EXECUTIVE SUMMARY

# GRONINGEN DECLARATION

THIRD ANNUAL MEETING

# *The Future of Digital Student Data Portability*

## DEFINING THE DIGITAL STUDENT DATA ECOSYSTEM

Dienst Uitvoering Onderwijs
*Ministerie van Onderwijs, Cultuur en Wetenschap*

NATIONAL STUDENT CLEARINGHOUSE®

AACRAO
Advancing Global Higher Education

Greetings,

The main organizers of the 2014 annual Groningen Declaration Network meeting—the Dienst Uitvoering Onderwijs (DUO), the National Student Clearinghouse, and the American Association of Collegiate Registrars and Admissions Officers (AACRAO)—have the pleasure of offering you a summary of this year's meeting.

DUO, NSC and AACRAO hosted this third annual meeting of the Groningen Declaration Network on April 7 - 9, 2014, on the historic campus of Georgetown University in Washington, DC. Representatives from more than 30 countries gathered to share and learn about the many initiatives aimed at facilitating academic and professional mobility through the exchange of digital student data.

Since the inaugural meeting in Groningen, The Netherlands, in April 2012, the Groningen Declaration initiative has continued to grow, and this year's meeting represented the largest gathering of countries and added new signatories to the Groningen Declaration. From secure exchange networks to digital student record depositories, the projects under the Groningen Declaration Network are forging new approaches to data verification and security, business process efficiency, environmental stewardship, and student-centeredness. These projects are helping to shape the future of global student and economic mobility.

The following pages are a summary of the presentations at the meeting. They offer a glimpse into the rich and varied approaches underway around the globe. We encourage you to keep apprised of the Groningen Declaration initiative by visiting www.groningendeclaration.org/.

Next year, the Groningen Declaration Network meeting moves to Málaga, Spain, where progress reports on current work will be provided and new pilot projects and initiatives will be shared.


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# Key Themes: Groningen Declaration Annual Meeting 2014

## Overview

From banking to travel, almost everything today is done via digital information and the Internet. One notable exception is academic diplomas, most of which are still paper based. Since they can be easily lost, stolen, or falsified, paper certifications and qualifications aren't practical for students, schools, or employers. Some countries have developed digital data depositories to manage educational data. However, these information banks usually operate in a national setting, which makes it difficult to access information if students study or want to work abroad.

The goal of the Groningen Declaration is to develop best practices and globally accepted standards for secure, citizen-centered consultation of educational data. The Groningen Declaration brings together key stakeholders through a declaration of intent. Signatories participate voluntarily; therefore, the goal is for convergence, not standardization.

The 2014 Annual Meeting brought together signatories from around the world to discuss digital student data portability, findings from various pilot projects, and the Groningen Declaration Executive Committee's plans for the future.

## Key Themes

### The need for a digital student data ecosystem is driven by the growing trend for students to study abroad.

For economies to grow, international mobility of students is essential. Mobility empowers people and enables them to study, live, and work wherever they want. Students want all of their competencies recognized, regardless of where they acquired them. The numbers of people studying abroad have been steadily increasing and their data exchange needs simply can't be met with a paper-based framework. For example in 1980, 11 million students were enrolled in higher education in East, Southeast, and South Asia. Today that number is 84 million, representing 46% of the world's higher education enrollment. In the United States, international students account for 3.9% of higher education enrollment, which is expected to double in the next five years.

In addition to growth in student mobility, international education fraud is a major problem. The security weaknesses associated with paper documents enable $2.5 billion in fraud annually. In the United Kingdom, one third of job applicants admit to lying on their resumes and qualifications are the most common information falsified. Paper transcripts simply aren't enough; multiple stakeholders want proof of diplomas and credentials, as well as evidence of student learning outcomes.

> *"Students around the world need education records they can move verifiably. They need trusted electronic networks so they can pursue their learning on an international stage. The key network elements that enable this transparent and trusted exchange are found in the principles of the Groningen Declaration."*
> — Ricardo Torres, National Student Clearinghouse

### Many countries are committed to creating systems that enable trusted student data exchange.

Creating digital student data ecosystems is possible. For example, the European Commission is developing the European Area for Skills and Qualifications, the European Quality Framework for referencing qualifications, and Europass, which is a portfolio of tools to document skills and qualifications. DUO, the Dutch government's executive education agency, has created the Dutch Diploma Register and the Erasmus Without Paper project is yet another European initiative. In the United States, the National Student Clearinghouse (NSC) supports electronic student data exchange, while in China, the China Higher Education Student Information and Career Center (CHESICC) has pioneered student data digitization in that country.

