A NEW WAY OF INTERACTING WITH BUSINESS DATA BY USING THE COLLABORATIVE PLATFORMS

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Abstract:
In the new approach of data quality the companies who used the concept of business intelligence with the new wave of collaboration and social technologies is prepared to initiates a new generation of collaborative BI. Using quality data, determine a good collaboration in analyze critical business information, benefiting from the collective intelligence of the team, making business decisions better, faster and at a lower cost.
Within this article, the authors have proposed to show how collaborative BI can optimize the decision making processes. In this respect will be given specific architectures, models and approaches.

Key words: *business data, good data, collaborative platforms, business intelligence, data warehouse*

JEL classification: *M14, M15, M21*

I. Introduction

The evolution of business strategies has been reported over the years to grade and to prepare managers of companies, acquired the knowledge and ability to use them effectively. Business development was a gradual pace, following the development trend of information technology and communications.

The pace of change required a new dimension for the business. Acquired in the performance information and communications technology (ICT) have transformed business practices at the operational level, strategic distribution and customer relationships in a real dependence on the resources generated by the industry.

In this sense, launched the idea of strategic dependencies between business and information technology, leading to higher performance [7]. The main condition for generating performance is that computing resources be included as part of the company's organizational system.

In fact, in 2004, with global meeting of experts in knowledge management in KM Forum event, Richard D. Collin, president of the International Centre for Collective Efficiency, launched a clear verdict: *collaboration will be the main management challenges of the future decade!* [4]. Companies that don't support collaboration with the right application face significant risks, including lost information and knowledge, missed opportunities for develop a success business, and lower productivity.

In this sense, companies have shown a big interest to the implementation of collaborative platforms as a technological support for business process optimization.

II. Collaboration allows increasing business value

In modern management based on knowledge, business results are reflected in its performance, and performance is the result of accumulated knowledge to the whole system. Knowledge is the amount knowledge of all company employees, which draws a clear direction to develop *collaborative work environment* (groupware) to achieve successful completion of activities and objectives. Within an enterprise, collaborative work environment acts as a data, information and documents as well as to users and processes developed.

A new delineation of resource sharing in a collaborative work environment refers to the informational content, whose management involve technologies dedicated and additional knowledge.

In the year of 2002 [2], the specialist Stephen R.G. Fraser first raised the issue of *content*. What is and what does this term mean, in relation to a content management system? All Fraser [2], proposes two ways of approaching the term *content*, namely:

- *information* or *content information* (text or image), which can be viewed in a public or private interface;
- *applications* or *programs* running behind an interface on a web server, and are designed to present information in a dynamic way in a public or private interface.

The question arising from both approaches is launching a new hypothesis: Information management and application management are one and the same term? The conclusion, which is the foundation of facts and definitions over the years is that a *CMS*[1] *is the system that manages the components of an application where there is informational content* [2].

At the enterprise level, given the complexity of information systems architecture standard architecture and lack of general applicability, definition and parts of a CMS are difficult to achieve [5]. As we shown in Figure 1, the boundaries between systems can be developed / implemented within an enterprise are not obvious and they often overlap. Given that the efficiency of the management system is dependent on the level of interoperability of data, it is clear that there must be a common area and be served by a distinct architecture, based on a set of features with other applications / architectures the enterprise.

