Interview with Michael Sessa

Reflections on PESC’s 10th Anniversary and His First Five Years as Executive Director

Q Recently PESC has been appearing more and more frequently in the news. Can you refresh our memory with respect to the mission of PESC?

A Our mission is to lead the establishment and adoption of data exchange standards in education. We do this by building and administering an open, common, integrated and collaborative infrastructure for sending data to, from, and within a college or university. Our goals are to enable the improvement of institutional performance and foster collaboration across educational communities in order to lower costs, improve service, and attain system interoperability. Our standards are user, vendor, and platform neutral and are free and open to the public.

Q Has it changed since the original inception of PESC?

A Since its founding in 1997, PESC’s mission has basically remained the same. What has changed is the level of awareness and importance the community now shows toward standards, interoperability, and technology. Policy will always dominate and drive the higher education agenda as it should. But setting policy is only half of the picture. How do you implement policy efficiently and effectively? How do you implement changes in policy or operations without increasing cost or without losing your customers? How do you know the changes you are incurring significant expenses on are going to be usable by the trading partners that you rely on to conduct business?

There are many organizations which support the standardization of policy. In the financial aid community for instance, leaders came together years ago and developed the Common Manual. When the community came together in 1997 to launch PESC, leaders realized that the building of systems and the need to efficiently communicate with one another was a missing link - it hadn’t been addressed. You can talk about policy all day long but if you don’t have a way to implement that policy into effective data exchange and communication - the costs to implement that policy are going to soar. Or worse, due to disjoint processes, the data you do get may not be reliable.

See Sessa, Page 4
We’re Moving!

Effective July 2, 2007
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PESC Fall 2007 Summit in Montreal!

Join fellow colleagues in the higher education community as we celebrate PESC's 10th Year Anniversary! While the meeting in which PESC was actually launched took place on August 18, 1997 at the National Center for Higher Education, we'll hold the festivities during the Fall 2007 Summit being held at the Ritz-Carlton Hotel in Montreal Canada.

In addition to meetings usually scheduled during PESC Summits including Workshops and Boards of the Standards Forum for Education, the PESC Board of Directors, PESC Fall Membership, & AACRAO's SPEEDE Committee, the Electronic Authentication/Electronic Authorization Task Force (EA2) will also convene.

Plus we're hosting a special 10th Anniversary Reception! Final plans along with the agenda of workshop meetings will be announced shortly. In the meantime, please make travel plans and reserve your hotel room. The Summit begins Monday morning October 15 at 7:30am with continental breakfast and concludes by Tuesday afternoon October 16 at 1pm. The dress code is business casual.

Ritz Carlton Montreal
1228 Sherbrooke Street West
Montreal (Quebec) H3G1H6
800-363-0366
1-514-842-4212
reservations@ritzmontreal.com
$179 CAD/night

Get Your Passport Now!

Under the new requirements of the Western Hemisphere Travel Initiative (WHTI), beginning January 23, 2007, ALL persons, including U.S. citizens, traveling by air between the United States and Canada, Mexico, Central and South America, the Caribbean, and Bermuda will be required to present a valid passport, Air NEXUS card, or U.S. Coast Guard Merchant Mariner Document, or an Alien Registration Card, Form I-551, if applicable.

To obtain a passport for the first time, you need to go in person to one of over 8,000 passport acceptance facilities located throughout the United States with two photographs of yourself, proof of U.S. citizenship, and a valid form of photo identification such as a driver's license.

To renew a passport, you can renew by mail if: Your most recent passport is available to submit and it is not damaged; you received the passport within the past 15 years; you were over age 16 when it was issued; you still have the same name, or can legally document your name change.

For more information, visit http://travel.state.gov/passport/passport_1738.html.

A National, Digital Marketplace for College Textbooks

The Advisory Committee on Student Financial Assistance released its report, “Turn the Page - Making College Textbooks More Affordable” on May 25, 2007 and held a hearing on June 5, 2007 in Washington, D.C. Congressmen Howard “Buck” McKeon (R-CA) and David Wu (D-OR) requested the Advisory Committee to conduct a one-year study in May 2006 on the cost of college textbooks and to make recommendations on what could be done to make them more affordable. Most importantly, the report finds that the rapid increases in the prices of college textbooks are symptoms of a structural flaw in the market for textbooks and learning materials - a market driven by supply rather than by demand. Faculty select textbooks from publishers, bookstores order them, and students must pay. The end consumer has little, if any, direct influence over the price, format, or quality of the product. The report finds that other stakeholders - faculty, colleges, bookstores, and publishers - are also victims of the failure of this market, and blaming them for higher textbook prices is not the answer. While the report provides a number of short term solutions some of which are already in limited use, for the long term, the report recommends the creation of a demand-driven, college and student centric, national digital marketplace. The full report is available at www.ed.gov/acsf.
Sessa, from Page 1

Q You have been with PESC for five years now?