Greater collaboration, however, could increase the rate at which these systems are developed and the ease with which they share information. The Groningen Declaration provides an ideal forum for this type of cooperation. DUO has offered to establish an administrative office for the Groningen Declaration, organize international meetings, and support the Groningen Declaration as an organization for international collaboration.

> *"By signing the Groningen Declaration, we are striving for worldwide digital exchange of student data. DUO has promised to provide funds and staff to help shape the Groningen Declaration as an organization for international collaboration."*
> — Kor Brandts, DUO

### A flexible new paradigm is needed for managing credentials that removes barriers and places students at the center of the system.

The management of student credentials today is like a cottage industry: it is inconsistent, localized, and inefficient. A new approach is needed that makes learners the owners of their data and enables them to control access. To redefine the digital educational data ecosystem, barriers related to privacy, security, and other issues must be resolved.

This new paradigm also must be flexible enough to accommodate differences across countries. The Groningen Declaration signatories realize that it is not practical to


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dictate how countries exchange digital student data. Data standards can make systems more scalable; however, multiple models will be used. For example, some countries may embrace a distributed approach where each institution maintains student information, while other countries may take a more centralized approach. Each has advantages and disadvantages, but neither will be right for every situation.

Even within a single country, institutions may want to implement their own approach to digitizing student data. As the representatives from Universities Australia noted, the higher education institutions in their country are highly autonomous and are reluctant to take direction from external organizations.

> *"The Groningen Declaration talks about convergence, rather than standardization. We expect to see multiple models developed. This is a time for innovation."*
> — Michael V. Reilly, AACRAO

### Big data has the potential to provide a new level of inferences and insights about education worldwide.

Tools and techniques exist to analyze large pools of data and generate useful insights about education. This sort of analysis can only succeed, however, with access to digital data. As more and more data is digitized, it will be possible to evaluate the success of different education programs and also predict what contributes to student success.

The World Bank is one institution committed to learning for all. To make that goal a reality, it has developed repositories of open data. Users can compare education information across countries, create customized queries, apply analytics, and learn about best practices from around the world. An evidence-based approach to education policy has been proven effective in improving education practices and service delivery. Partnerships have been the key to gathering this rich collection of education data.

> *"The demand for relevant, reliable, and timely education statistics has increased tremendously in recent years. Countries want to make data-driven decisions, monitor progress on the quantity and quality of education, improve efficiency, and reduce costs."*
> — Dr. Husein Abdul-Hamid, World Bank

### Defining the ideal architecture for exchanging digital student data will take time and experiments.

Students are anxious about jobs and their futures. In an increasingly global world, the need for student data portability is urgent. Institutions can't wait to see what everyone else is doing before they decide to act. Multiple experiments will be the key to developing a digital student data architecture that will serve young people.

Participants in the Groningen Declaration are committed to conducting numerous pilot projects. The goal is to uncover potential obstacles to a digital student data ecosystem. Addressing these barriers in the context of small projects will make it easier to build large, scalable systems in the future. As Victoriano Giralt noted, pilots reduce the need for institutions to "reinvent the wheel." Examples include:

- *NSC and CHESICC Pilot.* By August 2014, this project will transform student documents into an XML/EDI data stream that is PESC standard compliant. The NSC and CHESICC pilot leverages NSC's G.R.E.E.N. network.
- *NSC Pilot with Mexico.* The experience with this pilot has highlighted the importance of non-technical issues, such as the legal status of the participating institutions, response capacity, legislation, and political priorities.
- *e-Enrollment Pilot with the Netherlands and Flanders.* Although both education systems use a similar data metastructure, there are many details that must be resolved before a functioning and scalable system is possible. Institutional buy-in and alignment of government bodies are essential.

> *"The future of student data portability is now. Where and what can we borrow? Where and what can we learn? How can we improve? But most importantly, how can we disrupt?"*
> — Victoriano Giralt, Groningen Declaration Chair


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# Challenges? Pipes or Tokens—Authentication or Attributes?

