

# A META-DATA REPOSITORY IS THE KEY TO KNOWLEDGE MANAGEMENT

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Benjamin Franklin once said, "An investment in knowledge pays the best interest." Something tells me that Ben didn't have knowledge management on his mind...but Ben was a pretty smart guy so maybe he did. Corporations are beginning to understand what Ben Franklin knew all those years ago: knowledge is their most valuable asset. Much of the push for knowledge is coming directly from the senior executives in our businesses. In a survey of Fortune 1000 executives, 97 percent of the respondents said that some critical business processes would improve if more employees knew about them. In the same survey, 87 percent of respondents said that costly mistakes are occurring because employees lack the right knowledge at the right time. This tremendous desire to improve and maintain a corporation's intellectual capital has triggered the field of study and vendor applications that we know as knowledge management.

I remember the first time I read about knowledge management. My first impression was that this sounds an awful lot like what I do with a meta data repository. Moreover, I don't see how a "true", enterprise wide knowledge management solution can exist without a meta data repository. In fact, **the meta data repository is the backbone of a knowledge management solution.**

Knowledge management is the gathering, retaining and disseminating of intellectual capital (i.e., data, information, and knowledge) to generate a competitive advantage in the market. Knowledge management can benefit a corporation in a number of ways, including:

- Leverage "lessons learned" to lower expenses
- Share information to generate new ideas and increase revenues or decrease expenses
- Improve the corporation's ability to adapt to change and opportunities in the market
- Foster innovation through the sharing of past solutions and collective ideas

When I first learned about knowledge management, my immediate reaction was, "the objectives of knowledge management sure seem a lot like the objectives of a meta data repository." What is a meta data repository all about? It is about implementing a technical solution that gathers, retains, and disseminates our corporate "knowledge". This intellectual capital is both technical and business.

## Knowledge Pyramid

The knowledge pyramid is at the heart of knowledge management. All corporations are becoming more intelligent. Businesses realize that to attain a competitive advantage they need their information technology ("IT") systems to manage more than just their data, they must manage their knowledge (META DATA). As a corporation's IT systems mature, they progress from collecting and managing data to collecting and managing knowledge (as Figure 1 illustrates).