A I joined PESC as Executive Director on October 22, 2002, so it’s coming up on five years now. I had served on PESC Board of Directors since 1999 so I was familiar with PESC and all the efforts going on at that time from SPEEDE and ANSI to Project EASI and Modernization to the formation of the XML Forum for Education, now the Standards Forum. Common Applications and Forms were just starting to take hold when I started my career in 1990 at The Boston Five Cents Savings Bank (now Citizens Bank); and I remember thinking how much sense having common applications and forms made.

On my first day, PESC was holding the Fall 2002 Summit in Spokane. With a number of items to be discussed including replacing myself on the PESC Board, I hit the ground running and have never really looked back. As a long-time member of several committees including NCHelp’s CommonLine and Common Account Maintenance, I had been exposed to the benefits of standardization. I didn’t need to be convinced. Coming into PESC as president and CEO, I realized that higher education was actually ready, willing, and able to embrace standards, but what was lacking was the organization and coordination to lead higher education toward that vision. I remember looking down at our membership list and wondering what we were all waiting for. We needed someone to say “ready, set, go”, and that’s what I did but with collaboration. Collaboration is our cornerstone principle and we stick to it as difficult as that can sometimes be. No one likes to be surprised and most folks like to be asked for their thoughts. We work hard at communicating and maintaining a level of transparency, to ensure everyone knows what steps we are taking and why...so that folks know what the motives and reasons are.

Q How satisfied are you with PESC’s progress to date?

A Well, I’m never 100% satisfied with our progress because I see so much opportunity to collaborate and expand upon the infrastructure. Am I happy that we have the largest number of members in our history and that we are now actually producing standards that organizations and businesses are actually adopting and implementing? Yes. But that’s what I expect. I expect PESC’s work to be useful and effective - that’s the baseline. Maybe I’m an optimist, but I have higher expectations.

The challenge we face is the setting of a new paradigm. We are bringing competitors together for a larger common goal: for the betterment of schools, colleges, universities, and students. In order to remove the barriers limiting a student’s ability to access a college or university, we must ensure that we have simplified the process to be able to communicate with and about these students. A common and simplified infrastructure allows college officials to focus on the needs of the students, not on the needs or restrictions of their systems.

It is difficult enough for students to search, find, apply to, and get accepted by the right college. Now more than ever we are seeing increased rates of transfer from one college to another and an ever-increasing number of colleges are adding distance education courses to their curriculum. Students, college officials, service providers, and vendors should not be worrying about the integrity or reliability of the data - that should be a given, that should be the baseline.

For a while, many vendors and/or providers believed that if they controlled the data exchange, that they had locked that customer into their products and services. Of course without standardized data exchange, all communications were done proprietarily. What we see now is that customers once locked into a closed product or service are now demanding interoperable products and services.

The term that I continuously use is coopetition - meaning cooperation among competitors for a greater common goal. It’s difficult to achieve because it raises the question of what can you compete on or what should you compete on. PESC believes that vendors and providers should be competing on price and service, how your products work and their functionality, customer service, your ability to produce and provide consistently.

But as far as the data exchange network or infrastructure is concerned, it is becoming a commodity and we must realize that it is a commodity and realign our strategies and
business processes. We must be able to rely on data exchange like we do when we talk on the phone or use an
ATM machine. Of course the phone and ATM networks
didn't just happen, they had to be built. It took years of dis-
cussion on process, liability, customer service, marketing
and systems. And most importantly businesses and
providers had to work behind the scenes to make the user
view of the process simple and seamless. This is what we
must do in higher education. We must work together to
build a seamless and reliable process - that is the baseline.

It’s a difficult concept for some because you do have a lot
of high-powered, multi-million and multi-billion dollar ven-
dors and businesses involved. And it’s not that they are
resisting, it’s simply the culture. This is where higher edu-
cation is split between being viewed as a value vs. as an
industry. We value higher education because we believe in
the need for an aware and educated society. But higher edu-
cation is also an industry. We don’t use the word “industry”
much, but vendors and businesses view education as an
industry. That’s not bad, it’s simply the reality. From time to
time this conflict arises and it’s difficult to reconcile. PESC
has to make sure that we satisfy all of the sectors of higher
education in regards to data exchange and technology. And
we can’t alienate anyone either.