Moderator: **Victoriano Giralt**, *Groningen Declaration Chair*
Speakers: **Tom Black**, *Associate Provost and University Registrar, Stanford University, USA*
**Andrew Cormack**, *Chief Regulatory Advisor, JANET, UK*
**Brad Myers**, *Registrar, Ohio State University, USA*
**Roland van Rijswijk**, *Attribute Based Credentials with SURFnet, The Netherlands*
**Robin Wilton**, *Technical Outreach Director, ISOC, World*

## Overview

Digitizing educational credentials can enhance the way students share information, as well as facilitate activities like degree audits and reverse transfers. However, institutions must carefully assess the risks associated with different system designs. Once systems are implemented, colleges and universities are unlikely to change them dramatically.

Centralized data architectures are one approach, but decentralized data architectures with technologies like tokens and personal data ecosystems are another approach that can add layers of data protection to the system and reduce privacy risks. Incorporating key stakeholders such as students and ethics boards in the design process can clarify issues related to consent and control.

## Context

The panelists discussed the risks, benefits, and challenges associated with different approaches to digitizing and distributing educational data.

## Key Takeaways

- **Digital documents offer advantages over paper, but technology also creates risks.**

  Unlike paper documents, a digital degree certificate can be configured in ways that allow it to be easily shared with just one specific person. Technology also enables separation of authority and source. A good analogy is a dollar bill which retains its value, even though a person didn't get it directly from the issuer. The same principle applies to digital academic documents.

> *"I see huge privacy leaks in real-world processes. Then I look at technology and say we can do this better. Technology lets us say, 'Here is my degree certificate that I want to show to Vic and then Vic can't show it to anyone else.'"*
> — Andrew Cormack

  Brad Myers described how digital data streams are used in Ohio for degree audits and reverse transfers. For degree audits, an electronic representation of the student's program is matched to his or her academic coursework background, which gives a sense of a student's academic progress. For reverse transfers, course work from baccalaureate institutions is applied backwards to junior colleges to grant students an associate degree. In these examples, a simple pdf isn't adequate because it doesn't allow for analysis.

  Despite the many benefits of digital documents, large stores of data are ripe targets for technical attacks. Academic institutions may also be the focus of social attacks or "phishing." People may ask an institution to verify degrees as a way to extract information.

  Because of the risks, before data is digitized, institutions must first have a trustworthy record keeping system. In countries where student record keeping systems aren't robust, there are fears about computerizing information and distributing it. Secure measures must be implemented in-house to control the process.

- **As part of the design process for educational information systems, teams must develop data models and assess risks.**

  The group emphasized the importance of advanced planning and risk assessments, as once a large-scale system is implemented, institutions are unlikely to make major changes. Participants made the following observations:

  — *Without a clear data model, it is easy to make bad architectural decisions*. Questions that are open for debate include whether it is better to distribute data or aggregate it in a single point. Or, whether it is better to secure the communication pipelines or secure the data by encapsulating it in some form so it can be safely shipped. There is no single right answer. Before making architectural choices and tradeoffs, it is essential to have a clear conceptual framework of the data that is being moved. Identities, credentials, attributes, and assertions all behave differently and need different treatments. Without a clear model, it is easy to make design decisions that lead to unexpected and unwanted consequences.

> *"We should authenticate both the information and the access and delivery model. But there isn't a one-size-fits-all approach for authentication. There may be variations depending on the nature of the portability."*
> — Brad Myers


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— *As teams develop design criteria, they must also consider privacy risks*. There are risks inherent in aggregating large amounts of data. When data is released to a legitimate partner in the enterprise, which then distributes it further, institutions run into the problem of "ethical dilution." This means that the farther down the chain that data goes, the less responsible anyone feels for harm that arises from its use and the harder it becomes to assign responsibility.

— *During system design, teams must decide what risks are acceptable*. As systems that process personal information are designed, it could be useful to have legal hackers evaluate what other uses there are for the data. With that information, teams can ask whether they want to run the risk associated with alternate uses of personal data or whether they should redesign the system.

