Welcome!

Postsecondary Electronic Standards Council proudly presents

SPRING 2019 DATA SUMMIT
STATE OF TECHNOLOGY & STANDARDS IN HIGHER EDUCATION
20th ANNUAL BEST PRACTICES | MAY 8 – 10, 2019 | WASHINGTON, D.C.

Welcome!
Established in 1997 at The National Center for Higher Education

PESC, as a neutral, 501(c)(3) non-profit, membership association, serves its Members and the general public under one common, shared student/learner-centric mission. Optimizing institutional performance, reducing cost and improving data quality and integrity – all benefits of standardization – maximized by PESC’s open, transparent and volunteer-based platform, create a broad, international movement.

Together, we look to advance this mission, expand the global voice, grow and maintain an active and thriving Membership and establish a clear, strategic path for the future.

Join the effort. Join the community. Join PESC.

Leading the establishment & adoption of trusted, open data standards across the education domain

www.PESC.org
Our Sponsors.

www.PESC.org
1\textsuperscript{st} Place Award Winner

TBA

May 8, 2019

20\textsuperscript{th} Anniversary
Best Practices

www.PESC.org
Our Events.

Congregate. Collaborate. Innovate.

Get Connected!

- **Spring 2019 Data Summit**
  - May 7 – 10, 2019 | DC

- **Fall 2019 Data Summit**
  - October 22 – 25, 2019 | Montreal
All industries have standards bodies.

INTER-STATE TOLL BOOTHS
E-ZPass Interagency Group, a community-based association of states and agencies.

MORTGAGES

CREDIT CARDS
Networks like MasterCard and VISA work with the PCI Data Security Standards Council, a not-for-profit community-based membership association.
“Embrace common standards and data systems so we can know where we stand and how to move forward.”
Our Values

**PESC leads** the establishment and adoption of trusted, open & free data standards across the education domain by serving as an open standards-development and open standards-setting body producing PESC Approved Standards.

**PESC envisions** complete, global connectivity within and throughout the education domain.

**PESC optimizes** institutional performance and data quality.

**PESC reduces** cost and simplifies access.

**PESC enables** sustainable best practices & innovative solutions that streamline emerging technologies and disparate information systems.

**PESC promotes** standards-based, lifelong student/learner-centric design & data models, hub & spoke models, federated identity, directory-based services and affiliated open architectures.

**PESC Members believe** that fostering open, transparent collaboration across educational communities to solve common, industry-shared problems brings much needed clarity and coherence to the education and employment ecosystem.

Established in 1997 at the National Center for Higher Education in Washington, D.C., PESC is Education’s Open Data Standards-Setting Body.
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.
5 Golden Principles of Data Quality & Integrity

1) Data Standards
   Adopt, align & implement community-sourced data standards

2) Data Governance
   Support an open collaborative, transparent group of stakeholders

3) Data Advocacy
   Advocate in policy-maker & IT sectors for prioritization of data standards

4) Data Usage
   Commit to using high quality linked open data across all applications, systems & networks

5) Data Perspective
   Ensure a ‘P20W’ (lifelong) & international perspective in all aspects of development

Advocacy – Our Voice

Blueprint for the efficient, secure & successful transition from high school into the higher education & workforce environment.
How We Operate

Organizational Maturation Cycle

**Board of Directors**
Overall governance

**Boards & Steering Committees**
Member experts governing standards & services

**Workgroups**
Data standards development by experts

**User Groups**
Organization, development of projects & initiatives

**Task Forces**
Discussion topics of interest and trends
*Lead to User Groups and Workgroups*
Brand Maturation Cycle

Seal of Approval
PESC’s Premiere Brand

Usage & Implementation
PESC Approved Standards, Technology & Services

Members & Sponsors
Organizations Funding PESC

Participation in PESC
Data Summits, Groups

Awareness of Standardization
Outreach, Events, Conferences, Partnerships
The Evolution of PESC Approved Standards by Technology

