MARCH 2017 WWW.PESC.ORG

THE STANDARD

NEWS AND COMMENTARY ON TECHNOLOGY & STANDARDS IN EDUCATION

EMPOWERING THE MOBILITY OF DIGITAL ACADEMIC CREDENTIALS

SPRING 2017 DATA SUMMIT

MAY 3 – 5, 2017

Registration is open for PESC's SPRING 2017 DATA SUMMIT! The PESC membership and the general public are welcome and encouraged to register and attend!

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20th Year Anniversary! at Fall 2017 Data Summit **in Toronto!**

PESC

Tom Black and Mei Hung of Stanford University directed the efforts and team, completing development in 10 months.

PESC Members Vote on Common Credential

With all development work now completed, the specifications and documentation that support the exchange of ***Common Credential data for Certificates, Degrees and Diplomas*** among institutions, employers, districts, states and provinces, service providers, countries and any and all other stakeholders are presented by PESC's Academic Credentialing and Experiential Learning Task Force to the Members of PESC for vote as an official PESC Approved Standard version 1.0.0.

Ballots have been issued to PESC Members and must be completed and received in the PESC office by close of business March 31, 2017.

"This standard does not propose to replace the traditional transcript, but to meet the growing demand, now emerging across the landscape, but especially in transfer, labor and workforce sectors, to verify credentials."

PESC FORMS JSON TASK FORCE

The inaugural convening of the JSON Task Force will occur at PESC's Spring 2017 Data Summit!

PESC is pleased to announce its latest initiative, the formation of a JSON TASK FORCE.

This Task Force is being established to advise PESC Members and the PESC Board of Directors on the impact and utility of JSON in the education domain and its relationship to XML.

JavaScript Object Notation (JSON) has become a popular alternative to XML for various reasons, highest among them that JSON is less verbose than XML, has simpler syntax than XML and is more easily generated and consumed.

PESC's Technical Advisory Board (TAB) began discussions on JSON in 2014 and prepared a research paper entitled, Use of JSON to Supplement XML, which is posted online.

Under the continued leadership of the PESC TAB and with support of PESC's Change Control Board and Standards Development Forum for Education, this Task Force will continue the discussions and ultimately recommend what action, if any, PESC will undertake as a result of the emergence of JSON.

Specifically, the Task Force is charged with producing a white paper that:

- *Describes JSON*
- *Identifies how JSON is being used across education and throughout various other industries*
- *Details the values and benefits of JSON*
- *Describes how JSON and PESC Approved Standards in XML can be used together*
- *Recommends if PESC should establish PESC Approved Standards in JSON*

The inaugural convening of this Task Force will occur at PESC's Spring 2017 Data Summit, taking place May 3-5, 2017 in Washington, D.C. at the Embassy Row Hotel in Dupont Circle.

The general public is welcome to register and attend the Spring 2017 Data Summit and participation on this Task Force is open to the general public as well.

PESC ANNOUNCES 18th ANNUAL BEST PRACTICES COMPETITION

The Best Practices Competition is open for submissions until the close of business Friday March 31, 2017!

Entries for PESC's ***Annual Best Practices Competition*** are now being accepted.

Now in its 18th year, the Best Practices Competition is held to highlight and promote innovation and ingenuity in the application and implementation of interoperable data standards for business needs.

First held in 1999, the Competition is open to institutions, associations, organizations, government agencies and departments, districts, consortia, non-profit and commercial service providers and other education stakeholders that have collaborated to design and/or adopt an electronic standardization initiative via a specific implementation, and/or other medium such as, but not limited to, published articles and white papers.

The Best Practices Competition for 2016 is open for submissions until close of business Friday March 31, 2017. Documentation and artifacts detailing the scope of a project, participants, type of standards employed, relevant dates of project milestones, copies of articles (if an article submission), outline of mission/objectives and any related statistics (including but not limited to the number of transactions transmitted, or estimated cost savings, etc.) should be included in the submission. All entries should be submitted by March 31, 2017 to Michael.Sessa@PESC.org or at:

Michael Sessa
President & CEO
PESC
1250 Connecticut Avenue, NW Suite 200
Washington, D.C. 20036

All entries will be judged by the PESC Board of Directors. First place and those receiving special recognition will be notified immediately by PESC, an official public announcement will be made immediately before PESC's Spring 2017 Data Summit being held May 3 – 5, 2017 in Washington DC at the Embassy Row Hotel in Dupont Circle, and the award presentation will be made during the general session of the Data Summit on May 3, 2017.

The 1st Place Winning Submissions from the 16th and 17th year competitions, Elon University and Parchment for *The Elon Experiences Transcript and Integration to the Academic Transcript*, and The State of Tennessee and AcademyOne for *Automated Reverse Transfer System*, respectively, are attached to this edition of The Standard.

PESC MEMBER MEETING

The PESC Member Meeting Thursday May 4, 2017.

Please be advised the 19th Annual PESC Member Meeting will convene 5:00 pm EDT Thursday May 4, 2017 at the Spring 2017 Data Summit at the Embassy Row Hotel.

PESC Membership meetings are open to all PESC Members & with prior notification, other interested parties. Elections for PESC's Board of Directors will be held during this meeting. The overall election cycle and timeline is as follows:

March 2, 2017
Open Nominations

March 23, 2017
Close Nominations

March 30, 2017
Open Elections - Proxy Ballot

April 20, 2017
Close Elections - Proxy Ballot

May 4, 2017
Elections

July 1, 2017
Begin 2 Year Term

Nominees appearing on the ballot are provided with 5 minutes each to address the PESC Members immediately prior to elections.

Nominees looking to communicate with PESC Members over the coming weeks, may submit no more than 2 communications (emails, letters, etc.) to the PESC office. In turn the PESC office will issue that nominee's communication(s) to the PESC Members.

Nominees are able to communicate directly and independently (on their own) with PESC voting members outside of this process.

PESC does not accept 'write-in' candidates.

SPRING 2017 DATA SUMMIT

Student mobility combined with emerging, innovative technologies and systems continues to transform learning and academic credentialing around the world. PESC began discussions in 2015 with its Membership and Board of Directors about this changing landscape and subsequently that year formed the Academic Credentialing and Experiential Learning Task Force.

This highly knowledgeable group of leaders and experts spanning education policy, practice and technology, has been meeting since to ensure that standards development efforts within PESC keep pace with the digital needs of institutions, their partners and service providers all driven by student mobility.

Since then, a number of community and industry credentialing initiatives have been established to facilitate and administer the integration of this digital transformation within the credentialing environment.

The supportive, complementary message to each initiative from PESC is that fostering collaboration across educational sectors to solve industry-shared problems brings much needed clarity and coherence to the education eco-system.

For the Spring 2017 Data Summit | Best Practices in Education Data Systems, PESC underscores this message and elevates this need to the forefront by showcasing many of these initiatives under one common theme: Empowering the Mobility of Digital Academic Credentials.

The goals of the Spring 2017 Data Summit include educating and informing attendees on current initiatives and emerging best practices impacting technology & standards; and promoting innovative, collaborative solutions that employ automated, reusable and sustainable technologies in order to improve institutional performance, service delivery, and overall connectivity between stakeholders.

To accomplish this task, the Summit will showcase leaders and experts who will present and discuss Digital Academic Credentials from various perspectives, including: Admissions and Registrar, Labor and Workforce, Policy and Research, International, and Systems and Technology.

For more information including hotel and Summit registration, please visit www.PESC.org.

REMINDER: BOARD OF DIRECTORS – NOMINATIONS OPEN

The nomination period for elections to PESC Board of Directors ends at the close of business this Thursday March 23, 2017. Nomination forms and the Manual of Policies and Procedures for the Board of Directors are posted online at www.PESC.org.

SAVE THE DATE

EDiNTEROP»2017

PESC is pleased to announce plans for its 20th Year Anniversary to be held at EDiNTEROP2017! In recognition of the impact of Canada on interoperability around the world and within PESC, EDiNTEROP2017 | Fall 2017 Data Symposium and Summit will be held October 18 – 20, 2017 at the Radisson Harbourfront Hotel in Toronto Canada! Stay tuned for more information and visit **www.PESC.org** for updates.

GRONINGEN DECLARATION NETWORK | 6TH ANNUAL MEETING IN MELBOURNE AUSTRALIA

Plans for the 6th Annual Meeting of the Groningen Declaration Network are well underway. Scheduled for April 26 – 28, 2017 in Melbourne Australia, this year's meeting may have the highest attendance of any other annual meeting. PESC and several leading PESC members are strong advocates of the Groningen Declaration Network and representatives from the following organizations will be in attendance: AACRAO, AcademyOne, ARUCC, CollegeNET, Credentials Solutions, Digitary, ECE, IERF, National Student Clearinghouse, Parchment, PESC, Stanford University and University of Southern California.

PESC APPROVED STANDARDS

PESC APPROVED STANDARDS are available openly and free of charge for the PK20 education community, a cornerstone principle of PESC, its Mission and Membership.

PESC APPROVED STANDARDS are developed, approved and maintained through an open, transparent and rigorous, community-based collaborative process, which includes a public notification when development initiates, and a public comment period for developed and proposed standards, all governed by PESC Members.

PESC APPROVED STANDARDS supports a business process or transaction and each can be implemented or used one independently from another. PESC APPROVED STANDARDS include:

- *XML schemas that outline data file design and structure*
- *Implementation Guides that help explain and describe adoption & use*
- *Instance Documents which display examples based on fictitious data*

Each PESC APPROVED STANDARD, dependent on when it was developed and released, is based on a specific version of the Academic Record Sector, on a specific version of Core Main Components which are both explicitly included for each (zip download), and on PESC's XML Technical Specification.

CURRENT VERSIONS AND RELEASES

This table details all PESC APPROVED STANDARDS and their corresponding versions. To ensure that all the correct and accurate information is made available to the PESC Membership and public, downloading any PESC APPROVED STANDARD will automatically include all corresponding versions and information respective to that PESC APPROVED STANDARD.