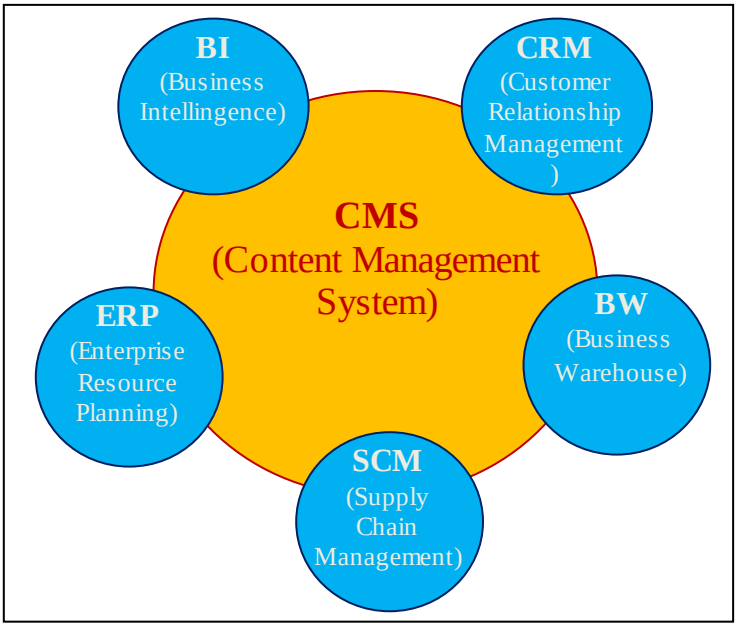


Figure 1. Interacting subsystems developed within an enterprise

[1] CMS = Content Management System

Architecture of a CMS also allows the storage, control, review, completion and publication of data dictionaries documents or information content in a collaborative work environment. Content Management System (CMS) provides critical capabilities for managing the documents, spreadsheets, reports, e-mails, web pages and other tools that drive business operations. The multiple functions that CMS makes available a user is often allowed the joint creation of documents. Perhaps the most important aspect of designing such a system need, refer to decrease or complete elimination of the intervention of programmers editing and content management information. Knowledge Management component, which is reflected in the organizational structure of any company that adheres to a modern management based on knowledge, supports the idea of multidisciplinary continuing education and employee, which is provided with a set of tools (software) by it to bring added value and efficiency optimization information / decision.

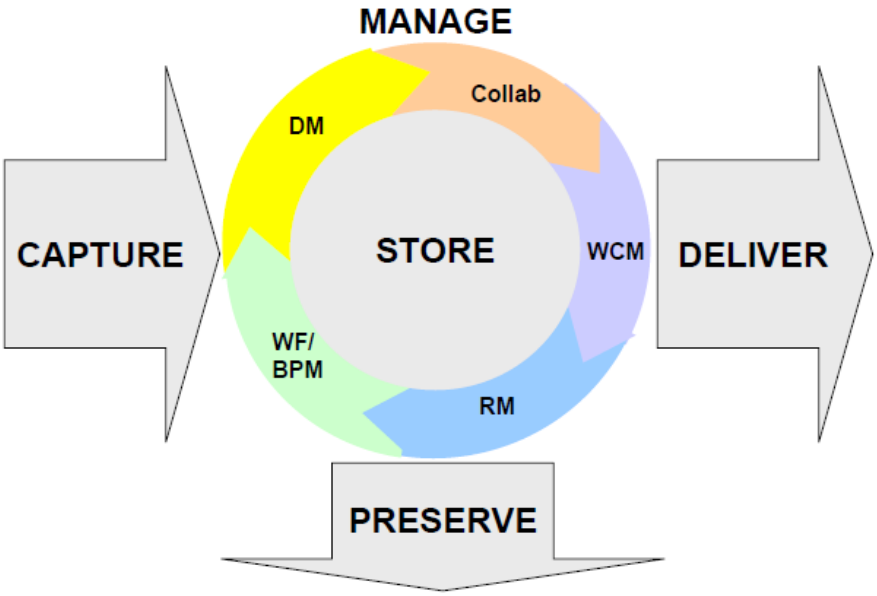
To allow the development activities in a collaborative work environment companies must provide a framework for good practice, such as:

- **Communicating efficiently between entities of an enterprise.** Real-time communications have received a lot of attention lately, as companies look for ways to connect remote employees or departments or virtual teams, as well as customers and partners. Collaboration should be an iterative process that allows participants to share not just data, but also insights, knowledge, comments, changes and best practices;
- **Single access point for any information.** To effectively collaborate, employees need fast and easy access to the relevant information, regardless of where it resides. The information can be simple or complex, but without it, no one can begin the project at hand. For most people, it means having a search engine that is intuitive and effective;
- **Getting Timely Input.** It takes to processes that builds in routing and alerts, so that participants know exactly when action is required of them (creating an efficient workflow). With such a system, participants get that information in the context of the collaborative environment, so they're ready and able to perform the necessary action immediately;
- **Access to the Repositories**. Collaboration must occur across any number of physical and geographic boundaries. Those remote employees must have access to the same document and network repositories as their headquarters counterparts, or they won't be effective collaborators. Any good collaboration system, therefore, must make it easy and secure for remote workers to search and connect to information stores from anywhere, and via any device.
- **Lack of Information on Document Usage/Lifecycle**. Companies need collaborative applications that can record and report on the way in which embedded documents are used, effectively tracking the lifecycle of the information.

