

CONVERGENCE AND HARMONIZATION OF STANDARDS ORGANIZATIONS: SIIT 2007 PROCEEDINGS

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Accredited and non-accredited standards organizations, commonly referred to as “SDOs” and “SSOs” respectively, are more alike than usually thought. Both rely on volunteers to provide their time and effort and to apply their domain expertise to create industry, national, and international standards. Both face similar challenges with regards to IPR issues, governance, business models, membership recruitment and retention, and promotion of work products. Accreditation by itself is not a valid distinguishing feature; many unaccredited organizations are fully qualified to become accredited and would do so if only they saw the need or benefit. The perceived differences between these types of organizations, while loosely based on historical practices, depend mostly upon whom one asks. In addition, the two types of organizations are becoming more like each other as their practices become more closely aligned and as they reach out to work with each other, recognizing the value of each others’ efforts.

Standards are being developed today by a large number and wide variety of standards organizations. Every industry, whether high or low tech, seems to have its own organization or sometimes multiples of organizations. Most countries have national bodies, and there also exist at the international level a small number of organizations that have various levels of authority granted by governments. There are, of course, differences in these organizations in the scope of their missions, levels of membership or funding, business models, the quality and quantity of work produced, and their levels of recognition and accreditation by other organizations higher up the hierarchy.

Despite these differences, organizations that develop standards are fundamentally very similar. They seek to develop standards to benefit their industries and their members. They face the same issues of financing their operations, gaining and retaining members, producing standards that meet specific needs, and having those standards adopted. And despite perceptions to the contrary, standards organizations that are accredited or recognized are quite similar to those which are not.

Terminology

Any discussion of standards activities will inevitably use a particular terminology to refer to and classify the various types of organizations that develop, approve, and promote standards. The terms *de facto*, *de jure*, formal, informal, SSO, SDO, government, industry, sectoral, consortium, recognized, accredited, regional, national, etc. can all be used to describe what could generically be called standards organizations.¹

It is not the purpose of this paper to add to the discussion of terminology; several good papers have been published on the topic.² However, as the purpose of this paper is to discuss the differences and similarities between what

¹ de Vries 2006.

² In particular, see de Vries 2006.

are commonly referred to as “Standards Setting Organizations” and “Standards Developing Organizations”, these terms must first be dispensed with.

The term “Standards Developing Organization³,” or SDO, is generally meant to refer to an organization that is accredited or recognized by some sanctioning body, such as a government-recognized or treaty organization such as ISO, ITU, or IEC, or the national bodies such as ANSI, AFNOR, BSI, or DIN, and the European regional bodies such as CEN or ETSI.⁴ SDOs would include, in the U.S., for example, the Accredited Standards Developer (ASD) organizations which are accredited by ANSI; this accreditation is obtained by applying for the accreditation, demonstrating compliance with the ANSI *Essential Requirements*, and submitting to occasional audits.

“Standards Setting Organization,” or SSO, on the other hand, generally refers to a consortium, forum, professional organization, or any private, closed group that develops and approves specifications that it calls standards⁵ or recommendations, etc. The most common and consistent use of the term has been to designate a standards organization that is not formal, recognized, or accredited as defined above. It is generally used as the opposite of “SDO,” and sometimes replaced simply with the term “consortium.”⁶ Consortia have generally not restricted themselves to national interests, but develop domain- or industry-specific standards without regard to national boundaries.

This paper avoids using the SDO/SSO terminology because, despite general use, there is no clear and accepted definition of the terms, and more especially because the terminology is confusing and contradictory. In particular, both the accredited organizations and the non-accredited consortia organization will *develop* standards, so there is no useful distinction in saying that one *sets* (SSO) and the other *develops* (SDO). And while an accredited organization will develop standards, a sanctioning body, which would normally be included in the SDO category, does not *develop* standards as much as it *approves* or *sets* standards; it would thus more appropriately be called a “standards setting organization” rather than a “standards developing organization.”