NOTE: The Academic Record is an XML schema that contains a dictionary of element type definitions that can be used to construct and validate XML messages. The library contains

element types that are specific to information about a student's academic experience and accomplishments. Core Main is also an XML schema that contains a dictionary of common element type definitions that can be used to construct and validate XML messages.

PESC APPROVED STANDARDS

Academic College Transcript 1.0 - 1.1

Academic ePortfolio 1.0

Academic High School Transcript 1.0 - 1.6

Academic Record 1.0 - 1.11

Admissions Application 1.0 - 1.4

Core Main 1.0 - 1.18

Data Transport 1.0, 2.0

EDI

Education Course Inventory 1.0

Education Test Score Reporting 1.0 - 1.1

Functional Acknowledgment 1.0 - 1.2

IPEDS

-- 12 Month Enrollment 1, 2, 2.1

-- Completions 1, 2

-- Fall Enrollment 1, 1.2

-- Graduation Rates 1, 2

-- Student Financial Aid 1, 2, 2.1

NSLDS

-- Enrollment Reporting 1.0

PDF Attachment 1.0

Request - Response 1.0

Student Aid

-- CRC 1.2 - 1.4

-- Online Loan Counseling 1.0 -1.2

-- Student Loan Detail Portfolio 1.0. 2.0

PROSPECTUS

As PESC prepares for the year ahead of exhibiting at conferences and events, we've prepared a few timely handouts that can be used to link to, download, or copy and distribute. Please feel free to use these handouts and be sure to provide any comments or feedback to PESC. A prospectus has been prepared for PESC's two main initiatives at this time: EdExchange and Global Institution Code. Both are attached to this edition of The Standard and available online at **www.PESC.org**.

BOARD RETREAT

REMINDER: The Annual Board of Directors Retreat takes place June 28-30, 2017 at the Palm Beach Marriott Hotel Singer Island.

REMINDER CHANGE IN DUES

Please be advised that two changes in PESC membership dues take effect with dues starting or renewing on July 1, 2017 and thereafter. More specifically:

- *Only institution dues (for profit, non-profit and districts/high schools) currently at $250 annually is being increased starting July 1, 2017 to $500 annually. For existing PESC members affected, at renewal on or after July 1, 2017, the result is an annual increase of $250.*

- *Only institution dues (for profit, non-profit and districts/high schools) currently at $500 annually is being increased starting July 1, 2017 to $750 annually. For existing PESC members affected, at renewal on or after July 1, 2017, the result is an annual increase of $250.*

Note that there are no other changes to dues at this time. We hope these nominal increases do not cause significant hardship on existing PESC members. We thank you for your continued support of PESC. For any questions or concerns about PESC or about these changes in membership dues, please feel free to contact me or Jennifer Kim directly at 202.261.6516.

PESC

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PESC Leads the Establishment and Adoption of Data Exchange Standards Across Education

Find us on the Web:
www.PESC.org

Register Now for the Spring 2017 Data Summit!

PESC is returning to the Embassy Row Hotel in Washington DC's Dupont Circle on May 3 – 5, 2017 for its Spring 2017 Data Summit! This year, PESC focuses on Empowering the Mobility of Digital Academic Credentials and will feature leaders and experts from across policy, practice and technology. Don't miss out as early bird discounted rates expire April 3, 2017. So register now at **www.PESC.org**.

Save the Date for the Fall 2017 Data Symposium and Summit!

For its 20th Year Anniversary, PESC hosts its Fall 2017 Data Symposium and Summit, EDiNTEROP at the Radisson Harbourfront Hotel in Toronto. Save the dates of October 18 – 20, 2017 and stay tuned for more information. Check **www.PESC.org** for updates!

Address

MULTIPLE STAKEHOLDERS. ONE VISION.

FOR IMMEDIATE RELEASE
April 12, 2016
Contact:
Jennifer Kim
PESC Membership Services Director
+1.202.261.6516

COMMON XML CREDENTIAL DATA STANDARD FOR CERTIFICATES, DEGREES AND DIPLOMAS LAUNCHED BY PESC

(Washington DC) – PESC is pleased to announce that leaders from Stanford University, University of Maryland University College, University of Southern California, and the Association of American Collegiate and Admissions Officers (AACRAO) are collaborating through PESC to develop a **COMMON CREDENTIAL DATA STANDARD** for certificates, degrees and diplomas.

According to the Letter of Intent submitted on March 22, 2016, "the proposed standard can be used by any organization, school, college and university, district and state/province and/or service provider to fully communicate degrees, certifications and other similar credentials obtained by the student."

"By creating a standard credential data schema that provides more explicit expression of learning, it is hoped that in addition to helping learners to become more self-aware, third parties with whom the learners share this information could use it to further benefit the learners or the enterprises with which the learners are engaged."

-Tom Black, Associate Vice Provost & University Registrar, Student and Academic Services at Stanford University and Chair of PESC's Academic Credentialing and Experiential Learning Task Force.

STANFORD UNIVERSITY | UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE | UNIVERSITY OF SOUTHERN CALIFORNIA | AACRAO

LETTER OF INTENT

COMMON CREDENTIAL FOR CERTIFICATES, DEGREES & DIPLOMAS

March 22, 2016

Michael Sessa
PESC President & CEO
1250 Connecticut Ave NW
Suite 200
Washington, D.C. 20036

We are pleased to submit to PESC this Letter of Intent (LOI) to communicate that Stanford University, the University of Maryland University College, the University of Southern California and AACRAO intend to work openly, transparently and collaboratively with the education community through PESC to develop an XML-based data standard: Common Credential for Certificates, Degrees and Diplomas.

We propose development, submission and consideration of this Common Credential as a PESC Approved Standard. This proposed standard can be used by any organization, school, college and university, district and state and/or service provider to fully communicate degrees, certifications and other similar credentials obtained by the student. Our deliverables will include the XML Schema, an Implementation Guide, and Instance Documentation.

While the traditional transcript contains comprehensive information about a student's educational experience, in some instances only a simple verification of a degree, diploma, certification or other credential is needed. While this standard does not propose to replace the traditional transcript, we look to meet the growing demand, now emerging across the landscape but especially in transfer, labor and workforce sectors, to verify credentials. A brief business case and justification is attached.

We are pleased to collaborate on this Letter of Intent and look forward to preparing and using an international data standard that will greatly enhance the process of communicating and verifying credentials.

Sincerely,

TOM BLACK
ASSOCIATE VICE PROVOST & UNIVERSITY REGISTRAR
STANFORD UNIVERSITY

TUAN ANH DO
PESC BOARD OF DIRECTORS
REPRESENTING THE AMERICAN ASSOCIATION OF COLLEGIATE REGISTRARS & ADMISSIONS OFFICERS

PATRICK ELLIOTT
PESC BOARD OF DIRECTORS
ASSOCIATE REGISTRAR
UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE

W. MATT BEMIS
PESC BOARD OF DIRECTORS
ASSOCIATE REGISTRAR
UNIVERSITY OF SOUTHERN CALIFORNIA

FROM THE LETTER OF INTENT: While the traditional transcript contains comprehensive information about a student's educational experience, in some instances only a simple verification of a degree, diploma, certification or other credential is needed. While this standard does not propose to replace the traditional transcript, we look to meet the growing demand, now emerging across the landscape but especially in transfer, labor and workforce sectors, to verify credentials.

Development of the Common Credential will officially begin at the PESC Spring 2016 Data Summit. Leaders from PESC's Academic Credentialing and Experiential Learning Task Force will present ***Evolution of Data Records Management for Credentialing and Experiential Learning Parts I & II*** to attendees; and in subsequent concurrent sessions, at which the Task Force meets, will continue discussions of this emerging work and continue the dialogue from its quarterly Task Force meetings.

PESC's Task Force and list for the Academic Credentialing and Experiential Learning are open to the general public. Registration for ***Best Practices in Education Data Systems | PESC's Spring 2016 Data Summit*** is still available. Please check www.pesc.org for more information.

NOTE: The Letter of Intent, required by PESC's strict Policies and Procedures Manual for development under the Standards Forum for Education, serves as the foundational artifact in open, community-based efforts and communicates transparently to the education technology community at-large to ensure alignment and interoperability with all other technology and data initiatives. Once development work is completed, the PESC Change Control Board will authorize release of the proposed Common Credential standard for a 30-day public comment period, followed by a PESC Member vote, and then ratification by the PESC Board of Directors as ratification as a PESC Approved Standard.

ABOUT PESC

Established in 1997 and headquartered in Washington, D.C., PESC is an international, 501 (c)(3)non-profit, community-based, umbrella association of data, software and education technology service providers; local, state/province & federal government agencies; schools, districts, colleges and universities; college, university and state/province systems; professional, commercial and non-profit organizations; and non-profit associations and foundations.

Through open and transparent community participation, PESC enables cost-effective connectivity between data systems to accelerate performance and service, to simplify data access and research, and to improve data quality along the Education lifecycle. PESC envisions global interoperability within the Education domain, supported by a trustworthy, inter-connected network we call *EdUnify* - built by and between communities of interest in which data flows digitally and seamlessly from one community or system to another and throughout the entire eco-system when and where needed without compatibility barriers but in a safe, secure, reliable, legal, and efficient manner.

While PESC promotes the implementation and usage of data exchange standards, PESC does not set (create or establish) policies related to privacy and security. Organizations and entities using PESC Approved Standards and services should ensure they comply with FERPA and all local, state, federal and international rules on privacy and security as applicable. For more information, see www.PESC.org.

# # #

AcademyOne Automating Reverse Transfer for the State of Tennessee

Introduction

Every year thousands of community college students transfer to four-year institutions, often before completing their associate degree, leaving them without a credential. While this is not a new phenomenon, more recently colleges and universities have been paying closer attention as they are faced with a growing pressure to increase graduation rates. Reverse transfer has quickly gained national recognition as an integral element to boosting degree attainment.

