

Tracing the BI Family Tree

Modern-day technologies trace their roots to early work at PARC and P&G

Shawn Bay remembers the first time he heard the term “business intelligence.” As a market analyst at Procter & Gamble in the ‘80s, Bay had been part of a network that pioneered data warehousing and decision support. But something fell into place one day a few years later while meeting with GartnerGroup analyst Howard Dresner in Nashua, N.H.

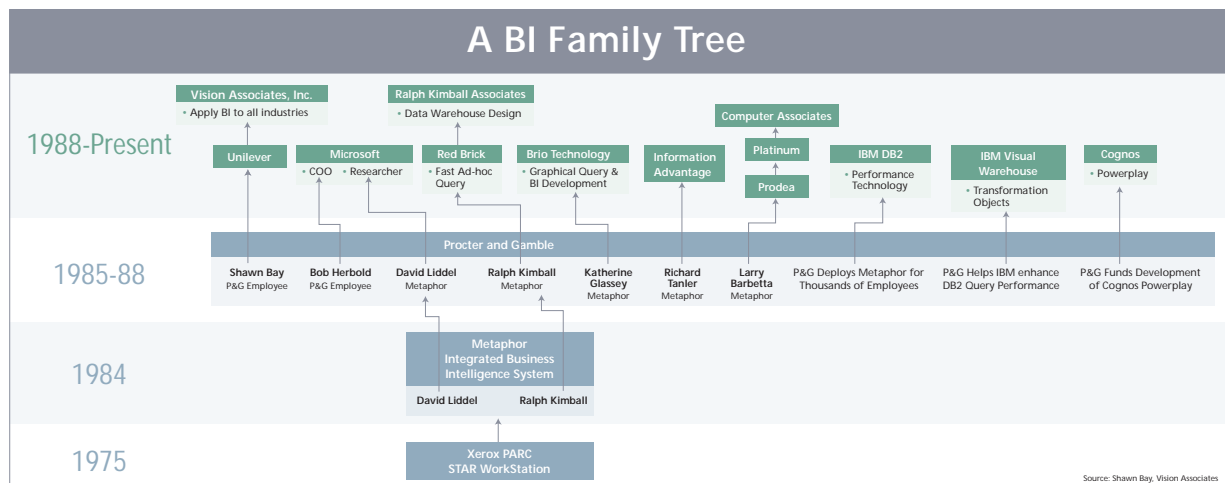
In 1989, Dresner had coined a term for the collection of technologies involved, and having recently moved to Gartner, was ready to push the concept of business intelligence in earnest. Bay liked it—a single phrase that gave form to an emerging industry and put into context “all the technologies that help business

TECHNOLOGY SPOTLIGHT

Business Intelligence

“P&G got a jump on the competition with early data warehousing. It gained market share by having information and knowing how to channel it. By 1985, it had proven that you can apply technology to business and make money off it,” said Bay. “We built a financial data warehouse to understand what was going on at the corporate level.”

P&G called in Metaphor Computer Systems, a spin-off of Xerox’s Palo Alto Research Center (PARC). Metaphor, whose core competency was decision support and data warehousing, offered customers a single integrated hardware and software package with its own user interface, operating system, database servers and routers. P&G commissioned the company to link sales information and scanner data from A.C. Nielsen to P&G products and customers.



People and technologies involved with early business intelligence efforts have found their way into current KM companies and products.

make decisions based on fact,” he recalled. “Using fact rather than intuition was the key to intelligence.”

From that simple genesis 10 years ago, a lineage of technologies and companies was set in motion. Companies such as Brio, Documentum, Teradata, Cognos, Platinum, Lotus Notes and others can trace their roots back to Procter & Gamble, data warehousing and the discipline that Dresner dubbed “business intelligence.” To mark BI’s 10th anniversary, KMM talked to a few of the pioneers of a field that laid the foundation for knowledge management.

“A lot of what is now part of KM traces back to P&G in the mid 1980s,” suggested Bay, now the CEO of Vision Associates, a business intelligence services provider in White Plains, N.Y. When retail scanners were introduced in the early 1980s, their most valuable advantages seemed obvious: faster checkout lines and perhaps better control of inventory. But large consumer packaged goods companies like P&G realized that there was a lot of potentially critical information just lying around waiting to be put to strategic use.

“We had [data on] customers, products and revenues all in one. Data warehousing was built off this perspective,” said Ralph Kimball, former vice president of applications at Metaphor and author of *The Data Warehouse Lifecycle Toolkit*.

Follow the knowledge

Now look at what happened to the technology and tacit knowledge that was involved in that project. Kimball left Metaphor in 1986, two years before IBM acquired the company. He founded Red Brick Systems to develop a database that handled ad hoc queries faster than transaction-oriented products like IBM’s DB2 and Oracle. Red Brick went public in 1992 and was later purchased by Informix.

