your organization use business intelligence (BI) software, software that supports analysis of operational and transactional data to

support business decision making? [n=281]

Fewer than half of organizations use either web analytics or BI according to responses. This figure is surprising, particularly for BI, given that survey outreach relied heavily on BeyeNETWORK channels.

SEE **FIGURE 9** FOR A CHART OF RESPONSES.

BI MODES
Next we look at BI modes: whether software supports online sharing, what business "signals" organizations (would) look for in social sources, and the extent of support by BI software used for extended information types, text analytics in particular.

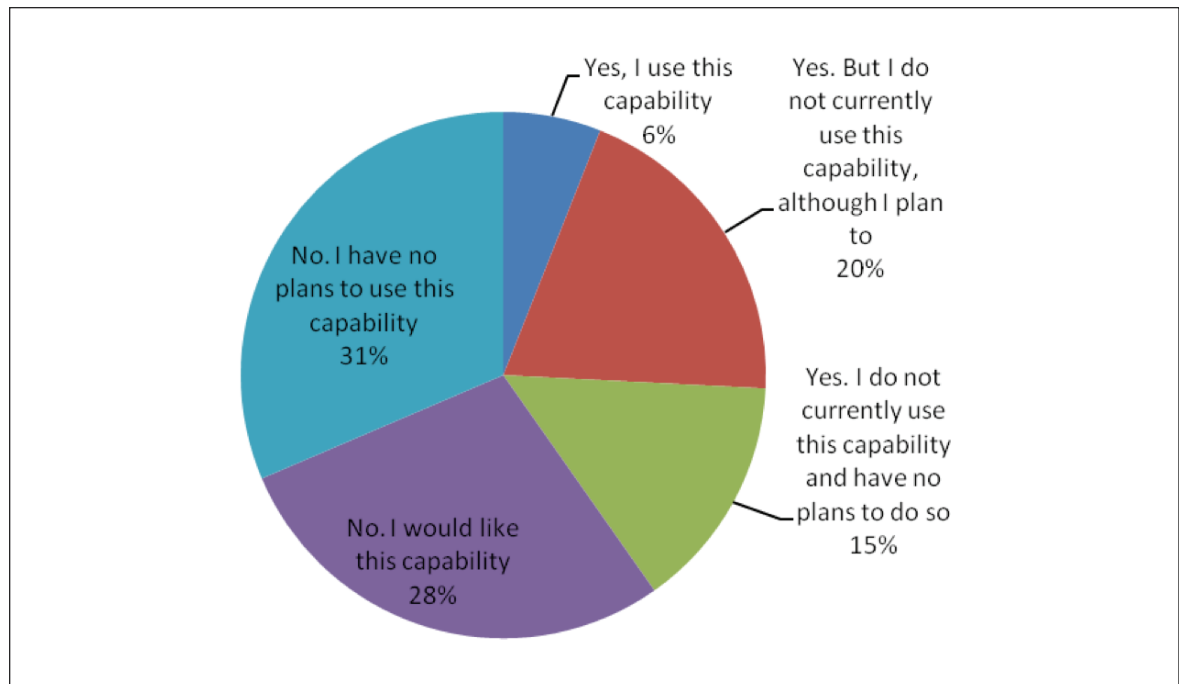The first BI modes question—and the assumption is that respondents

FIGURE 10: Online Sharing of BI Objects

have in mind BI on conventional sources, on operational and transactional data—is:

Q12: Does your organization's BI software allow users to post BI objects— reports, tables, charts or other visualizations—online to blogs, web pages? [n=283]

SEE **FIGURE 10** FOR A CHART OF RESPONSES.

Forty-six percent of respondents are uninterested in online BI sharing! It is important to note that sharing is the first step in online BI collaboration, so by extension, close to half of respondents are not interested in online BI collaboration.

How would BI extend to online information? What business drivers do/would respondents seek in social sources?

Q13: What "signals" would your organization like to derive from social media, or match to social-media postings, that you currently can't? [n=295]

SEE **FIGURE 11** FOR A CHART OF RESPONSES.

It is illuminating to look at relationship ratios, crossing Q6 (X-axis, across) and Q13 (Y-axis, down) responses: which desired "signals" match disproportionately with which methods of quantifying social media presence?