Through the reverse transfer process, students who transfer without their associate degree are provided the opportunity to get that degree from their community college as they complete the required coursework while pursuing their bachelor's degree at their four-year institution.

The Challenge

At the recommendation of Tennessee's legislature in July 2012, a taskforce was formed to develop and implement reverse transfer policies, guidelines and processes across the state. The reverse transfer initiative is part of the state's larger "Drive to 55" campaign to raise the number of residents in the state with a postsecondary credential from 32% to 55% by the year 2025. Since the 2000-01 academic year, 39,954 Tennessee transfer students entered a four-year institution without an associate degree. 27,744 of those transfer students did not complete their baccalaureate degree, leaving them without a degree.

The reverse transfer taskforce was comprised of members from the Tennessee Higher Education Commission, the Tennessee Board of Regents (TBR), the Tennessee Independent Colleges and Universities Association (TICUA), and the University of Tennessee (UT) systems. Funding for the project was provided by the state through an appropriation, as well as a Credit When It's Due grant administered by the Lumina Foundation.

"The University of Tennessee shares the state's commitment to seeing a greater percentage of Tennesseans earn college degrees. We also recognize the numerous challenges transfer students face, and we're pleased to help find solutions to overcome those challenges."

Dr. Joe DiPietro,
University of Tennessee
System President

Solution

After much collaboration, the taskforce and determined the most feasible way to develop and implement reverse transfer on a statewide basis was through a centralized and automated software system. The state issued a competitive RFP in December 2013, and in May 2014 AcademyOne was selected as their software vendor of choice. By June 2014, AcademyOne began development of the Reverse Transfer System (RTS). Tennessee's Transfer Pathway degree requirements were built using AcademyOne's Virtual Transfer Advisor solution to facilitate the mapping of course equivalencies to each community college within the system.

In July 2014, a pilot was conducted with six institutions participating and providing feedback. The pilot commenced in October 2014 and refinements were made. Training was provided to academic advisors, registrars, graduation audit analysts and other staff in November 2014.

"The Reverse Transfer initiative is a definite 'win-win.' Students may not be aware that credits earned after transfer from a two-year college can help round out their associate degree requirements. For transfer students, a reverse degree award provides a well-deserved stamp of accomplishment and appears to be a motivating factor to finish the 4-year degree. On the institutional side, both community colleges and 4-year universities stand to benefit from the impact of this initiative on graduation rates, measures that feed into the state funding formula and national rankings."

Dr. India Lane,
University of Tennessee
Assistant Vice President for
Academic Affairs and Student
Success

Reverse Transfer System Workflow

- **Student Identification:** participating four year institutions query institutional records to identify eligible students and upload them into the RTS. Criteria includes:
  - Current enrollment at a participating public or private four-year Tennessee school
  - A minimum of 15 earned college-level credits from a Tennessee community college
  - Previous transfer from a Tennessee community college before earning a degree
  - 60 college-level credits completed post-transfer at the four-year institution

- **Consent:** the RTS emails students eligible to participate in the reverse transfer process. Students must consent to the sharing of their two- and four-year course histories by opting in.

- **Transcript Exchange:** two- and four-year institutions upload course histories for consenting students into the RTS.

- **Degree Audit:** the RTS runs simulated audits on all consenting students, mapping each student's course history against 40 common Tennessee Transfer Pathway Program requirements. Students that have met, or are close to meeting, the requirements for an associate degree are identified and their simulated degree audits are available for formal review by the community college.

- **Degree Conferral & Advising:** students meeting degree requirements are notified by the two-year college and are conferred a degree. Students who do not meet degree requirements are advised by the two-year college of any outstanding requirements needed for completion and contacted again the following semester.

Results

Tennessee elected to implement the Reverse Transfer System in cycles, coinciding with their Spring and Fall degree award dates. Cycle 1 began in January 2015 with 7 community colleges, 6 public four-year universities and 1 private four-year university participating. During this cycle 5,860 eligible students were identified and emailed for consent. 1,159 students consented, giving a 20% opt-in rate. It is estimated that about 4,057 staff hours were saved using the Reverse Transfer System, creating an approximate monetary savings of $111,495.* In May 2015, 341 students across the state were part of the first group to receive their degrees through the Reverse Transfer System.

Cycle 2 began in the Fall of 2015 with 9 public four-year universities, 6 private four-year universities and all 13 community colleges in the state participating, making Tennessee one of a handful of states in the country creating reverse transfer programs on this scale. More than 7,500 eligible students were identified. 1,755 students consented to participate, giving a 23% opt-in rate. In December 2015, 460 students received their two-year degree through the Reverse Transfer System.

Student Experience

An associate degree is seen as a valuable job-seeking credential for undergraduate students working their way through college. Cassandra Titus agrees and opted in early to find out if she was eligible.

"I need to show proof of experience or education in order to advance, and I feel like having this degree will show them I'm serious about my career. I've worked in administrative assistant roles for almost 10 years and need a degree to advance."

Cassandra transferred to Tennessee State University from Nashville State Community College in May 2014 to pursue a bachelor's degree in accounting. She hopes to get her foot in the door with her current employer's accounting department before she graduates in December 2016.

Conclusion

Colleges and universities that manually administer reverse transfers are faced with the time-consuming workflow processes of compiling student credit and performing audit evaluations. Working with Tennessee, AcademyOne has developed a Reverse Transfer solution that automates and optimizes reverse transfer policies and processes, easing administrative burdens and allowing two- and four-year institutions to maximize their collaborations.

Our Reverse Transfer solution enhances communication, identifies more potential completers, assimilates data from multiple student systems and runs an automated degree audit - allowing institutions to better advise near-completers and confer degrees to those that have earned them.

* Calculation based on the total hours saved and the estimated hourly salary of Reverse Transfer staff with a benefit load incorporated. Salaries were based on the "2014-2015 Professionals in Higher Education Salaries Survey," conducted by The College and University Professional Association for Human Resources. Benefit load percentage was based on the "Labor Intensive or Labor Expensive? Changing Staffing and Compensation Patterns in Higher Education," by American Institutes for Research.

Cycle 1 & 2 Results

AcademyOne

13 Community Colleges

13,360 Eligible Students Identified

Tennessee's Reverse Transfer System

The state of Tennessee's implementation of AcademyOne's Reverse Transfer system benefited everyone involved and provided an immediate return on its investment.

TN implemented the system in cycles coinciding with Spring and Fall degree award dates. Seven community colleges participated in Cycle 1. Cycle 2 included all thirteen community colleges in the state. As each cycle transpires, the benefits and ROI will continue to accumulate.

Our workflow software helped TN higher education institutions streamline their reverse transfer procedures, reduced their manual workload and ultimately contributed to advancing student completion rates.

2,914 Students Opted-in

10,200 Hours Saved Through Automation

801 Students Received Degrees

22%
Student opt-in rate

$280,325
Saved through automation

Contact AcademyOne at 888-434-2150 for more information.

PESC 17TH ANNUAL BEST PRACTICES COMPETITION

AcademyOne and Tennessee's

Submission for the TN Reverse Transfer System

Mission/Objectives

In September 2012, the public universities of Tennessee convened a statewide taskforce charged with creating a centralized reverse transfer process, at the recommendation of the legislature. The taskforce's objective was to make it possible for students who transfer from Tennessee community colleges before earning a two-year degree to retroactively receive that credential when requirements are met in pursuit of a bachelor's degree. This reverse transfer initiative was part of the state's larger "Drive to 55" campaign to raise the number of residents with a postsecondary credential from 32% to 55% by the year 2025.

Scope of the Project

AcademyOne developed a Reverse Transfer System (RTS) for Tennessee that facilitates reverse transfer programs between all Tennessee community colleges and multiple four-year institutions by assimilating data from their student information systems and performing a degree audit. As an institution-driven, semi-automated process, RTS identifies more potential associate degree completers than other approaches and allows both two- and four-year institutions to better advise students regarding an efficient path to a credential.

Reverse Transfer System Workflow

- *Student Identification* - Four-year institutions can query institutional records to identify eligible students for a reverse transfer associate degree and upload them into RTS.
- *Consent*- RTS emails students eligible to participate in the reverse transfer process. Students must consent to the sharing of their two- and four-year course histories by opting in.
- *Transcript Exchange* - Two- and four-year institutions upload course histories for consenting students into RTS.
- *Degree Audit*- RTS runs a simulated degree audit on all consenting students, mapping each student's course history against preloaded transfer pathway program requirements. Students that have met, or are close to meeting, the requirements for an associate degree are identified and their simulated degree audits are available for formal review by the two-year college.
- *Degree Conferral & Advising* – Students meeting degree requirements are notified by the two-year college and are conferred a degree. Students that don't meet degree requirements are advised by the two-year college of any outstanding requirements needed for completion.

Participants

The Reverse Transfer project was a joint venture of AcademyOne, the Tennessee Board of Regents, the University of Tennessee System, the Tennessee Independent Colleges and Universities Association and the Tennessee Higher Education Commission.

The core project team from Tennessee included:

Dr. India Lane, VP, University of Tennessee (Executive sponsor)
Dr. Gloria Gammell, Project Coordinator, University of Tennessee
Brenda Rector, Community College Liaison, Roane State Community College
Tammy Lemon, Center for Business and Economic Research, University of Tennessee, Knoxville
Tom Jenkins, Center for Business and Economic Research, University of Tennessee, Knoxville

Participating Foundations:

Lumina Foundation
Kresge Foundation

Other key participants:

Randy Schulte, Associate Vice Chancellor for Academics, Tennessee Board of Regents
David Wright, Chief Policy Officer, Tennessee Higher Education Commission
Diane Berty, Vice President, Tennessee Independent Colleges and Universities
Nathan James, Research Analyst, Tennessee Department of Education
Katie High, Vice President of Academic Affairs and Student Success, University of Tennessee

Standards Employed

The data being exchanged between institutions and the RTS software utilized the PESC Course Inventory and PESC Student Transcript schemas. The system also adopted the CEDS generic naming conventions to manage the student academic progress workflow.