When the SDO/SSO terms are ever defined, the definitions are usually along the lines of whether the organization is accredited by a recognized body or not. As this accredited/non-accredited binary is perfectly understandable and considerably more accurate than SDO/SSO, these are the terms which will be used in this paper together with consortia⁷, recognized, national body, etc.

Perceptions of Differences

Many of the perceived differences between the types of standards organizations are old stereotypes, currently under challenge by a changing set of circumstances, as we shall see in the following section. These perceptions depend considerably on who one is asking.

³ The term is also used in the *Standards Development Organization Advancement Act of 2004* [H.R. 1086] passed by the U.S. Congress. Here the term is defined as “...a domestic or international organization that plans, develops, establishes, or coordinates voluntary consensus standards using procedures that incorporate the attributes of openness, balance of interests, due process, an appeals process, and consensus in a manner consistent with the Office of Management and Budget Circular Number A-119, as revised February 10, 1998.” The use of the term in this document says nothing about accredited vs. non-accredited, i.e. SDO vs. SSO, which is the common usage of the term discussed in this paper.

⁴ de Vries, 2006, p.10-11

⁵ It is not the purpose of this paper to define what is a “standard.” This paper uses the term only in the sense of a specification that has been approved by an organization under some sort of consensus process. Various definitions are cited and analyzed in de Vries 2006.

⁶ See, for example, Cargill 1995, where the author uses the terms “SDOs” and “consortia” to refer to accredited vs. non-accredited standards organizations. Krechmer 2006 uses “recognized SSO” and “consortium” in the same manner.

⁷ But even the term “consortia” has no agreed-upon definition, and the term can be used in a variety of ways. See Egyedi 2006, p.92.

Common perceptions⁸ among participants at recognized or accredited organization are that

- consortia are generally less open;
- participation in consortia is by invitation only or at significant cost;
- consortia are sometimes quicker to produce work products, but only because the consortia process is less rigorous – even sloppy – and less democratic and nonconsensual;
- consortia come and go, while accredited organizations can be depended on to be around for the long term;
- one must pay for membership to participate in consortia but not in the recognized bodies;
- consortia are more prone to anti-trust problems;
- consortia are to be blamed for the fragmentation of the standardization efforts;⁹
- consortia are rivals, and draw away resources and expertise that could be used in the formal standards setting process; and
- the recognized and/or accredited organizations are more open and democratic, more mature, produce better quality work, etc.

On the other hand, perceptions of people coming from the consortia world may be that

- the recognized and/or accredited organizations are slow and difficult to work with;
- accredited organizations have ponderous processes that make it difficult to join and participate in, and are “closed clubs” requiring knowing somebody to gain access to;
- accredited organizations are more concerned with retrospective than anticipatory standards, and thus are not on the leading edge of technology;
- the work produced by such organizations are late to market, and the organizations do nothing to promote adoption; and finally,
- potential implementers have to pay to get copies of the standards, which hinders adoption.

Admitting that some of these perceptions may be at least loosely based in historical fact, when discussing the attributes of the various standards organizations it is important to recognize that most all measures will fall at some point along a spectrum. While recognized/accredited vs. non are certainly binary measures, the levels of other measures¹⁰ such as transparency, openness, impartiality, consensus, balance, democracy, cost, effectiveness, timeliness, adoption rates, etc. may vary considerably between organizations. Even among the set of all accredited organizations, for example, there will be differences in the level of openness and balance.

It is true that many accredited and recognized organizations are older and more mature; for example, ITU was founded in 1865 and ASTM International in 1898, while on the other end of the scale several consortia have been formed in just the past few months¹¹. With age can come maturity in process and organization, but also rigidity and bureaucracy. There are several (relatively) younger organizations such as W3C, OASIS, IETF, ISOC, etc. that are very well organized and have mature processes; advanced age alone is not required for maturity. Further, many such mature consortia could easily become accredited, and would qualify to do so, but have not seen the need or advantage in doing so or have chosen not to do so for various political or business reasons. Lack of accreditation is thus not necessarily a sign of an immature or “bad” organization.

