

History

On August 18, 1997, 29 representatives of 16 higher education associations, administrative software vendors, the U.S. Department of Education, institutions, student financial aid lenders, secondary markets, guaranty agencies and servicers¹ gathered at the National Center for Higher Education in Washington, D.C. to explore the creation of a partnership to promote and facilitate the use of standards for data sharing. At that time, several major factors relating to standardization were emerging and the higher education community had reached the point where centralized organization was needed.

One of the primary drivers was that EDI for student transactions in the admissions and registrar functions (transcript, test score, admissions application, etc.) were in the process of being developed and deployed. Benefits of standardization were being realized and other sectors of higher education were interested in realizing these benefits as well. Another primary driver was the launch of the U.S. Department of Education's "modernization" effort entitled Project EASI (Easy Access for Students and Institutions) which looked to reengineer their convoluted and disparate 13 stovepipe systems. Maintenance and development costs for those systems were increasing exponentially; yet at the same time, accessing those systems was difficult and obtaining accurate and reliable data took weeks and sometimes months.

The final major driver was the launch of the Federal Direct Student Loan Program (FDSLP) in 1993 by the U.S. Department of Education as statutorily mandated by the U.S. Congress through Reauthorization of the Higher Education Act of 1965. Up until that time, federal loans were being made by hundreds of banks and other organizations in various proprietary formats, numbering in the hundreds. FDSLP, which circumvented all bank and other private involvement in the loan process, introduced a single standard and those banks and organizations found themselves needing to respond with standards as well.

The conclusion of that meeting resulted in the agreement to form the Postsecondary Electronic Standards Council (PESC). PESC established a Board of Directors, a membership base, and a number of short term goals, workgroups, and received certification as an independent 501c(3) non-profit organization in 1999. PESC continues to govern all EDI transaction sets already developed, is converting those transactions sets to XML, and is developing a number of other transactions in XML as well. In addition, PESC hosts a number of national meetings and conferences each year and is tracking, educating, and training the higher education community on other important issues related to technology and standards, such as web services and electronic authentication.

On August 4, 2000, in response to recommendations contained in the white paper produced by the eXtensible Markup Language (XML) for Electronic Transactions in Higher Education Workgroup, the PESC Board of Directors founded the Standards Forum for Education. XML development and applications were emerging in all industries, but the Workgroup identified an absence of any single organization responsible for developing XML business standards for the postsecondary community. The community embraced the Standards Forum for Education and together worked to develop and produce the first PESC approved standard, the XML Postsecondary Transcript, in July of 2004. Numerous development efforts have since taken place within the Standards Forum for Education and more and more are being proposed from within the community.

PESC has successfully created the environment envisioned in 1997 and now with its largest Membership in its history, continues to serve the needs of the higher education community. As the benefits of standards are realized, the need for more standards increases along with the needs for proper information, education, and training.

¹ Organizations included: AACRAO, ACT, Brigham Young University, Educause, Citibank, COHEAO, Datatel, EFC, ETS, Harbinger-Supply Tech, KPMG, Law School Admission Council, NACUBO, NASFAA, NCHELP, New York University, Pearson, Sallie Mae, Sungard SCT, SLSA, University of Oklahoma, University of Texas at Austin, U.S. Department of Education

History on PESC's 10th Anniversary

On August 18, 1997, 29 representatives of 16 higher education associations, administrative software vendors, the U.S. Department of Education, institutions, student financial aid lenders, secondary markets, guaranty agencies and servicers gathered at the National Center for Higher Education at One Dupont Circle in Washington, D.C. to explore the creation of a partnership to promote and facilitate the use of standards for data sharing. At that time, several major factors relating to standardization were emerging and the higher education community had reached the point where centralized organization was needed. The words of A. Dallas Martin, President of the National Association of Student Financial Aid Administrators (NASFAA) and founding member of PESC's Board of Directors, from September 19, 1997 imprinted an indelible mark on higher education and still hold true today:

"We are at a critical juncture in the administration of higher education in this country. Over the past two years we have worked together on various industry task forces. One common point of agreement among ourselves during this process is that we must develop a way for the community to organize, negotiate, recommend, train and administer the numerous tasks needed to provide an open, common, integrated higher education administrative infrastructure for the benefit of students in this country."

Founding Membership Organizations of the Postsecondary Electronic Standards Council include:

1. **ACT, Inc.**
2. **American Association of Collegiate Registrars and Admissions Officers (AACRAO)**
3. **American Association of State Colleges and Universities (AASCU)***
4. **Citibank**
5. **Coalition of Higher Education Assistance Organizations (COHEAO)**
6. **College Board**
7. **Educause (originally CAUSE)**
8. **Educational Testing Services (ETS)***
9. **Education Finance Council (EFC)**
10. **Harbinger Corporation***
11. **KPMG Peat Marwick***
12. **Law School Admission Council (LSAC)**
13. **National Association for College Admission Counseling (NACAC)***
14. **National Association of College and University Business Officers (NACUBO)***
15. **National Association of Student Financial Aid Administrators (NASFAA)**
16. **National Council of Higher Education Loan Programs (NCHELP)**
17. **Sallie Mae**
18. **Student Loan Servicing Alliance (SLSA)**
19. **SunGard Higher Education (originally Systems and Computer Technology Corporation)**
20. **USA Funds (originally USA Group)**
21. **U.S. Department of Education**
22. **Vangent (originally NCS Pearson)**

* No longer PESC Members

The history begins with pre-history. The Austin (TX) Independent School District was sending high school transcripts to UT Austin in a proprietary format as early as 1982. In 1984, four colleges in the Dallas area started the VAN-based Texas ETN, which used another proprietary format. In 1986, that project expanded to include other major colleges in Texas. Meanwhile, prompted by a legislative mandate for K-12 and general interest by colleges, Florida schools were using FIRN (Florida Information Resource Network) to exchange college and high school transcripts, again in another proprietary format.