- **At times, standards and centralized systems can stifle innovation.**

  Innovation is an essential part of the digital educational data ecosystem. However, organized technology efforts can at times hamper agility and creativity. Tom Black raised three points:

  1. *If standards are pursued too soon, they can inhibit innovation*. Standards work best when there are established conventions. For example, Stanford recently went live with the PESC (P20W Education Standards Council)-Compliant PDF Standard which attaches an XML header with metadata to pdf files. Transcript files are sent in this form to the American Medical Association Admissions Service and the Law Admissions Service via the G.R.E.E.N. Network. The files and the network are both standards-compliant services.
  2. *Central services often become rigid and slow to adapt to changing needs*. In academic settings, the prevailing sensibility is to maintain what has been built. After central services are established, organizations are often unwilling to scrap them and start over if needs change. In contrast, corporations and startups pivot if something doesn't work well. Sometimes that means a complete remake of a product. An example of not being locked in and pivoting as needs change is Stanford's use of over two dozen software-as-a-service (SaaS) providers to deliver state-of-the-art services that are current, relevant, and responsive.

  > *"After you establish some of these central services, how quickly would you be willing to scrap them and start over if needs change? Our general sensibility is to maintain and there is an inertia to what we have built."*
  > — Tom Black

  3. *Too often, open source becomes a religion and doesn't keep up with user needs*. Open source is most successful when it helps programmers around the world connect, operate, or innovate. It is least beneficial when it is an end-user application like a student information system.

- **Tokens and personal data ecosystems may be preferable to centralized educational data systems.**

  Roland van Rijswijk cautioned institutions to consider the unintended consequences of centralized student information systems. People always try to stretch system features in new and surprising ways. For example, assume that the organization running a central service that validates degree credentials for potential employers has a charter from the government. In this scenario, an unintended consequence could be that the government could check up on the unemployed and cut their benefits if they aren't applying for jobs. When institutions design system architectures, they have to think creatively about possible consequences. Otherwise it is easy to create systems that track users in unintended ways.

  Instead of using centralized systems, the participants suggested two alternatives:

  — *Attribute-based credentials.* This technology can disconnect personal information from central authorities. Users have a token like a smart card that they carry. Potential employers could use cryptography to check for authentic information about the individual's educational credentials. The party that issued the information doesn't know that it is being accessed and metadata about how individuals are using their personal information isn't revealed. SURFnet recently implemented IBM's attribute-based credential technology on a smartcard.

  > *"When data could be misused, it's a good idea to add a layer of indirection to the system architecture."*
  > — Roland van Rijswijk

  — *Personal data ecosystems.* Instead of tokens, an alternative proxy for users might be an attribute broker called a personal data ecosystem or environment (PDE) that is run on behalf of users and allows them to manage the release of attributes. New forms of PDEs show much promise. They would be under the user's control and would marshal information from multiple sources, and the end user could control how information is used.

- **Stakeholder engagement is challenging, but without it issues of consent and control go unaddressed.**

  Students are clearly key stakeholders for educational data systems, but others also rely on assertions, credentials, and qualifications.


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There has not been a great deal of discussion about explicit consent or involvement of students in the design process. Every two or three years, the Federal Trade Commission looks at the problem of notice and consent for personal data processing. They conclude it is horrible and then ignore it for another couple of years. Rather than going in circles, Robin Wilton hopes that each time the topic is revisited something is learned from previous encounters.

Ethics boards could help clarify stakeholder issues related to consent and control. One participant suggested that these boards should investigate anonymized and pseudonymized data. If organizations say they have made data unidentifiable, they should articulate what they have done and how robust the anonymization or pseudonymization is. That discipline either doesn't exist today or isn't applied.

> *"Stakeholder engagement is very challenging, but it's something we need to do, otherwise issues of consent and control never get addressed."*
> — Robin Wilton

## Other Important Points

- **The double-edged sword of DRM.** Data consumers don't like digital rights management (DRM), but data owners see the benefit. When it comes to assertions of private data, data owners would love to apply DRM mechanisms to stop someone else from repeating the assertion and passing it on, or to validate the data only once.
- **Assurance for electronic identities.** Models exist for grading the level of assurance that can be placed in credentials. PIV cards used by U.S. public sector employees in high trust environments are the state of the art in terms of levels of assurance for electronic identities. Two documents establish four levels of assurance for credentials: OMB M-04 and NIST 800-63. These documents identify the physical characteristics required to establish an extremely reliable credential. This model can be generalized for data in other sectors.