⁸ Perceptions such as these, often derogatory, are seldom documented so difficult to provide citations for. However, I have personally experienced these perceptions and opinions during my several years’ work with both accredited and non-accredited standards organizations. See also some perceptions listed in Egyedi 2006.

⁹ van Wegberg 2006, p. 112, 121.

¹⁰ Measures such as these are required by the World Trade Organization in its 2002 *Agreement on Technical Barriers to Trade* (http://www.wto.org/english/tratop_e/tbt_e/tbt_e.htm), by the ANSI *Essential Requirements* for accredited standards developers (<http://www.ansi.org>), and the *US Standards Strategy* (<http://www.ansi.org>), and are included in the definition of “standards development organization” in the *Standards Development Organization Advancement Act of 2004* [H.R. 1086] and OMB A-119.

¹¹ See <http://consortiuminfo.org/news/cat.php?CID=1>

Longevity may offer some advantages, however, in a top-down standards environment where government agencies establish long-term relationships with organizations that they will work with, fund, and depend on to develop standards.¹² Funding would generally go to standards organizations known to and who have a history with the government agencies, who may be distrustful of industry consortia which may rapidly appear and are sometimes short-lived.

It is also true that many recognized and accredited organizations gain significant portions of their revenue from the sale of standards documents (as is the case with ISO, national bodies such as ANSI¹³, and some ASDs such as ASTM and NFPA¹⁴) while most consortia make their standards freely available; that fact, combined with consortia promotional efforts can lead to quicker and broader adoption of work produced by the consortium. But the *de jure* status of international standards carries a lot of weight with adopters as well, especially in those countries where products based on *de jure* standards are required for the fulfillment of government contracts.

In addition to making their standards freely available, consortia generally make proactive efforts to promote adoption and implementation of their work¹⁵ through providing sample implementations and proofs of concept, conformance tests, and educational activities. This is more in line with the “complete picture” of standardization activities.

There may be some truth to the perception of consortia focusing more on the bleeding edge technologies, i.e. the anticipatory standards, with the accredited organizations working more on standardizing existing technologies, i.e. retrospective standards. But this isn't exclusively true; the 802.11 WiFi standards, for example, come from IEEE, and ANSI-accredited organization.

Some consortia are indeed closed, invitation-only groups; these are sometimes more appropriately called fora, ecosystems, or an LLC. Other consortia are only open to entities willing and able to pay quite large membership fees. But most consortia known to me are – given the organization's reliance on membership dues for revenue as they don't sell their standards – open to any interested party and have dues models with various levels of membership based on ability to pay. Even accredited organizations that derive some part of their revenues from the sale of standards will charge a membership and/or participation fee. For the international organizations, participation in that body is usually free, but one must first join the national body, which requires payment of a membership fee.

In many ways consortia could be considered more open than formal bodies¹⁶ because of their outreach to end users and SMEs, simple and understandable processes for joining and participating¹⁷, opening their work for public review¹⁸, and progressive IPR policies.¹⁹ Governance of the consortia and the setting of the organization's strategic direction is likely to be just as responsive to its membership as a more formal organization, as committee chairs and the organization's board are generally selected by the membership.²⁰

¹² Egyedi 2006, p.97

¹³ ANSI Annual Report 2006

¹⁴ ASTM International gets 80% of its revenue from the sale of standards, and NFPA 40%, as reported by their representatives at the ANSI Open Forum for Standards Developers, June 2007, in Boston.

¹⁵ “Standardization consists of more than the process of standards creation; standardization includes implementations of the standard (by implementers) and the use of the implementations (by users).” Krechmer 2006, p.29.

¹⁶ An attempt at quantifying the level of openness of various organizations may be found in Krechmer 2006; some non-recognized organizations score higher than recognized organizations.

