

# Business Intelligence at University of Dayton

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## **History of Business Intelligence**

Business Intelligence allows people at all levels of an organization to access, interact with, and analyze data to manage the business, improve performances, discover opportunities, and operate efficiently. Over the past two centuries Business Intelligence has evolved to aid businesses in handling their most important data in the most efficient ways possible. Business Intelligence has evolved from major milestones of the forerunners of BI solutions (Howson 2008). Many tools of the past have helped to form and structure Business intelligence and why it is the way it is today. Rapid change of technology has been one driver of the hectic pace of business change it also has allowed business intelligence for everyone, not just information technology experts, programmers, and power users. The technology and BI tools have improved over time to extend the reach of business intelligence (Biere, 2003).

The 1970s was considered the Early-End User Computing era. During this time, user-friendly languages allowed end users and the unfriendly IT environment to understand each other and work together in a more appropriate manner for both parties. At this stage in time, end users had to wait for systems, wait for programming changes, and wait for reports. During these times, the end user might have waited a month for complex, printed report that ran on a mainframe computer. There was a lot of time being wasted while the end users waiting for reports to emerge from central programming and computer sites. The early tools that were used were all “do-it-yourself” solutions. At the time, these solutions seemed like a good idea, but with Vendors setting up tools and formats to do so lead to extremely complicating matters (Biere, 2003)

During the 1980s the Information Center concept had formed. The information center was a central support organization designed to provide services for end user and to act as relationship between non-technical user and IT. The Information center supplied end users with the necessary tools to help with the required data for their organization. The main reason for these centers were to provide means for end users to increase their productivity instead of having to wait and simply do nothing until they received their data to continue (Biere, 2003). Also the relational databases were being used during the 1980s. This was when data was stored in tables with rows and columns, completely different from what the excel spreadsheets look like today. The relational databases became more convenient for end users to use, but still was complex with the amount of data they needed to strain together to obtain the needed information to create the

report. At this time, reports could be run by end users as long as they were simple, but still needed to be run at off times to not interfere with others work by tying up the system.

Throughout the late 1980s business migrated from the mainframe computers to client servers. Some of the main reasons for leaning toward client servers were due to the expensive cost of mainframe, the idea that data should be stored on smaller, compact, and less expensive boxes, and logic and calculations should take place under the control of the end user. During this era of client server systems, organizations realized that reengineering data in Business Intelligent forms and formats were more ideal to the company and the most common form was a relational store that supported SQL (Biere 2003).

During this time, personal computers were becoming popular within the organizations. Personal Computer opened many opportunities for employees and they were able to work on their own without the aid of IT. The office applications became popular and the personal computers allowed end user to develop their own application and present the data in their own form that was unique and meaningful to them and their organization. The Office applications, which included word, excel, and access, allowed the users to create resourceful reports that they were never able to do before (Biere, 2003). Charts, graphs, and grids were created to show their collection of data and their reports in the best way possible to be understood specifically by the company in need of the information.

Throughout the 1990s the need for Data warehousing became an important tool for Business Intelligence. Data warehouse is a collection of data removed from a variety of operational systems, transformed to make the data consistent, and loaded for analysis (Howson, 2008). Data warehousing was an accurate way to store data in an organized way. It offered the organization creative ways to present its data and to analyze the data toward a specific request. It allows the company to conduct a more detailed analysis of the topic that the company is trying to focus on.

In the early 1990s the Internet became exceptionally popular. The web-based Business Intelligence has allowed tools to be organized across corporate intranets and extranets to thousands of employees and external customers in a matter of hours not months. With this client/server computing of the early 1990s, it took days to install and configure PCs for just a handful of users. The web has simultaneously broadened the reach of Business Intelligence (Howson, 2008).