The graphic shown in Figure 12 was produced with the SuperCROSS data analysis tool. Yellow cells have a higher-than-expected relationship
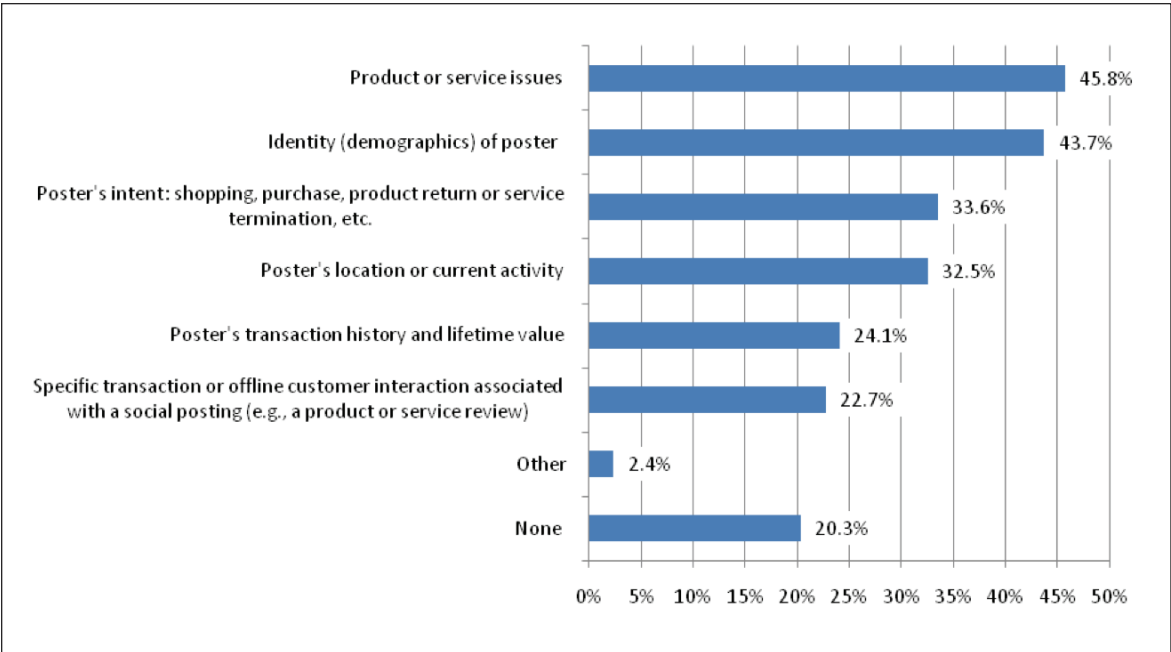
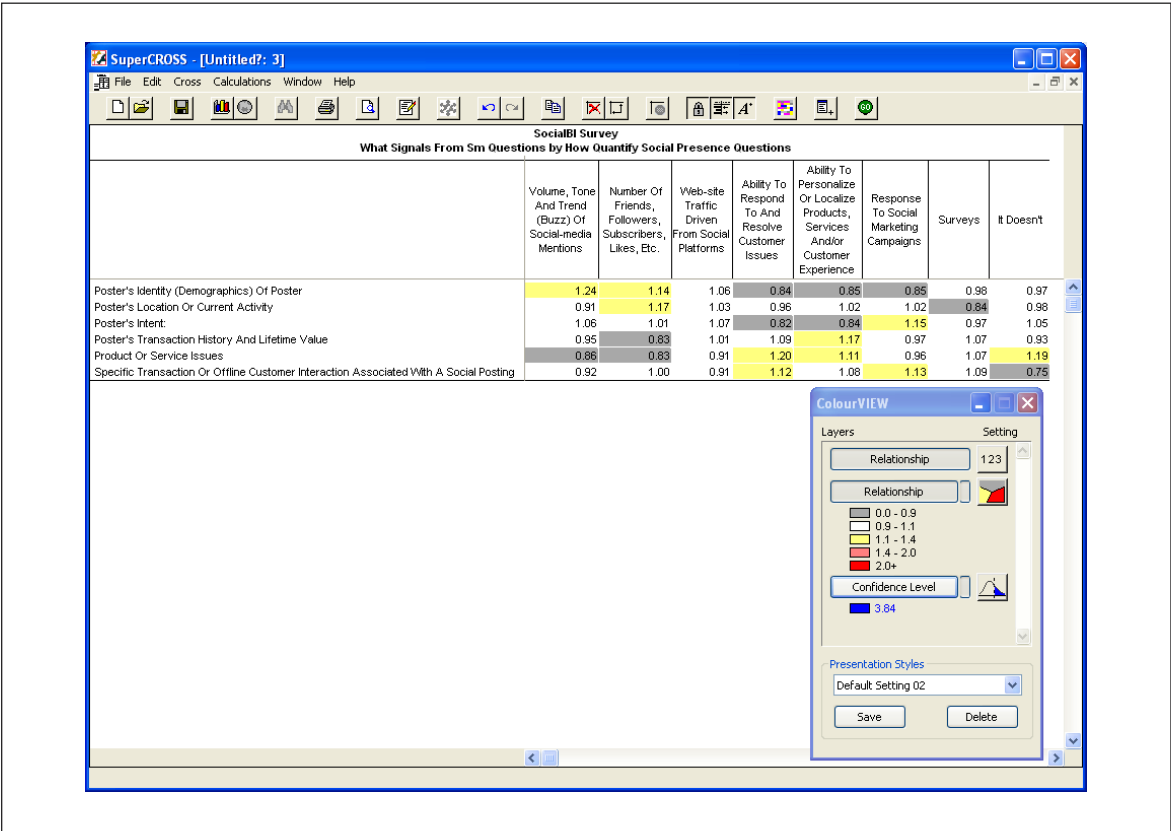*FIGURE 11: Business Drivers Sought in Social Sources*