¹⁷ “...the formal standards process is an exclusive one. The participation of end users and SMEs is very low.” Egyedi 2006, p.100.

¹⁸ Note, for comparison, that the recent review of ECMA's OOXML at JTC1 accepted comments only from the national body members of SC34 and minutes of committee deliberations are not published, while the OASIS approval of ODF was open to comments from any member of the public and all committee records are open for public examination.

¹⁹ For example, W3C's RF license requirements for essential patents in February 2004. See <http://www.w3.org/2004/pp/>

²⁰ This despite the conclusion of Egyedi 2006 p.99, based on the single example of W3C, that “the procedures of (some) consortia allow them to be reigned in an autocratic manner.” I suggest that this be “one” rather than “some”, as I am aware of no other consortia that operate using the “benevolent dictator” model.

Both accredited and non-accredited organizations share similar concerns with regards to financing and staffing the operations of the organization, recruiting and retaining members, etc. The difference will be the accredited organization's more likely reliance on the sale of documents as a revenue source, and the non-accredited consortium's more likely reliance on additional revenue sources such as conferences and workshops, conformance certification, etc. The link between accreditation and these different business models is only coincidental and based more upon age, as the practice of making standards freely available is a fairly new one.

At the ANSI-sponsored Open Forum for Standards Developers²¹, held in Boston on 20 June 2007 and attended by representatives of both accredited and non-accredited standards organizations, the program chair, Andy Updegrave, asked for a show of hands of the attendees in response to questions regarding the concerns facing their respective organizations. While there was some difference in the business models used by the various organizations, and some organizations were older than others, there was a significant similarity in the responses to questions related to concerns about IPR, globalization, membership, adoption, etc. between the attendees. The response to other questions posed by Mr. Updegrave revealed that not all consortia were new, that not all accredited organizations were domestically focused, that both accredited and non-accredited organizations had a wide range in numbers of members, committees, and completed work. In short, the various organizations represented at the meeting were more alike than one would think at first glance.

So while the term "consortia" or "SSO" may be seen as a pejorative when compared to accredited organizations, given the spectrum of attributes it would be better to look at the individual organizations, both accredited and non, to examine the general attributes of openness, balance, ease of participation, timeliness, rates of adoption, etc. rather than simply whether or not the organization has seen the need to become accredited. While the latter would usually prove the former, the lack does not disprove it.

Convergence and Harmonization

The first half of this paper showed how the various types of standards organizations are more alike than commonly recognized; this second half will show how they are becoming increasingly so.

While in some instances "convergence" may mean increased relationships between organizations, or even occasional actual mergers, here it is meant to describe the increase in similarities between the operating models and processes of the various types of organizations.

Globalization

Historically, standards organizations accredited by the national bodies have generally been focused on a national market or industry; where the purpose of a national body is to promote a particular country's economic interests,²² organizations accredited by that national body would inherit, at least in part, that goal. Consortia, on the other hand, have not restricted themselves to national interests, but instead have developed domain- or industry-specific standards without regard to national boundaries. (This fact contributes greatly to consortia's general lack of interest in becoming accredited by a national body, despite whatever advantages may come from doing so, as they see themselves outside of the scope of that national body.)

In the meantime, accredited organizations (for example the U.S.-based and accredited IEEE²³ and ASTM²⁴ organizations) are "going global" by increasing the scope of their activities and membership beyond the U.S.

²¹ See http://ansi.org/meetings_events/events/OpenForum07.aspx?menuid=8

²² See, for example, the ANSI overview at http://ansi.org/about_ansi/overview/overview.aspx?menuid=1, which says, in part, "...to strengthen the U.S. marketplace position in the global economy...."

²³ IEEE was formed from a merger in 1961 of the American Institute of Electrical Engineers and the Institute of Radio Engineers, and now emphasizes its global membership and scope.

