



20th YEAR ANNIVERSARY EDITION



THE

STANDARD

news and commentary on technology and standards in education

XML SOA EDI EDX PDF JSON C++ OPEN SOURCE COBOL HTML XSLT DLL JAVA SSL TCP/IP BASIC AACRAO ARUCC SHEEO DQC INTERNET2 INCOMMON GRONINGEN DECLARATION NETWORK USED SIFA ADMISSIONS APPLICATION COURSE CATALOG EDUCATION TEST SCORE REPORT FINANCIAL AID HIGH SCHOOL TRANSCRIPT COLLEGE TRANSCRIPT IPEDS NSLDS PDF ATTACHMENT ACADEMIC EPORTFOLIO CREDENTIALS SOLUTIONS NATIONAL STUDENT CLEARINGHOUSE ORACLE PARCHMENT USA FUNDS

Systems must be designed to meet the standards and guidelines of NCES...including the schemas of PESC.

- Statewide Longitudinal Data Systems Grant RFA, American Recovery and Reinvestment Act

PESC is where the higher education community comes together to create the building blocks & sustainable process underlying integration and information access long term.

- David K. Moldoff, Founder & CEO, AcademyOne

We are excited to continue to work with PESC to expand electronic standards throughout the postsecondary education community.

- Paul Peck, Senior Executive, Accenture

Washington State University is very interested in using the electronic standards provided by PESC in delivering transcripts electronically, both to our colleagues' institutions as well as to employers & others.

- Richard Backes, Senior Associate Registrar, Washington State University

At times postsecondary institutions tend to 're-invent the wheel', but by finding PESC, we have a beginning template to assist in our future decision-making.

- Russ Bilotta, Director of Administrative Systems, Neumann College





20 YEARS AGO what started out as a community meeting with 30 leading institutions and associations to address the shared and growing needs for centralized management of standards development, maintenance & training, has become the far-reaching, heavily implemented organization PESC.

IN 20 YEARS PESC Approved Standards, now implemented across the United States of America and Canada for the admissions, registrar and financial aid communities serving tens of millions of students each year, are now being looked at by leaders from around the world.

FOR 20 YEARS PESC's influence and power is fueled by its solid sponsor, member and volunteer efforts. Our founding, cornerstone principle of open, transparent community-based collaboration serves as our platform enabling innovation, ingenuity & ultimately interoperable digitalization.

20th YEAR SPONSORSHIP signifies to PESC and the education community at large a special commitment by your organization that showcases what we are doing together is working, and should continue.

Sponsors are forging with PESC down this strategic path and we need your support to make that happen. Our official 20th Anniversary Celebration will take place at the Fall 2017 Data Summit in Toronto. Please help make PESC and our 20th Anniversary a success.

Thank you for your continued support of PESC!

Michael D. Sessa

Michael D. Sessa
President & CEO

HISTORY

PESC's roots actually extend back into the early 1980's. With examples of data exchange springing up in 1982 at UT Austin, in Dallas with the VAN-based Texas ETN, and in Florida with FIRN, the need for standardization was clear and AACRAO took the lead by establishing SPEEDE in 1991. Over the next few years SPEEDE produced numerous EDI standards, many of which are still used in hundreds of millions of transactions to this day. By 1997 with the success of SPEEDE, the looming Y2K, and modernization on the horizon at the US Department of Education, leaders gathered in an attempt to expand standardization across all sectors of higher education through a centralized organization to be called, the Postsecondary Electronic Standards Council.

Empowerment of a centralized 'Standards Council' as it was called within the higher education community itself alleviated the need for membership in ANSI. In 2003, PESC with corresponding partners now directed all development under PESC and the ANSI X12A Committee dissolved. PESC's first standard was the College Transcript in 2004 which was launched with a rigorous and disciplined open public comment, review and analysis process and procedure. PESC's Standards Development Forum was created shortly thereafter and has since produced the High School Transcript, Admissions Application, Education Test Score Reporting, Course Inventory and Common Record and CommonLine, among many others – and continues to serve in this capacity.

THREE PILLARS OF PESC



With tens of thousands of stakeholders supporting the education eco-system but all at differing levels of technological capacity, standardization is needed throughout as well to ensure interoperability for **ACCESS** into the eco-system, for the **DATA** and content exchanged and for the **TRANSPORT** method in which content is shared, communicated and exchanged among stakeholders.

WHAT WE'RE TRYING TO ACHIEVE

Data flowing digitally and seamlessly from one system or sector to another and throughout the entire education eco-system when and where needed without compatibility barriers but in a safe, secure, reliable, legal and efficient manner.

All PESC activities, groups and efforts support these three pillars that serve as the infrastructure of the education eco-system: **ACCESS** supported by CommlT; **TRANSPORT** supported by the EdExchange; and **DATA** supported by the Standards Forum for Education, the Education Record User Group, the Academic Credentialing and Experiential Learning Task Force and Single Institution Code;; and supporting all three pillars are the Canadian PESC User Group and the Global Data Mobility User Group.