<table>
<thead>
<tr>
<th>PDF</th>
<th>2011 – Also referred to as ‘PDF Attachment’, this standard is payload neutral, and automated, machine-to-machine functionality, emphasized by PESC, is only possible if payloads are PESC APPROVED STANDARDS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XML</td>
<td>2004 – College Transcript &amp; Student Aid</td>
</tr>
<tr>
<td></td>
<td>2006 – High School Transcript</td>
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<tr>
<td></td>
<td>2009 – Admissions Application &amp; IPEDS</td>
</tr>
<tr>
<td></td>
<td>2009 – Education Test Score Report</td>
</tr>
<tr>
<td></td>
<td>2011 – NSLS</td>
</tr>
<tr>
<td></td>
<td>2013 – Student Loan</td>
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<tr>
<td></td>
<td>2015 – Education Course Inventory</td>
</tr>
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<td></td>
<td>2016 – Academic Portfolio</td>
</tr>
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<td></td>
<td>2017 – Common Credential</td>
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</tbody>
</table>

| EDI   | 1990 – College/High School Transcript (combined)  |
|       | 2001 – Education Course Inventory  |
|       | 2009 – Admissions Application  |

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>2004</td>
<td>2011</td>
<td>2019</td>
</tr>
<tr>
<td>1st EDI Standard</td>
<td>1st PESC XML Standard</td>
<td>1st PESC PDFxmi Standard</td>
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<tr>
<td>AACRAO, CCSSO, NCES</td>
<td></td>
<td></td>
<td>In Process</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Year 5</th>
<th>Year 6</th>
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<tbody>
<tr>
<td>1997</td>
<td>2003</td>
</tr>
<tr>
<td>PESC</td>
<td>ANSI Membership Cancelled</td>
</tr>
<tr>
<td>Founded</td>
<td>EDI Development Stopped</td>
</tr>
<tr>
<td>Seal of Approval Launched</td>
<td>EDI Adopted by PESC</td>
</tr>
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</table>

Table 1. The Evolution of PESC APPROVED STANDARDS by Technology

As the community adopts a new technology, PESC develops and produces a corresponding PESC APPROVED STANDARD in that technology. Data contained in a PESC APPROVED STANDARD in one technology is equal to in value and integrity to the same PESC APPROVED STANDARD in a different technology. For example, one organization using the PESC APPROVED College Transcript in EDI can trust another organization using the PESC APPROVED College Transcript in XML as development and production (through mapping) use the same definitions, taxonomies and code sets.

**Glossary of Terms**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AACRAO</td>
<td>American Association of Collegiate Registrars &amp; Admissions Officers</td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute, US Chamber of Commerce</td>
</tr>
<tr>
<td>CCSSO</td>
<td>Council of Chief State School Officers</td>
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<tr>
<td>EDI</td>
<td>Electronic Data Interchange</td>
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<tr>
<td>IPEDS</td>
<td>Integrated Postsecondary Education Data System</td>
</tr>
<tr>
<td>JSON</td>
<td>JavaScript Object Notation (JSON-LD) (Linked Data)</td>
</tr>
<tr>
<td>NCES</td>
<td>National Center for Education Statistics</td>
</tr>
<tr>
<td>NSLS</td>
<td>National Student Loan Data System</td>
</tr>
<tr>
<td>PDFxmi</td>
<td>Portable Data Format XML data embedded eXensible Markup Language</td>
</tr>
</tbody>
</table>

Evolution of Data Standards Development

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Voluntary Consensus Standardization & Adoption
Electronic Authorization/Authentication
EA2 Task Force

Common Identity & Trust (CommIT)
User Group

Web Services Task Force

EdUnify User Group

Common Data Services
CDS Task Force

EdExchange User Group

Global Data Mobility
GDM Task Force

GEO Code User Group

Academic Credentialing & Experiential Learning
ACXL Task Force

*2019* Competencies & Credentials User Group

2007

ComMIT (inactive)
Partnered with Internet2

EdUnify (inactive)
PESC

EdExchange (active)
PESC, Driven by California

GEO Code (active)
PESC, Resurrect PESC Single Institution ID

Competencies & Credentials
NEW – Launch at Spring 2019 Data Summit

Our Public Purpose

Public/Private, Free/Member-Based
PESC Approved student financial aid XML Standard
- implemented in every U.S. college and university, by US Department of Education and loan servicers*

High School and/or College Transcripts
- used/implemented across Canada & USA –
  - CA, GA, IN, NC, OH, VA and throughout Alberta, BC and Ontario

EdExchange pilots
- California Community Colleges, Parchment, ECE & Digitary – National Student Clearinghouse, Credentials Solutions, University of Phoenix