FIGURE 12: Relationship Ratios

ratio and grey cells indicate lower-than-expected relationships.

So we see, for instance, that:

- Organizations that measure social success by "ability to respond to" and "resolve customer issues" disproportionately prize being able to detect product and service issues and ability to find the specific transaction or offline customer interaction associated with a social posting.

- Organizations that measure social success by "ability to personalize and localize" prioritize ability to find "poster's transaction history and lifetime value" and "product or service issues."

- Organizations that measure "response to social marketing campaigns" need signals that include "poster's intent" (e.g., to make a purchase or product inquiry) and,

again, specific transaction or offline customer interaction.

- And tellingly, organizations that don't measure their social presences would like to start with socially posted "product or service issues" and are least interested in a more complicated signal, "specific transaction" or "offline customer interaction."

Moving on to the next question:

Q14: *Does your organization's BI software support ...? [n=378, 378, 380]*

SEE **FIGURE 13** FOR A CHART OF RESPONSES.

The list of BI vendors *most frequently* cited by respondents, both using solutions for social media analyses (SMA) [n=41] or not [n=63], tabulates as shown in Figure 14.

These figures roughly track BI vendor market shares as reported

	Currently use	Do not use	Unknown	Total
Inclusion of social data in analyses	13.5%	50.0%	36.5%	378
Social-network analysis	14.0%	51.3%	34.7%	378
Social methods such as collaborative development of BI objects (reports, pivot tables, charts)	17.6%	47.1%	35.3%	380

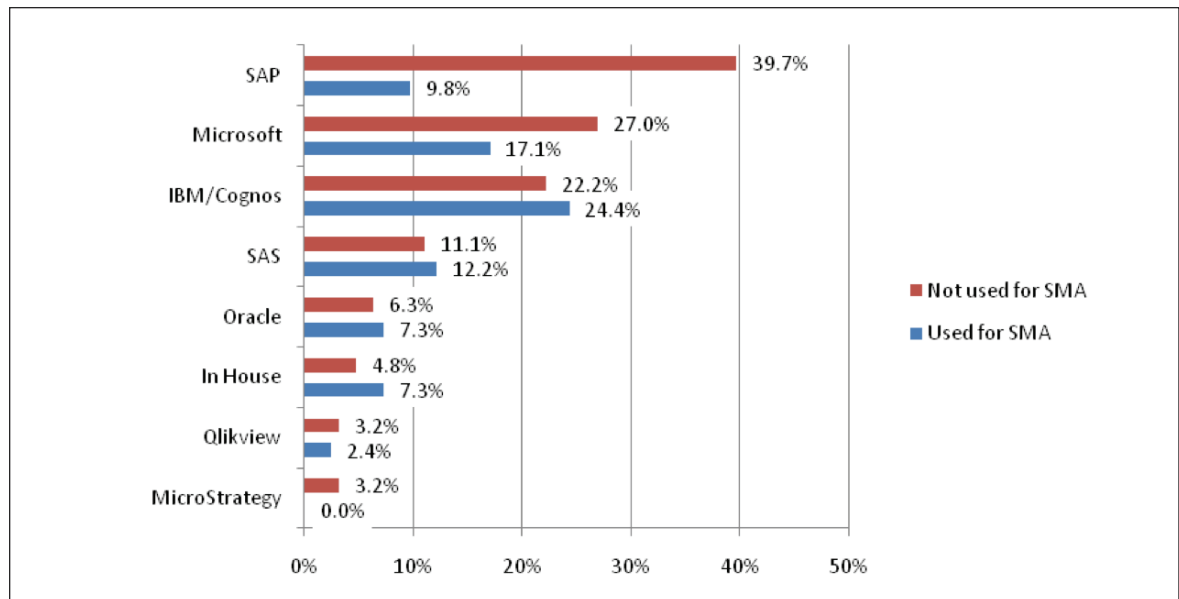*Figure 13: Activities Supported by BI Software*