HOW ARE WE DOING

HOW HAVE WE DONE

Every college and university and the majority of states in the United States, and the largest provinces in Canada

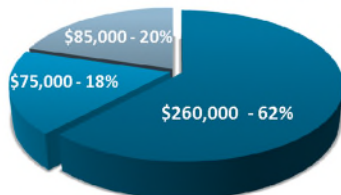
ALL USE PESC APPROVED STANDARDS.

Major service providers Credentials Solutions, National Student Clearinghouse, Parchment, AcademyOne and states California, Indiana, Ohio (& all states in MHEC), Tennessee, among many others

ALL USE PESC APPROVED STANDARDS.

EXPENSES

- Employee Salaries & Benefits - 62%
- Meetings & Events - 18%
- Services, Materials & Administration - 20%



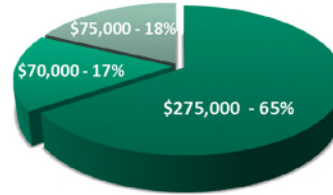
WHAT IS SUCCESS

For PESC, internal success is based on financial sustainability.

To fulfill our non-profit mission, success is based on the impact we have on the education technology community, the implementation of **PESC APPROVED STANDARDS** and the activities and participation in PESC user groups, task forces, meetings, events and Data Summits.

INCOME

- Member Dues - 65%
- Sponsorship & Seal - 17%
- Meeting Registration - 18%



CURRENT ANNUAL SPONSORS

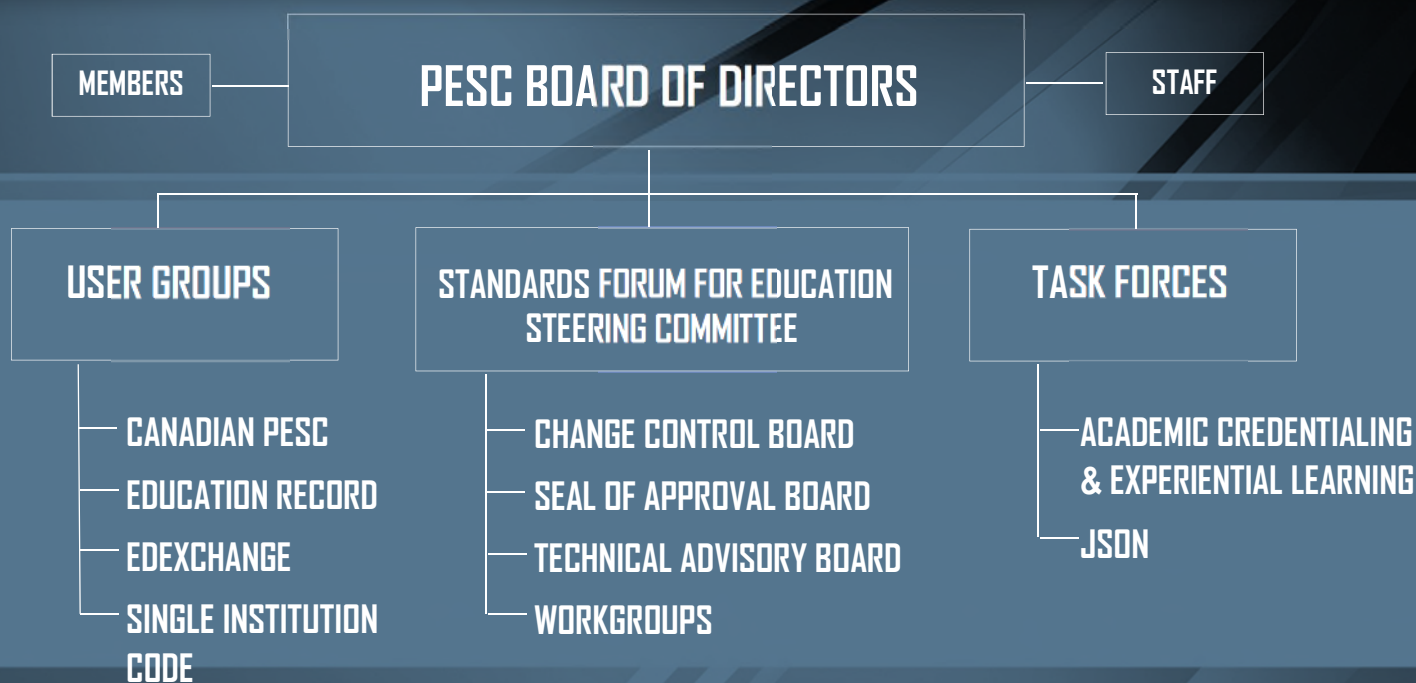
CREDENTIALS SOLUTIONS
NATIONAL STUDENT CLEARINGHOUSE
ORACLE
PARCHMENT

MEMBERSHIP

PESC Membership includes stakeholders throughout the eco-system:

- | | |
|-----------------------------|--------------------------------|
| 34 Institutions | 5 Institutional Systems |
| 11 Associations | 4 Application Centers |
| 19 Service Providers | 2 Testing Agencies |

ORGANIZATIONAL HIERARCHY





ACTIVATING INTEROPERABILITY ACROSS THE EDUCATION LIFECYCLE

OUR FOUNDERS

The original organizations that came together in 1997 to fund the "Standards Council"

AACRAO
 AACSCU
 ACT
 CAUSE
 CITIBANK
 COHEAO
 COLLEGE BOARD
 EFC
 ETS
 HARBINGER CORP
 KPMG PEAT MARWICK
 LSAC
 NACAC
 NACUBO
 NASFAA
 NCS
 NCHELP
 SALLIE MAE
 SLSA
 SCT
 USA GROUP
 US DEPT OF ED

PAST SUMMITS

Cities across the US & Canada where PESC held Summits

Atlanta
 Austin
 Boston
 Chicago
 Clearwater
 Crystal City
 Las Vegas
 Los Angeles
 Miami
 Montreal
 New York City
 Newport Beach
 Palm Beach
 Reston
 San Diego
 San Francisco
 Spokane
 Tampa
 Vancouver
 Washington DC

PAST MEMBERS

Organizations that at one time were Members of PESC

AASCU
 Access Group
 Ashford University
 Avow Systems
 Bowling Green State
 Citibank
 CBA
 Clayton State
 College Source
 COHEAO
 Columbia University
 Dartmouth College
 Decision Academic
 EdFinancial
 EFC
 First Marblehead
 Georgia Board of Regents
 Hobsons
 Houghton Mifflin Harcourt
 Hyland Software
 IDAPP
 JPMorgan Chase
 Kaplan
 Key Bank
 Just IQ
 LSAC
 Lumina Foundation
 Mapping Your Future
 National Transcript Ct
 ETS

LSAC
 NACAC
 NACUBO
 NCASI
 NELA
 Neumann College
 OH Board of Regents
 Oregon State
 Pearson
 PA College of Tech
 PHEAA
 Prairie View A & M
 redLantern
 Regent Education
 RS3G
 Sallie Mae
 SLSA
 Texas A & M
 TG
 Triand
 Unisolution
 U Alaska System
 U of Minnesota
 US Dept of ED
 US Dept of GSA
 US Dept of INS
 Wachovia
 Vangent
 Virginia Polytech
 Nelnet
 XAP

PAST SPONSORS

Organizations that at one time sponsored PESC

AcademyOne
 Access Group
 Citibank
 College Board
 Common Application
 Decision Academic
 Digication
 EdFinancial Services
 Ellucian
 ELM Resources
 eScholar
 ETS
 Foliotek
 Jenzabar
 Kaplan
 LSAC
 NASLA
 NCHER
 Nelnet
 Pearson
 PHEAA
 redLantern
 Sallie Mae
 Smart Catalog
 SLSA
 XAP