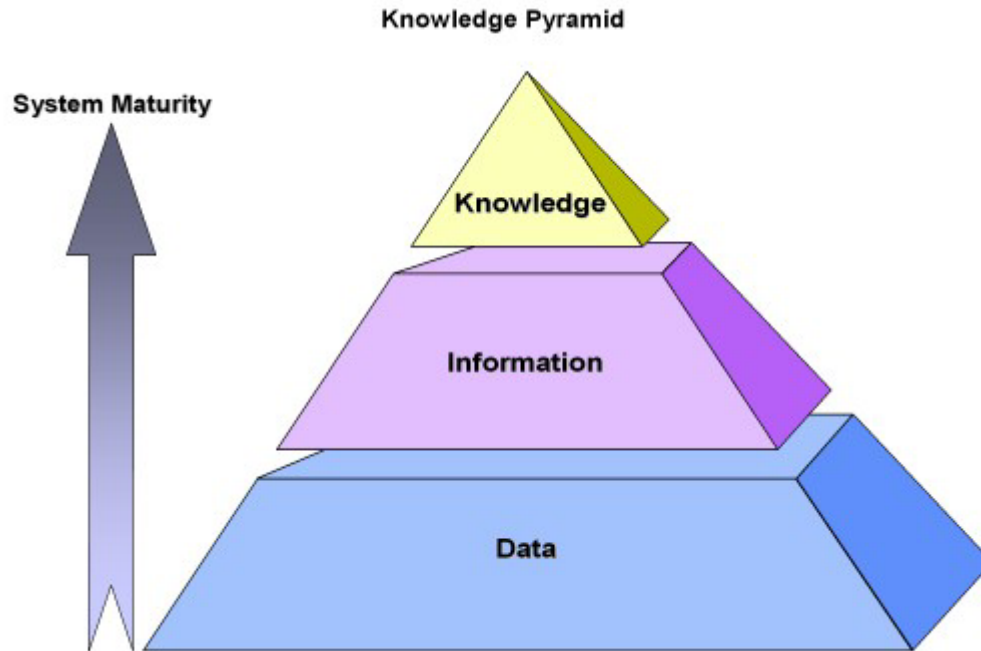


Figure 1: Knowledge Pyramid

## Data

Data is the basic building block of our IT systems. Data is the transactional, physical records of an enterprise's activity. All corporations depend on their data and go to great lengths to capture and manage it. A great deal of data is captured each time a customer calls a business to place an order, including, at a minimum, the name and address of the customer, the product(s) that is being ordered, any applicable discounts and/or sales tax, and the sales dollar amount of the order. Unfortunately, this data does not tell us anything about why the customer purchased the product from the corporation rather than a competitor, or how much the customer was willing to pay, or predict if the customer is likely to return. Nor do these data facts indicate if the corporation is successful or if it is efficiently managed.

## Information

Data by itself has little purpose and meaning. Information is data that has meaning and purpose. In their book, *Working Knowledge* (Harvard Business School Press, 1999), Thomas Davenport and Laurence Prusak state that we add value to data in various ways:

- Contextualized: tells us the purpose for which the data was gathered
- Categorized: tells us the units of analysis or key components of the data
- Calculated: tells us if the data was analyzed mathematically or statistically
- Corrected: tells us if errors have been removed from the data
- Condensed: tells us if the data was summarized in a more concise form

While this seems a little "big brained" for us technicians, it really relates to the process of making our data have direct meaning to our business. For example, when we summarize customer sales amounts, and subtract the expenses for serving that customer, we attain profitability numbers. If we do this for each customer and compare them, we can see which customers are most profitable. In this way, we're turning data into information.

## Knowledge

Knowledge is not an easy term to define. In fact epistemologists spend their entire lives trying to understand what it is to know something. I won't try to define knowledge in this article except to say that, for our purposes, knowledge takes information one step further than information. I think of information as data that tells me about my business and how it functions. When I go that extra step to transform information into knowledge, I understand the three "I's" of my business:

- Impacts
- Interacts
- Influenced

I understand how my business "impacts" the market in which I compete. I realize how my business "interacts" with the other companies in the same selling space and, lastly, I understand how my company is "influenced" by the market in which we compete. So knowledge is how my business relates to the overall, global picture.

Interestingly enough, the magazines that discuss knowledge management fail to ever mention a meta data repository. I believe that this glaring oversight exists because most of the knowledge management professionals focus on the business portion of the knowledge management equation. However, as implementers we realize that a meta data repository is the technical solution for knowledge management.

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*Mr. Marco is an internationally recognized expert in the fields of enterprise architecture, data warehousing and business intelligence, and is the world's foremost authority on meta data. Mr. Marco is the author of several books including the widely acclaimed book **"Building and Managing the Meta Data Repository: A Full Life-Cycle Guide"** (Wiley, 2000) and editor of *Real-World Decision Support*, a free electronic newsletter <http://www.ewsolutions.com/newsletter.asp>. Mr. Marco teaches at the **University of Chicago** and **Penn State University**, and is the founder and President of *Enterprise Warehousing Solutions, Inc.* (EWSolutions), a Chicago-headquartered strategic partner and systems integrator dedicated to providing companies and large government agencies with best-in-class business intelligence solutions using data warehousing and meta data repository technologies. EWSolutions is on a **GSA schedule** and can be contacted at (866) EWS-1100 or visit [www.EWSolutions.com](http://www.EWSolutions.com). He may be reached directly at (708) 233-6330 or via email at [DMarco@EWSolutions.com](mailto:DMarco@EWSolutions.com)*

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