FIGURE 14: BI Vendor Solutions used for Social Media Analysis

by analyst firm surveys. (Note that a number of the Microsoft responses are for back-end SQL Server Analysis Services rather than for user-facing BI interfaces.) So only a small proportion of BI users are currently bringing social data into their analyses, and those who are use tools from their conventional BI providers.

The next question asked about text analytics,

Q15: *Does your organization use text analytics software or services, that is, to automate processing and analysis of "natural language" or "unstructured data"? [n=249]*

SEE **FIGURE 15** FOR A CHART OF RESPONSES.

Here, 134 out of 383 responses were "Don't know," almost one-third, so clearly awareness of indi-

vidual or department use of text analytics within an organization may exist unknown to others in the organization.

The list of vendors/products provided by respondents, whether using text analytics for social-media analyses or not, was not useful for reporting purposes.

SPENDING SIGNALS

Spending—current and planned—is a strong indicator of true interest and intent relating to an emerging technology. Survey question Q16 effectively asked: To what extent have you "put your money where your mouth is"?

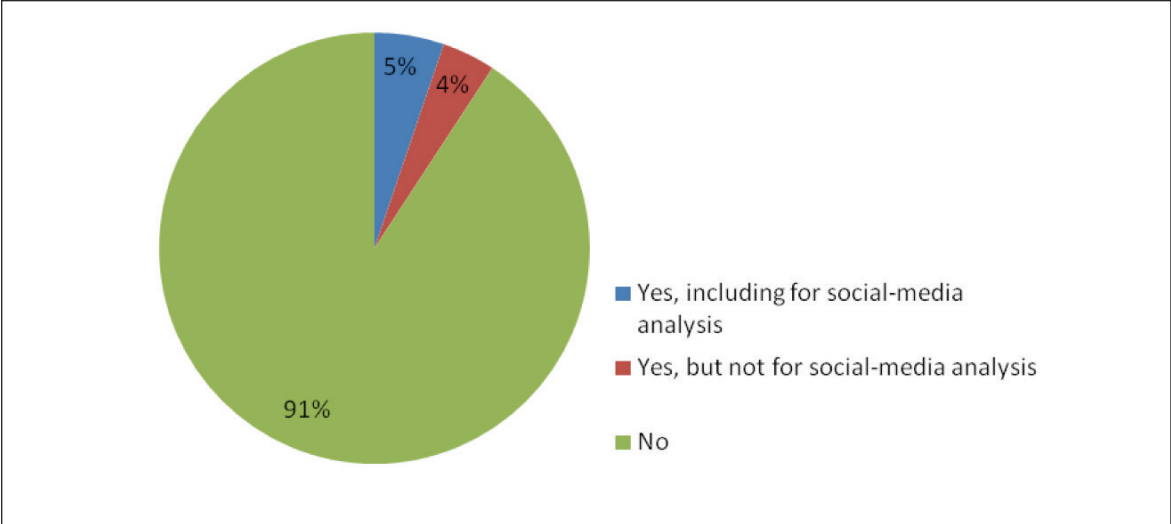**Q16:** *What is your best estimate of your organization's July 2010 and*

FIGURE 15: Use of Text Analytics Software or Services

July 2011 monthly spending (U.S. dollars) on software, services, and staff.