Q  How will you ultimately measure the degree to
which PESC is successful?

A  That’s an excellent question. You can measure suc-
cess in a number of ways. You can measure success by
the satisfaction of your membership. In being a member-
ship-based association, if our members are satisfied, we are
successful. After our first ten years, we have the largest
number of members, the highest number of standards, the
largest number of active workgroups, a national and inter-
national presence, an engaged and active Board of Direc-
tors, implementation of our standards across the
country and across the continent, and new office space.

The bigger question is, however, are we making a positive
impact in higher education? The simple answer to that is
yes. To what level that is not known at this time because we
are in the early stages of standardizing higher education
data exchange. The way that I would like to measure it is by
adoption. How many organizations are using what you pro-
duce? Are they finding it valuable? Are you building upon
those successes? The ultimate goal is not to have a big and
powerful PESC. A bigger PESC is not what we’re about.
Most folks would be surprised to know that we have only
two full time employees including myself and Jennifer Kim,
our Membership Services Manager.

Efficiency and interoperability are what we are about. The
goal is to allow and enable colleges and universities to con-
duct their business with their trading partners without
being hampered by inefficient levels of data exchange. The
icing on the cake is the cost savings organizations will expe-
rience. For instance, one organization that has implement-
ed our XML Transcript saves $3 - $4 per transcript. The
savings can quickly add up when you account for the fact
that this organization processes over 100,000 transcripts
per year; and that doesn’t include derivative savings (savings
realized for instance for not having to manually load grades
into admission systems).

Q  Can you give us an idea of the major accomplish-
ments of PESC over the past year?

A  We’ve spent the first 5 years organizing PESC inter-
nally and within the market. We needed to make sure
all groups and organizations within higher education under-
stood what we were trying to accomplish. In the past five
years, we’ve now focused on executing the goals of the mis-
ion, on getting it done.

To help build standards, we worked with the U.S.
Department of Education’s Office of Federal Student Aid
(FSA) to develop a single rulebook on XML architecture.
Called the “PESC Guidelines for XML Architecture and
Data Modeling,” these guidelines are used by higher educa-
tion to build and model standards. FSA is a solid partner
within the community and with PESC and realized early on
that there shouldn’t be multiple methodologies for devel-
oping standards. Going one step further and in the same
line of thinking, in developing a place (e.g. repository) to
store standards, FSA provided the option for PESC to co-
administer the repository (now called the XML Registry
and Repository for the Education Community).
Sessa, from Page 5

So now we have a single process for building and developing standards and a single place to store them. All information related to standards and the standards themselves are and free and open to the public. Our approach is much different than other standards bodies. For instance, anyone can get ANSI standards as long as you pay for them and some cost upwards of $300. And when we say free and open to the public, we mean free and open to the public. No user name or password - you simply click on “guest” and you can get all of the PESC standards.

Of course that brings up a different situation for PESC - how we handle our finances and our financial solvency. PESC decided as a community that it doesn’t make much sense for us to bring in revenue from the issuance of standards. So, like any organization we constantly review our value proposition and reach out to new sectors and new organizations to pull them in as Members.

In the past year, we've seen a lot of activity in producing standards. The PESC Members approved Common Record: CommonLine (CRC) as a national education community standard. CRC is a suite of standards dedicated to the origination, disbursement and reporting of student loans. Once fully implemented, CRC will achieve over $60 billion in student loan transactions annually. CRC joins the XML Postsecondary Transcript (the College Transcript) which was our first standard, the XML High School Transcript, Online Loan Counseling, and our Data Transport Standard (DTS).

A small number of organizations have implemented CRC and DTS and than continues to grow. For the XML College and High School Transcripts, we’ve seen significant implementation. States like Indiana, Ohio, Georgia and the California Community College System are in production. Other states like Wyoming, Nebraska, Minnesota, Michigan and the remaining states of the Midwestern Higher Education Compact are developing the standards and implementation will happen in the very near future.

Q What Major Projects does PESC have in process at the current time?