The four sessions about these projects and related certification of enrollment exchanges at the 1988 AACRAO meeting in Nashville spawned an impromptu meeting chaired by AACRAO Vice President for Data Management and Research Gary Smith (University of Missouri). With the objective of developing a nationwide format for electronic college transcripts, he appointed an AACRAO task force in the fall of 1988. It first met in West Lafayette, IN, in January, 1989, and was off to the races. Tom Stewart (Miami Dade) chaired the committee, and other members were James Greene (Georgia State), Rich Everman (UCI), Jeanenne Rothenberger (Purdue), George Hammond (Queens-Ontario, Canada), and Dave Stones (UT Austin). The group met pre- and post-conference at AACRAO (Chicago), in July (D.C.), in September (Las Vegas) with SIS providers and testing services, and again in November (Austin). It was a busy year. At this time, AACRAO underwrote all expenses of its task force.

Meanwhile, a similar initiative for K-12 was being sponsored by the National Center for Education Statistics, a branch of the U.S. Department of Education. Texas and Florida both had representation on each of the two committees.

When both groups decided to develop their formats within the ANSI ASC X12 structure for EDI standard formats, that body ruled that the educational transcript would need to be a single transaction set within which K-12 and postsecondary institutions could send the different data elements each required. The first draft for trial use was approved in 1990 for four transaction sets: TS130 - educational transcript, TS131 - acknowledgement of a TS130, TS146 - request for a TS130, and TS147 - negative response to a TS146. A copy of the implementation guide (IG) - about two inches thick, and wordsmithed primarily by Tom Stewart - was given to each of the 100 attendees at the first SPEEDE workshop, hosted by Mary Neary and Arizona State University in Scottsdale, Az, in November 1990. The Law School Admissions Council underwrote a mailing of the IG to the AACRAO membership the following spring. NCES, through a grant administered through CCSSO (Council of Chief State School Officers), funded K-12 activities.

At a joint meeting of the two committees prior to SACRAO's MOSIS Conference in Atlanta in July 1991, the current acronyms were adopted: SPEEDE is Standardization of Postsecondary Education Electronic Data Exchange, while EXPRESS is Exchanging Permanent Records Electronically for Students and Schools. Note that neither name was restricted to just transcripts. The SPEEDE committee also established a formal link to Bass Ale at that conference. Plaid shirts and beards were also trademarks.

Major releases of the TS130 IG have been issued in 1992, 1994, 1996, and 1998, reflecting data maintenance (DM) to the standards. Continuing development efforts resulted in standards for applications for admission (TS189), course inventory information (TS188), and a modified verification of student enrollment (TS190). More recently, TS138 was approved for test score reporting, then modified for use with prospective student information.

The AACRAO SPEEDE Committee followed Scottsdale with annual fall workshops in '91 (Madison), '92 (Baltimore), '93 (Vancouver), '94 (Raleigh), '95 (San Jose - the UT Austin Internet EDI Server was unveiled there), '96 (Des Moines), '97 (Valley Forge), '98 (Baton Rouge), and '99 (Indianapolis). SPEEDE workshops were also offered routinely at the MOSIS conference and sporadically at AACRAO and state meetings.

Thanks to our slow but steady progress and a Gary Larson cartoon (tortoises leaving a pet store to the cry of "Stampede!"), the turtle became the SPEEDE logo.

In the 1993-95 timeframe, AACRAO/SPEEDE received a subcontract from NCES/CCSSO and hired a SPEEDE coordinator, Betsy Bainbridge. Her role in the office and ANSI ASC X12 were extremely valuable. In the 1995-97 timeframe, the subcontract diminished substantially, then disappeared altogether as NCES awarded the next version to SNAP / Sierra Systems. AACRAO also had financial problems at that time, rendering its support of SPEEDE uncertain.

In 1997, following two years of work by AACRAO and SPEEDE, the Postsecondary Electronic Standards Council was created as an umbrella for SPEEDE and other standards within higher education. By November of 1999, PESC was in sound condition with Betsy Bainbridge as its Executive Director, supporting EDI standards development and data maintenance. Members include associations (AACRAO, NASFAA, NCHELP), lenders, testing services, student information system software developers, EDI software providers, agencies (INS, DOE), consulting firms, and a few universities. It creates cross-agency and cross-association work groups to investigate new technologies (Public Key Infrastructure and XML - extensible markup languages, for example), needs (Single Student

Identifier, plus implementation guides for existing standards), and opportunities (extension of TS190 to handle Tax Relief Act Reporting, TS138 to handle prospect information). It publishes ongoing news in its monthly "The Standard," and makes much vital operational information on its website, located at <http://www.standardscouncil.org>. It provides a focal point for information and for discussion of solutions which use existing standards to provide synergy rather than more silos.

The AACRAO SPEEDE Committee provides a link between AACRAO members, AACRAO, and PESC. It watches after transaction sets of most interest to AACRAO members, and promotes the standards through the annual workshop and at other conferences.