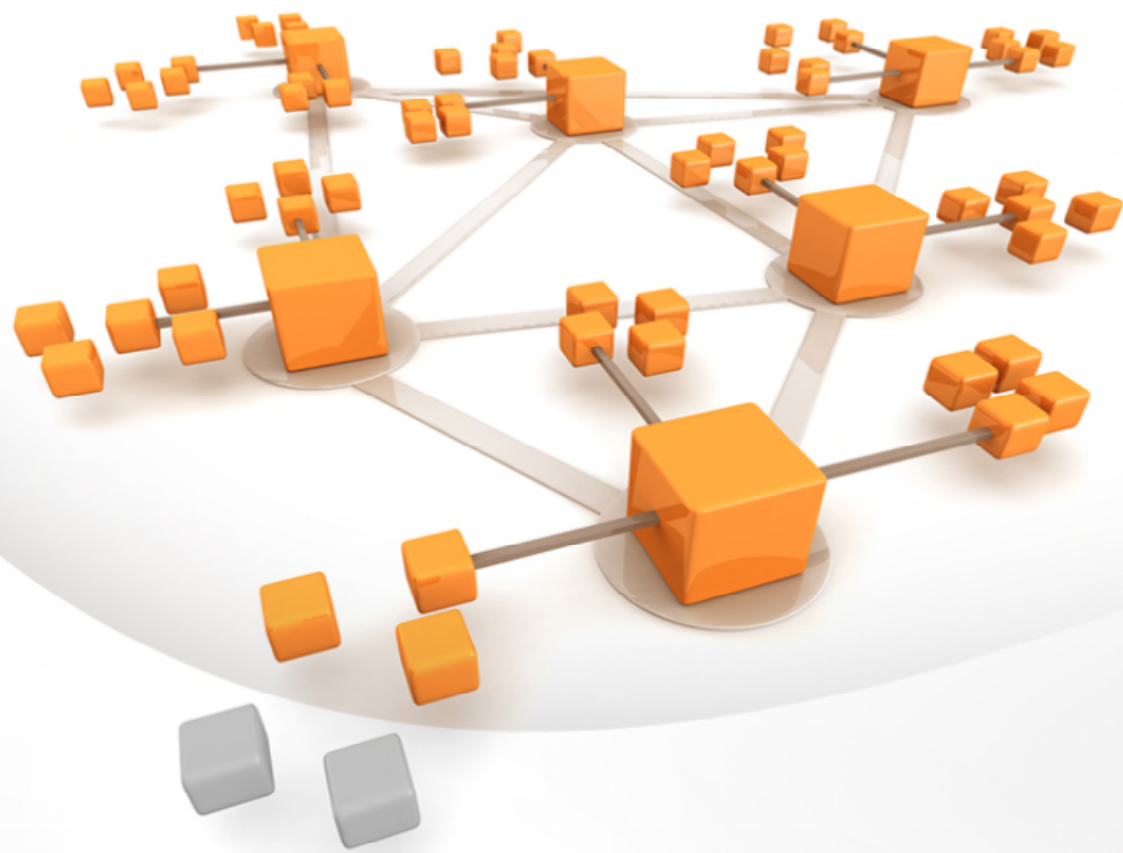
PAST CHAIRS

Directors that served as Chair of the PESC Board

Jerry Bracken
 CJ Thoma
 Keith Riccitelli
 Pete Nalli
 Bill Hollowsky
 Francisco Valines
 Doug Falk
 (current)

MULTIPLE STAKEHOLDERS. ONE VISION.

SERVICES AWARDS	OUR STANDARDS	OUR GROUPS	OUR PARTNERS	BEST PRACTICES AWARDS
<p>2016 Tom Black Leisa Wellsman</p> <p>2015 CA Community College Tech. Ct. Jeffrey Alderson</p> <p>2014 Brian Allison Doug Holmes David Webber</p> <p>2013 Hans L'Orange Susan McCrackin</p> <p>2012 John Ittelson</p> <p>2011 AACRAO SPEEDE Committee Charles Leonhardt</p> <p>2010 Kristi Blabaum Michael Morris</p> <p>2009 Steve Biklen Dave Moldoff Clare Smith-Larson</p> <p>2008 Judith Flink</p> <p>2007 AACRAO Jim Farmer</p> <p>2006 Ed Hauser Keith Riccitelli Tom Stewart</p> <p>2005 Tim Bornholtz Mark Bolembach</p> <p>2004 Holly Hyland, Adele Marsh Dallas Martin, Bruce Marton</p> <p>2003 Jerry Bracken</p> <p>2002 Steve Margenau, Adele Marsh Bruce Marton, Paul Ness Jeanenne Rothenberger Michael Sessa</p> <p>2001 Rebecca Babel, Ellen Blackmun Steve Margenau, Karl Van Neste</p> <p>2000 David Leonard, Tim Pavlick Dave Stones</p>	<p>Academic ePortfolio</p> <p>Admissions Application</p> <p>College Transcript</p> <p>Common Credential</p> <p>Course Inventory / Catalog</p> <p>Education Test Score Reporting</p> <p>Financial Aid</p> <p>High School Transcript</p> <p>IPEDS</p> <p>NSLDS</p>	<p>Academic Credentialing & Experiential Learning Task Force</p> <p>Canadian PESC User Group</p> <p>EdExchange User Group</p> <p>Education Record User Group</p> <p>Global Data Mobility User Group</p> <p>Single Institution Code Workgroup</p> <p>Standards Development Forum for Education</p>	<p>AACRAO & SPEEDE Committee</p> <p>APEREO</p> <p>ARUCC</p> <p>EMREX</p> <p>EWB</p> <p>Groningen Declaration Network</p> <p>Internet 2</p> <p>SHEEO</p> <p>U.S. Department of Education</p>	<p>2015 State of Tennessee & AcademyOne</p> <p>2014 Elon University & Parchment</p> <p>2013 University of Phoenix</p> <p>2012 OCAS</p> <p>2011 U.S. NCES</p> <p>2010 South Carolina & AcademyOne</p> <p>2009 College Found of North Carolina</p> <p>2008 CA Community College System</p> <p>2007 Sinclair Community College & Wainwright State University</p> <p>2006 DQC</p> <p>2005 NCHELP</p> <p>2004 U.S. FSA</p> <p>2003 SIFA</p> <p>2002 ELM Resources & NCHELP</p> <p>2001 NCHELP</p> <p>2000 University of Northern Iowa</p> <p>1999 OUAC</p>



