



# When Social Media Meets BI

The Impact of Incorporating Social Media within BI Solutions



Data Meaning

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# Introduction

Within the past few years, Web 2.0 technologies have enabled the rapid expansion of social media. As of March 2016, there were 1.65 billion monthly active users on Facebook and 300 million on Twitter. Intuitive functionality and easy-to-use features allow non-technical users to upload photographs, share video clips, and post information with a few clicks of a mouse. Increasingly, Web 2.0 technologies are crossing over from the home to the workplace. Websites such as LinkedIn provide professional networking opportunities, while Yammer and Elgg offer enterprise social networking platforms. In the Business Intelligence (BI) community, the potential benefits of merging social media tools with BI solutions are becoming apparent.

Traditional BI information processing and reporting tends to be centralized and highly structured. The development of BI has been shaped by organizational hierarchies and the predominance of client/server computing. As the Net Generation establishes itself in the workforce, their expectations and experience of open-access, fast-paced, highly-connected communication media are beginning to change how organizations gather and share data. Companies are about to enter a new era of BI. They will need to consider moving away from established command-and-control structures toward collaborative decision-making (CDM) models if they are to engage their workforce, compete effectively, and respond to the changing environment.

In a recent report, Gartner, a global information technology research and advisory company, states, “CDM combines social software with business intelligence. This combination can dramatically improve the quality of decision-making by directly linking the information contained in BI systems with collaborative input gleaned through the use of social software.”

Increasingly, developers of BI solutions are seeking to merge Web 2.0 tools with BI applications to enrich the information available for decision-makers. Open access forums, annotations, tagging, and embedding offer business users the opportunity to augment data to underpin insightful and effective corporate decision-making.

This paper examines the impact of incorporating social media features within BI solutions.

# Advantages of Incorporating Social Media Tools

Traditional BI platforms enable users to augment information and share insights in a linear manner. Users receive reports, add their thoughts and ideas, and forward the information on for further analysis. Information is shared via email attachments or links to a common portal. The majority of portals are designed around a file-based structure, with reports stored in designated folders. These methods of sharing are less than satisfactory due to restricted visibility and limited categorization.

Reports are only shared with those individuals who receive the email attachment or portal link. When an individual adds ideas or comments and saves a new version of the report, it may not be visible to everyone. Various versions may be saved containing different comments, limiting the opportunity for interaction and incremental innovation. Folder permissions can restrict access to information. The need to save a report within a specific folder leads to duplication or limited classification, with each user having to choose one folder category under which to save the report.

Social networking allows for less structured sharing of information. Incorporating social media tools into BI solutions enables immediate interaction and multi-way discussion which enriches the analytical process. Additionally, collaboration takes place within the environment in which the information is held. When the data is visible to all participants throughout the exchange, understanding is enhanced and focus is maintained.

For CDM to be most effective, the social media tools that enable data to be shared and discussed should be fully integrated within the BI application. As data is generated, users have the opportunity to contribute knowledge and insight by annotating reports or initiating a discussion. Tagging reports that contain useful information can increase their visibility to relevant users. Reports can be tagged for multiple categories, making them searchable and easy to retrieve without duplication.

# Key Features

Combining social media features with BI applications enables increased sharing and discussion of information through a number of key features.

## Annotations

When users are generating or reading reports within the BI environment, they can add comments and annotations to provide context to the data. This may include highlighting the date on which a related marketing campaign took place or explaining a peak or trough in the figures by linking it to real-world events. Annotations assist others in understanding and interpreting the data, which makes it more meaningful. Business leaders can be confident that they fully comprehend the information on which decisions are based.

## Discussions

Traditional methods of sharing and discussing information—such as face-to-face meetings, teleconferences, or web-based meetings—rely on participants communicating their immediate thoughts and ideas. Individuals who require time for reflection may be disadvantaged by this format. Ideas which take time to evolve may be lost to the business if there is no mechanism for communication after the meeting has ended. A single, open-access forum enables contributors to post their ideas and to read, contemplate, and augment the suggestions of others.

Open-access discussions can be a useful mechanism for seeking the input of other stakeholders. Integrating CDM tools within the BI environment provides the option to hold discussions in full view of the relevant data. Users can initiate a discussion based on a specific report, or begin a topic-based discussion drawing data from multiple sources. Collaborations can take place around specific products or trends, or to seek solutions to particular problems. It is also possible to instigate general discussions seeking wider input and ideas.

By holding the discussion within the BI environment, participants ensure that contributions retain their context and relevance. Unlike notes taken and reviewed after the meeting has ended, the input is attached directly to the data and is accessible to other stakeholders. The collaboration component within a BI solution automatically creates a record of conversations and discussion threads. This searchable history ensures that discussions progress toward consensus rather than looping around topics that have already been addressed.

## Tagging

In traditional BI solutions, users are often focused on their own function, department, or priority when producing reports. They may be unaware of how the information will impact or benefit other areas of the business. Social media tools allow users the flexibility to tag data contained in reports and discussion histories. Users are not constrained by the format or purpose of the original report or discussion. Tagging enables users to highlight relevant information in a flexible manner, making it easy for other users to search and retrieve useful and usable data.

# Key Features

## Embedding

The ability to embed information contained in a BI solution into other applications is a key factor for ensuring that accurate information is made available to decision-makers in a timely manner. Data can be shared internally, through the organization's intranet or BI application, or externally, via platforms that support JavaScript. An excellent example of this type of information sharing is SlideShare, which enables registered users to upload documents, presentations, and video clips for sharing across the SlideShare network.