Unfortunately, most of the 80 responses were only partial, addressing some but not all or even most of the line items, and the response characteristics render them not usable for analyses.

TOP 3 BENEFITS
The following survey question—

Q17: *What are the top three benefits you see in incorporating social data in BI analyses?*

—is that first of three that looks for qualitative, textual responses. Our analysis looks first at most frequently

FIGURE 16: Most Frequently Used Words

FIGURE 17: Words Following "Understand"

used words. In the graphic shown in Figure 16, which was produced with IBM's ManyEyes tool, size of the word corresponds to usage frequency. Orientation (horizontal and vertical), spatial arrangement, and font color are not relevant.

Another ManyEyes visualization, Figure 17, a word tree, shows the words that immediately follow the word "understand." Graphical size of the following words is in proportion to frequency of use: "customer" appears after "understand" four times and "what" appears three times.

Figure 18, a word net visualization centering on "customer," shows a network of related terms and concepts.

TOP 3 CHALLENGES

We use another word cloud in Figure 19 to render free-form responses to the following question:

Q18: What are the top three biggest challenges you see in incorporating social data in BI analyses?

Again, responses speak for themselves. Challenges respondents see include information content, analytical possibilities, cost, security, understanding, handling of "unstructured" inputs, quality, value, and so on.

The word net graphic, shown in Figure 20, explores concerns connected to "social," with significant subnets for "social data" and "social media."
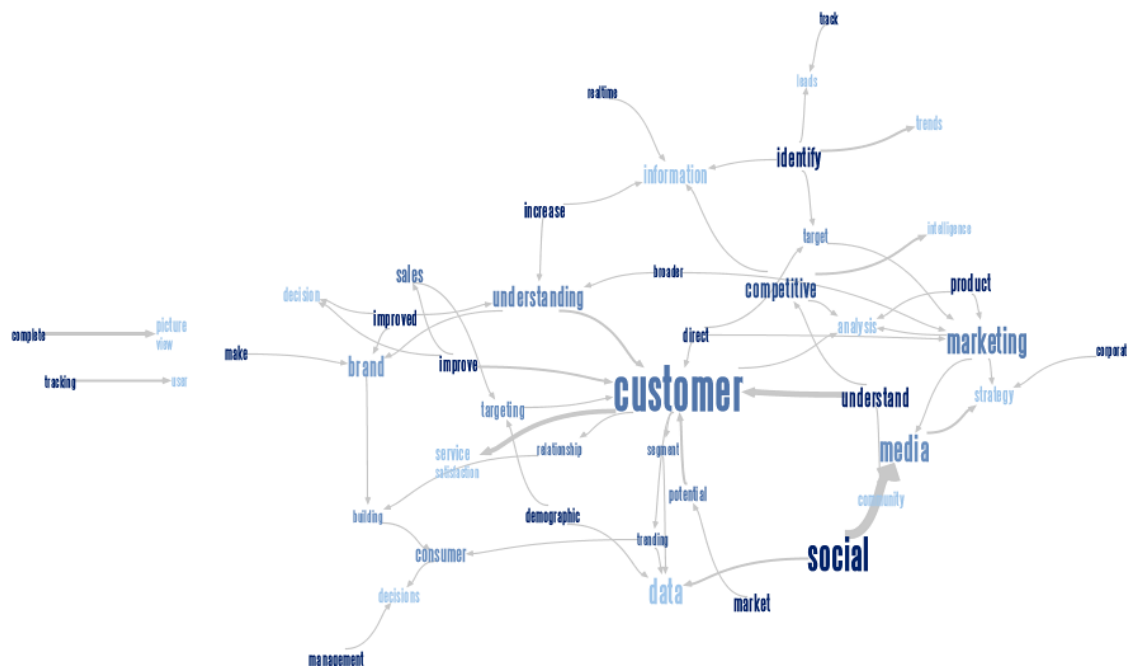
FIGURE 18: Terms and Concepts Related to "Customer"

COMMENTS AND GUIDANCE

There were many comments/ responses to the following questions:

Q19: Comments? What are the most useful/lucrative aspects of combining social tools, data, and methods and BI, and what are the pitfalls? What guidance would you offer to others?