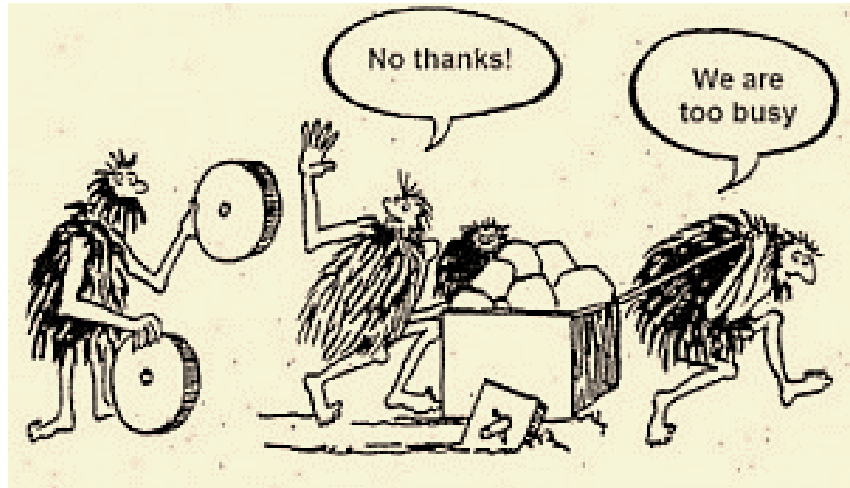
INTEROPERABILITY from Wikipedia

Interoperability is a property referring to the ability of diverse products, systems and/or organizations to work together (inter-operate).

The term is often used in a technical systems engineering sense, or alternatively in a broad sense, taking into account social, political, and organizational factors that impact system to system performance.

For systems interoperability specifically, organizations communicate through interfaces which are completely understood...each can work with the other's products or systems without any restricted access or implementation.

What I've Learned So Far



By Michael D. Sessa

When I first heard about the Standards Council

forming back in the late 1990's at first, I was skeptical about another standards initiative beginning. You have to remember at the time, the real scare of massive systems failure was starting to sink in because of the imminent arrival of Y2K (Year 2000) – that is systems failing as the century rolled over from 1999 to 2000.

The progress of AACRAO's new SPEEDE Committee with SPEEDE/ExPRESS partners U.S. NCES and CCSO was also resonating throughout the industry, and I was beginning to become overwhelmed with new acronyms like EDI, ANSI, ASC X12A, DISA, TS189, COBOL, IGs, RIPs, and even XML. I attended AACRAO's 1998 *EDI in Education* conference in Baton Rouge, as SPEEDE had now been meeting for over five years, and remember how naïve I felt thinking back then that systems just magically worked together.

From the U.S. Department of Education's perspective, the cost within the Office of Federal Student Aid for new development was increasing exponentially each year as without standards, all the 'one-off' interfaces required updating with any new policy or change in federal aid. Congress had authorized FSA as the government's first PBO (performance-based organization), and now being free from the politics to run the operations, FSA focused on *Modernization* of all student-based data systems and interfaces.

In looking at the organizations, institutions, associations, banks and service providers backing the Standards Council and with momentum from SPEEDE, it was difficult not to pay attention to this latest initiative launching. Around the same time, Educause was laying the ground work for standardization in learning management systems through IMS and Bill Gates set the vision for the foundation of SIFA in PK12. It seemed that higher education was finally going to pull together and permanently address the now seemingly unavoidable need for standards.

While I was not present at the first meeting to organize the Standards Council in August of 1997, I did attend the second meeting held in 1998 at which, with the then NASFAA President Dallas Martin as presiding officer, the Articles and Bylaws of the Standards Council were adopted. From this point on, is where my true journey with PESC began.



The Standards Forum for Education, launched in 2004, was originally named the XML Forum for Education. The name changed specifically so that all standards, regardless of technology, fell under the purview of PESC. Now in addition to XML, the Standards Forum for Education governs standards in EDI & PDF as well.

A little bit more first about the state of data systems in the 1990s. At my prior job in Boston where I was working in student aid, our company needed to migrate from a mainframe to client/server. Some of our legacy interfaces with institutions were so old, no documentation existed as the task of maintaining updated data dictionaries and file formats had been lost. My job was to identify all the various interfaces and document their purposes and production parameters. Through reading and analyzing interface data dumped onto green bar reports, I determined what data elements, and in what order, were being streamed in the over 30+ external interfaces we were currently supporting.

As they say, it does not take a rocket scientist to quickly ascertain the level of redundancy and therefore excruciating effort maintaining redundant interfaces costs. It hit me like a tidal wave. I thought, “Does anyone know that this is going on?” My immediate directive was to migrate clients away from magnetic tape, disks, and reels, toward a single electronic origination and disbursement file process. In the need for standardization, it was cost, exorbitant cost that first resonated with me.

Throughout most of 1998 and into 1999, organizers of the Standards Council were soliciting ‘seed’ funding and I joined the Steering Committee (now Board of Directors) in 1999. One of my first major exposures to why an organization like the Standards Council is needed occurred in a meeting the first executive director Betsy Bainbridge invited me to at the U.S. Department of Education. Right after 911 in 2001, the U.S. Department of Education was under significant pressure to establish a more reliable system for international students.