Working with nearly thirty institutions from four different governing/oversight bodies, the use of the PESC data schemas provided a common framework which greatly facilitated and standardized the collection, exchange, and analysis of the data.

Date of Project Milestones

A competitive RFP was issued in December 2013 and AcademyOne was selected as the software vendor of choice.

In May 2014, the project kicked off and software development began.

By July 2014, six institutions began piloting the software and providing feedback. The pilot concluded in October 2014 and refinements were made.

Training was provided to academic advisors, registrars, graduation audit analysts and other staff in November 2014.

Tennessee implemented the Reverse Transfer System in cycles coinciding with their Spring and Fall degree award dates. Cycle 1 began in January 2015 and concluded in May 2015. Cycle 2 began in August 2015 and concluded in December 2015.

Statistics

Cycle 1

Cycle 1 began the Spring of 2015 with 6 public four-year universities, 1 private four-year university and 7 community colleges participating. During this cycle, 5,860 students enrolled at participating institutions were identified as potentially eligible for participating in the Reverse Transfer process. Approximately, 1,159 students gave their consent to participate. In May 2015, 341 students across the state were part of the first group to receive their degrees through the Reverse Transfer System.

Cycle 1 Highlights

6 Public Four-Year Universities
1 Private Four-Year University
7 Community Colleges
5,860 Eligible Students Identified
1,159 Students Consented
20% Opt-in Rate
341 Degrees Awarded

University of Tennessee System

- UT Chattanooga (402 potentially eligible students, 121 opted in, 13 students awarded degrees by former community college)
- UT Knoxville (950 potentially eligible students, 261 opted in, 72 students awarded degrees by former community college
- UT Martin (186 potentially eligible students, 59 opted in, 17 students awarded degrees by former community college)

Tennessee Board of Regents Universities

- East Tennessee State University (899 potentially eligible students, 143 opted in, 56 students awarded degrees by former community college)
- Middle Tennessee State University (1,722 potentially eligible students, 146 opted in, 64 students awarded degrees by former community college)
- University of Memphis (1,659 potentially eligible students, 423 opted in, 119 students awarded degrees by former community college)

Tennessee Independent Colleges and Universities Association

- Maryville College (42 potentially eligible students, 6 opted in, no students awarded degrees by former community college)

Community Colleges

- Cleveland State Community College (5 degrees awarded)
- Jackson State Community College (52 degrees awarded)
- Northeast State Community College (41 degrees awarded)
- Pellissippi State Community College (73 degrees awarded)
- Roane State Community College (24 degrees awarded)
- Southwest Tennessee Community College (93 degrees awarded)
- Vol State Community College (53 degrees awarded)

Cycle 2

Cycle 2 began in the Fall of 2015 with 9 public four-year universities, 6 private four-year universities and all 13 community colleges in the state participating, making Tennessee one of a handful of states in the country creating reverse transfer programs on this scale. More than 7,500 students enrolled at participating institutions were identified as potentially eligible and 1,755 students gave their consent to participate. In December 2015, 460 students received their two-year degree through the Reverse Transfer System.

Cycle 2 Highlights

9 Public Four-Year Universities
6 Private Four-Year University
13 Community Colleges
7,500 Eligible Students Identified
1,755 Students Consented
23% Opt-in Rate
460 Degrees Awarded

University of Tennessee System

- UT Chattanooga (606 potentially eligible students, 149 opted in)
- UT Knoxville (872 potentially eligible students, 228 opted in)
- UT Martin (150 potentially eligible students, 44 opted in)

Tennessee Board of Regents Universities

- Austin Peay State University (283 potentially eligible students, 73 opted in)
- East Tennessee State University (797 potentially eligible students, 190 opted in)
- Middle Tennessee State University (1,617 potentially eligible students, 326 opted in)
- Tennessee State University (439 potentially eligible students, 68 opted in)
- Tennessee Tech University (695 potentially eligible students, 151 opted in)
- University of Memphis (1,490 potentially eligible students, 367 opted in)

Tennessee Independent Colleges and Universities Association

- Carson-Newman University (134 potentially eligible students, 25 opted in)
- Freed-Hardeman University (58 potentially eligible students, 8 opted in)
- Lipscomb University (129 potentially eligible students, 37 opted in)
- Maryville College (25 potentially eligible students, 5 opted in)
- Memphis College of Art (4 potentially eligible students, 2 opted in)
- Tusculum College (214 potentially eligible students, 83 opted in)

Community Colleges

- Chattanooga State Community College
- Cleveland State Community College
- Columbia State Community College
- Dyersburg State Community College
- Jackson State Community College
- Motlow State Community College
- Nashville State Community College
- Northeast State Community College
- Pellissippi State Community College
- Roane State Community College
- Southwest Tennessee Community College
- Vol State Community College
- Walters State Community

Estimated Cost Savings

It is estimated that about 4,057 staff hours were saved during Cycle 1 using the Reverse Transfer System, creating an approximate monetary savings of $111,495.

It is estimated that about 6,143 staff hours were saved during Cycle 2, creating an approximate monetary savings of $168,830.

Total savings in the past year (2015): $280,325.

Savings will continue to accumulate each time a Reverse Transfer cycle is run. Tennessee in now in midst of Cycle 3. The RT process is run twice each academic year.

These estimates are based on a calculation of total hours saved and the estimated hourly salary of Reverse Transfer staff with a benefit load deducted. Salaries were based on the "2014-2015 Professionals in Higher Education Salaries Survey," conducted by The College and University Professional Association for Human Resources. Benefit load percentage was based on the "Labor Intensive or Labor Expensive? Changing Staffing and Compensation Patterns in Higher Education," by American Institutes for Research.

Articles

"Lumina Foundation Grant Furthers Tennessee Higher Education Efforts to Boost Degree Completion in Transfer Students," UT System News, January 2014.

"Tennessee Launches Effort to Aid Transfer Students," U.S. News University Connections, January 2014.

"Program to Help Tenn. Transfer Students Get Associate Degree," Inside Higher Ed, January 2014.

"New Program Allows Transfer Students at UT to Receive Associate Degrees," UT System News, February 2015.

"341 Associate Degrees Awarded Through New Tennessee Reverse Transfer Program," UT System News, June 2015.

"Reverse Transfer Adds Earned Credentials," UT System News, September 2015.

Websites/Presentations/Webinars

Tennessee Transfer Pathway Website

Governor Haslam on Tennessee Reverse Transfer

Reverse Transfer Webinar: Tennessee's Experience

parchment® Turn Credentials into Opportunities.

The Elon Experiences Transcript and integration to the academic transcript

Elon University & Parchment submission to the PESC Best Practices Competition

Prepared by Dr. Rodney Parks, Registrar and Assistant Professor, Elon University

Executive Summary

For many years, registrars have been asked, and often pressured, by faculty and students to document more information on the official academic transcript, presenting a challenge for those of us responsible for maintaining the integrity of the data. One common request is to identify course attributes, such as service learning, diversity-themed, online, hybrid, and study abroad courses, among others. As registrars, many of us struggle constantly to maintain consistency in the face of faculty and student demands for a more comprehensive credential that documents the student academic experience in greater depth. While historically student systems have limited our ability to provide experiential depth to the transcript, Parchment has enabled us to take the technology of producing compressive student records to a new level.

Given this pressure for more detailed documentation, some institutions have begun to develop ways to extend the traditional academic transcripts, including co-curricular, competency-based, and data-enabled eTranscripts. Matthew Pittinksy, Ph.D. CEO of Parchment and faculty member at Arizona State University notes, “Co-curricular and competency-based transcripts innovate at the level of content and substance, extending the academic transcript,” Today’s society is increasingly credential focused and innovations are paving the way to address the growing need to thoroughly document the student experience; whether as supplements to, or overtime the successor to the traditional transcript.

These transcript extensions are having a direct impact on how employers and graduate schools view our students. David Blake, the Chief Human Resources officer at Oregon State University, has argued, “an employer needs to see the ‘experiences’ gained by a potential job candidate and not just a random list of courses taken.” Furthermore, he observes, “traditional student transcripts tell us what kind of classroom learning has taken place, but they don’t capture all the different ways in which a student gains knowledge, skills, and abilities. In today’s work world, experiential learning is just as important as academics” (CUPA-HR, 2014).

The Elon Experiences Transcript

Institutions have adopted many different approaches in determining the categories for programming the co-curricular transcript. Created in 1994, the Elon Experiences Co-Curricular Transcript (CCT) seeks to enhance documentation of the student experience by recording participation in five key program areas: leadership, service, internship, global engagement, and undergraduate research. These areas incorporate extensive experiential learning and collectively reflect values that deepen the student experience.

Experiential education at Elon University is managed by the Elon Experiences Advisory Council (EEAC). Over the past two decades, Elon has seen considerable growth in student participation in experiential education, in contrast to the national trend Kuh (2008) has identified. While Elon has endeavored to expand experiential education, national participation in high-impact experiential practices has remained flat over the last few years, with only service-learning experiencing modest growth (Kuh, 2013, p. 5), as outlined in Table 1.

Table 1: Elon Student Participation in High-Impact Experiences

High-Impact Experiences	2008 Elon	2009 Elon	2010 Elon	2011 Elon	2012 Elon	**2012 National Participation**
Internships	79%	84%	84%	89%	87%	49%
Leadership	41%	41%	42%	45%	46%	--
Service Learning	89%	87%	83%	79%	82%	48%
Study Abroad	71%	71%	70%	69%	72%	14%
Undergraduate Research	14%	17%	18%	18%	21%	20%

Embedding Experiential Learning into University Culture

At most universities, co-curricular programs are managed within offices responsible for student affairs, engagement, and leadership. Databases that compile student activity information often reside within these units and therefore record creation and maintenance is also housed in these units. However, a stronger connection between academic and student affairs offices may enhance the overall quality and facilitate the effective dissemination of this data.