PESC GEO Code pilot
- in production at University of Southern California – new directory in production test phase
- Academic Credentialing & Experiential Learning Task Force
- Data Privacy & Protection Task Force
- JSON-LD Task Force
- Admissions Workgroup for Standardizing Recruitment Data
- Canadian PESC User Group (CanPESC)
- Board of Directors
- EdExchange User Group & SC
- Global Education Organization (GEO) Code User Group & SC
- Standards Development Forum for Education
  - Change Control Board (CCB) & Technical Advisory Board (TAB)
  - Education Record User Group (ERUG) & AACRAO SPEEDE

Free & Open  Member-Based
PARTNERS:
AACRAO, APEREO, ARUCC, A4L, CEDS, Connecting Credentials, DXtera Institute, EMREX, EWP, GDN, HROS, SHEEO

EXHIBITIONS:
AACRAO, ARUCC, US NCES

SPONSORS:
Credentials Solutions, Digitary, National Student Clearinghouse, Oracle, Parchment, DegreeData, ECE

SPONSORSHIPS/AFFILIATIONS:
AACRAO, AIR, California, GDN, US NCES
<table>
<thead>
<tr>
<th>Time</th>
<th>Tuesday, May 7, 2019</th>
<th>Wednesday, May 8, 2019</th>
<th>Thursday, May 9, 2019</th>
<th>Friday, May 10, 2019</th>
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<tbody>
<tr>
<td>7:30am</td>
<td>Continental Breakfast &amp; Data Summit Registration</td>
<td>Continental Breakfast &amp; Data Summit Registration</td>
<td>Continental Breakfast &amp; Data Summit Registration</td>
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<tr>
<td>8:30-9:00</td>
<td>Welcome &amp; Introductions</td>
<td>Welcome &amp; Introductions</td>
<td>Welcome &amp; Introductions</td>
<td>Welcome &amp; Introductions</td>
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<td>9:00-9:30</td>
<td>Michael Rosa, PESC</td>
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<td>Michael Rosa, PESC</td>
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<td>9:30-9:50</td>
<td>Professor, York, Speaker Model</td>
<td>Professor, York, Speaker Model</td>
<td>Professor, York, Speaker Model</td>
<td>Professor, York, Speaker Model</td>
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<td>10:30-11:00</td>
<td>Cathy van Noote, Education &amp; Learning BC</td>
<td>Cathy van Noote, Education &amp; Learning BC</td>
<td>Cathy van Noote, Education &amp; Learning BC</td>
<td>Cathy van Noote, Education &amp; Learning BC</td>
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<tr>
<td>11:00-11:30</td>
<td>Visudha Gohil, University of Manila</td>
<td>Visudha Gohil, University of Manila</td>
<td>Visudha Gohil, University of Manila</td>
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<td>11:30-12:00</td>
<td>Montreal &amp; Implementation</td>
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<td>12:00-12:30</td>
<td>Kirsten Klawiter, NIC</td>
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<td>12:30-1:00</td>
<td>Rachel Musou/Susan Williams, National Forum</td>
<td>Rachel Musou/Susan Williams, National Forum</td>
<td>Rachel Musou/Susan Williams, National Forum</td>
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<td>1:00-1:30</td>
<td>Megan Cuff, NACET</td>
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<td>1:30-2:00</td>
<td>Break</td>
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<td>2:00-2:30</td>
<td>Opening Session: Exercise or Requirements</td>
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<td>Opening Session: Exercise or Requirements</td>
<td>Opening Session: Exercise or Requirements</td>
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<td>2:30-3:00</td>
<td>Matthew Pitts, Credential Engine</td>
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<td>3:00-3:30</td>
<td>Achieve Student, PESC</td>
<td>Achieve Student, PESC</td>
<td>Achieve Student, PESC</td>
<td>Achieve Student, PESC</td>
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<td>3:30-4:00</td>
<td>Rick Torpe, National Student Clearinghouse</td>
<td>Rick Torpe, National Student Clearinghouse</td>
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<td>4:00-4:30</td>
<td>Montreal &amp; Implementation</td>
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<td>4:30-5:00</td>
<td>Tom Green, AACET</td>
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<td>5:00-5:30</td>
<td>Mark Erdle, IMS Global</td>
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<td>5:30-6:00</td>
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<td>6:00-6:30</td>
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**State of Technology & Standards in Higher Education | Spring 2019 Data Summit**

**Program At A Glance**

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All General Session sessions and events are open to all registrants, unless otherwise noted.