Technology has never been specific to national boundaries – e.g. electricity works the same in every country – and the restriction of communications and markets to a single country is found only in protectionist, totalitarian regimes. With today's global economy there is little or no need for nationally specific standards. A spot check of lists of standards organizations²⁵ shows most all organizations to have an international scope and participation.

Convergence of Operational Styles

Consortia, traditionally seen as less formal and open than the accredited organizations, are becoming more like their accredited counterparts in this respect. A great deal of this comes from experience; a brand-new organization has not yet lived through the travails of a major membership dispute, or anti-trust or patent infringement suit that have encouraged another more mature organizations to develop more robust and formal sets of policies and processes. As time passes, more experience is gained, the number of members grows and the complexity of the work increases, the need will become apparent, for example, for a technical process that will handle all manner of situations²⁶. Just as with humans, however, age does not necessarily equate to maturity; some teenagers are quite mature for their age and some adults never grow up.

Business Models

Accreditation aside, one of the biggest differences in operating style between the two types of organizations has been their business model. Both types of organizations will generally get some part of their total revenues from membership dues. Consortia generally make their standards freely available, while the accredited and recognized organizations generally get a large portion of their revenues from the sale of documents. But placing a price tag on specifications and standards does nothing to encourage their adoption.

Change may be on the way, as evidenced by the January 2007 announcement by ITU-T that their Recommendations would be available free of charge for a trial period.²⁷ What's driving this change? The ITU-T announcement is pretty clear: "There is a general belief that the strategic importance of making on-line access to ITU-T Recommendations free outweighs the costs (in terms of lost revenue) to ITU. This is seen as a way to increase the transparency of ITU-T work and encourage wider participation in ITU-T activities. It is also believed that this policy will help increase developing countries' awareness of pertinent issues and help to promote the participation of academia in ITU-T work." In short, ITU-T is admitting that the practice of charging for access to the recommendations developed by the organization is an obstacle to participation in and adoption of their work.

Recognition

The accredited and recognized organizations have seen the advantages of becoming more inclusive and especially quicker in developing standards, in reaching out to allow and encourage submissions of work done under less formal processes, and developing processes in their own organizations for quicker development of work. CEN/ISSS, for example, is using workshops to attract new members and to develop consensus quickly in a less formal environment.²⁸ ISO, in the second of seven key objectives in its *Strategic Plan for 2005-2010* seeks to "Survey and facilitate the involvement by its members of interested and affected stakeholders at the national level, especially private sector, public sector and authorities, as well as consumer organizations." In short, the very audience that are usually associated with consortia involvement.

²⁴ Originally named "American Society for Testing and Materials", it is now known as "ASTM International" with members in over 150 countries.

²⁵ Two examples of lists of standards organizations may be found at <http://consortiuminfo.org/links/> and at <http://www.cen.eu/cenorm/businessdomains/businessdomains/iss/consortia/survey+table+of+content.asp>

²⁶ See, for example, the various versions of the OASIS Technical Process, from its first version in 2000 to the present, at <http://www.oasis-open.org/committees/process.php>, or the process document for W3C at <http://www.w3.org/2005/10/Process-20051014/> where previous versions going back to 1999 may be found by following the links.

²⁷ See <http://www.itu.int/ITU-T/newslog/Trial+Period+For+Free+ITUT+Recommendations+Starts.aspx>

²⁸ See van Wegberg 2006, p.123

In 1998 the U.S. Office of Management and Budget (OMB) released Circular A-119²⁹ instructing U.S. government agencies to use voluntary consensus standards wherever appropriate. “This Circular directs agencies to use voluntary consensus standards in lieu of government-unique standards except where inconsistent with law or otherwise impractical.” The goals of this policy were to eliminate the cost to the government of developing its own standards; provide incentives to establish standards that serve national needs; promote efficiency and economic competition through harmonization of standards; and further the policy of reliance upon the private sector to supply government needs for goods and services. The summary goes on to define “voluntary consensus standards” as those created by organizations operating under the principles of openness, balance, due process, consensus, and having an appeals process. Note that the Circular makes no distinction between accredited and non-accredited organizations; any standards produced under these general principles are alike.³⁰