A With the foundation firmly established and the community fully engaged, we are now at the stage where we can really have a positive impact. We're finalizing all the supporting transactions around transcripts (e.g. request and response, acknowledgment, batch) to enable standardization of the entire business process for transcript exchange. We’re also finalizing version 2.0 of the Data Transport Standard (DTS). With email and FTP no longer serving the needs of the community and with no other established standard suitable for the needs of higher education, DTS is a “web service” that enables secure and guaranteed data exchange of files and data. Other development efforts which are in process include standards for: the College Admission Application, Test Scores, Course Catalog/Inventory, Degree Audit, and Student Aid Inquiry.

We also launched the Electronic Authentication/Electronic Authorization Task Force (EA2) which consists of representatives from the American Association of Collegiate Registrars and Admissions Officers (AACRAO), Educause, the Electronic Authentication Partnership (EAP), the Federal e-Authentication Services, IMS Global Learning Consortium, InCommon, Internet2, Liberty Alliance, National Association of Student Financial Aid Administrators (NASFAA), the Postsecondary Electronic Standards Council (PESC), the Schools Interoperability Framework Association (SIFA), the State Higher Education Executive Officers (SHEEO) association, and the U.S. Department of Education's Office of Federal Student Aid (FSA). The purpose of the EA2 Task Force is to push implementations of trusted and working authentication models to relieve the burden of e-authentication for colleges, universities, and students.

The Workgroup and Committee structure is how PESC gets our work done. You can view all our Workgroups and Task Forces on our website, where we have a tab that says “PESC Workgroups.” Our website is robust and includes a variety of information including all presentations from all our events including the Annual Conferences on Technology and Standards.

Two years ago, I was elected Chairman of the Board of Directors for an organization called the Electronic Authentication Partnership (EAP). What the EAP is looking
Sessa, from Page 6

to do is be a public/private organization that brings authentication to a safe reliable process or commodity like the ATM network. Right now you can walk into any ATM in the world, put in your card and your PIN # and the process works reliably and safely. Why can’t we do that with authentication? Why does everyone have to have many different user names and passwords? It’s because we as a community have not come together to figure out how to make this work in a common and simple way.

Organizations like the U.S. General Services Administration (GSA), Wells Fargo, State of New Jersey, Sun Microsystems, the Health Information Management Systems Society (HIMSS), Adobe, and the National Association of State Accountants, Comptrollers and Treasurers (NASACT) are all Board members on the EAP. We are coming together to bring about what in laymen’s terms we describe as single sign-on to the online world.

Knowing students that are coming into college, will be taking tests, will log in at the bookstore, will get their loans, will fill out the FAFSA - the challenging question is how many usernames and passwords should you have? Why can’t there be one? One that all businesses and consumers can rely on. We are trying to figure that out.

One of the other major initiatives that PESC is involved in concerns standardization of education data from pre-kindergarten through post-graduate degree (pk20). The vision is to have one set of data definitions for the pk20 community. It’s an aggressive mission, but with the help of our partner SIFA, this mission is very attainable. It will take years to achieve, but once realized, will elevate data integrity and reliability to an unprecedented level.

**Q** How many members does PESC have?

**A** Right now we have 80 Members and Affiliates. When I arrived in October 2002, we had 38. I’ve found that it’s a long sales cycle to bring a new Member into the PESC Membership. Most organizations want to first come to a meeting or an event to see how much value and credibility we have before joining. Once they do attend and see first hand how much activity and outreach we do, there’s no more convincing to do. Our work and our products sell themselves. We spend little to no money on marketing and advertising. We also do not market directly to colleges and universities. With associations as members, we find that leveraging that association as a member illustrates collaboration and value for all parties involved.

**Q** Who is not a member that you would like to see become a member?

**A** That’s a difficult question because we are not like other associations. If you are Consumer Bankers Association (CBA), you have a number of individual banks as your members. If you’re NASFAA, you have a number of individual schools as your members. PESC has individual organizations as well like the US Department of Education, ELM Resources, the University of Texas at Austin, SunGard Higher Education, Datatel, and Oracle, the College Board, the National Student Clearinghouse, etc. But we also have associations as members, like AACRAO, AAMC, ACE, CBA, EFC, NACUBO, NASFAA, NCHELP, and SLSA, etc. In having associations as members, which we value and we really need, we don’t count SLSA as 30 members. We count SLSA as one.

