



March 2004

<http://www.intelligenteai.com/showArticle.jhtml?articleID=17800085>

Nurture the Wealth

Nurturing corporate wealth from information assets is the focus of BI and data warehousing in 2004.

By Richard Hackathorn

Creating and protecting corporate wealth: these objectives will loom large in the perspective of business intelligence (BI) and data warehouse (DW) professionals in the coming 12 months. Organizations are finding that cost-cutting efforts have run their course. While controlling expenses remains important, attention is shifting to the ability to generate revenue and grow assets — especially the intellectual property embedded in information systems.

That is the summary based on discussions with 23 experts throughout the BI/DW profession in early January. In conversations, the general mood was "battered, but optimistic" after surviving a tough cleansing over the last two years. Recent dramatic resurgence in BI/DW indicates that 2004 is the year to move forward in globalization, integrity, and integration.

Think Globally

Globalization has changed the face of corporate information technology, including BI/DW. The dot-com bubble may have deflated many new ventures, but global electronic commerce is alive and growing rapidly. "Corporations now live and compete in a very small world ... at 10 Mbps," said Andrew Cardno, COO/CTO and founder of Compudigm.

With the rise of outsourcing and "offshoring," or the assigning of IT, call center, and other work to contract service providers outside the U.S., we have seen the evaporation of thousands of high-paying IT jobs in North America, just as we saw happen with manufacturing industry jobs in years past. In January, *The Wall Street Journal* highlighted a notable example of offshoring when it reported IBM's plans to transfer thousands of programming positions from Southbury, Poughkeepsie, Raleigh, Dallas, and Boulder (my home town!) to India, China, and Brazil. IBM expects to save \$168 million in IT costs annually, the *Journal* reported. The offshoring of BI/DW related tasks, such as extract, transform, and load (ETL) procedures and report definitions, have begun. Has anyone sent an entire data warehouse development effort offshore yet?

Globalization extends beyond cost reduction from displacing jobs. Once you plug in highly skilled labor at a fraction of traditional rates, many assumptions about managing IT become invalid. With labor cheap and offshore, sophisticated BI/DW projects — and their supporting products — come within the grasp of organizations interested in sophisticated IT at much lower price points. We could begin to see small, emerging vendors disrupt the established BI playing field. Custom development is coming back in vogue, to the detriment of off-the-shelf applications. It would be wise to hone your project management and application definition skills.

Development productivity tools (such as code generators) built to save local labor costs will gather dust: Lessen your reliance on them. With skilled service functions distributed globally, you should pay greater attention to service-oriented architectures and Web services. "We converted entirely to Salesforce.com," observed Diaz Nesamoney, president of Celequest. "We do not have a single IT person supporting that function. This service could be anywhere,

like in Bombay, India."

What to do? Decide what's important to your corporate wealth, in terms of core capabilities to generate revenue and protect your information assets. Distributing key business processes globally is not for faint-hearted managers. You must control those distributed processes and consolidate distributed data with other enterprise data.

Seek Integrity

After globalization, integrity is the biggest issue facing enterprise IT. And it is being questioned: in May 2003, Nicholas Carr shook up the IT world with his infamous *Harvard Business Review* article "IT Doesn't Matter." Carr argues that IT is important but that it is now ubiquitous — a commodity function utilized by all firms. Therefore, in Carr's view, IT is no longer a strategic contributor to the unique, competitive advantage of the corporation. Although some have dismissed his argument as simplistic, the emotional appeal of questioning IT's contribution to the enterprise is deep and widespread.

A decade ago, IT based its stature on reliability and availability. In 2004, it rests on honesty and truthfulness — not of individuals but of IT systems and information. Corporate leaders ask: Can we trust our systems to record valid business activity and our data warehouse to report valid business performance? IT's ability to answer is critical not just for complying with government regulations, such as the Sarbanes-Oxley Act, but also for building trust among employees, customers, and other business partners.

What to do? Use the impetus of compliance to leverage BI/DW for accountability and transparency. We cleanse transaction data as we merge with other data in the data warehouse. In the same manner, we need to cleanse (or validate) analyzed data as it is delivered out of the warehouse. When people can trust in who you say you are, corporate wealth will increase.