These same general principles (openness, balance, etc.) also appear in the U.S. Standards Strategy, which was developed and published by ANSI. The Strategy recognizes the value of work done by all standards organizations, not just those which have been accredited by ANSI. “The [global standards] system is diverse and inclusive and supports flexible standards solutions. Consortia and forums are illustrative of that flexibility and are an integral part of the global standards system.”³¹

ANSI has further recognized the value of work done by consortia, and the need to work together, by forming a Consortia Outreach Group to help open the lines of communication between accredited and non-accredited organizations.

Recognizing the value of the work done by consortia, and the perception that ISO processes were too slow for the fast-moving high tech industry, ISO/IEC JTC1 created in 1993 the Publicly Available Specification, or PAS, process.³² The purpose of the PAS process is to encourage participation of consortia in the international standards setting process by their submitting work (the consortia-produced “publicly available specifications”) to be approved as international standards.³³

Before submitting work, the organization³⁴ must become certified as a PAS Submitter by making an application to JTC1 and proving the quality of the organization’s structure and processes, and hence, it is assumed, the quality of the work that the organization will create and submit.³⁵

The PAS program has seen some success; as of the end of 2006 there were more than 20 submissions that had been approved as international standards, coming from eight different consortia.³⁶ However, the list of approved PAS Submitters is not large; at the time of writing this paper, there were four current submitters (FSG, OASIS, UPnP, and WS-I), and 14 former submitters.³⁷ Is there a reason for this decline? The PAS Submitter status is only valid for three years, and renewal (as well as initial) applications must include a list of intended submissions; perhaps the former Submitters have no new work that they want to submit.

²⁹ See <http://www.whitehouse.gov/omb/circulars/a119/a119.html>

³⁰ See footnote 3 above.

³¹ USSS p.7

³² A discussion of the history and purpose of the PAS process may be found in Rada 2000, p.24-25.

³³ The formal description of the PAS process is found in section 14 of the ISO/IEC JTC1 Directives, document N8122, at www.jtc1.org

³⁴ While the program is intended specifically for consortia, any organization may become a PAS Submitter. Sun Microsystems, a commercial corporate entity, was an early PAS Submitter.

³⁵ “The main concern about the PAS Submitter should be broadly speaking whether or not the submitter develops its standard in an open way.” Rada p.25

³⁶ See http://isotc.iso.org/livelink/livelink/fetch/2000/2489/Ittf_Home/ITTF.htm

³⁷ See the list of submitters at http://isotc.iso.org/livelink/livelink/fetch/2000/2122/327993/755080/2317216/Approved_PAS_Submitters.html?nodeid=2315468&vnum=0

Various recognized international standards bodies have provided other means for existing work to be considered for approval. JTC1 has also defined a Fast Track process in its Directives where a Category A liaison can submit existing work “without modification directly for vote...”³⁸ For ISO TCs other than JTC1, a Class A liaison can be established that allows the liaison organization’s representatives to participate in the ISO TC, propose new work items, or submit PAS specifications.³⁹ ITU-T also provides for liaisons to its Study Groups.

Meta Standard Organizations

In its document on the *Technical Barriers to Trade*, the World Trade Organization requires that “Where international standards exist or their completion is imminent, the standardizing body shall use them, or the relevant parts of them, as a basis for the standards it develops...”⁴⁰. This implies a need not just for re-use, but also for communication between standards organizations about what standards are available.

The consortia have gone one step further. A final trend in the convergence of standards activities is the recent proliferation of “meta standard” organizations, whose missions are not the creation of new standards but rather to harmonize the various existing standards in a given field. Examples of meta standard organizations include WS-I, OMA, MIPC, and NCOIC.