**Higher Education Electronic Standards Council
Advisory Group Meeting Agenda**

August 18, 1997

- | | |
|----------------|--|
| 8:30-9:00 am | Continental Breakfast |
| 9:00-10:15 am | Welcome Introductions What is a standards council? Review agenda and anticipated outcomes Develop list of desired Standards Council activities |
| 10:15-10:30 am | Break |
| 10:30-12:00 pm | Group I Organizational Structure and Governance Group II Standards Council Prioritized Activities, Resources, and Membership Structure |
| 12:00-1:00 pm | Lunch |
| 1:00-2:00 pm | Group reports and discussion |
| 2:00-3:00 pm | Next steps |

Many thanks to NACUBO, NASFAA, and NCHELP for providing breakfast, lunch and break refreshments for this meeting.

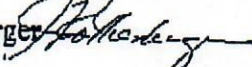
ASC X12-ELECTRONIC DATA INTERCHANGE (EDI)

Accredited Standards Committee
operating under the procedures of the
American National Standards Institute

Jeanenne Rothenberger, Chair
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August 18, 1997

To: Advisory Group for the
Higher Education Electronic Standards Council

From: Jeanenne Rothenberger 

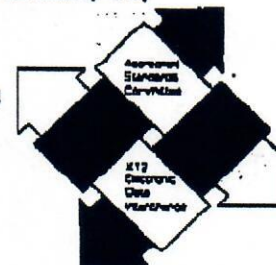
Re: Need for the Standards Council

To those of us who have been working since 1989 to establish data standards for the exchange of student related information, the need for some cohesive body to support that effort has been clear. Today, the need for standards, whether in data definition, transmission protocols, privacy conventions, or Internet applications, is apparent to all those who have seriously thought about this issue. The question really before you today is not, "Will there be standards?", but, "Who will determine those standards?" and "How much chaos will we have to go through before such standards are available?"

The environment in which higher education functions today is greatly changed since most of our computerized systems were envisioned. Distance learning, increased use of inter-institutional cooperation in program offerings, virtual university, increased demand for instant communications, instant credit evaluation, instant admissions, the growth of national repositories, not only for student data, but course offerings, institutional characteristics, the growth of Internet based applications, the need for trusted third-party certification, and increased reporting requirements all demand that the exchange of information be made fast and appear seamless. This can only happen when the major participants in this environment have agreed on how and when technology will be used to support these demands.

If we don't organize to promote and facilitate standards but leave this task to others, the standards environment can become fragmented and may not represent the broad spectrum of interests. Some needed standards won't be set all. And inherent in that approach is that others will determine the priorities. Others will dictate how our systems must change and our own concerns will be relegated to second place. We have examples of forward looking efforts with the work already done in establishing data standards. We have examples for resources being contributed to this effort from AACRAO, the Department of Education, and a number of institutions. (The University of Texas transcript server is one.) It is time, we, as national groups with a common interest, join together to get this job done.

I congratulate you on being at the Advisory Group meeting today. I hope you realize that those of us in higher education institutions are counting on you to recognize this need and to put your resources to this task.



Organizations Represented at the Advisory Group Meeting

- American Association of Collegiate Registrars and Admissions Office
 - Wayne Becraft, Executive Director
 - Cecilia Balazs, Associate Executive Director for Finance and Administration
 - Betsy Bainbridge, EDI Coordinator
 - Rick Skeel, SPEEDE Committee Chair, Dir. Of Academic Records, Univ. of Oklahoma
 - Dave Stones, Data Base Coordinator, Univ. of Texas, Austin
 - Jerry Bracken, Project Manager, Brigham Young University
- American College Testing
 - Judith McPartland, Senior Associate for Developmental Projects
- CAUSE
 - Richard Katz, Vice President
- Citibank, Student Loan Corporation
 - Bill Banks, Technology and Industry Initiatives
- Coalition of Higher Education Assistance Organizations
 - Judith Flink, President
 - Della Cronin, Legislative Analyst
- Educational Testing Service
 - Robert Foy, Business Consultant
 - Pat Salava, Lead Programming Analyst
- Harbinger-Supply Tech
 - James Lewis, Account Executive
- KPMG Peat Marwick LLP
 - Roxie LaFever, Senior Manager
- Law School Admissions Council
 - Bruce Bachman, Director of Information Systems
- National Association of College and University Business Officers
 - Larry Goldstein, Vice President for Finance and Management Programs
- National Association of Student Financial Aid Administrators
 - Dallas Martin, President
- National Computer Systems
 - Dan Geller, Business Development
- National Council of Higher Education Loan Programs
 - Jean Frohlicher, Executive Vice President and General Counsel
 - Karen Haney, Director of Information Technology
- Sallie Mae
 - Bill Adams, Director of Servicing Operations and Systems
 - Merlina Rigo
- Student Loan Servicing Alliance
 - C. J. Thoma, Manager
- Systems and Computer Technology
 - Linda Jessup, Advisory Consultant
- US Department of Education
 - Joe McCormick, Chair, Direct Loan Task Force
 - Cheryl Leibovitz, Senior Policy Analyst
 - Molly Hockman, Project EASI EDI Coordinator
 - Laurent Ross, Operations Research Analyst, Office of the Chief Information Officer
 - Gina Pearson, Project EASI Communications Team Leader
 - Keith Jepsen, Project EASI, Dir. Of Financial Aid, New York University
- USA Group Guarantee Services
 - Jonathan Kroehler, Vice President, Systems Support

*Interested Parties and Attendees at the
August 18th Meeting
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**Summary of the
Higher Education Electronic Standards Council
Advisory Group Meeting**

August 18, 1997

Twenty-nine representatives of 16 higher education associations, administrative software vendors, the US Department of Education, institutions, student financial aid lenders, secondary markets, guaranty agencies and servicers gathered at the National Center for Higher Education to explore the creation of a partnership to promote and facilitate the use of standards for data sharing. As proposed by AACRAO in a document dated June 24, 1997, this group would focus initially on ANSI ASC X12 electronic data standards and other supporting standards for the exchange of information among the higher education community.