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## Combined Key Note Addresses

**Victoriano Giralt**, Groningen Declaration Chair
**Michael V. Reilly**, Executive Director, AACRAO

### Session Overview

Mike Reilly and Victoriano Giralt discussed the overarching theme for the Groningen Declaration Annual Meeting: defining the digital student ecosystem. Electronic data exchange has many benefits. It improves student mobility, reduces fraud, and is environmentally friendly.

Technology has the potential to transform the way educational data is shared. However, the Groningen Declaration emphasizes convergence, rather than standardization. As a result, multiple models are likely to emerge.

### Key Takeaways

- AACRAO has participated in the global education arena since the 1950s, when it began publishing the World Education series. These reports were used for years by admissions professionals to guide student placement decisions for U.S. colleges and universities. Today, AACRAO publishes the web-based Electronic Database for Global Education (EDGE), with profiles on over 230 countries.
- Synergy exists between the Groningen Declaration's electronic data exchange initiative and AACRAO's global education interests.
- As U.S. expectations increase for higher education outcomes, value, and productivity, institutions realize that they must move to more efficient processes like electronic exchange of data.
- Technology can disrupt student data portability, but there is no need to reinvent the wheel. Open source software, for example, is a possible solution.

### Action Items

- Current education data exchange processes are not student centered. That must be a fundamental objective of the Groningen Declaration's work.
- Electronic education records must be developed that can demonstrate learning outcomes.
- As education data is digitized, institutions can't ignore preservation of electronic records.

## NSC Pilots with China and Mexico

**Mtro. Guillermo Pablo López Andrade**, *SEP, Mexico*
**Valère Meus**, *University of Ghent, Belgium*
**Jan Otten**, *DUO, The Netherlands*
**Ricardo Torres**, *President, National Student Clearinghouse (NSC), USA*

### Session Overview

Rick Torres, Mtro. Guillermo Pablo López Andrade, Jan Otten, and Valère Meus discussed four international pilot programs that focus on electronic exchange of education data. Common themes among all four projects are the desire to reduce the workload and fraud associated with paper-based systems, and to increase student mobility.

The teams are working through various technical and policy issues related to data mappings, privacy and security concerns, and process flows. Once these pilot programs function effectively, the teams hope they can be scaled to more institutions and students.

### Key Takeaways

- The goal of the pilot conducted by the National Student Clearinghouse and CHESICC in China is transformation of the status quo. This includes reducing the work and papers required for processing Chinese students' applications, reducing fraud, increasing the speed of decision making, and reducing pain points for students.
- To address security and privacy requirements, the NSC/CHESICC pilot uses the secure G.R.E.E.N. network. In addition, an applicant ID was added to the request which improves security and helps with data routing. CHESICC also requires audit trails for information requests.
- Based on experiences from the NSC pilot with Mexico, Guillermo Pablo López Andrade identified 10 elements that institutions should consider as they embark on electronic data exchange projects. These are: the legal status of participating organizations, available information, response capacity, services provided, principles and legislation, systems and software, security protocols, data layouts, standards, and political priorities.
- Other important considerations for pilots include goals and objectives, financial resources, technological infrastructure, human talent, legitimacy of the agencies, incidentals like audit processes, and mapping.
- To promote e-Enrollment in Europe, organizations in the Netherlands (DUO) and Flanders (AHOVOS) are taking a "think big, act small" approach. The pilot is committed to using existing products and processes and respecting national education systems.
- The Erasmus Without Paper project hopes to streamline the data exchange process for European students who study abroad as exchange students. The goal is to


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exchange data, not documents, between data repositories.

**Action Items**

- To make the NSC/CHESICC pilot sustainable, scalability is needed. Next steps include developing data standards, introducing an automated platform that will turn documents into an XML/EDI data stream, and inviting other schools to join the system.
- The teams working on the Netherlands/Flanders pilot are creating working groups to address governance and content, as well as identity, security, and ICT.
- The Erasmus Without Paper project will submit a project proposal to the European Commission on April 30. In addition, work groups are organizing to address management/coordination, mobility scenarios and use cases, data modelling and standardization, network design and implementation, mobility module connectors, quality assurance, dissemination and communication, and exploitation.