We struggle with the question of how big the membership should be. As far as other members we would like to see, we would like some of the other college and university associations like the community colleges more involved. We also would like the states, the higher education commissions, state-based systems and organizations, and state departments of education to join. Some of the other larger systems providers are also starting to show interest, such as Apple, IBM, Microsoft, Dell. We are also reaching out to and working with the Open Source community as open source and open standards are so closely linked.

One of our largest growing sectors is state-based systems such as the Georgia Board of Regents which joined in 2004 and is now using our XML Transcript throughout the state. With states facing significant budget shortfalls, we know that controlling costs through use of standards is a message that resonates.

**Q** What obstacles, if any, does PESC face in the future?

See Sessa, Page 8
A Our biggest obstacle is making sure what we produce is usable - that we keep pace with the capacity of the community to take in and digest what we produce as standards. We could flood the market with standards - but that doesn’t do anyone any good. Unlike other standards organizations, we don’t just put out a specifications and standards. What we are about is making sure that we lead higher education towards interoperability. Many other standard-setting bodies put out a specification and then let the market decide if this should become a standard or not. We take the reverse approach-- we pull the community together and we talk about the needs, the issues and the dynamics. Then we, as a community of stakeholders, decide what is needed in the future, we agree on a direction and a timeline, and then we all march forward toward that common goal.

Q The founders of PESC did not want the market to be driving the standards because, then, who is advocating for the colleges, universities and students?

A We advocate for the colleges, universities and students to make sure that when you’re talking about data that you remember there are human beings behind that data and the efficient exchange of that data helps them reach their dream of an education.

The Push for Standards and Interoperability

As budgets get tighter, student needs increase, and technology continuously evolves, it becomes more important for all of us to ensure that we are using our resources wisely and making decisions on sound, reliable information. How we measure our success is a very important point to address and sometimes we find that getting the right information and the right data are very difficult tasks. In education, we need to ensure we are making data-driven decisions. The now infamous quote from Secretary Margaret Spellings, “In God we trust... all others bring data” truly resonates in every sector of education. Getting the right data to the right people at the right time requires an interoperable network among our various sectors.

Most policymakers would be surprised to find out that such a network doesn’t exist in education. Because of other networks that we interact with on a daily basis, like the ATM Network and the Direct Deposit Network for instance, we assume that such a network exists in education. But it doesn’t. Moreover, interoperability is a topic that’s consistently missing from policymaker discussions.

To address this situation and close the gap between policy and technology, PESC has been working with a number of organizations to educate policymakers on the need to work interoperably. Among these organizations are the Data Quality Campaign (DQC), the Schools Interoperability Framework Association (SIFA), the association of State Higher Education Executive Officers (SHEEO), the National Center for Education Statistics (NCES), the Council of Chief State School Officers (CCSSO), the Advisory Committee on Student Financial Assistance, and the Office of Planning, Evaluation, and Policy Development in the U.S. Department of Education.

More specifically, PESC worked directly with the DQC and SIFA on a special quarterly meeting of the DQC held Wednesday June 13, 2007 at the headquarters of the U.S. Department of Education. This meeting reported on the current status of district, state education agency, and higher education efforts to seamlessly share data with each other to create an environment for improved P-20 alignment and policy decisions. A white paper written by PESC, SIFA, and the DQC, released at this meeting, is attached. PESC continues to work with the DQC and with SIFA on the need for standards and interoperability.

PESC also testified before the Advisory Committee on Student Financial Assistance during its June 5, 2007 hearing in Washington, D.C. The Advisory Committee was very active in modernization efforts a few years back so the topic is appropriate for that forum. PESC’s testimony from the Advisory Committee hearing is also attached.

*By Michael Sessa*
The Bush administration wants to reform the nation's patent system by requiring better information from inventors and allowing public scrutiny of applications, according to the director of the government's patent office, reports eSchoolNews Online. The goal, said Jon W. Dudas, director of the United States Patent and Trademark Office, is to improve the quality of patents, which should curb the rising wave of patent disputes and lawsuits. The legal wrangling is often over broad descriptions of ideas or activities, so-called business methods, or software that contains only incremental changes over prior work. http://www.eschoolnews.com/news/showclips.cfm?clid=2394

UT Austin Internet Server ‘SPEEDEs’ Along

April 2007 volume included:
- 46,216 TS130 transcripts
- 37,805 TS131 acknowledgements
- 8,071 TS997 Functional acknowledgements
- 58,403 TS189 Admission Applications
- 8,658 TS138 test score reports
- 172,165 total transactions

May 2007 volume included:
- 89,632 TS130 transcripts
- 66,011 TS131 acknowledgements
- 10,869 TS997 Functional acknowledgements
- 52,311 TS189 Admission Applications
- 13,868 TS138 test score reports
- 260,342 total transactions
June 5, 2007

Ms. Judith N. Flink
Chairperson
Advisory Committee on Student Financial Assistance
80 F Street, NW, Suite 413
Washington, D.C.  20202

Dear Ms. Flink:

Thank you for providing me with the opportunity to submit comments on behalf of the Postsecondary Electronic Standards Council (PESC) to the Advisory Committee on Student Financial Assistance.