Wayne Becraft, AACRAO Executive Director, welcomed attendees and thanked NASFAA, NACUBO, and NCHHELP for providing breakfast, lunch, and the morning break. Jerry Bracken, AACRAO SPEEDE Committee member, distributed a paper discussing why a standards council is needed. Jerry addressed the major topics of this paper:

- X12 participation is not enough by itself.
- Historical efforts, while significant, have been fragmentary, expensive, and unsustainable. We must bring these efforts together in order to build a sustainable infrastructure for standards at an affordable cost.
- Much remains to be done.

Dave Stones, AACRAO member and developer of the EDI server and other tools to facilitate use of EDI in education, reviewed the meeting agenda and anticipated outcomes, focusing on the questions of: How can we form a partnership and how can we bring the right partners together?

Attendees were invited to articulate what needs might be met by a standards council. Comments captured and paraphrased by the notetaker include:

- We need a mechanism to leverage the work that has been done by various communities, forming an umbrella group that is self-sustaining.
- Institutions are under increased pressure to come up with more cost-effective ways of managing. We need a partnership to develop standards in a cooperative way. The potential users of the standards need to come together to decide who will set the standards and what they will be. All the principal players need to be involved, including the Department of Education.
- Use of electronic standards has a potential to reduce the costs of higher education as mandated by government. This effort could be of great benefit to the community.

- Use of EDI should be encouraged to benefit cross-campus connectivity.
- This is an opportunity to bring organizations together to set the standards and get help with implementation.
- Implementation is the primary concern.
- Implementation is an issue for LSAC.
- ETS is interested in test score reporting standardization.
- Institutions should benefit from the EDI business applications.
- SCT incorporates EDI capability in their software to help reduce costs and increase efficiencies on campuses. EDI software is often purchased but is still sitting on the shelf. Perhaps a standards council can help get the software off of the shelf and into use.
- Would like to see this group set standards so the Department of Education doesn't have to develop them and then dictate their use. The industry should set the standards. Proposes a full-time executive to watch out for education's interest in X12. A standards council could also provide full-time people to help implementers and offer other assistance.
- The Department of Education's stovepipes are a situation to be avoided. A group like a standards council can provide a common ground where users set standards rather than the Department.
- There are 17 separate business functional areas on the BYU campus which could be integrated as EDI users to enjoy the economies of scale. BYU saved \$200,000 in data processing costs per year using EDI with an investment of \$3000 and some programming time.
- EDI is a hard sell to NCHELP members. Numbers like the ones just given can make the case. Meetings like this help. A standards council could provide resources and education to help convince NCHELP members of the benefits of EDI.
- Cautions that this group needs to keep the ultimate customer in mind. He heads of the CommonLine Task Group within NCHELP which has developed a proprietary flat file format for electronic data.
- NCS is involved in EDI in three areas—financial aid; Project EASI; and student records.
- Reminder that this meeting of potential partners should result in action.

- The group needs to determine the scope of this organization. He is concerned about the mission.
- Concern about scope is shared. He is somewhat concerned about whether everyone who should be at the table actually is at the table.
- We need to get to the hill people, bringing the right brain people and left brain people together. The standards council should influence federal policy.
- Now that some standards exist, getting the infrastructure in place is one of the first steps to be taken. Then other areas can use the infrastructure for other business functions.

The proposed mission statement was discussed and items proposed to be added. These items and other thoughts included:

- Providing information regarding electronic standards to policy makers
- Marrying all offices across campus
- Encouraging implementation
- Primary focus is the traditional student services areas
- Share information
- Additional standards may come to our attention as we reengineer our business processes
- The growth of virtual/distance education may present the need and an opportunity for information sharing

As time was short, this part of the meeting adjourned to break into two groups. Group I met to discuss organizational structure and governance. Group II met to discuss activities, required resources, budget, and membership structure.

Both groups reported back their progress after lunch. Betsy Bainbridge gave the report from Group II. Its agenda was:

1. List and prioritize the activities of a standards council (short-term and long-term)
2. Identify staff and other resources required
3. Identify potential revenue sources
4. Develop a draft budget
5. Describe membership categories

Group II was able to work through the first item on the list. Activities were broken into three categories and those considered advisable to carry out in the short term were identified (*):

High Level

*Influence Policy and share information on policies

Provide leadership to other standards bodies/industries and share information

*Endorse use of EDI, particularly by the Dept. of Education

- *Promote EDI
- Promote other electronic standards
- *Assist in planning strategic use of EDI
- *Finalize mission statement, organizational and membership structure, outreach

Institutional or Business Level

- *Provide a location for centralized information dissemination, including a website and possibly newsletter, help desk, etc.
- Offer training/education/marketing
- *Provide leadership in X12
- Aid change management and identify best practices
- Provide cost/benefit analyses
- Institute pilots

Technical Level

- *Aid implementation
- *Help prepare, publish, and distribute implementation guides
- Offer certification for implementation guide compliance
- Support the Internet EDI server
- *Develop and maintain a participant table
- *Provide expertise

Volunteers Jackie Kessler, Karen Haney, Bruce Bachman, Ellen Blackmun, Merlina Rigo and Betsy Bainbridge (discussion leader) will give input via e-mail on the discussion items that were not touched on by Group II.

