

Knowledge Management and the Master Data Steward

November 16th 2014 | Richard A. King

My last blog discussed the need to look at the corporate knowledge around master data in three main levels and why they are documented as a hierarchy of knowledge:

1. The bottom layer is most granular level for documentation. It is for the very specific controls or rules that test the data or control the data entry under very specific logical circumstances. There may be one or many controls for any given element.
2. The data standard documentation collects the entire view of a data element into one view to provide the strategy that drives the controls. Every variant for a data element based on region, business unit, material type or customer group is collected at the data element level. The various types of ownership, architecture, requirements, allowed values are all here. More details on that in future blogs.
3. At the top are the policies/ data family strategies that provide strategic guidance on the overall use for groups of data elements (address management for all domains, MRP related data elements, branding, hierarchy element, payment terms and so forth)

It is not enough just to think about this knowledge; it must be documented and organized in a structured way to provide a foundation for increasing the knowledge.

Somebody must be accountable for this knowledge and that somebody is the Data Steward.

Why is it important to talk about this?

If Knowledge Management is a key responsibility for the Master Data Steward, then this may elicit two different responses from the reader:

1. They would not be data stewards if they weren't smart and had good memories for detail.

Or

2. NOW YOU TELL ME! Our materials steward just left and we have no idea how he was advising people on projects or answering the myriad of day to day questions. We have a million e-mails for documentation, but no way to

understand the underlying guiding principles. There are all these down in the weeds questions that now are important, and we must rediscover all he knew before we can safely proceed.

Too often data stewards' tacit / experiential knowledge is taken far too much for granted. Their years of experience governing both data and managing the data side of projects year in and out build up a huge repository of valuable knowledge. Often it is available only through engaging the steward directly.

The trouble with most master data strategic knowledge is the reality that the Data Stewards' knowledge is stored mostly, if not totally, in his "biological repository". That is the storage of knowledge between his/her ears. This knowledge is Tacit knowledge. The DS can give you the answer, but may not easily be able to give you the historic perspective that helped him/her to know the right answer. Also, not steward no matter how smart can remember everything all the time.

This situation is hugely inefficient and is a natural bottleneck to knowledge sharing and growth of the knowledge base; it limits a company's total defined knowledge. Relying on tribal memory also places the company at some risk of losing that knowledge due to turnover (planned or otherwise).

I recently observed a simple SAP Bolt-on project spin their wheels for six weeks trying to pull this tacit knowledge out of peoples' heads. The existing documentation was missing, out of date or internally conflicted. The people who were involved when key decisions were made were all gone from the picture since the depths of the last recession. The project had to re-learn from zero, (tacit) knowledge that was once commonly known had walked away.

Corporate Knowledge has two major flavors:

1. Tacit knowledge, sometimes called experiential knowledge is hard to communicate, and is deeply based on a person's perspective, experience and internal knowledge. It is difficult to transfer. It is very fragmented and dispersed. It is dependent on the point of view of individuals.
2. Explicit knowledge can be defined, catalogued, transferred and codified. It is viewed the same by all. It is shared by all. It is "official".

Tacit knowledge can be converted to corporate explicit knowledge, but it requires a disciplined methodology.

Nonaka and Takeuchi in several works in the mid and late 1990s developed the SECI (Socialization, Externalization, Combination and Internalization, model of knowledge management in the learning organization (Takeuchi 1995) (Päivi Haapalainen 2013)

The main problem with this great graphic from a business point of view is the time dimension; the length of the spiraled line as it grows outward. No one thinks about a project or managing the business this way.

If you think about this complex idea simply in terms of the time and the growth of explicit knowledge it is easier to digest. Stretch out the spiral and show time on the x axis and the growth of the knowledge on the Y axis then it starts to look like any other growth chart (growth in revenue parallels growth in customers for instance).

All they were saying in their complicated spiral is: overall corporate knowledge growth happens when we cycle between Tacit and Explicit knowledge.

In more blunt business terms: When you learn something that applies to the enterprise or even a large group, codify it for future use. That "Standard" becomes the new baseline knowledge available to everyone. It cannot walk out the door or be run over by a beer truck or win the lotto.

The act of writing it down, forces the conversion of Tacit knowledge into a form that can be "approved" and leveraged by the enterprise uniformly without the steward being in every single meeting where master data is discussed.

Also, the act of codifying the knowledge should drive the steward to internalize the knowledge even better (bottom right quadrant) once he/she can explicitly write it and then validate it with others. Now it is not just the stewards' tacit knowledge, but unified corporate knowledge. Now it is a real asset and not just information, true or imagined, in someone's head. This is, of course, the same as being required to write a term paper in college. The mere act of being forced to communicate the knowledge forces you also to learn the material better.