The written comments I attach here will basically mirror the verbal comments that I will express in my testimony. Again, I thank you and the entire Advisory Committee for creating this opportunity.

I look forward to working with you and the Advisory Committee in the future. Should you have questions or concerns, please contact me directly at 202-293-7383 or at Sessa@PESC.org.

Best Regards

Michael Sessa

Michael D. Sessa
Executive Director
PESC

MDS/bhs

Attachment

Standards Make the Network
Distinguished members of the Advisory Committee on Student Financial Assistance, staff, fellow panelists, and guests, good afternoon. My name is Michael Sessa and I’m Executive Director of the Postsecondary Electronic Standards Council (PESC) — a non-profit, community-based, umbrella association of colleges and universities, professional and commercial organizations, data software and service providers, and state and federal government agencies. PESC was founded in 1997 by a number of higher education leaders (see Attachment A) to serve as a centralized organization focused on building and maintaining data-related procedures that are necessary in order to meet overall processes.

PESC’s mission is to lead the establishment and adoption of data exchange standards in education. The goals of the mission are to enable the improvement of institutional performance and foster collaboration across educational communities in order to lower costs, improve service, and attain system interoperability. Collaboration is our cornerstone principle.

We applaud the Advisory Committee’s efforts to examine simplification of the student aid process. Education is one of the principal values in America and we must continuously analyze and improve our system to ensure we are meeting the life-long needs of America’s citizens. As consumers and citizens living in the digital age, we are accustomed to a number of interoperability-based innovations in other industries and for other purposes. For instance in banking, every bank now connects to a single network — the ATM network — where data and currency are exchanged between thousands of banks and millions of consumers on a daily basis. Of course the ATM network did not always exist; banks, using data exchange standards, worked together over a span of many years to build it. Initial resistance to an open ATM network was extinguished once consumer behavior eagerly adopted the service due to simplicity of the process and reliability of use, and banks realized immediate cost-savings. The same can be said for the credit card, direct deposit, and EZ-pass state-highway toll networks.

In our daily lives, we access and depend on many of the services provided in these examples but we don’t think much about them or how they work. They, like other commodities, have become integrated fabrics in our lives. These services though are only made possible by communities of interest working together interoperably and using data exchange standards. Interoperability is defined as a trustworthy, inter-connected environment built by and between communities of interest in which data flows seamlessly and efficiently from one disparate system to another and throughout the entire eco-system when and where needed without compatibility barriers but in a safe, secure, and understandable manner.

With progress in technology continuously leap-frogging itself, process and procedures can be confusing and unwieldy. Worse, we assume that all industries and services are built on easy to use,
reliable, and cost-saving networks. In Education, while pockets of interoperability exist in certain
states and in certain programs, the education community as a whole has failed to achieve
interoperability on a broad scale. The problem is though, that most assume that we have.

This misunderstanding of where education stands with regard to its stakeholders being able to
communicate with one another has created a rift between policy and technology. Most systems and
networks within education are, in fact, not currently interoperable. On average, the lack of seamless
data exchange makes the process run intermittently. Because data cannot be exchanged easily, an
organization that receives data must re-interpret the purpose and definition of that data before
sending it along. Then the next receiving organization must do the same. Reinterpretations of data
lead to poor data quality and slow, inefficient processes. In a worst case scenario, students and aid
professionals are impacted directly as they must follow and monitor the data to ensure it moves
accurately from one organization to another.

An effort to simplify a process which runs on an unstable and clumsy network must be adjusted,
enhanced, and fully modernized. The process is broken if data is not moved quickly and efficiently
from where it is to where it needs to be. The process itself then is a barrier that cannot be glazed
over. It requires our immediate attention. This constant struggle to obtain and pass quality data is
no longer sufficient or efficient. It is now of the utmost importance that we work collaboratively,
urgently, and holistically to close that rift and educate policymakers on the importance of building
and maintaining an interoperable network in education. This network must span the entire
educational process, not just one program or one stove-pipe.