Group I reported back that they had not completed their work, although they had discussed a number of issues: membership, organizational structure run by a board of directors with a steering committee, work groups (some ad hoc). Comments shared with the larger group included the desire to structure membership so that there would be an appropriate category for anyone—vendor, association, institution—to join; wish to include business units across campus—business office, registrar, financial aid, data processing, and admissions; agreement that students should have some representation; intent to provide a meaningful way vendors can participate with the users of the standards. The work of this group will continue via e-mail to propose an organizational structure (coalition, cooperative, or alliance—not another layer of organization) and a set of bylaws. Participating in that discussion will be Susan Knoble, Dallas Martin, Karen Haney, Laurent Ross, Bill Banks, Judy Flink, Wayne Becraft, Keith Jepsen, and Jerry Bracken (discussion leader).

The meeting refocused on the draft mission statement, making the following recommendations:

Title: Change “Higher Education” to “Postsecondary”; change “Council” to “Coalition”, “Cooperative”, or “Alliance”

Initial paragraph: Insert phrase "...primary purpose is to improve services and control costs by promoting..."

Item 4: Change the last phrase to "and to endorse the use of these standards."

A discussion ensued as to how to sell EDI and to whom we were interested in selling. Approaches were suggested such as providing cost/benefit analyses, incentives to institutions, selling the benefits, and running pilots.

Dave made the case for the need to share the financial burden of a standards council, both in development and once it is established. In the short term, seed money is being sought so that resources will be available to complete the work of Group I, recruit members, and perform the short-term activities identified by Group II. Both in-kind contributions and financial support are sought. Attendees indicated that they would like to have some idea of the amount requested for seed money. Bill Banks proposed a fund-raising campaign to solicit support. Dallas offered to work with Wayne and Betsy to develop a request to go out to institutions or other associations for seed money.

Wayne thanked those in attendance for their time and their willingness to continue to provide input regarding the formation of a standards council. He indicated that summaries would be quickly distributed and the remaining work accomplished in short order.

Postsecondary Electronic Standards Council

One Dupont Circle, NW, Suite 370, Washington, DC 20036-1110

(202) 293-7383

September 19, 1997

Mr. Brett E. Lief
President
NCHELP
801 Pennsylvania Ave., SE, Suite 375
Washington, DC 20003

Dear Brett:

We are at a critical juncture in the administration of higher education in this country. We need your organization's continued support during the formation stage of what we're calling the Postsecondary Electronic Standards Council, the community effort formally begun at the Advisory Group meeting on August 18th. We request that your organization make a donation of seed money to allow the new organization to proceed with its creation and initial administration.

Over the last two years we have worked together on various industry task forces. [One common point of agreement among ourselves during this process is that we must develop a way for the community to organize, negotiate, recommend, train and administer the numerous tasks needed to provide an open, common, integrated higher education administrative infrastructure for the benefit of students in this country.]

To accomplish this the community must adopt and agree, through collegial negotiations, many and varied measures that will enable us to "work smart" and lower costs and/or deliver better services for students. One example is the EDI education task group to which AACRAO has dedicated hours of personnel time and effort. As you know, working in the X12 arena is the most democratic way of adopting data standards while at the same time providing participation with other industries to assure the scalability of a standard when adopted.

This effort needs full-time support to insure that higher education is properly represented while our objectives are considered and defended in the open forum.

As you know, much other work must be done. With business transactions over the Internet growing at an exponential rate, the community must review important considerations. Consumer protection and authentication of consumer transactions over this new medium is critical to all as we all receive the benefits of lower communications

costs. What better way is there of discussing industry solutions than having our industry participants work to develop options without "reinventing the wheel" individually?

We anticipate that beginning July 1, 1998, the proposed Postsecondary Electronic Standards Council will be fully formed and operational, having an estimated budget of \$250,000 with revenues from membership dues, contracts, and in-kind contributions. At this time we are requesting a formation donation from members of the higher education community wishing to support this effort. We would suggest that larger participants contribute \$10,000, medium size \$6,000 and smaller organizations \$2,000. These funds will allow us to create the infrastructure, adopt the governance structure and fund continued technical support until a formal dues structure is approved. For your convenience, we could prepare an invoice for your organization's contribution.

Feel free to give one us a call to discuss this request. We have attached a proposal for the formation of the Postsecondary Electronic Standards Council which is based on input from our Advisory Group. The meeting summary and list of participants and other interested parties are also attached.

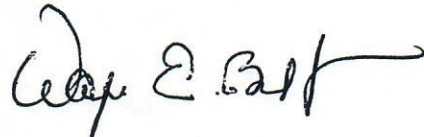
Sincerely yours,



A. Dallas Martin, Jr.
NASFAA President



James E. Morley, Jr.
NACUBO President



Wayne E. Becraft
AACRAO Executive Director

cc: Karen Haney
Jonathan Kroehler
Attachments

Proposal to Create a Postsecondary Electronic Standards Council

Foreword

"We are aboard a train which is gathering speed, racing down a track on which there are an unknown number of switches leading to unknown destinations... Most of society is in the caboose looking backward." (Ralph Lapp, *Future Shock*, p. 431)

We in the higher education community cannot afford to be "looking backward." Technology is rapidly changing the world in which we live at a pace that would have been unimaginable just a few short years ago. We must take advantage of every technology that we can to improve services, enhance efficiency and reduce costs, which for over two decades have been rising at rates well above the CPI.

Administrative and business processes of the higher education community have moved toward incorporation of electronic data storage and limited electronic data sharing in order to realize some of the efficiencies technology can bring. However, additional efficiencies can be had through standardization of data and data formats, where those entities sharing data cooperate to set the standards they will use.