In a room full of federal bureaucrats, Betsy and I pleaded to work collaboratively with the community and develop this new system, to be called SEVIS – Student and Exchange Visitor Information System together with those that will be using it. We were told that files formats and processes were developed openly and transparently by a handful of federal programmers ‘in a closed room’ over a few days.

Like a dreadful surprise, the U.S. Department of Education dropped the requirements for SEVIS onto higher education like a ton of bricks along with an unattainable implementation schedule. And guess what? Barely a single institution throughout the country met this ‘open and transparent’ schedule. I learned first-hand here, how things should not be done and the corresponding consequences.

Betsy and her husband, due to his high-ranking military commitments, relocated to Europe in 2002 and I was being groomed to step into the Standards Council which I did in October of 2002. And so PESC was born. Now after 20 years with PESC and 15 years as its president and lead evangelist, what have I learned and what can I tell you?

We as humans are impatient and we want everything all at once all the time...

or so we think we do. I call this the ‘big-bang’ approach which at its foundation is driven by natural human self-interest. Guess what, there is no big bang in systems development. Systems and applications are improved through releases, allowing incremental progress and increasingly useful functionality to be added to our daily lives over time. I’ve seen many projects fail or suffer ‘analysis paralysis’ because of ‘scope-creep’ – the unfortunate status of a project that finds itself in a pitfall dependent on solving one problem to get to the next, but needing to solve another problem first, but another before that. Like Ole Saint Nick, we too find it hard to trim our list of wishes.

Policymakers and programmers speak two different languages, literally. Policymakers sometimes discount the importance of implementation, how the policy after having been documented actually ends up working in real life; while some technologists attempt to short-circuit the policy development process by overly stating the usefulness of subjective or proprietary technologies that end up not addressing the original policy at all.



In celebration of its 15th year anniversary, PESC unveiled a specially designed logo to reflect the expansion of PESC Approved Standards in Canada and to institutionalize the Canadian perspective within the fabric of PESC. The 15th year anniversary celebration was held in Vancouver at the Fall 2012 Data Summit.

Let's look at the recent failure in meeting the deadline for the government's new healthcare system. Everyone blamed the website. To me, that's like blaming a hammer for not building your house. The number one complaint heard was from healthcare service providers that would be interfacing with the government, but were not included whatsoever in the design, development or rollout plans for the very system with which they are then required to interact. Well surprise, surprise, failure. What's wrong here and why as society, do we keep making this same mistake, even across industries?

A lack of a strategy leaves many to fend for themselves. The quick adoption of service-oriented architecture, federations and cloud computing can be attributed to the inherently simple, understandable and logically hierarchical organizational structure brought about as they introduce a strategy not only on how to handle existing needs, but future development and service through cost effective, reliable and scalable solutions. A perfect example here is how Common Education Data Standards (CEDS) was rolled out – several years after the U.S. NCES had already been issuing massive longitudinal data systems grants to states. Many states had already begun to investigate data exchange and without any solution or recommendation whatsoever, ended up developing state-to-state or regionally-unique data formats and exchange mechanisms.

When CEDS finally established itself, the end result for states was now having two standards, their own and CEDS. I raise this here not in an exercise of blame allocation, but to illustrate the real impact and cost that end up getting passed along, most of the time to taxpayers and students, simply due to a lack of strategic planning and understanding.

In a digital democracy, people need to hear and tell their stories. The current state and flurry of discussion in the community around academic credentialing and experiential learning is a perfect example. To make sure we get it 'right', many organizations are hosting groups and committees and reaching out, now across Europe and around the world, to others to enable an environment of learning from each other. And discussions must continue until standardized models are designed, developed, adopted and implemented.

Another example was Master Promissory Note in financial aid, which allowed students and parents to sign one time electronically and cover subsequent annual loans. Due to the number of options, specific rules and exceptions and overly burdensome regulation, financial aid directors attended many meetings and events at that time to talk through those issues and learn from each other as fellow experts and peers in order to determine for themselves how to implement this new process.

It's not improved data integrity or improved access that will drive standardization though both are high-ranking benefits, it's simply cost. In California, *CCCTran*, the nickname given to the Community College System's implementation of electronic transcripts using PESC Approved Standards, realized such significant savings, that *CCCTran* and PESC Approved Standards quickly permeated to the public university and state university systems and has now scaled up to *eTranscript California*. In Indiana, Ohio and the other states in the Midwest, a MHEC *eTranscript Initiative* study reports that postsecondary institutions, in switching from paper to electronic, can save \$9 per incoming high school transcript.

OK now, so why do I do this? Why am I here? To me, education is the key to everything, literally. It is only through education that we can live as a civilized society and ensure that we are improving the lives and welfare of our children and of generations to come. Education is knowledge and passing on knowledge serves as the foundation of our culture. In a digital society, we now have digital identities and a digital culture which require fluidity and seamless interaction.



President Abraham Lincoln in 1863 signed the National Currency Act, “to create a single national currency and to eradicate the problem of notes from multiple banks circulating all at once,” which for the first time in the history of the U.S., standardized money.

