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XBRL Strategic Initiatives

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In a previous installment of MDA Journal¹, I explained that there is a risk of XBRL falling victim to its own success, as regulatory agencies in more and more jurisdictions mandate it for financial statement reporting and other regulatory reporting purposes. I expressed a hope that the growing community of XBRL stakeholders would support new architectural and governance mechanisms needed to scale XBRL up for mass adoption. Now XBRL International, Inc. (XII) has announced a series of strategic initiatives designed with that in mind.

The Proliferation of XBRL

Regulatory authorities have established mandates for filing financial statements via XBRL in many countries including China, Japan, and, more recently, the United States. It is used for compliance reporting required by Basel II, a key international banking regulatory framework. It is also used for customs filings in some countries and for various kinds of reports by local authorities to central authorities. The U.S. Federal Deposit Insurance Corporation (FDIC) uses it for compliance reporting. This is only a partial list of uses and the list is growing.

Each of these uses requires the definition of a report format for the particular usage. In XBRL terminology, a report format is called a *taxonomy*. Accounting practices in China, Japan, and the U.S. differ, requiring different taxonomies for different jurisdictions, even for the common purpose of filing financial statements. There is another XBRL taxonomy targeted to the International Financial Reporting Standards (IFRS). Still more taxonomies have to be defined for customs filings, and, again, the customs taxonomies differ for different jurisdictions.

¹ "XBRL and Semantic Interoperability," MDA Journal, BPTrends, April 2009

XBRL Organizational Structure

There are multiple, related XBRL standards organizations and groups (see Figure 1). It's useful to understand their roles when discussing the strategic initiatives.

- *XBRL International, Inc. (XII)* –The global XBRL organization, a not-for-profit corporation governed by the XII Board of Directors. The Board of Directors' members represent regions of the world.
- *International Steering Committee* – Makes overall policy decisions that give direction to the Standards Board and Best Practices Board.
- *Standards Board* – Oversees the production of the core XBRL standard, which defines how to specify XBRL taxonomies. Working Groups accountable to the Standards Board carry out the actual production and maintenance of the standard.
- *Best Practices Board* – Oversees the promotion of best practices in the use, implementation, integration, and development of the XBRL standards. Working Groups accountable to the Best Practices Board produce guidelines and other artifacts that promote best practices.
- *Regional XBRL Jurisdictions* – XBRL International establishes regional jurisdictions run by affiliated organizations that manage the production and use of region-specific taxonomies. The regional jurisdictions are independently incorporated organizations.

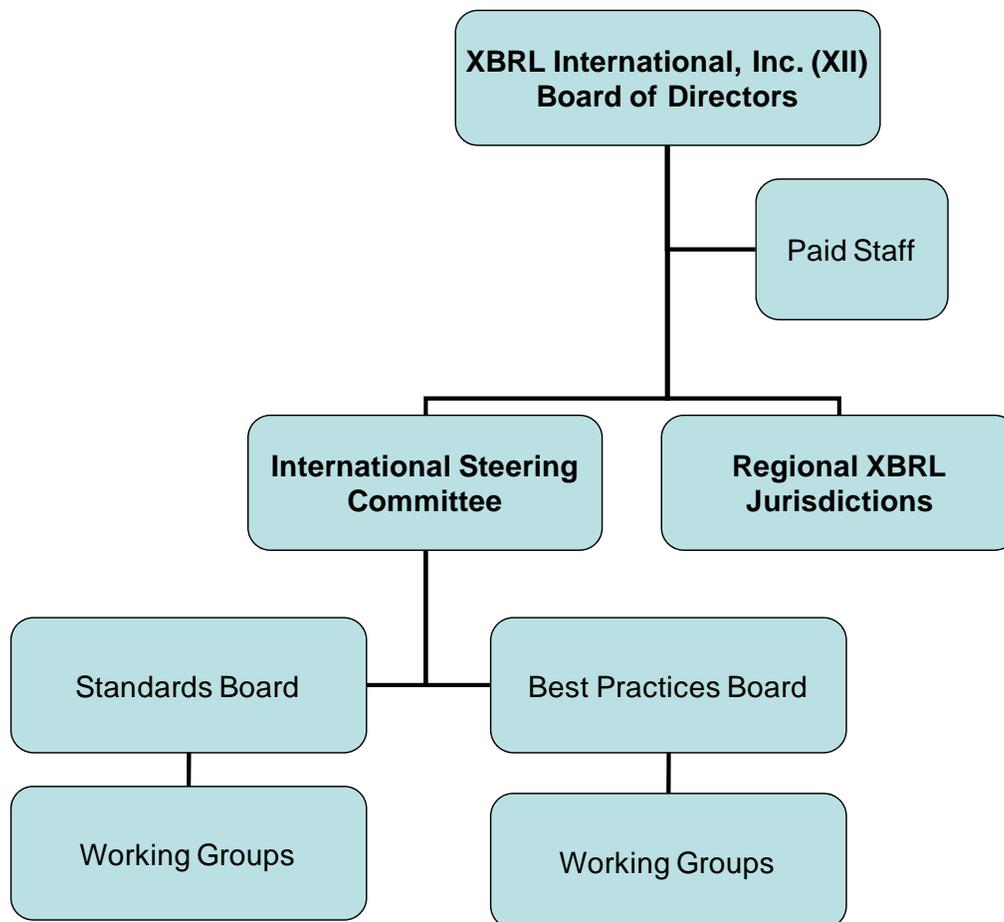


Figure 1: XBRL Organizations

The Six Strategic Initiatives

The strategic initiatives were put together by XBRL International's Standards Board (aka XSB) and thus pertain to the core XBRL standard and issues that span all XBRL taxonomies, rather than being about specific taxonomies. The XSBs strategic initiatives are:

1. *Create an Abstract Model* – XBRL taxonomies, and reports that conform to the taxonomies, use a syntax based on XML technologies including XML Schema and XLink. The reliance on XLink in particular makes the syntax verbose and rather convoluted. As a result, XBRL users – including software developers – frequently fail to implement the XBRL specification properly. The purpose of the abstract model is to distill the dense syntactic aspects to reveal in an uncluttered fashion the actual things that XBRL taxonomies and reports express.² The initiative also aims to produce an unambiguous mapping of the Abstract Model to the XBRL syntax.
2. *Produce Training Materials* – While a number of publications already cover XBRL, the XSB recognizes that it needs to lead a concerted effort to ratchet up the training available to developers and non-technical XBRL users. This effort will leverage the Abstract Model, which should make it easier to explain XBRL to developers first in terms of what XBRL expresses semantically, and then in terms of how the syntax is applied as a concrete means of expression. Also, training for XBRL business users should benefit if the Abstract Model's simplified abstractions form the basis of a new wave of XBRL tools that present XBRL in terms of those abstractions and completely hide the complicated syntax.
3. *Define Standard API Signatures* – Currently there is no standardization of the application program interfaces (APIs) that XBRL tools use for reading, writing, and updating XBRL taxonomies and reports. The lack of standardization hampers interoperability among tools and constrains the growth of a community of developers with common XBRL development skills. Standardization should stimulate the growth of an XBRL tool chain, where different tools focus on different stakeholders. The Abstract Model could serve as the basis for the APIs, at least some of which could be presented in terms of the Abstract Model's simplified constructs.
4. *Reorganize Existing Specification* – XBRL is a complex specification with different parts dependent on others in ways that are not obvious. The XSB wants to restructure the specification into more manageable modules whose interdependencies are explicitly manifest. Here again, the Abstract Model can help by providing a more intellectually manageable view of the key functionality and dependencies.
5. *Enhance Data Comparability* – This is the initiative that most directly addresses the semantic interoperability issues that I outlined in my previous BPTrends column about XBRL. The proliferation of XBRL taxonomies degrades the semantic clarity of the various taxonomy specifications. Consider a global corporation that has to file financial statements in multiple countries, each with a different taxonomy whose definitions were not actively coordinated, and who also has to file additional, different reports for customs, taxes, and so on. Subtle – and possibly necessary – differences in the meaning of terms used in common across the various taxonomies threaten to create a substantial headache for those responsible for the reports. The data comparability initiative aims to address this problem. The Abstract Model will also help by establishing a clear baseline to which to add the new capabilities.
6. *Develop Application Profiles* – There are differing use cases for XBRL, with some requiring only a subset of XBRL's capabilities. Yet it is not easy to separate the parts of

² For the technically inclined: The Abstract Model will be a metamodel expressed via the Meta Object Facility (MOF). MOF is a subset of UML used for Metamodeling, so UML tools can be used to develop the Abstract Model.

the XBRL standard needed for specific scenarios. A standard mechanism for declaring XBRL profiles will make explicit which XBRL capabilities a given tool, taxonomy, or report uses. The initiative to reorganize the specification into manageable modules will be an enabler for the profiles initiative. Once again, the Abstract Model will be a facilitator by establishing a comprehensible baseline with which the profile support can be integrated.

Conclusion – The Fundamental Role of the Abstract Model

It is evident from the descriptions of the strategic initiatives that the Abstract Model is the most fundamental one. XBRL's challenging syntax risks miring the architects designing the new capabilities deep in the weeds where it is difficult to see clearly. It is better to work from an understandable baseline. And the efforts to reorganize the specifications and upgrade training efforts will benefit from the new level of clarity.

That is why the XSB kicked off the Abstract Modeling initiative first, establishing a working group that is now well into the production of the model. It's a challenging yet worthy endeavor.

David Frankel has over 30 years of experience in the software industry as a technical strategist, architect, and programmer. He is recognized as a pioneer and international authority on the subject of model-driven systems. He has published two books and dozens of trade press articles, and has co-authored a number of industry standards.

David is a member of SAP's Technology Strategy team, which is part of the CTO's Technology and Innovation Platform organization. He focuses on standards for the financial services sector and for model-driven systems. He is a member of the working group that is defining the XBRL Abstract Model.

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