One such standards-based technology currently applied to data sharing among diverse trading partners in numerous industries is electronic data interchange (EDI). This technology was born almost fifty years ago during the Berlin Airlift. In an effort to convince the Soviets that the U.S. airlift could be maintained indefinitely, Major Edward Guilbert, manager of the airlift, recognized that information about cargoes was as important as the cargoes themselves. Using simple, universal code that everyone involved understood, Guilbert created a temporary electronic system that efficiently moved goods until the Soviet blockade of West Berlin came down.

At the end of the '50's Guilbert began investigating his system's business applications. By 1976 100 companies were using EDI to streamline their operations while reducing costly administrative overhead. In the early 80's the grocery industry commissioned a detailed study which predicted enormous savings through the use of EDI. Other retail industries joined in and encouraged their suppliers to implement EDI as well.

When the large corporations adopted EDI, they wanted to form a national, cross-industry organization. In the late '70s the American National Standards Institute was persuaded to form a new committee to shift responsibility for creating EDI messages for all American industry, giving rise to the Accredited Standards Committee X12. Today there are over 250 messages used for purchasing, loans, research grant applications, real estate inspections, court submissions, customs information, laboratory reporting, health care claims, and motion picture booking confirmations, to name only a few. It is estimated

that more than 100,000 companies in the United States alone rely on EDI for efficient information-sharing and business transactions.

EDI implementations have realized significant savings to individual postsecondary institutions over recent years. One single school saw an annual savings of \$116,000 per year after implementation of EDI academic transcripts (*Transforming Academic Advising Through the Use of Information Technology*, National Academic Advising Association, 1996, p. 59). Significant growth in use of this standard by other schools would only increase the savings for this institution in addition to the savings realized by the schools new to EDI.

We need to work to add the 3500 U.S. colleges and universities, the department of education, lenders and servicers to the list of EDI implementors and insure that the higher education industry becomes a major player in the development and implementation of electronic standards.

Higher education, which is continually coming under fire for rapidly rising costs, could benefit from the enormous savings available by adopting EDI on a large scale. According to The College Board, the cost of attendance at 4-year public institutions rose 74% from 1986-87 to 1995-96 and the cost at 4-year private institutions rose 80.4% during the same period (*Trends in Student Aid: 1986 to 1996*). "Paying for college now ranks as one of the most costly investments for American families, second only to buying a home" (*Making College Affordable Again*, National Commission on Responsibilities for Financing Postsecondary Education, 1993.)

Margaret A. Emmelhainz, Ph.D., states in *EDI: A Total Management Guide*, "There are a number of reasons for implementing EDI. Perhaps the most important is to avoid what might happen if you don't implement EDI. EDI is fast becoming a requirement to remain competitive; it provides an avenue for better responsiveness to customers, for cost reductions, for improvement in internal operations, and for better relationships with partners. The answer to the question of why implement EDI is, simply, because you have to."

Nahid M. Jilovec, in *The A to Z of EDI: The Comprehensive Guide to Electronic Data Interchange*, states "The benefits [of EDI] are numerous. Some, such as elimination of data entry are easily attained....Some benefits, such as a reduction in postage and labor costs, are easy to measure in quantifiable dollars, while others, such as customer service, gaining a competitive edge, and streamlining business procedures, are intangible."

Adopting ASC X12 EDI and other electronic standards to make more efficient the processes through which higher education programs are administered will make a significant contribution to cost containment in our colleges and universities as well as their other trading partners. However, in order to begin reaping the full benefits of EDI, we need to encourage all of our data trading partners to move to adopt EDI for all of the appropriate applications of this technology.

Introduction

Two trends facing the higher education community today offer an exceptional opportunity for setting and using electronic data standards. First, the power of partnerships is proving of value over and over again in higher education administration as education professionals, businesses, and government bodies collaborate to develop standards which reflect the needs of stakeholders. Examples include Project EASI, the Council for the Advancement of Standards, the Council for Benchmarking in Higher Education, and the Benchmarking Interest Group. Second, the information age has brought with it increasing dependence on computerized data and electronic data transmission to replace the paper processes campuses have used for many years. There is no existing, permanent partnership to support development and maintenance of data standards and standards for electronic transmission of data shared among postsecondary administrative offices, third parties, data providers, and state and federal government agencies.

Today there is an immediate need to create such an organization.

- EDI standards of the American National Standards Institute now exist for numerous applications of interest to postsecondaries and their data trading partners. They include electronic payments, invoices, purchase orders, student transcripts, applications for admission, enrollment verifications, health care claims, student loan applications, and transfer and status verifications. Where appropriate these must be modified to meet the needs of higher education and all must be updated as new needs arise and maintained to remain useful to higher education.
- Institutional identifiers used in various computer systems among which data is shared must be standardized.
- Standards must be identified to support data confidentiality, authentication, and integrity in electronic transmission.
- An organization in place to represent the interests of the higher education community could most logically encompass new standards needing support in the future.

Other electronic standards envisioned for higher education in the not-too-distant future could also be supported by a higher education standards organization. An example is the possibility of the standards organization becoming a certification authority for electronic PINs or digital signatures which would be used by students and others to electronically authenticate documents.

Proposal

We propose the creation of the Postsecondary Electronic Standards Council to meet the current and future needs to develop, maintain, and promote, EDI and other electronic standards for higher education. The primary purposes of the Standards Council will be:

- To develop and promote the use of national standards through official standards-setting bodies such as the American National Standards Institute Accredited Standards Committee X12 and the Internet Engineering Task Force
- To participate in the development of standard codes and definitions that support X12 electronic data interchange and a infrastructure to support data exchange
- To provide training and information to member organizations
- To identify other data standards and standards for electronic transmission of data of interest to the higher education community, and to promote the use of these standards

A draft charter outlining mission, scope, and purposes of the Standards Council is included as Attachment A.