Identities, documents and data cannot be transported seamlessly if the road they travel is bumpy and riddled with roadblocks and detours. The most basic and granular pieces of education, the actual data, must be organized and standardized in order for the rest of education to run on top of it. Like a house built on quick sand, you’ll end up spending more time fixing the same problems over and over again with no permanent solution in sight, all while still sinking.

We can do this, I’ve always believed it and I continue to believe it. It’s what has driven me since joining PESC. We have the right mission, we have the right people from our dedicated Board of Directors to every committee and group. We have figured out and have mastered the right processes for standards development and maintenance. So what are we going to do?

Our strategy is working. Now it needs to time to be evangelized and adopted. Our plan is to continue to focus on the three major pillars of PESC’s mission: access, exchange and content. Let me wrap up here though with the most vitally important concepts:

- ***PESC introduces a strategy for systems and application development; and standards, like in every other industry, become necessary.***
- ***PESC bridges public and private sectors, institutions and their service providers and education to the general public – the very reason why non-profits were created and non-profits are the only organizations that can truly fulfill this role.***
- ***PESC was founded by the community, for the community by the practitioners, the people that work with data. PESC identifies this group as data experts for development and ingenuity.***
- ***PESC’s Best Practices Competition, Task Forces, Summits and numerous events provide the community with an opportunity and a voice to tell their stories and learn from each other.***
- ***PESC Members drive and govern the organization, and under specific diversity ensure it is meeting and responding to the actual needs of the community.***
- ***Open, transparent collaboration is the key, remains PESC’s cornerstone principle and must be protected and defended as the Golden Rule to ensure PESC serves its members and the general public with balanced decision-making.***
- ***While interest in many topics ebbs and flows, the most work usually gets done by a handful of people that have truly committed to that specific topic. It is the only way work truly progresses which can then expanded and scaled.***
- ***PESC’s environment of ‘co-opetition’, that is cooperation among competitors, brings the best of smart minds collaborating while allowing individuals the freedom to also realize a benefit for their specific interest, the best of both worlds.***

I also realize that I stand on the shoulders of giants. Many people dedicated years of hard work to establish PESC. Folks like Jerry Bracken our first Chair, Dallas Martin, Betsy Bainbridge, Tom Stewart, Rick Skeel, Jeanenne Rothenberger, Dave Stones, Bob Morley, Bruce Marton, Paul Hill, Molly Hockman, Bill Banks, Steve Biklen, Jon Kroehler, and the list goes on. Many have served as my mentors and I hope to live up to expectation that is now placed on me as I carry the banner.

But I am not alone and never have been. The PESC community, now feels more like family, an extended, international family that champions the mission equally. We have hundreds of volunteers working daily and weekly on our common mission. Through PESC we bring out the very best in people, the best in their ideas, the passion in their innovation. It’s that feeling that propelled me onto my journey with PESC, and it keeps me going. And that feeling is strong, very strong, like coming home again.



It takes many organizations working together to support students and learning throughout the entire education eco-system and no single organization can do it all alone by itself. PESC, with an open, transparent community-based approach, the cornerstone principle of efforts & initiatives, therefore, seeks out ingenuity, innovators, best practices and organizations with common interests and missions with which to collaborate.

We partnered with the **Office of Federal Student Aid (FSA)** of the U.S. Department of Education early on and merged our separate technical XML architecture and data modeling guidelines into one combined set. With the deployment of FSA's Common Origination and Disbursement System, which included **Common Record** (one combined record to include all federal grants, loans and work-study), **Common Record** became a **PESC APPROVED STANDARD**.

Since then, all federal grant, loan and work-study files have been issued to and between every college & university financial aid office in the country ⁽¹⁾ in **Common Record**.

Since then as well, we continued with FSA to make **Enrollment Reporting** in the **National Student Loan Data System (NSLDS)** a **PESC APPROVED STANDARD**.

The **Gainful Employment Reporting** standards are expected to be submitted by FSA in the near future.

We partnered with the U.S. Department of Education's **National Center for Education Statistics (NCES)** to make five components of student reporting into the **Integrated Postsecondary Education Data System (IPEDS)** a PESC Approved Standard. Through NCES Reporting, we know that at least 29 states support **PESC Approved Standards**, while we've heard from at least 6 Canadian provinces directly about full adoption of **PESC APPROVED STANDARDS**.

PESC continues to foster new and innovate paths and strengthen our partnerships across sectors and systems to expand our footprint worldwide:

- We are collaborating with stakeholders in Canada through the **Canadian PESC User Group** to promote and adopt interoperability throughout each province.
- With **Internet2** and **InCommon** we partnered and joined forces to launch the **Common Identity & Trust (CommIT) Collaborative** to bring sustainable, reliable **single sign-on** services to the education domain.
- With **ARUCC**, we exchanged memberships allowing each to access the resources and networks of the other.
- We launched **EdExchange** to provide a useful service for data exchange.
- We launched **Single Institution Code** to help manage institutions codes and identifiers.