## Strengthening Education Systems

**Dr. Husein Abdul-Hamid**, *Statistics Coordinator Education (EdStats), World Bank, Washington, DC*

**Session Overview**

Dr. Husein Abdul-Hamid described how the World Bank's Open Data and SABER programs disseminate education statistics freely to users worldwide. To make education the core of all functions, the World Bank has embraced the notion of big data. Through strong partnerships, it has gathered a comprehensive repository of information. These statistics are transformed into powerful data analytics which provide valuable insights into education policy and investments.

**Key Takeaways**

- Collecting data is crucial. The demand for relevant, reliable, and timely education statistics has increased dramatically in recent years. This is due to the desire for data-driven decision making, improved program efficiency, and reduced costs.
- The World Bank believes that sharing data is important. Its Open Data philosophy supports free access to development data in countries around the globe. Without Open Data, it would be difficult for the World Bank to attain its goal of shared prosperity and learning for all.
- The World Bank offers different tools to access education data. EdStats provides visualization tools and queries that enable comparisons across countries and regions. The Systems Approach for Better Education Results (SABER) analyzes policy data on education systems around the world and uses evidence-based frameworks to highlight policies and institutions that promote learning for children.
- With data analytics, it is possible to build predictive models that increase educational effectiveness. For example, data mining discovered several predictors of adult student success in higher education, including understanding the student's prior academic record, course choices, writing and math skills, attitudes and interests, and academic and social behaviors in the first class.
- World Bank data supports education reform worldwide. For example, SABER information is supporting evidence-based policy change in Nigeria, a systems approach for better service delivery in Uganda, and improved policies and practices in Bulgaria.

## Copernicus Revisited: Student Data Must Revolve Around the Student

**Andy Dowling**, *Founder and Executive Chairman, Digitary*
**Jayne Rowley**, *HEDD-Higher Education Degree Datacheck*
**Dr. Wayne Turnball**, *UK Credit Forum*
**Dr. Linda Tyler**, *Educational Testing Service (ETS)*

**Session Overview**

Dr. Wayne Turnbull, Jayne Rowley, Andy Dowling, and Dr. Linda Tyler engaged in a panel discussion about architecting digital education data systems. All agreed that students must have ownership and access control over their information. In addition, the group recognized that without verifiable digital credentials, higher education will create barriers to student mobility. A new model of ubiquitous data and processes to engage with it are essential.

**Key Takeaways**

- Copernicus inspired a new world view by discovering that the sun is the center of the universe. The higher education community can invoke the spirit of Copernicus by redefining the digital educational data ecosystem and placing students at the center. A new paradigm is needed where institutions are data custodians, providing authentication of learner credentials, and learners are data owners, controlling access to their information.
- Verifiable and secure presentation of credentials will facilitate student mobility. By 2020, UNESCO estimates there will be 7 million mobile learners. Without digital data and reliable certification information, the educational ecosystem won't be able to cope with this degree of mobility.
- In the United Kingdom, the Digital Academic Record Exchange (DARE) enables institutions to electronically certify, deliver, and authenticate academic records. The project was funded by the government and developed by


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a consortium of universities and Digitary (a commercial partner). DARE's highly secure and resilient service is governed by a Service Advisory Board composed of several higher education institutions and sector stakeholders.

- With DARE, digitally signed electronic documents are stored in secure repositories at the institution. Students can log in and share access to their documents in a controlled way. The distributed model which silos data at each institution is good for data protection, but a disadvantage is that learners don't have an aggregate view of their qualifications.
- The United Kingdom's Higher Education Degree Datacheck (HEDD) is a suite of online credential verification services that protects graduates, employers, and institutions from degree fraud. One third of job applicants admit to lying on their CVs and qualifications are the information that is most frequently falsified. HEDD introduces a virtuous cycle of verification by offering an easy, secure, online way to validate credentials.
- HEDD currently offers a University Lookup Service and a Candidate Verification Service. In the near future, it will provide an Integrated Service which will enable qualification verification and document requests. Seventeen universities are currently live with HEDD.
- ETS advocates using multiple sources of evidence for high-stakes decisions like college admissions. Digital data has great potential for better combinatory information and insight. However, to derive true benefit from big data, we need to build from the bottom up. That means assembling and organizing data, verifying and associating it, making correlations, identifying inferences, and issuing findings about strong inferences.
- Until lots of good information is available about most people, big data's potential is limited. In the near and medium term, however, tools and techniques exist to facilitate greater combinatory power. Test scores, in combination with other student information, can provide insights into knowledge, skills, abilities, performance, experience, and interests. Well-designed tests generate highly concentrated information about aspects of a person's knowledge, skills, or competencies.