Potential Structure of the Organization

It is proposed that Membership in the Postsecondary Electronic Standards Council be open to those organizations and/or individuals that have a legitimate interest in and see the value of developing and promoting electronic data standards in higher education. Such organizations will be required to contribute to the ongoing cost of maintaining the Standards Council through an annual membership fee. Potential members will include but not be limited to professional associations in education, federal and state agencies or departments, individual educational institutions, testing services, admission application service providers, student information system vendors, EDI software and service providers, entities involved in student lending and enrollment verification, digital signature providers and certification authorities, etc.

Clearly, these various entities have varying needs from a standards council. This should be reflected in the membership structure. The following categories of membership in the Standards Council are proposed:

1. Partner—General, Associate and Basic
2. Government
3. Commercial and Institutional

Attachment A contains a more detailed explanation of these proposed categories.

A Governing Board is proposed which would have authority to act on behalf of the membership; set priorities; approve projects, products, and services; and oversee the secretariat. One scheme for representation to the governing board currently under discussion includes each general partner with a representative, one representative for the remaining partners, one representative from the government membership category, and one representative from the commercial and individual memberships.

In order to achieve the proposed purposes of the Standards Council, a Secretariat will be established to oversee day-to-day operations. The governing board will provide

appropriate oversight and direction to the secretariat which will be managed by an executive director empowered to act for and on behalf of the Standards Council. Further, the secretariat will administer and oversee the products and services developed by the Standards Council for the benefit of its members and affiliates. AACRAO has agreed to act as the secretariat until such time as the Standards Council might choose to do otherwise.

Benefits of Membership in the Standards Council

Membership in the Standards Council would allow access to expertise in standards development and, although some members will join standards-making bodies on their own, others can be represented by the Standards Council. By pooling resources and drawing on existing expertise, each member will be able to contribute to the operation of the Standards Council while reaping the benefits of standardization.

Members will enjoy an information infrastructure to support their data-sharing needs and access to training and education.

Members will establish a recognized focal point for standards policy which educational entities can consult in development solutions to complement rather than compete with existing standards.

Attachment B outlines what activities can be carried out in the short term as the Standards Council is taking shape. Once full memberships are available, those activities identified in Attachment B as long term are expected to be covered.

Costs

A bare-bones budget that addresses immediate requirements for standards support while allowing an opportunity to form the Standards Council, recruit members and attract contracts, and perform the full range of activities outlined in Attachment B, calls for \$67,000 to carry this project through to July 1998. Seed money is being solicited from potential members and others to sustain this effort through this fiscal year.

Attachment A

Postsecondary Electronic Standards Council Working Charter

I. MISSION

The Postsecondary Electronic Standards Council's mission is to improve service and control costs by promoting standards for data sharing within the higher education community including postsecondary administrative offices, third parties, data providers, and state and federal government agencies.

II. SCOPE

The Postsecondary Electronic Standards Council serves as a forum for the higher education community to address issues related to data sharing in the student services area. The Standards Council will focus on principles and practices of the use of standards for data formats and transmission.

III. FUNCTIONS

The functions of the Standards Council are to:

- Develop and promote the use of national standards through official standards-setting bodies such as the American National Standards Institute Accredited Standards Committee X12 and the Internet Engineering Task Force
- Participate in the development of standard codes and definitions that support X12 electronic data interchange and an infrastructure to support data exchange
- Provide training and information to member organizations
- Identify other data standards and standards for electronic transmission of data and promote the use of these standards

III. MEMBERSHIP

The following categories of membership in the Standards Council are:

1. Partner—This membership category consists of professional associations that have a strategic, ongoing interest in the development and use of electronic data standards for the benefit of their own members. This category is further divided into levels based on the amount of their contribution to the Council: General, Associate, and Basic.
2. Government—This membership category consists of federal and state agencies or departments that have an ongoing interest in the development and use of electronic standards in education.
3. Commercial and Institutional—This membership category consists of entities that provide products and services that are based on or incorporate these electronic data standards in addition to individual institutions or systems employing these standards.

Attachment B

Short-term and Long-term Activities of the Standards Council

Based on the discussions of the Standards Council advisory group working on activities, the following were identified.

I. Immediate Actions

These tasks were accepted at the August 18th meeting, and should be completed as soon as possible:

- A. Finalize mission statement, organizational and membership structure, outreach
- B. Solicit input
- C. Write proposal
- D. Identify potential members
- E. Solicit seed money
- F. Seek legal advice
- G. For now, plan to use the AACRAO office as a location, and use AACRAO telephone, website, and administrative services. Later, as the above actions succeed, different longer term solutions may be desired.

II. Urgent Minimal Activities by Standards Council

Support for EDI standards development in education has come from various sources over the past eight years: Sallie Mae, AACRAO, and the US Department of Education's National Center for Education Statistics. At times this support has had to be withdrawn and then offered again. As a result, although the community is today well represented in X12 in terms of its own subcommittee and a chair and technical assessment representative, both of whom are responsive to the needs of the broad educational spectrum, these advantages may soon be lost. Funds are more limited than ever to support:

- paid staff
- ANSI ASC X12 costs: \$2,400 membership, plus \$10,000 travel expense for the trimester meetings and technical assessment meeting attendance by the two current officers
- office space, phone and computer support, and administrative overhead for all the above, which could range from 15% to 35% of the above expenses

This bare-bones emergency Standards Council budget calls for \$67,000 to carry this project through to July (or \$120,000 per year) while work is done to formalize this coalition of potential

partners. It must be augmented by valuable volunteer in-kind support from the users and other sources of expertise. This limited budget along with in-kind contributions in the short term would support standards maintenance, the business function, and a location for industry-wide standards information and development. The cash breakdown would be \$45,000 for salary, \$10,000 for X12 travel, and \$12,000 for office and administrative costs.