Page 2

Pursue Integration

Along with globalization and integrity, information integration and systems consolidation of are driving forces in 2004 — but for new reasons. For BI/DW, 2003 was the Cover-Your-Rear Year, during which operational cost savings, compliance monitoring, risk assessment, and fraud detection were key trends. That experience revitalized the old realization that the enterprise must manage information and systems as intellectual assets that are just as important as patents and trade secrets. In other words, not only must you protect these assets, you must also invest in them so that they can better contribute to corporate wealth.

A good example is "super vigilance," a phrase coined by independent consultant Frank Teklitz. "Super vigilance is practiced every day in the airline industry. It is what keeps airplanes in the sky." This involves comprehensive and continuous information about a key business process (such as airplane maintenance) beyond just a few dimensions to, instead, "a disco ball reflecting thousands of facets."

During 2003, we all heard much discussion about real-time (or "right-time") data warehousing. During 2004, this discussion will go deeper to focus on subtransactional data warehousing. Sybase's Paul Krneta has observed that atomic-level data (which captures a single transaction as a row) is too coarse for today's super-vigilant applications. For example, shipping a critical package overnight was once considered a single transaction. Now, we can track that package in detail at every point where it is touched. This expands the transaction into multiple sub-transactions, all of which should be managed by a data warehouse.

Another example is "enterprise memory": that is, the concept of recording, into a single store, *all* data over *all* time at *all* granularity about the entire enterprise. Storage has become essentially free; but, as Microsoft's Jim Gray observes, "It's free like a puppy!" To realize any business benefit, you must organize and structure data according to key business concepts and objectives. A common schema must be a template for the data to give each item a context. Gray is working on the World-Wide Telescope project, which is collecting all astronomy data into a single store. The

project highlights the challenge of sharing complex data sets. Participants have created more than 1,500 context descriptors to describe the taxonomy of astronomy data adequately.

What to do? Invest in infrastructure that protects all intellectual assets of your enterprise and focuses these assets on generating revenue and controlling expenses. In particular, give more priority to better managing data warehouse metadata so that users, applications, and global systems can understand the rich complexity of your business. Metadata is not static; within the enterprise memory, metadata has as much volatility as the data itself.

This year and beyond, we must nurture corporate wealth broadly while rethinking many basic assumptions about BI/DW. Globalization, integration, and integrity are driving forces. Focus on the challenges they present and you will ensure that IT does indeed "matter."

Guest columnist **Richard Hackathorn**, [richardh@bolder.com] is president and founder of Bolder Technology. He has more than 30 years of experience in the IT industry as an innovator, educator, and author. His most recent book is [Web Farming for the Data Warehouse](#) (Morgan Kaufmann, 1998).

The author appreciates insights gained in interviews with the following people: Robert Bolds, Computer Associates; Andrew Cardno, Compudigm; Darren Cunningham, Business Objects; Kerry Gilger, Identitech; Dan Graham, IBM; Jim Gray, Microsoft Research; Dave Henry, TemTec USA; Claudia Imhoff, Intelligent Solutions; Paul Krneta, Sybase; Justin Langseth, Claraview; William McKnight, McKnight Associates; Diaz Nesamoney, Celequest; Sanjay Poonen, Informatica; Bill Prentice, SAS; Neil Raden, Hired Brains; Chris Sherman, Searchwise; Kim Stanick, NCR/Teradata; Rob Stephens, SAS; Frank Teklitz, Inmon Data Systems; John Ulery, Computer Associates; Ian Walsh, Approva; Colin White, BI Research; and Bob Zurek, Ascential Software.

Resources

Bulkeley, W. M., "IBM Documents Give Rare Look at Sensitive Plans on 'Offshoring'," *The Wall Street Journal*, January 19, 2004.

Gray, J. Resources about the Virtual Observatory and World Wide Telescope project may be found at research.microsoft.com/~gray/Papers/MSR_TR_2001_77_Virtual_Observatory.pdf

Hackathorn, R., "The BI Watch: IT Doesn't Matter?" *DM Review*, November 2003.

Hackathorn, R. "The BI Watch: 2003: Cover-Your-Rear-Year for BI," *DM Review*, May 2003.

[Return to Article](#)