Leadership is a central tenet of Elon's success. Each of the five key experiential program areas is coordinated by a professional staff member in collaboration with a faculty development fellow. Together these leaders recruit faculty and staff with the necessary expertise to staff, implement, and document the experience. For example, the study abroad area is led by the Dean for Global Education in conjunction with a senior faculty member who has extensive experience in study abroad course development. This model is replicated for four of the five experiential areas supported by the university. The fifth area, undergraduate research, is coordinated entirely by faculty and has a faculty director who serves as the unit head.

Experiential learning is further strengthened through the contributions of an Experiential

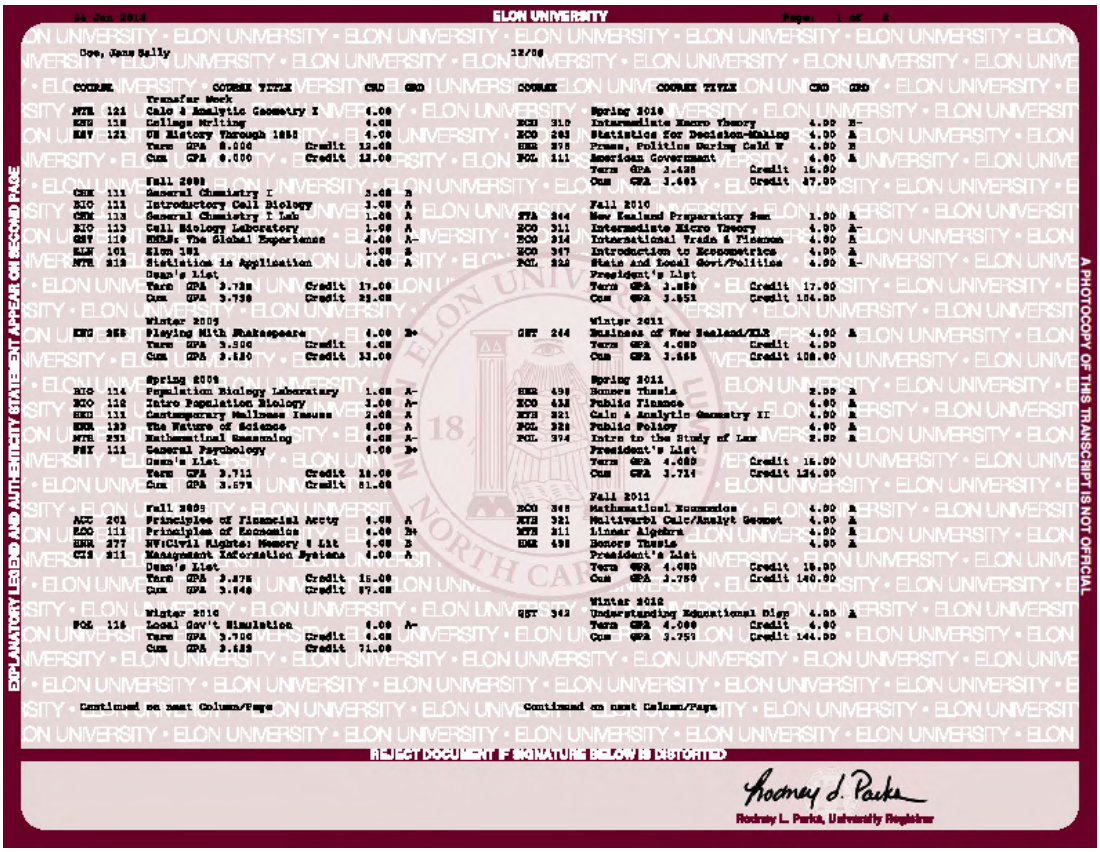
Education Advisory Council that includes the director of the core curriculum, an administrator of a scholarship program dedicated to funding experiential education, and members from the other offices responsible for administering experiential learning requirements. The Council is chaired by the Associate Provost for Academic Affairs.

Integrating the CCT to the Academic Transcript

With today's technologies, students should not have to go multiple places to obtain documents that paint a full picture of their academic experiences, presenting a workflow that left the experiences transcript infrequently utilized. To address these concerns and encourage the exchange of experiential information, Elon partnered with Parchment to bridge the gap between the CCT and the academic transcript. Working with Parchment to modify the transcript ordering system allows students to "opt-in" to receive a copy of their CCT along with their traditional academic transcript. With the new ordering system in place, Elon saw orders for CCT transcripts increase from 3 to 727 in the first year the technology went online. Combining the two transcripts with different data is no small feat. Co-curricular transcripts have historically looked very different than the traditional academic transcript. For the documents to be released as one academic document, an agreement of what would be perceived as "best practices" in the field of academic credentials had to be followed. Data standardization that fit the limits of character length and description was followed throughout the document. While no standard unit of measurement exists for co-curricular transcripts, depth was captured using time (hours) and location (global experience and internship), and title (leadership and research). Additionally, while the look and feel of the new transcript was standardized to match the academic transcript, verbiage highlighting that Elon validates the information stored on the CCT was added to the front along with the statement that the, "Elon Experiences Transcript is not an official academic transcript."

To combine the documents into one certified PDF it was imperative to revise both transcripts to have a similar look and feel, with appropriate legends on the back of each transcript (second page of the PDF). Similarly, Elon needed to differentiate the two transcripts to provide clarity to receivers. To do this, we elected to use different colored transcript paper for each of the two transcripts, academic in maroon and experiences in gold.

Figure 1: Elon Academic Transcript



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Doe, Jane Sally — 12/88

COURSE		COURSE TITLE	CRD	GRD
		Transfer Work		
MTH	121	Calc & Analytic Geometry I	4.00	
ENG	110	College Writing	4.00	
HAV	121	US History Through 1865	4.00	
		Term GPA 4.000 Credit	12.00	
		Cum GPA 4.000 Credit	12.00	
		Fall 2008		
CHM	111	General Chemistry I	3.00	B
BIO	111	Introductory Cell Biology	3.00	A
CHM	113	General Chemistry I Lab	1.00	A
BIO	113	Cell Biology Laboratory	1.00	A
GHV	110	EHRMs: The Global Experience	4.00	A-
ELN	101	Elon 101	1.00	S
MTH	212	Statistics in Application	4.00	A
		Dean's List		
		Term GPA 3.738 Credit	17.00	
		Cum GPA 3.750 Credit	29.00	
		Winter 2009		
ENG	255	Playing With Shakespeare	4.00	B+
		Term GPA 3.500 Credit	4.00	
		Cum GPA 3.680 Credit	33.00	
		Spring 2009		
BIO	114	Population Biology Laboratory	1.00	A-
BIO	112	Intro Population Biology	3.00	A-
HHD	111	Contemporary Wellness Issues	2.00	A
HNR	132	The Nature of Science	4.00	A
MTH	231	Mathematical Reasoning	4.00	A-
PSY	111	General Psychology	4.00	B+
		Dean's List		
		Term GPA 3.711 Credit	18.00	
		Cum GPA 3.673 Credit	51.00	
		Fall 2009		
ACC	201	Principles of Financial Accty	4.00	A
ECO	111	Principles of Economics	4.00	B+
HNR	277	HV:Civil Rights: Memory & Lit	4.00	B
CIS	211	Management Information Systems	4.00	A
		Dean's List		
		Term GPA 3.875 Credit	16.00	
		Cum GPA 3.748 Credit	67.00	
		Winter 2010		
POL	116	Local Gov't Simulation	4.00	A-
		Term GPA 3.700 Credit	4.00	
		Cum GPA 3.735 Credit	71.00	

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COURSE		COURSE TITLE	CRD	GRD
		Spring 2010		
ECO	310	Intermediate Macro Theory	4.00	B-
ECO	203	Statistics for Decision-Making	4.00	A
HNR	278	Press, Politics During Cold W	4.00	B
POL	111	American Government	4.00	A
		Term GPA 3.428 Credit	15.00	
		Cum GPA 3.603 Credit	87.00	
		Fall 2010		
STA	344	New Zealand Preparatory Sem	1.00	A
ECO	311	Intermediate Micro Theory	4.00	A-
ECO	314	International Trade & Finance	4.00	A
ECO	347	Introduction to Econometrics	4.00	A
POL	220	State and Local Govt/Politics	4.00	A-
		President's List		
		Term GPA 3.889 Credit	17.00	
		Cum GPA 3.651 Credit	104.00	
		Winter 2011		
GST	244	Business of New Zealand/NZL	4.00	A
		Term GPA 4.000 Credit	4.00	
		Cum GPA 3.666 Credit	108.00	
		Spring 2011		
HNR	498	Honors Thesis	2.00	A
ECO	433	Public Finance	4.00	A
MTH	321	Calc & Analytic Geometry II	4.00	A
POL	323	Public Policy	4.00	A
POL	374	Intro to the Study of Law	2.00	A
		President's List		
		Term GPA 4.000 Credit	16.00	
		Cum GPA 3.714 Credit	124.00	
		Fall 2011		
ECO	345	Mathematical Economics	4.00	A
MTH	321	Multivarbl Calc/Analyt Geomet	4.00	A
MTH	311	Linear Algebra	4.00	B
HNR	498	Honors Thesis	4.00	A
		President's List		
		Term GPA 4.000 Credit	16.00	
		Cum GPA 3.750 Credit	140.00	
		Winter 2012		
GST	342	Understanding Educational Dlvp	4.00	A
		Term GPA 4.000 Credit	4.00	
		Cum GPA 3.759 Credit	144.00	