The sections that follow group selected comments into a number of categories and report them verbatim, albeit edited to correct spelling, make them more readable, and create an interpretation where the language was ambiguous. Vagaries in grammar were left in where they did not make meaning unclear.

Reservations

- [It's] still early days for social BI—limited market, mainly for consumer-led apps.
- I don't believe it is worthwhile.
- I have not come across a tool or set of tools that can provide the functionality and quality reporting to social media analytics and intelligence.
- [There is] too much information sometimes.
- It is accurate information, only if you ask the right questions?
- [It is difficult to obtain] action-able information correlating social-network data with actual customer information.
- We are adopting a "wait and see" program, checking monthly on

FIGURE 19: Biggest Challenges

any new developments as they reflect our goals.

No reservations!
- Being able to reach more people.
- To be in touch with more customers is the most lucrative aspects of all this process.
- [You benefit by] extending the enterprise boundaries, the capability to include and engage customers and employees interactively for service improvement.
- It is a must for today's global market.
- Products [will be] more focused.
- BI can gain a lot from social tools, like sharing, bookmarking, "like," etc. Additionally, social data can enhance BI data.
- Reaching a large audience for free, [but it is] hard to measure ROI. Go for it!

Pluses and Minuses
- The main advantage would be that it gives you a full picture of internal and external data, which can be analyzed together. The pitfall is to put all this together and to filter it so it can be relevant and easy to use.
- Can greatly increase the personal level of relationship with customers/prospects/partners, and facilitate greater understanding of our market. Takes some of the formality and cost out of traditional marketing. The pitfalls are in relying on it too heavily, as these tools are not in global use; you are getting just the segment that is active in these arenas. I also tend to believe that people participate more actively when they have negative feedback, so that can skew the view of public opinion. I say take it one

FIGURE 20: Concerns Connected to "Social"

step at a time, keep active with per-sonal face-to-face dialog with your market, and trust your gut.

- Better view of activity. Pitfalls: Privacy concerns. Develop a security plan first.
- You get an immediate return without a big budget. You can experiment new ways of reaching the intended audience and can create a fan following with all the alerts and widgets in social networking sites. The pitfall is that if the individuals on social networking sites think it is cool to do something stupid they would do it just for the fun of it. This would obviously give inaccurate BI results.
- The best use of BI in social is to understand the ever changing behavior of persons or groups. An

estimate can be drawn based on historical data but can never be projected as it is not certain or may not persist forever. The main disadvantage of using BI in product for social communication and online use is that we are streamlining the taste or behavior of persons or groups. It means that more and more we incorporate BI analytics, we will tend to not only analysis and assist but also enhance the system to guide the community. When people get use to this kind of system, they behave in an orderly fashion without much variation in their communication and which may extend to their day to day activity. As a software development company or research institute in BI may definitely see some major

challenges to understand and build the system, but after some time the scope will be diminished to such an extent that there will be no more activity to be left to cover, since I believe in chaos you get more space to explore that stagnant environment.

- Most useful is that communications becomes more routine and faster. Most concern is that it can be impersonal and brevity may lead to confusion of intent or tone.

- Getting deeper demographics is the plus, trusting the data is the minus.

- The main advantage would be that it gives you a full picture of internal and external data, which can be analyzed together. The pitfall is to put all this together and to filter it so it can be relevant and easy to use.

- More data is gathered so company is data rich and [has the] potential of winning more customers. Issues are: Metadata management, data loading reliability, security, and data integrity.

- Pitfalls: In many areas, it is simply a solution in search of a problem where one doesn't exist. [Social media use must not] be construed as an invasion of privacy/big brother.

- Align to target audience need. Pitfalls: Are responses actual or casual? [You] miss out many [stakeholders who] are not using social media.

- Better proximity to customer, brand awareness, customer, loyalty, increased sales / revenue, customer retention and generation etc.

- Being able to assess [what grabs] public attention; loads of noise to filter through.

- Don't believe all you read (verify, then trust).

- To get more customers is the most lucrative aspect of that purpose. To spend too much time looking for business solutions is the pitfall of that.

- To make direct focused campaigns. Pitfalls: social acceptance of it.

- Resource allocation, the reliance on others throughout the organization to understand requirements, and to be able to change course rapidly and effectively when the need arises (e.g., economy, competition, etc.) respectively.

- [Good for] niche marketing; be really good at categorizing the answers.

- Exposure can be good for generating leads—however *unqualified* leads can waste a lot of time.