We must pledge to make standards and interoperability a top-tier discussion and policy topic, not
just an after-thought; and we must pledge to work interoperably — not only because it works in
other industries and for other services and not only because its proven to be reliable, easy to use,
and to provide cost-savings — but because students will benefit in a variety of way, most
importantly, they can stop worrying about the process and concentrate on their education.

Today I strongly encourage the Advisory Committee and the community at-large to focus on building
an interoperable network for education, if not expand the current mandatory statute regarding
standards, that will serve as a strong foundation on which simplified processes can run. The key
point here is that the barrier is not a technical one. The technology is ready and has been for a
while. The need must come from the policymakers. We can no longer sit back and allow the current
network to exist as it does. It simply takes all stakeholders and data trading partners within a
community of interest to commit to the vision, to commit to each other, and to commit to America’s
students.

Standards Make the Network
Comments to the Advisory Committee on Student Financial Assistance
June 5, 2007

ATTACHMENT A

MEMBERS

AcademyOne, Inc.
American Association of Collegiate Registrars and Admissions Officers (AACRAO)*
American Education Services (AES)
Bowling Green State University
California Community College System
Central Connecticut State University
Citibank*
Coalition of Higher Education Assistance Organizations (COHEAO)*
College Board*
Columbia University
Community College of the Air Force
Consumer Bankers Association (CBA)
Dartmouth College — Institute for Security Technology Studies
Datatel, Inc.
EdFinancial Services
Education Finance Council (EFC)*
ELM Resources
Florida State University
Georgetown University/Sun Center for Excellence in Scholarly Information Architecture
George Washington University
Georgia Board of Regents
Iowa State University
Law School Admission Council (LSAC)*
Miami University - DARS
National Association of Student Financial Aid Administrators (NASFAA)*
National Association of Student Loan Administrators (NASLA)
National Career Assessment Services, Inc. (NCASI)
National Council of Higher Education Loan Programs (NCHELP)*
National Student Clearinghouse
National Transcript Center
Nelnet

Northern Illinois University
Ohio Board of Regents
Ontario College Application Services (OCAS)
Oracle Corporation
Purdue University
Sallie Mae*
SmartCatalog
Student Loan Servicing Alliance (SLSA)*
SunGard Higher Education*
Texas A & M University
TG
University of Alaska System
University of Denver
University of Illinois at Chicago
University of Illinois — Student Financial Services
University of Illinois — Urbana Champaign
University of Lethbridge
University of Minnesota
University of Mississippi
University of Northern Iowa
University of Oklahoma
University of Phoenix
University of South Florida
University of Texas at Austin
University of Virginia
USA Funds*
US Department of Education*
Vangent (formerly Pearson Government Solutions)*
Virginia Polytechnic Institute and State University
Wachovia Education Finance, formerly Educaid
Xap Corporation

AFFILIATES

Accenture
Access Group, Inc.
American Council on Education (ACE)
ACT, Inc.*
California School Information Services
College Source, Inc.
ConnectEdu, Inc.
Docufide
Educause*
First Marblehead Education Resources
Illinois Designated Account Purchase Program (IDAPP)
IMS Global Learning Consortium, Inc.
Jenzabar
JustIQ
JPMorgan Chase Bank NA
Key Bank
Regent Education
Schools Interoperability Framework Association (SIFA)

* Founder

Standards Make the Network
Common Characteristics of an Interoperable System

Common Data Standards – High quality data must originate from data elements with strict definitions to which everyone has agreed. To ensure 100% accuracy, the definition must be the most granular and most technical possible, providing the exact name of the data element, the exact allowable length, whether the data element can be letters only or numbers only or alphanumeric and whether or not special characters can be included. Some data elements are bundled together into more complex elements similar to how words bundled together makes a sentence. Like how grammar governs language communications, data must also follow design rules and these rules too must be standardized, otherwise the data without any proper design is garbled.

The National Center for Education Statistics (NCES) and Office of Federal Student Aid (FSA) both within the U.S. Department of Education work with stakeholders and trading partners through the Schools Interoperability Framework Association (SIFA) and the Postsecondary Electronic Standards Council (PESC) to develop these common data standards for PK – 12 and postsecondary needs, respectively. Standards are developed in an open, consistent, collaborative, and community-based approach with stakeholders and trading partners providing input from the start of the development. More input results in a better end product, broader implementation is enabled, and interoperability is that much closer.