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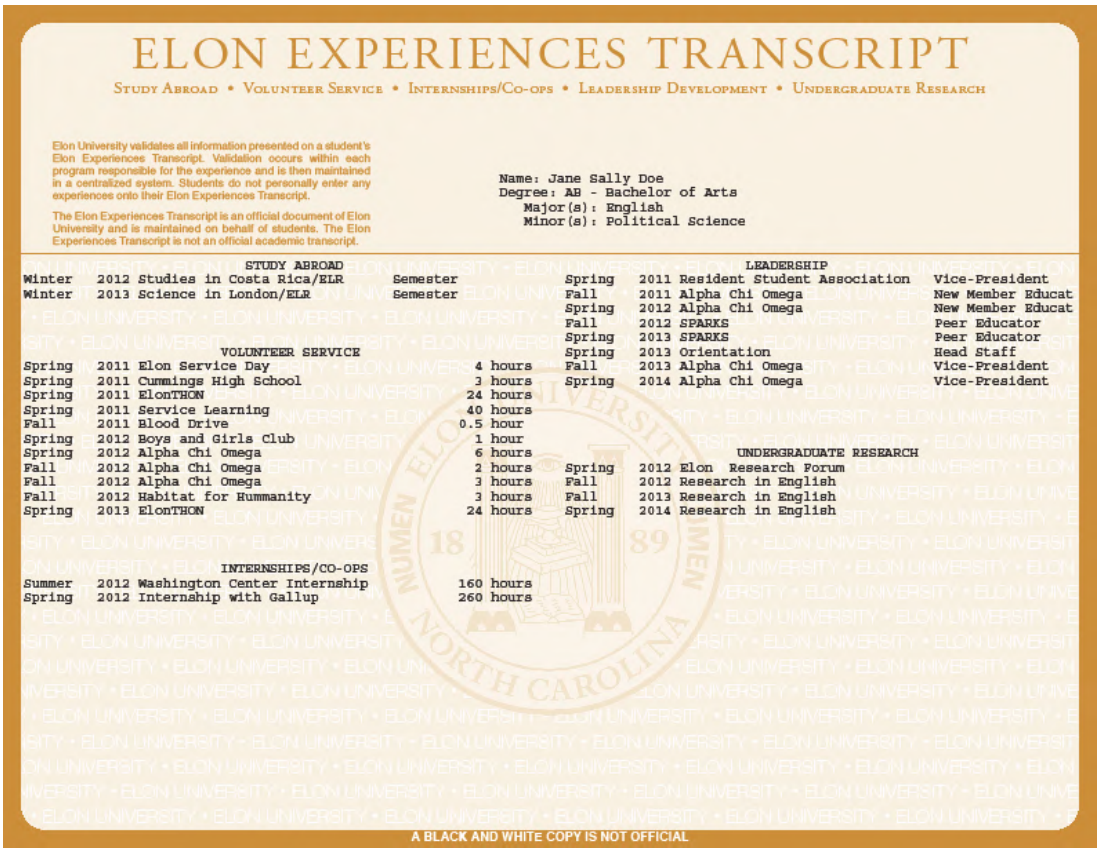
REPORT DOCUMENT IF SIGNATURE BELOW IS DISTORTED

Rodney L. Parks, University Registrar

EXPLANATORY LEGEND AND AUTHENTICITY STATEMENT APPEAR ON SECOND PAGE

A PHOTOCOPY OF THIS TRANSCRIPT IS NOT OFFICIAL

Figure 2: Elon Experiences Transcript



ELON EXPERIENCES TRANSCRIPT

STUDY ABROAD • VOLUNTEER SERVICE • INTERNSHIPS/CO-OPS • LEADERSHIP DEVELOPMENT • UNDERGRADUATE RESEARCH

Elon University validates all information presented on a student's Elon Experiences Transcript. Validation occurs within each program responsible for the experience and is then maintained in a centralized system. Students do not personally enter any experiences onto their Elon Experiences Transcript.

The Elon Experiences Transcript is an official document of Elon University and is maintained on behalf of students. The Elon Experiences Transcript is not an official academic transcript.

Name: Jane Sally Doe
Degree: AB - Bachelor of Arts
Major(s): English
Minor(s): Political Science

STUDY ABROAD

Winter	2012	Studies in Costa Rica/ELR	Semester
Winter	2013	Science in London/ELR	Semester

VOLUNTEER SERVICE

Spring	2011	Elon Service Day	4 hours
Spring	2011	Cummings High School	3 hours
Spring	2011	ElonTHON	24 hours
Spring	2011	Service Learning	40 hours
Fall	2011	Blood Drive	0.5 hour
Spring	2012	Boys and Girls Club	1 hour
Spring	2012	Alpha Chi Omega	6 hours
Fall	2012	Alpha Chi Omega	2 hours
Fall	2012	Alpha Chi Omega	3 hours
Fall	2012	Habitat for Hummanity	3 hours
Spring	2013	ElonTHON	24 hours

INTERNSHIPS/CO-OPS

Summer	2012	Washington Center Internship	160 hours
Spring	2012	Internship with Gallup	260 hours

LEADERSHIP

Spring	2011	Resident Student Association	Vice-President
Fall	2011	Alpha Chi Omega	New Member Educat
Spring	2012	Alpha Chi Omega	New Member Educat
Fall	2012	SPARKS	Peer Educator
Spring	2013	SPARKS	Peer Educator
Spring	2013	Orientation	Head Staff
Fall	2013	Alpha Chi Omega	Vice-President
Spring	2014	Alpha Chi Omega	Vice-President

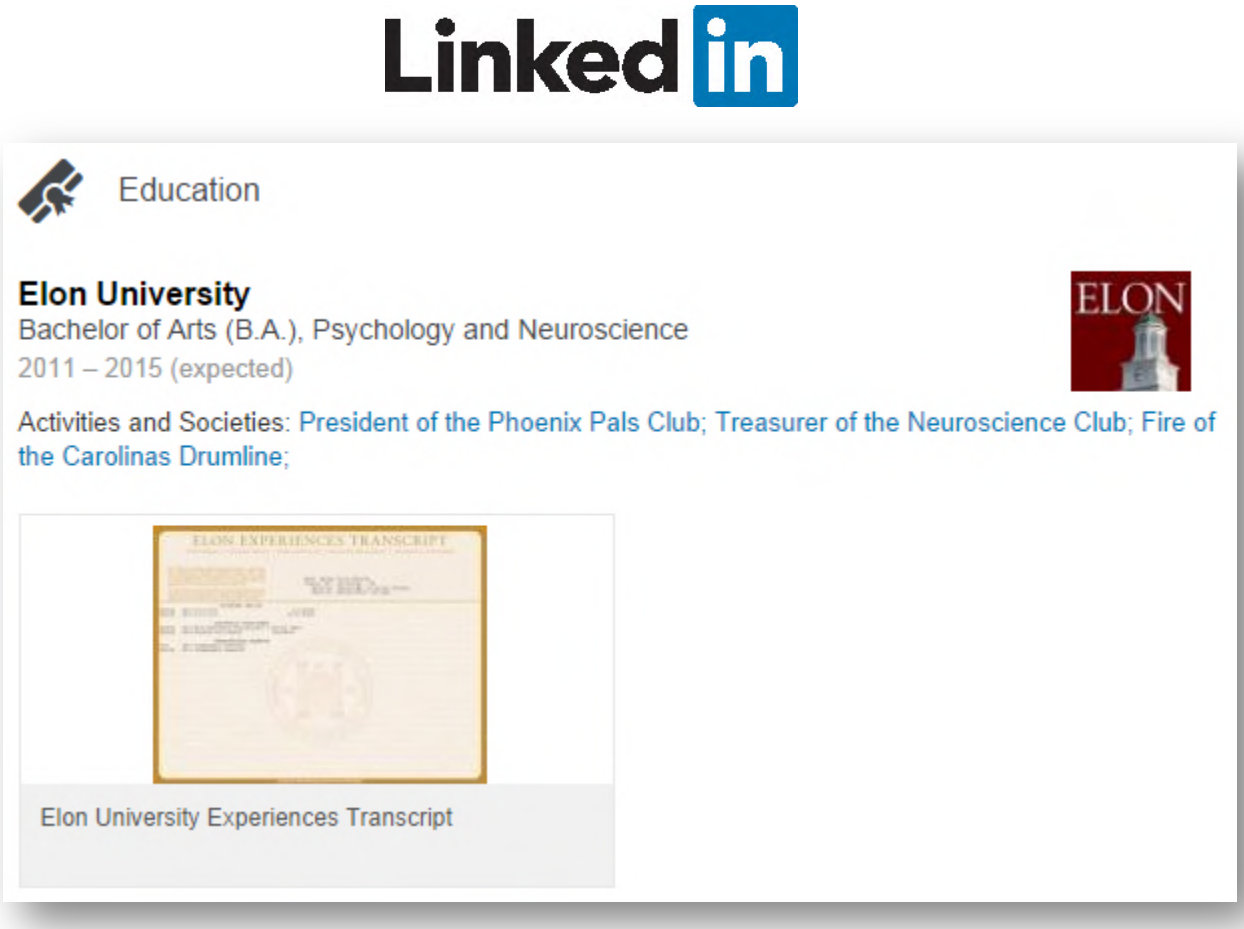
UNDERGRADUATE RESEARCH

Spring	2012	Elon Research Forum	
Fall	2012	Research in English	
Fall	2013	Research in English	
Spring	2014	Research in English	

A BLACK AND WHITE COPY IS NOT OFFICIAL

Educating the campus community was also a concern, as students and alumni began calling the Registrar's Office asking about the differences between the academic and experiential transcripts. It was crucial to disseminate information pertaining to the transcript types. Around the same time, students were given the ability to view an unofficial version of both transcripts online and encouraged to "build" their CCT the same way they would build their academic transcript. Brochures titled, "The Power of the Elon Experiences" were disseminated to students, faculty, and staff to highlight the importance and use of the CCT. Additional changes implemented by Parchment allowed students to order a CCT independently from the academic transcript and to use the CCT to market themselves on social media sites such as LinkedIn.