- At a guess, real time monitoring of brand image, customer satisfaction and corporate following. Pitfalls, possibility of very negative feedback exposed to the wider market, Guidance, with industry experts, risk assess mechanisms and applications in identifying, implementing and managing

social media concepts.
- Pitfall is that most of the cost is not measured, because it's people's time that could be invested elsewhere.
- [You are] able to get closer to the customer to get a better feel of customer expectations, May be able to draw false conclusions from bad data
- Publicity will be great, with a risk of security.

Guidance: Process, data & tools
- Know your market and your customers and don't expect miracles.
- Research thoroughly and take relevant security measures.
- Requirement gathering should be done accurately.
- Get the overall picture.
- Build a good action plan before starting anything.
- Not everyone uses social tools to interact. Understand the demographics. Be patient and be willing to train staff on how to use the tools that you expect patrons are using.
- Know what you expect to gain and how you plan to achieve those goals prior to getting "dirty"
- Be purpose orientated.
- Clearly define your outcomes; otherwise you could be swamped with unnecessary 'noise.'
- Focus on other areas that bring more bottom-line benefits. This is still peripheral and emerging.

- Wide data brings better decisions.
- Include unsolicited feedback.
- [Compare] data trends versus opinions of product users.
- Why use social marketing if you are not going to track it? You must invest in the proper tracking methods or you are just shooting in the dark.
- Understand what is being measured, attain the best tools to measure and get buy in for senior management.
- Have an interdisciplinary team set up the tool and analyze the responses.
- Need to have good analytics with social objects and collection of data also very important.
- Understand and evaluate the information gained from social media reporting BEFORE acting on perceived results.
- Keep it simple, get used to it.
- Just do it!

PROFILE OF RESPONDENTS
A summary profile of respondents will help you assess findings reported here. We asked:

Q20: What is your primary job function? [n=322]

SEE **FIGURE 21** FOR A CHART OF RESPONSES.

Of those who responded to the profile questions, over 55% work in information technology, software, or

data systems. Respondents do represent a broad variety of industries although information technology is overrepresented:

Q21: *What industry do you work in? [n=322]*

SEE **FIGURE 22** FOR A CHART OF RESPONSES.

Two industry categories, "Hospitality or Travel" and "Marketing, Public Relations, or Communications" are notably underrepresented in Q21 responses. Industries in each of these categories are very heavy social-media users. Several industries in these categories are

	Count	Percent
Sales, marketing, or business development (executive, manager, or staff)	72	22.4%
Human resources (executive, manager, or staff)	4	1.2%
Other line-of-business (executive, manager, or staff)	22	6.8%
Software or data-systems architect, developer, engineer, or manager	76	23.6%
Information technology support or other IT (executive, manager, or staff)	105	32.6%
Agency, consultant, or systems integrator	12	3.7%
Writer or industry analyst	6	1.9%
Other	25	7.8%

FIGURE 21: Primary Job Function of Respondents

	Count	Percent
Academia or Education	23	7.1%
Computing or Internet	39	12.1%
Entertainment	4	1.2%
Financial Services	27	8.4%
Government	29	9.0%
Healthcare—Clinical or Research	18	5.6%
Hospitality or Travel	1	0.3%
IT or Business Services	91	28.3%
Manufacturing, Transportation or Logistics	25	7.8%
Marketing, Public Relations or Communications	3	0.9%
Retail or Wholesale	17	5.3%
Telecom	12	3.7%
Other	33	10.2%

FIGURE 22: Respondents' Industries

also significant BI users, with public relations and communications exceptions. The author surmises that this survey did not reach social-media users in these categories.

CONCLUSION

Only a minority of organizations are using leading social platforms for business purposes, and most that do are using only basic analytical methods to track social-media mentions and to quantify the impact of social-platform presence and engagement. A determined minority use BI tools for social analyses, and few use the text-analytics tools that are a *must* for organizations that wish to automate analysis of online content and enterprise feedback. Further only a minority are building social styles into BI processes.

These statements seem pessimistic, but as study findings they are in line with expectations. *Social BI* is in its early days. There is a clear link between social participation and enterprise outcomes. BI will grow to encompass web and social analytics. The *Social BI* question is not *If*; the questions are *When* and *How*. This study has sought and reported findings that begin to answer these questions. ∎

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