When Should You Adopt a Standard?

Understanding the standardization process is key to decision-making

BY ROBBY ROBSON

Three years ago, the most common question asked about e-learning standards was: “What are they?” Now, in early 2003, producers and consumers of e-learning products and content are faced with more complex questions like: “Which version of SCORM should we adopt?” and “How and when should we adopt it?” Following are some general principles that can help with these types of decisions, especially for standards that concern the interoperability of learning content with delivery platforms.

Three market segments
The e-learning marketplace, from the perception of standards adoption, is divided into three segments: product vendors, content producers, and consumers. The value proposition of standards—reduced cost, increased reliability, and interoperability across platforms—is essentially the same for all segments, but the risks of adoption or non-adoption vary greatly.

For product vendors, adoption of a standard requires advance planning and design work at the beginning of a development cycle. It may be 12 to 24 months after initial design before a software product is ready for market release. If a vendor waits that long to support a standard that the market has adopted, they may find themselves shut out of the market. Therefore, vendors tend to be on the “bleeding edge” of adoption even if they know that they will incur additional costs by including support for some standards that do not end up gaining wide market acceptance.

Consumers, on the other hand, have good reason to be conservative about the adoption of new standards. It is easy to get burned by investing in tools and practices before the vendors have worked out the kinks and before content producers (either external or in-house) have developed enough standards-conformant content to demonstrate value and practicality.

Content producers are caught between product vendors and content consumers. When a standard starts to achieve market adoption, there is often a demand to retrofit existing content to support the standard. That may be difficult and expensive if the content was not designed with the standard in mind, so there is a significant downside to not supporting the right standards early on. On the other hand, it is also very costly to produce content that relies on standards that are never widely adopted.

The path to adoption
E-learning standards start out as specifications. Specifications need champions to survive. These champions, usually product vendors, develop pilot prototypes and show them off at conferences and trade shows. This starts to generate a perception that the functionality offered by the standard is just around the corner, but you should not be fooled. For a standard to achieve adoption, a range of product vendors must commit to commercialization. Commitment to commercialization is a strategic and market-driven decision, not purely an engineering decision. In e-learning, these decisions have generally been driven by vertical industries (like the aviation industry or higher education) or government agencies that announce their intention to include conformance in purchasing requirements.

Even if a specification starts to gain momentum, it still can stall. For example, many commercial authoring and delivery systems support SCORM 1.1, a specification that was supplanted by SCORM 1.2 before it achieved much real adoption. The two specifications differ primarily in the methods they use for aggregating content and transporting it between learning systems. The newer version is based on a specification that had already been commercialized, that was technically superior, and that matched the emerging market positioning around learning objects. SCORM 1.2 was released for nine months, while SCORM 1.1 was released long enough for vendors to have committed to supporting the earlier version but not so long that the market could not quickly move to the better solution because of existing investments.

Successful specifications often end up as formal accredited standards. Accreditation is one sign that a specification has grown up. It aids adoption by lending stability and credibility to the standard. In the e-learning space, Learning Object Metadata is an accredited IEEE standard, and some parts of
SCORM are close to achieving that status.

Risk management
There are a number of simple ways for vendors, content producers, and consumers to manage the risks associated with adopting standards. Vendors should make it their business to know what is happening in standards bodies and what their competition is doing. They should also follow the time-honored advice of staying closely attuned to customer needs. Standards that do not solve concrete problems are not likely to be adopted.

Content development organizations can also help themselves by keeping tabs on standardization efforts. They can incorporate major trends (e.g., reusable learning objects) into their design and development approaches so as to reduce re-development costs later on. They can also adopt a policy, especially valid for in-house content development teams, of using exactly the standards (or parts of standards) that are easily supported by their authoring tools and delivery technology.

Consumers generally adopt a wait-and-see attitude, but there are times when technology based on new standards can provide essential benefits with clear returns. It is, therefore, important that consumers stay on top of the functionality provided by standards once they are supported in commercial products. It is also important that consumers understand how a standard is supported by all relevant technology and which components are likely to last for how long. Why pay extra for content that uses interoperability standards that are not supported by your learning management system, if you are planning to keep the learning management system in its present version for another three years?

Decision-making
As the e-learning industry matures and standards proliferate, producers and consumers will frequently be faced with the question of when to adopt standards or parts of standards. Relatively high-stakes decisions will have to be made. These decisions should be based on business goals, technical considerations, an understanding of the standardization process, and an appreciation of the risk factors that shape the behavior of the market.

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