WS-I, the Web Services Interoperability organization,⁴¹ for example, creates “profiles” of web services specifications that are tested and guaranteed to work together, and generic protocols for interoperable exchange of messages between web services defined by various specifications. MIPC, the Mobile Imaging and Printing Consortium,⁴² coordinates standards across hardware, software, and wireless industries to allow printing from a mobile phone camera. And the Network Centric Operations Industry Consortium, NCOIC,⁴³ is assembling the various standards necessary for networked identification and communication among armed forces on the battlefield.

These meta standards organizations may sometimes be in the form of a “grand coalition,”⁴⁴ a cooperative effort among various industry organizations pursuing a common goal. A common organization can do much to prevent duplication of effort and promote interoperability of work developed at different organizations, providing immense industry benefit.

Why the Change?

It’s easy to see that standards organizations, accredited and non-accredited, recognized and not, are becoming more and more alike, or at the very least reaching out to each other in attempts to work together. The reasons are also quite plain: each wants the best of both worlds. The recognized, accredited bodies see the value of the “bleeding edge” anticipatory work being done by consortia, quickly and efficiently producing work and developing new technologies to meet industry needs, and want to stay relevant in those industries by bringing that work into their own processes. And consortia and other non-accredited/recognized bodies see the legitimacy that can be provided by submitting their work for approval by the recognized bodies.

But there is some question as to whether the market knows – or cares – whether a standard comes from a recognized, accredited body or not. The U.S. government seems not to care whether a specification comes from an

³⁸ Section 13.1 of the ISO/IEC JTC1 Directives, document N8122, at www.jtc1.org

³⁹ See the ISO Directives available at www.iso.org

⁴⁰ WTO TBT, Annex 3 paragraph F

⁴¹ <http://www.ws-i.org>

⁴² <http://www.mobileprinting.org>

⁴³ <http://www.ncoic.org>

⁴⁴ as defined by van Wegberg, 2006, p.114

accredited organization or not. Perceptions of formal and informal standards have similar positive ratings, at least when compared to proprietary standards.⁴⁵

While there seems to be an increasing amount of cooperation occurring, what we're *not* seeing much of is the efficiencies to be gained from combining efforts through the merger of similar organizations. Given the number of standards organizations in certain sectors, particularly consortia in high tech, and the large amount of overlap in the membership of some of those organizations, it would make sense for some of these organizations to merge in order to increase the efficiency of operations and decrease the cost to these member companies to participate in all relevant activities. Instead, things are still moving in the opposite direction, with new consortia being formed to address each new topic, rather than existing organizations with their already defined membership, structure, policies and procedures taking on the new work. The tide may be turning, however; I have observed a number of recent attempts to start new consortia fail because of lack of interest among potential members in joining yet another organization. Given the cost of participation both in money and time⁴⁶, members should be considering how efficient it is to be participating in multiple organizations, especially when those organizations are so closely related and doing similar work; perhaps the era of mergers will begin soon.

Summary

Despite perceptions from either side of the aisle, there is more that unites the accredited and non-accredited standards organizations than divides them. They share common goals, and increasingly common methods of work, process, policies, and organizational structure. The various types of organizations are reaching out to work with each other, recognizing what each has to offer to the industries in which they operate, and are learning from each other in terms of business models and process.

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⁴⁵ Blind et al. 2007

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Policy, and created over 70 technical committees which resulted in the development and approval of over 20 OASIS Standards, and the submission of some of those standards to international bodies. He was a member of the joint OASIS/UN-CEFACT Coordinating Committee for ebXML, and administered the development and later approval of the ebXML specifications as ISO Technical Specification 15000. He was responsible for liaisons with a wide variety of other standards organizations including ISO, ITU, UN-CEFACT, CEN/ISSS, ISO/IEC JTC1, W3C, and ANSI, and was a member of the ISO/IEC/ITU MoU Committee on e-Business. He also founded and led an ad hoc effort to define a metadata for specifications used to promote the participation in and adoption of standards work.