**Action Items**

- DARE recognizes that an aggregated model is needed. The team is building a layer so students have a lifelong place to aggregate credentials and share them from one view.
- HEDD is investigating ways to encourage more universities in the United Kingdom to adopt its system, since it is not mandatory.
- Dr. Tyler believes that digital education data needs to be treated more like health records than credit card information. With credit card data, major inferences are made about people without their knowledge.

# Play it by Ear: Good Practice in Recognition and the Groningen Declaration

**Jessica Stannard**, *Nuffic, The Netherlands*

**Session Overview**

Jessica Stannard discussed what recognition means in the European Union and how European Area of Recognition (EAR) projects have streamlined recognition practices. Recognition is defined by the Lisbon Recognition Convention (LRC) as a formal acknowledgment by a competent authority of the value of a foreign educational qualification with a view to access to educational and/or employment activities.

Although the LRC set forth principles of fair recognition, there was wide variety in how they were applied. A collaborative approach has worked well to document recognition best practices and promote them among European countries.

**Key Takeaways**

- The Lisbon Recognition Convention of 1997 serves as the bible for the work done in the European Higher Education Area. It explains how to evaluate foreign credentials in ways that are fair, flexible, and respectful of differences in education systems.
- Despite the LRC, there were substantial differences in recognition among the 55 signatory countries. In response, a European Area of Recognition manual was published in 2012.
- The EAR manual is a practical translation of the LRC. It is based on existing good practices and was drafted based on consultation with the ENIC and NARIC information centers. The manual advocates a step-by-step approach to recognition and includes examples, as well as recommendations.
- The initial EAR project generated three additional initiatives: the EAR HEI (a recognition manual for higher education institutions), EAR 2 (web-based training on how to use the EAR manual), and EARN (accreditation through self-evaluation and peer review).
- The EAR HEI manual was developed by the ENICs and NARICs, representatives from other organizations (HRK, Tuning, EUA), and students (ESU). The manual covers an introduction to recognition, the evaluation process, institutional recognition practices, information instruments, specific types of qualifications, and credit mobility. The Groningen Declaration has been included in the EAR-HEI manual, chapter 5 (on Authenticity) as a new departure to verifiying credentials (see page 41).


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**Action Items**

- Information from the EAR manual may be helpful in other areas of the world. Education professionals in Asia and Africa have already expressed interest in reviewing the document and potentially adopting some of its practices.

## Universities Australia Statement of Interest in the Groningen Declaration

**Ainsley Moore**, *Policy Director International, Universities Australia*
**Neil Robinson**, *Academic Registrar, The University of Melbourne*

**Session Overview**

Ainslie Moore and Neil Robinson discussed how the Groningen Declaration could be applied to the Australian education policy context. In Australia, 39 universities are located across six states and two territories. Many different document verification and certification practices are used, including a mix of electronic and manual processes.

Australian higher education institutions are highly autonomous. As a result, gaining consensus is a challenge and although Universities Australia can build momentum, it cannot direct universities to take action. A one-size-fits-all approach to digitizing and sharing education data will not work.

**Key Takeaways**

- Applications for most undergraduate courses are processed through tertiary admissions centres (TACs) in each state. The TACs have permission to make inquiries and retrieve academic transcripts from universities through the Automated Results Transfer System (ARTS). QualSearch (the web front end of ARTS) allows authorized employers, registered bodies, and occupational associations to check the qualifications of applicants who have given consent. The Australian National University (ANU) has implemented a system that allows students, graduates, and third parties to view academic documents online using a secure service from Digitary.
- In late 2013 and early 2014, Australian universities participated in a survey to determine their readiness for a national digital repository. Although practices vary widely today, there is general agreement that a national repository would be valuable.
- The Digital Student Data Reference Group has been established to explore the viability of a national digital repository and the best way to achieve participation in the Groningen Declaration.
- The benefits of participating in the Groningen Declaration are clear. Students would enjoy enhanced mobility, streamlined applications processes, easy access to educational data, and a secure data platform. Institutions would see a reduction in fraudulent certificates, fewer manual administrative processes, and greater cost savings.