Support of the three functions is summarized here:

A. Standards Support in ANSI ASC X12 ANSI ASC X12 Subcommittee A is the structure provided by the American National Standards Institution for setting standard formats for data interchanged for or by educational institutions. These formats specify what information may be carried, how it is represented, organized, and structured, and which codes carry which meanings.

- Maintain leadership in X12
 - attend X12 interim and trimester meetings and participate as an officer in the Education subcommittee
 - represent education's interests at X12 interim and trimester meetings
 - Provide expertise
- Provide access to someone with a grasp of X12 syntax and design rules
 - Comment on proposed data maintenance
 - Provide technical advice and other information
- Provide Education-related X12 Information
 - Work with volunteers willing to help with implementation guide production
 - Place Implementation Guides and other needed information at a central website or other facility.

B. Support of the Business Function The Standards Council will serve, at least in part, as an EDI Industry Group, and handle the business issues associated with using EDI data standards for particular business purposes.

- Provide a location for centralized information
 - set up website and maintain it (starting with www.aacrao.com/technology/)
 - provide knowledgeable phone coverage for those in education who have interest in or questions about EDI or other standards.
- Develop Implementation Guides
 - several existing transaction sets have no formal guides showing the formats approved and the conventions to be used within them.
 - support access to implementation guides in both electronic and printed forms for all educational EDI formats.
 - implementation guides should be maintained and available for different releases of the ANSI ASC X12 standards, and the version differences in the formats should be specifically identified and available.

- multiple, specialized implementation guides are needed for the actual business processes supported by some transaction sets. For example, separate implementation guides for SPEEDE postsecondary, EXPRESS high school (to college), and EXPRESS (permanent record transfer) transcripts would be much easier to use than a combined, multi-purpose guide.
- Maintain other information
 - participant lists
 - Frequently Asked Questions documents
 - literature showing benefits, usage of standards

C. Springboard for Industry-wide Standards Development

- Support for development and implementation of new data standards in the educational community is needed, and includes all the above points.
- Provide a central location (virtual and physical) for discussion, coordination of industry-wide EDI and standards discussions. Establish an identity as the entity coordinating decisions regarding and information about standards in postsecondary education
- Offer X12 expertise and a sounding board (through the staff position or referral to others) for planning strategic use of EDI

III. Desired Additional Short-Term Standards Council Activities

These items are listed in priority order. They could be handled as monetary support beyond the base level is obtained. Some are needed badly now, but they cannot be routinely delivered without additional support (money or time). Two additional staff positions, marketing and promotional dollars, and money for travel and subcontracting work for new standards development should provide minimal coverage of most of these items.

- Support additional standards development.
 - cover travel and meeting expenses, administrative support, and possible contracted work to implement new data standards.
- Help prepare, publish and distribute implementation guides
 - Develop team to work on a specific IG
 - Develop work schedule and help assign task responsibilities
 - Review final product
 - Post IGs on website and publish hard copies if advisable
 - Provide distribution services for IGs if necessary
 - Coordinate special needs of Year 2000 conversion as it affects implementation guides

- Develop and maintain a participant table
 - Identify official senders and receivers of specific transaction sets
 - Post information on website
 - Possibly, prepare model (but voluntary) trading partner agreement
- Aid implementation
 - Maintain and distribute industry code lists
 - identify potential trading partners
 - provide leadership in bringing new TS developer together
 - orchestrate training, education, and marketing
 - provide testing support and certification of compliance with standards
 - maintain industry code sets
- Influence policy
 - attend policy meetings (EASI, reauthorization, government relations groups)
 - provide information to policy makers
- Endorse use of EDI by the Department of Education
 - interface with decision makers at ED
- Promote EDI
 - make presentations
 - offer training
 - press releases, interviews, articles
- Assist in planning strategic use of EDI
 - task group work to consider strategic uses
 - offer expertise (facilitate bringing group together)
- Provide information
 - develop and disseminate white papers, brochures, documents

IV. Longer Term Activities.

- Provide more extensive support for X12 leadership, such as travel for task group leaders
- Provide leadership to other standards bodies/industries and share information
 - Provide expert representation to the meetings of these bodies
 - Keep Standards Council membership informed
- Promote other electronic standards
 - Make informed policy regarding other electronic standards
 - Provide white papers/articles regarding this policy
- Offer training/education/marketing
 - Make presentations
 - Offer seminars, conferences, workshops
 - Write articles and press releases, give interviews
- Aid change management and identify best practices

- Offer reengineering expertise
- Carry out a study on best practices and publish
- Provide cost/benefit analyses
 - Gather data from various EDI implementations
 - Prepare statistics based on data, publish as a white paper, graphically describe
- Institute pilots
 - Identify potential sites
 - Provide information, expertise, and support
 - Report outcomes
- Offer certification for IG compliance
 - Receive TSs and review compliance via software like EDIFECS
 - Maintain listing of certified users, perhaps indicated on the Participant Table
- Support the Internet EDI server
- Contract with UT Austin to run the EDI Internet server and provide reports as needed