- With the **Data Quality Campaign (DQC)**, we are affiliates as we support the DQC in the efforts to ensure the use, sharing & exchange of quality data.
- With **State Higher Education Executive Officers (SHEEO)**, we are partners as over 29 states reported their support of **PESC APPROVED STANDARDS** to NCES.
- With the **Institute of Education Sciences (IES)** of the U.S. Department of Education, PESC has been appointed an Affiliate Member of the **National Forum for Education Statistics**.
- We're working with PESC Member **Smarter Balanced Assessment Consortium** to ensure **PESC APPROVED STANDARDS** satisfy state needs.
- As a global leader, PESC has been appointed full signatory to the **Groningen Declaration Network** which furthers the European partnership we established with the Rome Student Systems and Standards Group (RS3G).

To support the development and adoption of **Common Education Data Standards (CEDs)**, PESC partnered with **NCES of the U.S. Department of Education, Council of Chief State School Officers (CCSSO), DQC, the Dell Foundation, the Gates Foundation, Schools Interoperability Framework Association (SIFA) and State Higher Education Executive Officers (SHEEO)**.

The **Common Education Data Standards (CEDs)** span the full student lifecycle from early learning, elementary, secondary, postsecondary and into the workforce and **PESC APPROVED STANDARDS** remain in full alignment with **CEDs**.

With Founding Member **AACRAO**, due to common missions PESC has hosted the **AACRAO SPEEDE Committee** since PESC's formation. AACRAO hosted and nurtured PESC, its activities and events, until formally established.

The **AACRAO** and the **SPEEDE Committee** collaborated with **NCES** and **CCSSO** in the early 1990's to develop admissions and registrar standards in **EDI**, now used by thousands of organizations internationally both through peer-to-peer and through hub models like the **SPEEDE Server**. With PESC's growth, these **EDI standards**, which served as the foundation for PESC's XML-based data standards, are now **PESC APPROVED STANDARDS** as well.

(1) Every college & university receiving federal aid.



With tremendous support from AACRAO and our founders to establish & support PESC; from our members, sponsors and partners; to institutions, colleges and universities, state and province systems; service providers and government agencies that implement and use PESC APPROVED STANDARDS; with our roots in ANSI; with a meticulously, highly-disciplined and transparent standards-development and maintenance process, and with a strong, powerful and vibrant community-based approach to all of its efforts and initiatives, PESC has become a world leader for interoperability.

DATA SYSTEMS ONLY DO WHAT YOU ASK THEM TO DO.

WHAT ARE YOU ASKING YOURS TO DO?

**SOLUTIONS ARE AVAILABLE.
NOW IS THE TIME. PESC IS THE PLACE.**

**FOR THE COMMUNITY.
BY THE COMMUNITY.**

 **PESC**[®]
MULTIPLE STAKEHOLDERS. ONE VISION.





ENABLING THE PORTABILITY OF EDUCATION DATA

PESC IS

working to become the efficient and secure real-time exchange of student data from initial access of the student from high school into the college environment through successful completion of the education experience & into the workforce.

PESC IS

collaborating throughout all of education to seek out strong partnerships with leading public and private stakeholders to identify tools and best practices and proven sustainable solutions for adoption & implementation.

PESC IS

building a core competency in XML architecture and data modeling, web services and service oriented architecture, federations and cloud-based data services, data standards and exchange and overall interoperability; and provides the infrastructure by serving as a data standards-setting body.

PESC IS

driving the open, transparent, community-based, collaborative development and alignment of data across disparate systems and across sectors; and, eliminating incompatible interfaces that disrupt student achievement & inflate costs for those struggling to keep up with the demands of technology while maintaining competitive tuition and/or spending rates.

Together we are not only helping students across the continent and all over the world, but supplying researchers, government officials, researchers, state administrators, CIOs, admissions officers, registrars, financial aid & business officers, architects & information technologists the tools they need to do their jobs better. The political will and demand for improvement have never been and continue to increase with time as budgets tighten and common solutions like standards are being viewed as wise, cost-saving investments.

PESC's power and influence are derived from the direct actions and participation of its membership and collaborating with the Education community creates an open, trusting and transparent environment. With this unique community perspective, we are breaking down costly, proprietary barriers, and have mapped out a common, strategic path for the future that includes development of common data standards, support of common networks, authentication, web services and seamless connectivity.

PESC
1250 Connecticut Ave NW
Suite 200
Washington, D.C. 20036
202.261.6516
www.PESC.org

PESC Approved Standards
PESC Approved Standards

Connecting Kids to College and Career

Unlocking the Power of Data

Maximizing the Value and Integrity of Your Technology

Maximizing the Value and Integrity of Your Technology

Enabling the Portability of Education Data

Activating Interoperability Across the Education Lifecycle

Driving Data Systems Alignment PK20w

Collaborating for the Greater Common Good of Student Achievement