III. The main components and areas of applicability of an CMS

The enabling systems and platforms will provide advanced services to catalyse the development of worker-centric, flexible, scalable and adaptable tools and applications to boost seamless and natural collaboration amongst a diversity of entities within knowledge-rich virtualized environments and with any devices available anywhere anytime.

The collaborative platforms, such as CMS category, are developed using different technologies and components. We presented in Figure 2, the main components (functions) that define a CMS and it's application areas.



Source: processing by Kampffmeyer (2006)

Figure 2. The five components (functions) of a basic CMS

Data or information shared through a CMS has a well-defined life cycle. They are trapped in the system, stored or processed and then shipped. In this process, which extends over time, management of these data is performed through several interventions on their content by various authorized users based on access rights (roles at group level). Taking these processes provides data persistence through the development of sub-version control processes that apply to the documents.

As a result, the five essential components and technology of CMS [5] are:

- **Capture**. All documents are captured in the system;
- **Manage**. All informational content can be modified;
- **Store**. Archiving and storage of any information;
- **Deliver**. Access to information within the work team;
- **Preserve**.

Areas of applicability of an CMS refers [5] to:

- **Document Management** (DM). Document, or content, management is critical to any collaboration project. Without it, companies have no way of tracking the information their people need to stay productive; no way of knowing what information is useful, for what and to whom; no way of tracking information lifecycles, and learn whether data is still relevant and accessed; and no way of ensuring that knowledge workers have access to the information they need when they want it;
- **Collaborative Environment** (Collaboration, Groupware, Virtual Place). Enabling collaboration it requires discrete steps that show people what they need to do, how they need to do it, with whom and by when. It requires giving participants access to the necessary information, regardless of where it, or they, are located. And it requires implementing best practices, so that teams learn from each other and take advantage of effective processes;
- **Web Content Management** (WCM). Information published on the Internet or Extranet, or on various portals, must be the data owned to the company and have the right to be published. The technology has been designed to allow integration of web services;

- **Records Management** (RM). Good records management ensures that content of all types and from all sources (including discussions, task lists, and so on) are captured and maintained by a common system in accordance with both internal and external rules. This is critical for corporate best practices, but it also is increasingly demanded by regulation and compliance requirements;
- **Workflow** and **Business Process Management** (BPM). One of the cornerstones of any good collaboration system is integrated business process management. If a team's collaborative efforts lie outside the way they normally do business, they won't be very effective. What's more, most employees could use a little push when it comes to understanding their company's business processes - so any system that helps clarify them and then makes management simple will be welcome, and deliver a clear boost to productivity.

IV. Decision Making

A problem that exists in many companies refers to quantity and especially quality of data. Across the informatic systems are hidden a lot of useful information, but it requires the use of 'intelligent' tools for extracting it [6]. Business Intelligence seems to be the answer to that problem and in the last several years, most companies applied business intelligence tools to mine for information from their systems.

One of the first definition of the concept of BI is proposed by Wally Bock [1] and taken by [6] tell us that *Business Intelligence is the process of getting enough of the right information in a timely manner and usable form and analyzing it so that it can have a positive impact on business strategy, tactics or operations*.

From another perspective, BI systems should provide managers easy tools for aggregating data in order to obtain useful reports making. Equally, BI tools must provide the perspective of multidimensional analysis and possibility to navigate and on-line query data sets in order to discover new factors that affect business process and also to anticipate and forecast changes inside and outside the organization.

