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enterprise integrity



By DAVID MCGOVERAN

Valuing Data, Part I

As the costs of data storage media continue to shrink, both business and IT departments have become “data junkies.” Our attitude seems to be “save it just in case ...” Terabytes of data are collected and stored in ERP and CRM systems, data warehouses and data marts, and even corporate desktops at enormous cost (\$60 billion by 2004 — *Dataquest*), eventually approaching 80 percent of IT budgets. The assumption seems to be that potential value outweighs cost. We know business data is important, but have you ever tried to determine the financial value of data? An idle question you say? Let me give you a few reasons to commit a little energy to this idle question.

First, suppose you had to insure your company’s data. Certainly data is threatened — not only by system failures and hacker attacks, but by poor data quality management as well. For what amount would you insure the data? Second, suppose that your company is cutting costs, and can no longer afford to maintain that rapidly growing data warehouse. How will you decide what to keep and what to purge? Some data is potentially more critical to the success of the business than other data, but can you really come up with an objective retention criterion? Even worse, what if you are asked to cost-justify data retention? You can compute the cost of capturing and maintaining data, and maybe even recovering from certain types of failure (e.g., media failure), but do you have any idea whether these costs can be justified in terms of the potential value of that data?

Data valuation is not easy. Indeed, some writers have insisted that data has no value at all. And yet, I am certain those same writers would change their positions on the matter if the viability of their businesses or even their own lives depended on some piece of data. They need only review the facts. Costs due to loss are one quick measure of value. For example, one study showed that 70 percent of companies that suffered a severe loss of data went out of business within 18 months (DTI). The lost data certainly had a value that was proportional to the potential earnings of those companies, had they been able to prevent or reverse the effects of the data loss by paying it.


The value of data looking forward is largely determined by

its cumulative utility. By cumulative utility, I mean its utility over the useful remaining life of the data. Careful analysis will show that this is much more complex than it may at first seem. For example, we may ask “useful to whom?” Until about 20 years ago, data was more or less the captive property of a department or even a specific application. The potential uses of such data were generally limited. Enterprise applications and databases, and eventually data warehouses increased potential uses in both the scope and time. Given today’s B2B and e-commerce, data is valuable not only to the company that has stewardship, but to others as well. In fact,

personalization of customer relationships may well mean that data has utility for customers as well as the companies that maintain that data. This is clearly the case with medical data. Furthermore, because data can be sold repeatedly, its value can have a revenue generation component that is limited only by the available market opportunity.

This line of reasoning forces us to recognize that we cannot give a meaningful analysis of the value of data unless we understand it in context. That context is

determined by specifying to whom the value will accrue, over what period of time, and with what potential uses in mind. At best, it is a future contingent value. Like any consumable asset, past utility is fully depreciated and so does not contribute to present value. Speaking of value of data in some abstract, absolute sense would require omniscience.

Over the next few months, we’ll explore the various contributions to data value. Although I don’t anticipate providing a fully detailed model of data value, I will attempt to provide you with enough guidance so that you can develop one of your very own. Such a model can be used for many purposes, not the least of which is making decisions about what data to collect and maintain at what cost, and what data can be eliminated. After all, sometimes we need to determine the cost and the value of enterprise integrity. 

Have you ever tried to determine the financial value of data?

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