'PARADIGM SHIFTS AND CHALLENGES FOR INSTRUCTIONAL DESIGNERS:
AN INTRODUCTION TO META TAGS AND KNOWLEDGE BITS',
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http://www.imsproject.org/feature/kb/knowledgebits.html

Commentary

The reason why we tag (or catalogue, or describe, or index) is so that objects (information objects, knowledge objects, physical objects) can be identified and located, often with a view to re-use. Think of library catalogues, which have been using machine-readable tags for decades. Some of them are visible to the user of the public catalogue (author, title, publisher, call number etc). Others are usually not used by the public but are important for the management of the database or for housekeeping.

Appropriate re-use of knowledge objects (or knowledge bits, or learning modules) is also the aim of Steven Schatz. Eighteen months ago he was introduced to meta tags, or metadata, as a mechanism by which this could be achieved. His article provides an introduction to the concept of meta tagging for instructional designers, and instructions as to how they might be used within an organization to speed the compilation of learning packages, customize training to the learner, and keep training materials up to date.

The article begins with an admirably clear explanation of the concepts and power of meta tags, and moves on to explain the steps involved in constructing a unique meta tag schema for an organization. The weakness of the article is in this second section. The audience for the article is apparently the instructional designer working in a presumably large organization and probably (though this is never stated) one which is concerned with skills training rather than education more broadly defined. Even so, Schatz understates the scale of the task of constructing, building, applying and managing a schema rigorous enough to have lasting value. He also glosses over some tasks, such as the development of a controlled vocabulary, that are major but essential undertakings probably requiring special expertise in their development and certainly requiring training in their application if consistency is to be achieved. `Garbage in, garbage out', is an old saw that will come back to haunt anyone who lightly embarks upon the design and application of metadata.

One is never quite sure about the scale of the environment in which Schatz envisages a schema being applied. On the one hand he seems to place great value on customization of schema - developing a unique tagging schema for an organization - on the other he refers to the use of knowledge bits from vendors, presumably externally developed and described. An organization, particularly one developing many knowledge bits for different internal applications will want some unique tags that relate to its own training structures and terms. However if a schema is too idiosyncratic the ability to incorporate meaningful data from other organizations will be lost. Given the amount of work involved in designing and applying a metadata schema it is wise to take a long-term view. Institutions change, training structures change, language changes. Decisions that seem to give precision today may make data useless in a few years.

The work involved in understanding the concepts, developing a schema, and applying it consistently and continually, can only be justified if the result is a shared resource. Even when an organization has only one instructional designer on whom all this falls or who is ever likely to use the metadata, design and application should take into account that staff will change and if the wheel is not to be reinvented each time the work done must be thoroughly documented, preferably with a training manual and thesaurus that clearly explain why certain choices were made in the design (what a term means precisely and what variants or synonyms are preferred or rejected, the preferred format for text within a tag or field etc) and how they are applied. If these tools are compiled and consistently used, and need arises for the revision of data in the future, it can at least be met with minimal difficulty.

In a previous world a whole profession developed around the skills needed to do this. The advent of computers has speeded up the creation, input and processing of data. It has also made it possible to arrive at muddle and confusion much faster. Computers have if anything made the work put into design and standards development even more important. If the use of metadata has the potential as Schatz suggests to assist the work of instructional designers, and to share and re-use resources - and it does - it will only be realized if it is seen as a skill in its own right. That does not mean that organizations should employ more librarians (necessarily!). It does suggest special training is needed, and that in a large organization developing many `knowledge bits' it would probably be more efficient to designate a single person to develop and employ that expertise.

A final word of weary experience. The excellent idea of sharing resources by sharing access to databases that describe resources has other precedents besides libraries. I am thinking of the clearing-house movement. These resource-sharing projects were invariably begun with a deal of enthusiasm, and invariably died after a while because people simply stopped going to the trouble to contribute data about their own resources or projects. Commitment to constructing metadata by instructional designers for the use of other instructional designers means commitment to adding another procedure before signing off on a development. When time presses, and there are other demands to be addressed, this is a good resolution that may somehow just never get around to fulfillment if it has simply been the result of individual initiative rather than an institutionally mandated process.

References

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