Figure 3: Transcript linked to social media account



A Focus on Data Standards

Knowing the history associated with XML transcript exchange from the early 2000's, the re-write of the CCT to match the academic transcript focused on uniformity and synthesized data standards found on the academic transcript. While acknowledging we are a few years away from being able to transmit CCT's via XML, the data is formatted in a way that anticipates the exchange of standards-based experiential data, following the XML implementation guide used for transcripts. Because CCT's tend to follow institutional culture in design, a schema with flexible user defined extensions will be necessary to facilitate data transfer. Some standardization with unit of measurement and common experiences seems plausible. Using the academic transcript as a guide for character length and general layout of experiences should make the data easier to convert. As institutions work to standardize and define common data that make up core experiences electronic data transfer should occur naturally.

On the Horizon

During the Fall of 2014, Elon began to aggressively market the CCT to incoming first-year students through an introductory seminar (Elon 101). The Registrar's Office has worked with the Student Professional Development Center to educate students on how to market themselves effectively using the new experiential transcript on social media platforms. Deepening the descriptions of the data stored on the CCT is underway and students are being more proactive in having information recorded on the transcript through approved mechanisms.

One of the most difficult challenges is assessing the response to and value of the co-curricular transcripts for employers, alumni, and graduate and professional school admissions offices. Administrators often wonder to what extent students submit copies of the CCT to employers and what outcomes these new transcripts yield from hiring officials. In Fall 2014, the Registrar's Office began reaching out to corporate partners and other recipients of the CCT for feedback on the document. While results are in a fledgling status, initial responses have been generally positive.

As other institutions begin to consider combining the two transcripts, concern over the data standardization and data integrity will arise. Registrars have already expressed concern about relinquishing some control over what information is stored and released, how information gets entered into the student system, what data standards exist for those wanting to build a CCT and who has the authority to view and release the information. These are all significant questions that PESC is positioned to address in the near future. When it comes to a CCT, what works well for one institution may not be a panacea for all, but the movement to build and release a CCT electronically has clearly taken the nation by storm. We still have a number of questions worth considering, but in the end, we are long overdue to provide a meaningful credential to our students that accurately convey the depth and breadth of their entire student experience.

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https://www.insidehighered.com/views/2014/02/10/essay-calls-broader-concept-transcripts

EDEXCHANGE

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DESIGNED AS A PEER-TO-PEER NETWORK PROMOTING SECURE, RELIABLE, & DIRECT CONNECTIONS BETWEEN INSTITUTIONS WHILE AVOIDING FILE-BASED TECHNOLOGY.

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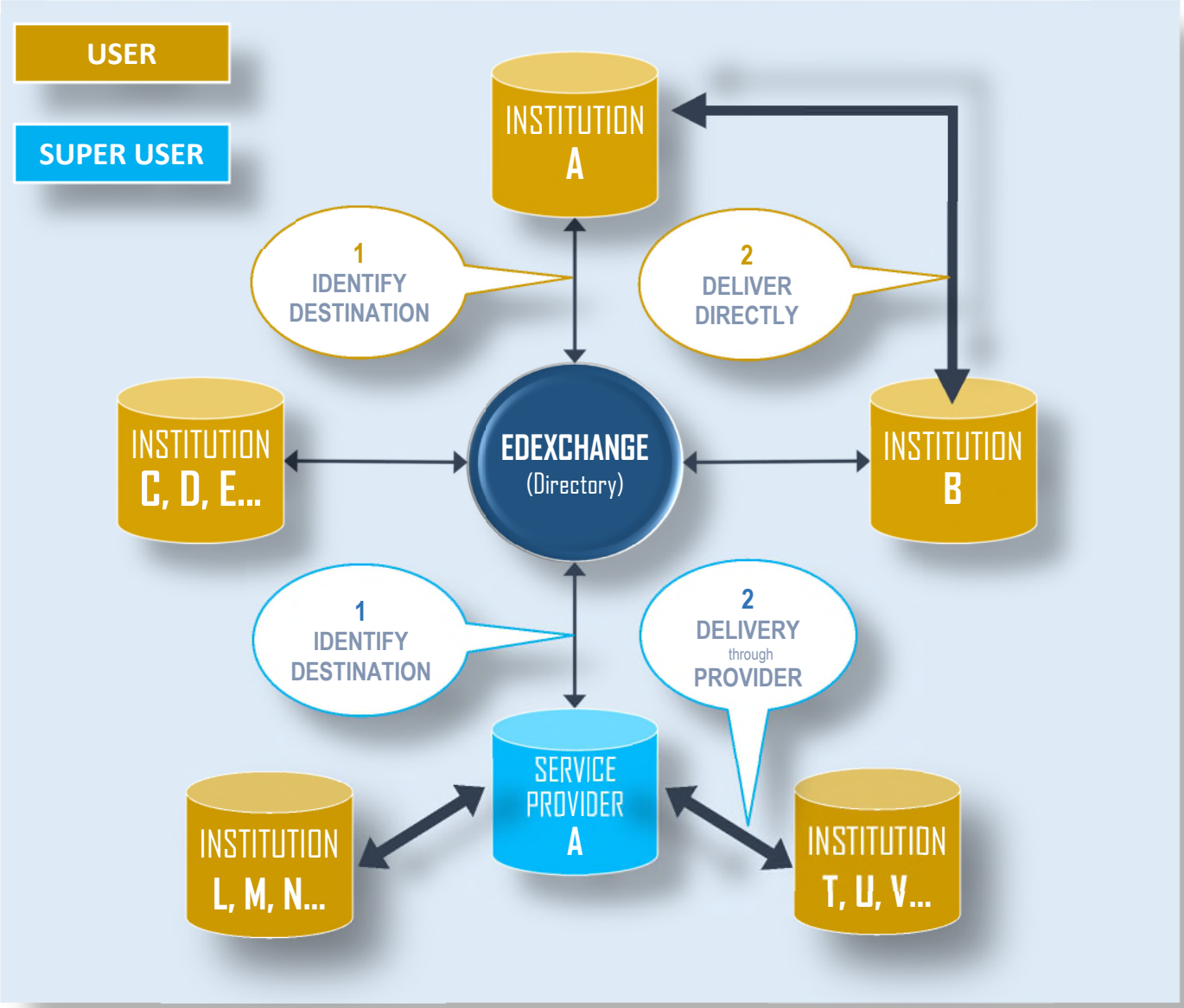

USERS are institutions that look up or use *EdExchange* to determine the destination to request or send digital documents and data.

SUPER USERS are organizations that look up or use *EdExchange* on behalf of a group of institutions to determine the destination to request or send digital documents and data.

USERS and ***SUPER USERS*** must register with *EdExchange* and configure their processing profile prior to actual use of the *EdExchange* service.

EDEXCHANGE

EdExchange is the principal project of PESC's Common Data services (CDS) Task force.

EdExchange operates as a User Group and participation in User Group meetings is encouraged and open to representatives of PESC Member organizations.

- ***EdExchange User Group Chair***

  Mark Cohen, California Community Colleges

- ***EdExchange Steering Committee***

  Rajeev Arora, Senior Vice President of Projects, Parchment
  Thomas Black, Associate Vice Provost and University Registrar, Student and Academic Services, Stanford University
  Mark Cohen, California Community Colleges
  Tuan Anh Do, PESC Board of Directors
  Doug Falk, Vice President and CIO, National Student Clearinghouse
  James Kelly, Senior Director of Technology, Educational Credential Evaluators
  Michael Sessa, President & CEO, PESC
  Monterey Sims, Director of Admissions and Evaluation, University of Phoenix
  Jack Weber, Executive Vice President, Credentials Solutions

- ***EdExchange User Group Participants***

AACRAO
AcademyOne
ACT
ApplyAlberta
Arizona State University
Bardic Systems
BC Campus
Brigham Young University
California Community Colleges
California State University System
Credentials Solutions
Educational Credential Evaluators
Internet 2
National Student Clearinghouse
Ontario College Application Service
Ontario Universities' Application Centre
Parchment
San Francisco State University
Stanford University
Student Connections
University of British Columbia
University of Missouri System
University of Phoenix
University of Southern California

EDEXCHANGE

OVERVIEW & BENEFITS

The concept is that the *EdExchange* specification become a PESC Approved Standard, and then stakeholders implement and offer this standard specification, alongside their other digital services and applications, to exchange data among themselves.

With a consistent, reliable cross-sector standardized exchange, those that use, collect or exchange data can now have this option available to them. Whether connecting directly or through use of a third party service provider, *EdExchange* could provide data exchange services for all educational needs.

Additional benefits resulting from use of *EdExchange* include:

- *Use of EdExchange is voluntary and compliments previously established protocols between organizations that exchange digital documents and data.*
- *EdExchange does not limit the types of digital documents and data to be exchanged.*
- *EdExchange is not a database, and therefore, does not store digital documents or data.*
- *EdExchange requires peer-to-peer direct connections for delivery of digital documents and data.*
- *Through a partnership with Apereo, the EdExchange specification, designed with an open web services architecture, is governed as an open source community effort.*
- *EdExchange is operated by PESC and governed directly by PESC Members.*

EDEXCHANGE

GOVERNANCE

In 2015, the *EdExchange* User Group established a Steering Committee, ultimately governed by the PESC Board of Directors, to administer more direct management, oversight and strategic planning of *EdExchange*.

The Steering Committee is made up of nine (9) PESC member representatives; is diverse, representing the various sectors across education; is semi-autonomous, with reporting directly to the PESC Board of Directors, and; is responsible for the overall governance and operation of EdExchange.

Each Steering Committee seat has one (1) equal vote and simple majority rules decision-making. Terms are one (1) year effective March 1, 2017 and terminating April 30, 2018. The Steering Committee establishes its own roles, responsibilities, schedule and leadership.

EdExchange Steering Committee meetings occur via conference call every other Thursday at 11am EST (8am PST, 4pm Greenwich).

EdExchange User Group meetings occur via conference call every other Thursday at 11am EST (8am PST, 4pm Greenwich) and communications are supported by a PESC list.

EDEXCHANGE

HISTORY

The Common Data Services (CDS) Task Force launched under PESC at the Fall 2011 Data Summit. Leaders within the California Community College (CCC) System requested this community development through PESC and have remained consistent leaders and participants to this day.

