Management information. What's the truth?

By Richard Steyn

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In any organization of a certain size, information exchange plays an important role. This is why it is common practice that there are circulating different versions of certain information within the organization. Imagine: A university college stores information of all enrolled students in a central registration system. In addition, each faculty uses its own stand-alone study results tracking system. In this system also information on students is recorded. This information was taken from the central registration system at the moment the student was admitted. From that moment on student information in both the central registration system as in the study results tracking system can be edited independently. It is therefore quite possible that in both systems conflicting information about a particular student exists. This example is just the tip of the iceberg. Similar problems arise with employees of whom information is stored in the HRM system, the financial system and sometimes also the study results tracking system (in the case of lecturers). And another one (from my own experience): If students enrolled in faculty A follow a course that is provided by faculty B, this course is recorded in the study results tracking system of both faculties. Bottom line: There are plenty of examples.

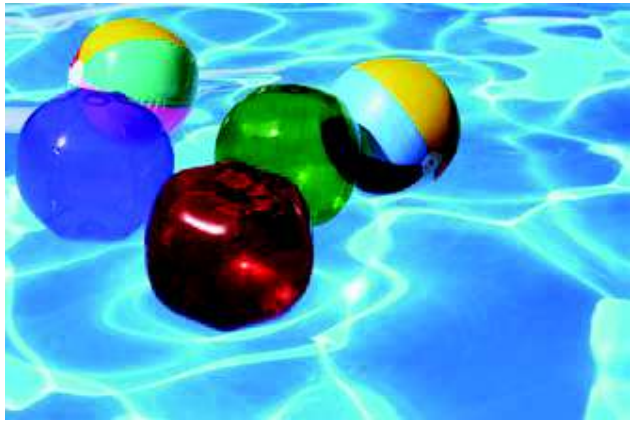
"information exchange plays an important role"

And now the question that arises is: What is the truth? One could argue that is this is not an interesting question. Indeed, the student can complete his study as he or she should, so why bother? This in itself is true. The point is that if we want to derive management information, we are faced with a dilemma. This management information is not a goal in itself but plays an important role in the quality cycle of the university college. If the right people at the right time can have the right management information, the primary and secondary processes can be managed better. Perhaps this way, the student completes his education in a higher pace, or his knowledge and skills are fitter for the labor market, just to name a few.

How can we prevent the lack of clarity about what information we should use to derive management information?

One answer for this question is Master Data Management (MDM). This means that a central administration is designated for all non-transactional information. This central administration is considered as leading in all processes in the organization. Decentralized modification of data within the MDM regime, is then a big no no. This means of course that all working processes and computerized systems should comply with this principle. This is not an easy thing to do. Returning to the examples above MDM should then be applied to the entities student, staff and course. If a data warehouse is chosen as a means for obtaining information management, MDM simplifies its loading process considerably. Transactional data from various source systems now can relatively easily be linked to entities covered by MDM.

Many organizations 'choose' more or less forcedly for an alternative to MDM. Namely, they designate a source system to be considered the leading source in the process of gathering data for producing management information. This data can then be supplemented with data from non-leading sources. Almost by definition, this results into problems regarding to the integration of data from different source systems. The consequence is that all kinds of tricks have to be performed just to make sure that as much data as possible can be integrated. It is quite probable that data from non-leading systems will be ignored during this process. In the best case, all parties (from owners of the source systems to end users of the management information) agreed on the chosen approach. But few will finally be able to understand fully the consequences of this for the quality of management information. These are probably only those persons that are responsible for the technical realization of the data loading process. Responsibility for data quality in this way is borne by the wrong people. Anyway, this practice is very common.



Picture 1: Master Data Management bringing the pieces together.

In the absence of MDM I would plea for at least storing all the source data "as is" together with a time stamp. It is quite possible that, having new insights, we would like to change the way data from different sources is integrated. If we have preserved historical data, we can apply this new way of integrating retroactively. A data warehouse designed according to principles as Data Vault or Anchor Modeling is ideal for this purpose.

We are halfway through. If we are at the stage that we have gathered the source data, we will still need to translate it to management information.