Everyone gets smarter about master data when the standards are appropriately documented.

Contrast this to what normally happens in data governance organizations.

1. The initial ERP project hires systems integrators with high tacit knowledge out of the box and they learn even more as they apply what they know to the business transformation process.
2. After go live they leave and take their tacit knowledge with them, but they leave their business counterpart from the project to run master data and they have tacit knowledge from the project as well. 3. The new lead gets frustrated running the day to day and sees they can make more money as a consultant so off they go or even worse, the business reabsorbs or downsizes the project team. The knowledge is gone either way.
3. The business realizes with the next project that they need to find someone to fill the knowledge gap, but they pick a rising star who was not on the project. At this point there is no explicit knowledge as what little documentation regarding the standards and the strategy for the data elements and even ownership and process usage is now hopelessly out of date or not to be found or is individual conflicting versions. 5. The new steward starts from close to zero and begins to build up his tacit knowledge. He/she does a great job, until he/she is promoted to a project manager for some new bolt-on and happily leaves this role behind.
4. This is the common point when companies feel they need a permanent governance program and they bring in new people to put it in place. They redesign processes and define an organization, but never focus explicitly on managing the knowledge so that they cycle back to zero explicit knowledge as people cycle positions.

Stewards entering a new position should look more like this picture, where each successive steward picks up with all (or most) of the knowledge from his predecessors. This knowledge transfer is not sustainable if only tacit knowledge is verbally transferred. The knowledge has no need to be in his head if the knowledge is readily accessible. However, to be sustainable it must be clear that it is his job to enrich continuously the knowledge as new facts and strategies are known.

This graphic is not implying you have 14 people, only that the 14th person has access to the critical knowledge of the previous 13 readily available.

Said another way, each new steward needs to sit on the shoulders of all the giants who came before.

The only way for that happen is if there is a requirement to convert the current stewards' tacit knowledge to structured explicit knowledge as a routine part of their job.

J. G. Pleasants, former vice president of Procter & Gamble I think said it best:

"No company can afford the luxury of rediscovering its own prior knowledge. Understanding the company's past can lead to adapting previous successes, avoiding old mistakes and gaining knowledge far beyond personal experience."

The point of the above rant is to say that it is critical to the sustainable success of the enterprise as well critical to their job performance for the steward to be accountable for the quality of the standards.

If that is true, and I bet you thought that was obvious even before the above pages, then why do we see so many companies treating knowledge acquisition so cavalierly?

- Is it because management thinks this knowledge is something people are born with?
- That it is in some SAP textbook?
- That the knowledge is so universal that everyone understands everything the same way?
- That people like being the knowledge keeper and thus strive to get invited to all the interesting (and not) meetings?

Does management really think that it is more difficult and time consuming to grow the corporate knowledge incrementally vs. not investing in the incremental time only to have to restart from zero or close to zero knowledge every time a steward retires/ gets promoted/gets downsized?

Why does it often take a crisis for companies to realize that their real operational standards have evolved to something far different from their go-live documentation and will take a huge effort in a short period to fix, even fix poorly, a problem with a root in the lack of common explicit corporate knowledge?

Does this apply to your company?

Just ask yourself:

- In any new project, how much time is spent reinventing the data dictionary “soft knowledge”
- The field length and system allowed values are easy, knowing the correct value and why is more difficult! • Is it more important in Data Management to “fill in the blank with a value” or to understand what the given value does in process? What are the downstream effects of choice “A” vs “B”.
- You had great consultants with deep knowledge of why things were done during your implementation. • Where is that knowledge today?
- We have a great data steward. He knows all the answers, but there is not enough of him/her to go around. They are always so much in demand to answer questions that they never have time to improve the quality of our data.
- How many people are in new positions:
 - What was their learning curve like regarding the data strategies and specifics?
 - Did they bring preconceived ideas from other companies? Did those “assumptions” about how you did business effect their performance? Project performance?

Conclusions:

- There are compelling reasons to maintain the knowledge about master data in an explicit way but from the enterprise’ and the data stewards’ point of view.
- This is a cyclic process that continues as new learnings are ongoing with every project, process change, personnel change, business maturation.
- Finally, it should be said that this is not a difficult problem to solve and if approached methodically and with a long term and standardized view, should not over tax the stewards.

Achieving a standardized view to make this easy is the subject of the next knowledge management for master data blog.

- Richard A. King

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