Richard Tanler left Metaphor to found BI provider Information Advantage and create information-specific packaged solutions. Katherine Glassey also went on from Metaphor to cofound Brio, which successfully unbundled Metaphor’s graphic query tool. Larry Barbeta, still another Metaphor graduate, founded deci-

sion support specialist Prodea (in 1987), which was later acquired by Platinum Technology, which in turn was acquired by Computer Associates this year.

Meanwhile P&G went to veteran software developers Cognos and supported the development of PowerPlay, a tool for delivering OLAP slicing and dicing.

Bay's P&G colleague Bob Herbold, after 26 years at P&G—where he was CIO—was hired by Microsoft to be EVP and COO of worldwide operating groups and won high praise for creating internal knowledge sharing systems worthy of an industry leader.

For his part, Bay moved on from P&G to Unilever before starting Vision Associates in 1992 to provide BI services and vertical-marketing BI solutions. Vision Associates worked with IBM to develop its BI strategy and has often collaborated with Howard Dresner and the GartnerGroup.

"Few know how to get what they want and which products and technologies will get them there," Bay said. Technology is converging. Data mining and text mining are merging. Technologies and applications of technologies are coming together in integrated solutions."

Looking forward

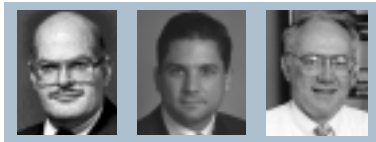
Building on the decade's evolution of BI, knowledge management has emerged to depend on—and act on—the contents of the data warehouse.

"In the early days, people thought of business intelligence as all things to all people. But it is really the fixture on top of the plumbing, not the plumbing itself," according to Dresner. "Today, BI is more specialized and actionable than it was 10 years ago and is even more relevant for organizations. Microsoft legitimized

BI and turned it into something that is useful to small and medium businesses, not just the Fortune 500."

Dresner's definition of business intelligence includes all the ways an enterprise can explore, access and analyze information in the data warehouse to develop insights that lead to improved, informed decisions. So BI tools include ad hoc query, report writing, decision support systems, executive information systems and techniques such as statistical analysis and online analytical processing (OLAP).

To Dresner, knowledge management, on the other hand, focuses on the process of sharing tacit knowledge



By the time Howard Dresner (left) was coining the term "business intelligence," Shawn Bay and Procter & Gamble (center), with the help of Ralph Kimball and Metaphor Computer Systems (right), were already mining value from the data warehouse.

across multiple domains and the collaboration of employees to provide broad access to information assets in an organization. While BI is more structured, problem-driven and focused on integration of data, analysis and specific business domains, knowledge management is event-driven and focuses on integration of disparate information sources, he said.

"Once companies have decided to decide, they use information from business intelligence to give knowledge management perspective. BI analyzes data, and KM adds tacit knowledge forces," Dresner added.

The expectation before the Web was that data simply needed to be delivered, according to Kimball. Only five years later, half the U.S. expects instantaneous delivery of useful content in the form of documents, sound and video, sending IT professionals scrambling to provide infrastructures to meet rising public demand.

The Web is creating an astronomical market for knowledge management and business intelligence, he said. Today's consumers want a one-on-one experience and expect sites to recognize who they are, what they have ordered, what others have ordered and then to make recommendations.

"The Web is as profound as the advent of inexpensive postage, television and the telephone," said Kimball. "We're drawn into a real revolution—more in terms of the way we communicate than the technology we use."

Ten years from the day that Howard Dresner first uttered the phrase, the field of business intelligence is more relevant and business-critical than ever. Its subsequent development and cross-fertilization with the related field of knowledge management continues to set the agenda for business technology in the Knowledge Age. ❏

Andrea L. Nylund is a Los Angeles-based journalist specializing in global business issues and strategies.

BI Meets KM

Ten years after coining the term "business intelligence," how does the GartnerGroup view its connection with the newer field of knowledge management? Today, Gartner refers to a class of KM-enabled BI products, having the following set of functional features:

- An environment in which analytic information from data analysis, DSS and EIS systems is used and applied by analysts and decision-makers;
- A Web-based repository for publishing reports from diverse sources, and an environment for reporting projects;
- Dynamic reports, which allow readers to explore live data and alternative scenarios;
- Reports available by subscription to those who need to know;
- Collaboration around reports, and any other relevant information to make decisions;
- Capture of the results of decisionmaking, for the organizational history;
- Shared organization of information so both data and text can be navigated in a coherent structure.

Source: GartnerGroup, "Business Intelligence Meets Knowledge Management," March 1, 1999. Reprinted with permission.

ACTION ITEM

Vision Associates, Inc.
www.visionassociates.com
(914) 421-4400

Ralph Kimball Associates
www.rkimball.com
(408) 395-8778

GartnerGroup
www.gartner.com
(203) 316-1222

Brio Technology
www.brio.com
(650) 856-8000

Information Advantage
www.informationadvantage.com
(612) 833-3700

Cognos
www.cognos.com
(408) 987-0700