When information is embedded it can be viewed and commented on by multiple users. Ideas and suggestions can be shared and discussed in real-time. The focus remains on the data as it can be viewed throughout the interaction. All information is recorded, visible and contextualized, ensuring no ideas or suggestions are lost. Innovation can develop incrementally and everyone remains involved.

## Decisions

The key difference between social networking platforms—such as Facebook and Twitter —and BI tools, which facilitate corporate collaboration, is the requirement for the exchange of ideas and participative dialogue to produce robust, insightful decisions. To deliver a quantifiable return on investment, enterprise networking platforms must include processes that direct conversation towards consensus, decision-making, and action planning. Mechanisms, such as the opportunity to cast a vote on possible courses of action, focus participants on the need for a measurable, actionable outcome.

BI solutions must be capable of supporting timely decision-making that assists organizations to achieve specific, measurable goals and targets. These may include better product introduction or more profitable supply chain.

# Organizational Culture

Businesses typically consist of a departmental structure that makes sense within the organizational context, whether functional, geographic, or product-specific. Departments often have different priorities, drivers and methodologies. In such circumstances, information is likely to be fragmented and stored in department-specific software and databases. Established IT systems and work processes often lack the functionality and flexibility to support inter-departmental working.

Even with the most sophisticated software, a business will not leverage the full potential of CDM unless the organizational culture supports open and honest communication. A hierarchical structure will deter employees from communicating without first consulting their manager. Inter-departmental competition will stifle collaboration. Additionally, employers must foster a culture of equality.

Business leaders need to visibly support collaboration and send a clear message that open and honest discussion is welcomed. By participating in the CDM platform, senior managers can persuade other employees to become involved by modeling the desired interaction. Only senior managers can remove the fear of repercussion that may prevent employees from openly communicating ideas in a visible, recordable forum.

Global organizations can benefit significantly from CDM as it enables them to involve all relevant employees in the collaboration process without the need for expensive and time-consuming travel. Alternative technical solutions requiring real-time participation—such as video-conferencing—involve finding a time convenient to everyone. Quite a challenge when breakfast-time in Los Angeles can be bedtime in Shanghai. Open-access discussion forums allow participants in different time-zones to read contributions and add their own ideas at a time convenient to them.

# Encouraging Participation

There is no doubt that by combining Web 2.0 technologies with BI platforms, developers have the opportunity to incorporate significant functionality. However, they must not lose the intuitive, user-friendly appeal of social media. CDM is most effective when all relevant stakeholders are able to contribute. To ensure that input is obtained from all areas of the organization, the CDM platform must be easy to use. If access to the collaborative forum is limited to advanced IT users, the business will not leverage the expected advantage, as it will not attract the diversity of opinion and insight required to enrich the data on which decisions will be based.

Non-technical users are becoming increasingly familiar with Web 2.0 technologies through social adoption. Developers can increase the uptake of BI networking platforms in less technical departments by incorporating recognizable interfaces. Enabling collaboration and discussion to take place in a familiar environment will increase the adoption rate and improve knowledge sharing.

However, employees may require training and development, both on the technical aspects of the new system and on how to work collaboratively. An organization cannot assume that all employees know how to collaborate, particularly if this behavior has not been encouraged by past business practices. If they wish to successfully implement CDM, businesses must ensure that the rewards for collaboration outweigh the benefits of knowledge retention. IT professionals should connect with the human resources and training departments to ensure that the CDM initiative is supported by relevant training provision and an appropriate compensation and benefits package.

# Points to Consider

Incorporating a CDM into a BI solution will introduce a number of issues that organizations will be required to address if they are to successfully enhance their processes for sharing information and making decisions.

While including stakeholders in the process is likely to achieve higher levels of buy-in, it can also lead to frustration. When a decision does not accord with the contributions of a particular stakeholder, it may lead to frustration or the feeling that contributions have not been heeded or valued. To deal with such situations, the organization may need to explain its decision in a more open and transparent manner than has been required in the past.

The process for decision making should be explained clearly, whether the organization will seek consensus or pass the augmented information to a small group of key decision makers.

Organizations need to ensure that confidentiality and data security issues are addressed. Every employee must be fully aware of the limitation on data-sharing, particularly if information is to be sent out within the business. Unlike true social media applications, enterprise tools may need to be supported by clear rules and guidelines on how, when, and why information can be shared. This may be of particular concern for newer employees who may be less aware of appropriate boundaries for corporate data sharing.

# Summary

Integration of CDM and social media tools within BI solutions is in its very early stages. Organizations embarking on this route are pioneers of new technology and methodologies. While there are significant benefits to be gained, companies will have to train, support, and coach existing employees to assist them in adapting to new ways of working. They will also have to manage the communication expectations of the Net Generation, who may be less security conscious and too eager to share information.

The challenge for developers is to build BI solutions that combine high levels of functionality with user-friendly, intuitive interfaces. In doing so, they will open up a new dimension in organizational data management and BI to support dynamic and responsive decision making based on sound, contextualized business information.

# About Our Group

Data Meaning utilizes cutting-edge technologies to build innovative and effective Business Intelligence and Data Warehousing solutions. Our experienced, professional staff can design and deliver pioneering reporting systems to give you a unique perspective to your data and an edge in your decisions.

Along with the world-class consulting services Data Meaning offers, they are also an official licensed reseller of the award-winning MicroStrategy Business Intelligence Reporting Suite, a fully integrated BI platform that makes Business Intelligence faster, easier, and more user-friendly. Data Meaning has MicroStrategy certified consultants available to help you deploy MicroStrategy with ease. For your BI and DW design, install and implementation and training needs please visit us at [www.datameaning.com](http://www.datameaning.com) or email [info@datameaning.com](mailto:info@datameaning.com).