Any organization face three main challenges when it comes to implementing a Business Intelligence solution:

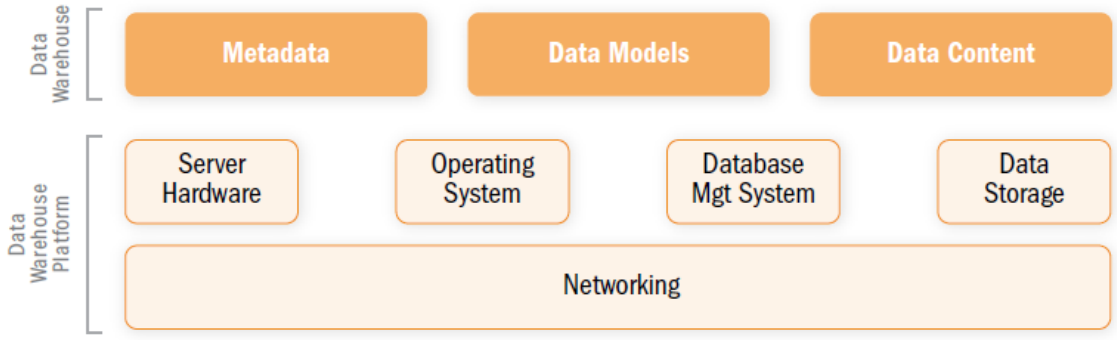
- **Staying within budget**. Companies might struggle to find a cost-effective BI solution and implement it within reasonable timeframes;
- **Meeting the needs of the business.** BI solution should supports the skill sets of the organization and that is easily accessible to all. BI solutions featuring familiar tools and interfaces will increase adoption rates while reducing training time and cost.;
- **Efficiently maintaining the solution going forward.** BI solution should be flexible, letting you expand coverage or add capabilities.

Using Data Warehouse Platform

The market is already saturated in terms of offer by the analytic applications, which can support all kinds of analysis to support decision making at all levels. In the current decade, IT market offered some posibilities for develop a data warehouse platform. Data warehouses are based on coexistence of OLAP technology which provides relatively easiest functionality for large volumes of data within an enterprise. However, there are architectures based on the concept of DWP, which are integrated into specific features of their networks and which also delineates the concept of real DW.

Is known that a Data Warehouse provides a perspective view of the deterioration of the examined subject, but a platform to provide consistency and to optimize this process should be the instrument that they want enterprise leaders.

A data warehouse platform consists of one or more hardware servers, an operating system, a database management system (DBMS), and data storage. This platform manages a data warehouse, defined as a collection of metadata, data model, and data content, designed for the purposes of reporting, analyzing information, and making decisions [8].



Source: processing by Philip Russom (2009)

Figure 3. DWP is separate by DW's

A next generation data warehouse platform may use features, such as appliances, open source technology and cloud computing. Sometimes, the new releases addresses administrative issues, such as hardware upgrades (prefered 64-bit), data migrations or architectural changes.

V. Conclusions

Today, more than ever the word is accepted by the business community is *collaboration*, the authors of this article believe that *collaboration* is not always an easy process, but is ideal.

Companies that provide a collaborative work environment can benefit from a number of strategic advantages:

- combining complementary knowledge in quality of the products obtained;
- promotes the exchange of knowledge in a process undertaken jointly;
- facilitate cooperation between people or groups of people with different statuses (relative anonymity allows neutralization of these differences of status, which has an important influence informal learning in a virtual environment);
- creating a virtual collaborative framework for large groups of users dispersed in different locations;
- achieve a high level of performance by providing a gain of up to 50% compared to a classical meeting, but also in terms of other overheads;
- enables the performance of joint processes with suppliers, customers and other categories of employees.

In another order of ideas, applications require group and require a wide range of technologies, the strength of a collaborative platform is the ability to withstand dynamic events and provide tools for the development of the expression for a group of users (communication, cooperation and coordination). However, an effective solution to enable collaborative working effectively manage collections of objects (databases) that can be stored and managed data, information, knowledge, messages, documents, forms,

memos, reports and more, allowing users to quickly locate and disseminate information using Business Intellingence tools.

In conclusion, any company that provides a collaborative work environment, is a long term investment in which the employee is won. And if the employee is satisfied, the company is guaranteed to success.

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