With a focus on data exchange, the CDS Task Force studied and analyzed the technical landscape, monitored the political climate and adopted a specific mission:

> *"to improve security, reliability, efficiency and speed in the transfer of all educational data types by developing an open web services network and associated standards to benefit the education of students, streamline processes for institutions, and facilitate the advancement of services offered for education..."*

From the CDS Task Force and with this guiding mission, a project, *EdExchange,* emerged. To support the initiative and ensure its progress, the CCC Technology Center dedicated technical staff, resources and hardware to run the service in test and throughout the pilot phase.

EDEXCHANGE

CURRENT STATUS

In 2016, PESC called for organizations to participate in a pilot phase of EdExchange. The following six (6) organizations volunteered and each is in some varying degree of progress within their respective pilots:

- *California Community Colleges*
- *Credentials Solutions*
- *Educational Credential Evaluators*
- *National Student Clearinghouse*
- *Parchment*
- *University of Phoenix*

AVAILABILITY & COST

The vision is that the *EdExchange* specification become a PESC APPROVED STANDARD allowing stakeholders to implement and integrate a standard platform, alongside their other digital services and applications.

With a consistent, reliable, neutral, standardized service, those that use, collect or exchange data, now have a scalable, cost-effective option available to them rather than expending internal resources and funding to build a service on their own. Whether connecting directly or through use of a third party service provider, *EdExchange* allows data exchange services for all educational needs.

In order to realize this vision, *EdExchange* must first undergo a rigorous testing and pilot phase. Once successfully completed, availability of *EdExchange* services will be announced for widespread use.

In order to ensure *EdExchange's* sustainability at this time, it is envisioned that *EdExchange* users would remit a nominal, annual subscription service fee allowing unlimited use of the service while general lookup would be free of charge.

GLOBAL INSTITUTION CODE

GLOBAL INSTITUTION CODE

A FREE, OPEN AND STANDARDIZED

ONLINE DIRECTORY OF

INSTITUTION CODES & IDENTIFIERS

FOR USE BY

EDUCATION INSTITUTIONS AND

STAKEHOLDERS WORLDWIDE

GLOBAL INSTITUTION CODE

Global Institution Code is the principal project of PESC's Global Data Mobility User Group.

Global Institution Code operates as a Workgroup and participation in Workgroup meetings is encouraged and open to representatives of PESC Member organizations.

- ***Workgroup Co-Chairs***

  W. Matthew Bemis, Associate Registrar, University of Southern California
  James Kelly, Senior Director of Technology, ECE
  Dave Landry, Director of Data Exchange Services, National Student Clearinghouse
  Rick Skeel, Director of Product Management, Ellucian

- ***Workgroup Participant Organizations***

AACRAO
AcademyOne
ApplyAlberta
Arizona State University
Bardic Systems
Brigham Young University
California Community Colleges
College Board
CollegeNET
Credentials Solutions
Educational Credential Evaluators
Ellucian
Elon University
Florida International University
Georgetown University
Groningen Declaration Network
International Education Research Foundation
National Student Clearinghouse
Ontario College Application Service
Ontario Universities' Application Centre
Oracle
Paradigm
Parchment
San Francisco State University
Smart Catalog
Stanford University
Student Connections
University of Málaga
University of Maryland University College
University of Phoenix
University of Southern California

GLOBAL INSTITUTION CODE

OVERVIEW

A free, centralized global institutional code list or directory does not exist. Without such a vital service, every college and university in the world is forced to manually map or link various and numerous codes and identifiers that may exist for the very same institution. As the number of students studying internationally grows each year, the manual labor required to secure and identify accurate institution codes increases correspondingly becoming both more intensive and error-prone.

The consequences are substantial and include:

- excessive cost due to manual processing and redundant technical resources to maintain mapping of disparate code sets
- significant delays in processing and delivery of student data and information due to a lack of efficient interoperability
- extensive risk of fraud and abuse due to untimely and sometimes inaccurate translation and inconsistencies in data matching and controls

Several critical challenges exacerbate the establishment of a directory due to the nature of disparate efforts and lack of cooperation:

- historical data must be maintained for institutions that no longer exist
- institutions that have merged or split must be represented accurately
- changes in institutional demographic data require constant maintenance
- each country maintains its own code set (many more than one set) yet no country uses or shares the same methodology in constructing and designing its respective codes sets

For these reasons, PESC and the PESC Membership have concluded that establishment of a free, open and standardized free online directory of institution codes and identifiers for use by education institutions and stakeholders is now a necessity.

GLOBAL INSTITUTION CODE

BENEFITS

Establishment of a free, open and standardized global institutional code list or directory provides a number of benefits that can be immediately realized:

- improved data quality and integrity
- decreased risk of fraud and abuse
- faster, streamlined processing and delivery of student data and results
- an open, community-based, value-added-service like an online directory is positioned for success based on best practices in other industries (see below)
- the service is free, unlike other services which are provided on a subscription-paid basis
- the service will be designed with an open architecture using standardized web services and protocols
- institutions and organizations have already committed to using such a list once established

EXAMPLES OF SUCCESSFUL VALUE-ADDED DIRECTORY SERVICES

Many industries collaborate to enable interoperability through use of community-based, service-driven directories.

ATM MACHINES

Interbank networks such as PLUS, Cirrus, STAR, and LINK require directories to identify multitudes of networks and banks in order to provide immediate consumer services and results upon request.

CREDIT CARDS

Networks like MasterCard and VISA require directories to identify numerous merchants and financial entities to also provide immediate services and results.

MORTGAGES

Mortgage companies rely on directories due to the various and disparate entities involved in the mortgage process.

TOLL BOOTHS

Toll booths require financially based directories and government based directories in order to operate.

GLOBAL INSTITUTION CODE

HISTORY

With an escalating, common global awareness around systems, technology and standards, PESC's footprint is correspondingly growing. PESC's Membership is expanding beyond USA, Canada and Europe and PESC Members are rapidly implementing PESC APPROVED STANDARDS in order to meet the needs of this growing digital economy.

New development ideas continue to grow within PESC as well, and the Board of Directors and Membership have been strategizing on how to meet this need.

At the Spring 2016 Data Summit in Washington, D.C., PESC launched its *Global Data Mobility* User Group. This User Group, comprised of leaders and experts across practice, policy and technology immediately identified several high profile initiatives to advance global interoperability.

The need for a *Global Institution Code* set surfaced as the highest priority. Leaders within PESC and the education community have been discussing this need for a number of years.

Today's technological innovation with open, transparent collaboration (the cornerstone of PESC's foundation and guiding principle) and having finally reached the tipping point whereby most experts agree that such a code set is not only needed, but now impacts data quality, cost and fraud, all contribute to the conclusion that such a list is now a necessity.

GLOBAL INSTITUTION CODE

GOVERNANCE

At this stage in the development lifecycle of this project, the Workgroup operates as the development entity and is managed by Co-Chairs from PESC Member organizations.

It is envisioned that the *Global Institution Code* Workgroup will establish a Steering Committee in 2017. This Steering Committee will be made up of nine (9) PESC member representatives; will be diverse, representing the various sectors across education; will be semi-autonomous, with reporting directly to the PESC Board of Directors, and; will be responsible for the overall governance and operation of the *Global Institution Code* directory.

Each Steering Committee seat has one (1) equal vote, simple majority rules decision-making and terms are one (1) year. The Steering Committee establishes its own roles, responsibilities, schedule and leadership.

Global Institution Code Workgroup meetings occur via conference call every other Friday at 1pm EST (10am PST, 6pm Greenwich) and communications are supported by a PESC list.

GLOBAL INSTITUTION CODE

CURRENT STATUS

At this time, the Workgroup is proposing a *proof of concept*. This *proof of concept* entails establishment of a unique *Global Institution Code* using seven (7) digits:

- Two (2) digit ISO country code, plus
- Five (5) digit automated code

To test this approach and underlying methodology, the Workgroup is assigning this unique *Global Institution Code* to institutions in the following countries:

- ***Canada***
- ***China***
- ***France***
- ***India***
- ***Netherlands***
- ***Poland***
- ***USA***

Results of this proof of concept will be analyzed and evaluated by the Workgroup to determine how successful this methodology is and how to best proceed.

AVAILABILITY & COST

The *Global Institution Code* Workgroup is still in development stage and therefore, no service is available at this time.

The Workgroup envisions availability sometime in 2018.

As a driving principle and in alignment with PESC's mission, use of the *Global Institution Code* is free and open to the education community.

GLOBAL INSTITUTION CODE

PRESENTATION FOR GRONINGEN DECLARATION NETWORK ANNUAL CONFERENCE

THURSDAY 27 APRIL 2017
14:30-15:15
MELBOURNE AUSTRALIA

GLOBAL INSTITUTION CODE DIRECTORY | CORNERSTONE OF INTEROPERABILITY

Presenters:
W. MATTHEW BEMIS, ASSOCIATE REGISTRAR, UNIVERSITY OF SOUTHERN CALIFORNIA (USC)
JAMES KELLY, SENIOR DIRECTOR OF TECHNOLOGY, ECE

The secure, timely, legal and accurate delivery of data is the highest priority for all stakeholders in the tertiary or higher education domain. Yet a simple concept – certainty in the validity, integrity and even the existence of an institution, remains a high risk with consequences of poor data quality, delays in processing and results, and in more extreme cases, fraud and abuse. Co-Chairs of PESC's Single Institution Workgroup have been analyzing and evaluating this challenge and are proposing a proof of concept, using a new, standardized methodology for codes, for input and feedback from the Groningen Declaration Network (GDN). In true collaboration leaders from Ellucian and the National Student Clearinghouse are also Co-Chairing this Workgroup which now includes the GDN as official collaborator and partner with PESC. The vision shared by all, is establishment of an online directory of institutional codes (along with additional supporting information) provided openly, transparently, freely and without charge for use by education stakeholders worldwide. PESC and GDN look to welcome participants to the Workgroup and Co-Chairs will present additional methods for everyone to participate and provide input and feedback.