Unique Identifiers and Standardized Code Sets – The use of standardized unique identifiers and standardized code sets are also two significant factors that support interoperability. Standardized unique identifiers (specific codes that identify themselves) can be used at various levels and for various purposes. For instance, schools, school districts, education agencies, and colleges and universities all have unique identifiers in use which allows the accurate correlation of data to that specific entity. Standardized unique identifiers are needed for students and teachers as well to allow the tracking and monitoring of student achievement across grades, across state lines, and across educational systems. Standardized codes sets are used for a specific data element when that data element could be one of many from a pre-determined list of variable data elements. For instance, a “state” code originates from a standardized list of state abbreviations that we agree upon and use. There are many standardized code sets including county, state, country, grade, course, test name, and so on.

Quality Control Measures – Data originates from many different sources. In most cases a number of data elements are used together to calculate more data. Ensuring that the right and most accurate
Corrupt data can have exponential consequences. It is therefore important that systems and processes have deliberate and consistent quality control measures. Sometimes these quality control measures are manual and sometimes they are automated. A key measure that can help significantly improve quality control is specific data matching criteria. Developers must ensure that data coming from an outside source to be integrated or added onto an already existing record does in fact belong to that record. Data matching is most easily accomplished through the use of unique identifiers. Unique identifiers not only ensure data integrity but also allow for the tracking of various needs across programs, across systems, and across years.

**Business to Business Compatibility** – Just sending data to a trading partner does not relieve the sender of its responsibility in the process. The sender must also understand what the receiver (or trading partner) will do with the data and when. Technical interoperability, that is the technical synchronization and standardization of data, must be accompanied by business interoperability, which is understanding how the receiver of the data uses and processes that data. For instance, one organization may allow real-time updates to its data throughout the day. This organization may find it important to notify another trading partner of these changes as well and may send two, three, four or more updated files throughout the day. If that trading partner only processes once nightly in a batch cycle, then that trading partner is receiving more files than it really needs. The sending organization could only send one file at the end of the day which includes all of the updates that were made. Understanding how your trading partner operates their business will save time, money, and provide the service and information that they need.

**Controlled Access and Security** – In order for a system to be truly useful and meet the needs of its many users, it must provide continuous, uninterrupted access. In today’s world though, we are faced with the need to have very stringent guidelines for access so that security of our systems is provided and the privacy of our data is protected. To mitigate the risk of unauthorized access, many organizations and many industries are adopting ID management systems or modules that manage user access. With an ID management system, access by a user into the network is cleared or “authenticated” once and then the user is able to access the systems included in that ID management network without having to be authenticated again. This process whereby authentication only need happen once is commonly referred to as “single sign-on.” Of course, users would only be allowed to access data and information that they are allowed or authorized to obtain. User authorization is usually administered by a “profile,” a central file that includes data on that user from demographic information, for example, to the level of authorization that user has within each system.
Comprehensive Management Support — In order for any system or network to meet its full potential, all parties involved in whatever various roles they perform must support the overall purpose and mission of that system or network. Building a system is quite different than operating it; so a comprehensive management plan must include policies and procedures related to: maintenance of the system and impacts to the operation of the central data center; training on how to use the system for both internal and external users; human resource support as the number of resources needed may be reduced for certain functions, while other functions may increase the number of resources needed; and change management as with any change, we as human beings, sometimes resist change and unknowingly impede progress. Those impediments and all others must be defeated.

Flexibility and Scalability — In this world of constant change, political, environmental, social, and technical variables are constantly shifting. Constant change makes it difficult to sometimes move forward and progress in development of systems and networks. Like all other challenges, we must find a way to overcome these challenges. Building and developing systems in the most flexible and scalable approaches are points upon which most experts would agree. Systems are tools that provide service and solve problems. The amount of time, money, and human resources invested into development can be extensive and like any other product or service, there’s an expectation that the product or service is usable for a specific period of time. The investment at some point must pay for itself in order for any organization to remain financially solvent. If a system is built to solve today’s problems or worse, yesterday’s problems, then how do you prepare for tomorrow? Systems and networks must be built for the future even though we don’t know what the future holds or what factors may emerge. The only way to account for the future is to build with flexibility, so that changes can be made quickly and easily; and with scalability, so that as the organization grows and more users are added, the system can easily handle that additional volume.