**Action Items**

The Digital Student Data Reference Group has identified several action items:

- Investigate approaches for capturing and managing data at the local level and other jurisdictions.
- Analyze privacy issues and other potential challenges.
- Consider potential strategies for funding a national digital repository.
- Explore options for achieving Australian participation in the Groningen Declaration.

## Presentation on Student Data Exchange Pilots

**Dr. Shao Wei (Moderator)**, *Secretary General, CEAIE, China*
**Tom Black**, *Associate Provost and University Registrar, Stanford University, USA*
**Ning Xiaohua**, *CHESICC (China Higher Education Student Information and Career Center), China*
**Jim Wolfston**, *CEO, CollegeNET, USA*

**Session Overview**

Ning Xiaohua, Jim Wolfston, and Tom Black discussed student data exchange pilots that are ongoing in China and in the United States. As the largest student exporting country, China understands the urgency of student mobility. Both CHESICC and Stanford University recognize that digitizing education data in a secure way provides an important service to students.

**Key Takeaways**

- CHESICC has pioneered student data digitization in China. Its database, which includes students nationwide, contains 864 million pieces of data and each year 100 million more pieces of information are added. Since 1991, CHESICC has registered 117 million qualifications, with annual growth of 10 million qualifications. Its qualification verification service has checked 70 million student records, and produced four million online and one million paper verification reports.
- CHESICC is developing a variety of systems to disseminate digital information. The National Conscription website is connected to the student database, as well as the financial aid and employment systems. The Graduate Student Admission Information Publicity Platform


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publicizes all graduate student reexamination scores and admission lists. CHESICC has collaborated with NSC to pilot an English version of the online verification system and is developing a digital verification platform with CollegeNET.

- CollegeNET's online, asynchronous interviewing serves as a new piece of digital data for students. It is useful for students in China who are half a world away from American universities. The interviews are authenticated and for the first time, it is possible for admissions teams to revisit raw interview data and compare different students' responses to questions.
- Stanford University is launching an online graduate program application that leverages CollegeNET technology. Applicants can attach authenticated, digital transcript documents to their applications.
- Stanford generates pdf transcripts with an XML header file that contains metadata. These transcripts are digitally signed and PESC compliant. With digital transcripts, it is possible to provide access to students' work products. For instance, doctoral transcripts include a link to students' Ph.D. dissertations. Looking ahead, undergraduate transcripts could link to information related to internships or writing samples.

**Action Items**

- When it comes to digitizing student data, higher education institutions can't wait to see what everyone is doing and then act. Organizations must experiment as they work toward perfection. Developing the ideal architecture will take time.

# Presentation on e-Enrollment in Europe

**Jan Otten**, *DUO, The Netherlands*
**Peter Parmentier**, *AHOVOS, Belgium*

**Session Overview**

Jan Otten from DUO and Peter Parmentier from AHOVOS discussed an e-Enrollment pilot project for Dutch and Flemish students. The work so far has generated valuable findings related to data portability, privacy, and identification. Considerable work lies ahead in terms of governance, communication, and semantics.

Many small steps will be required to complete the project, but it could be a model for a broader e-Enrollment system in Europe. Encouraging developments include an official agreement between the Netherland and Flanders regarding automatic diploma recognition. In addition, a joint study register is under development.

**Key Takeaways**

- The Netherlands and Flanders take similar approaches to secondary education. Both systems direct students to specific educational tracks at age 12. Although the metastructure of data sent to universities is similar, the implementation details for an electronic data exchange system are a challenge.
- Electronic student records are accessible in the Netherland and in Flanders. Core information is available for student identification, diplomas, courses, and institutions. Access to other data often requires workarounds. Qualification frameworks are an important key to workarounds.
- Building blocks exist to personally identify students through electronic data. Aligning different governmental bodies, however, may be difficult. National identification numbers can't be communicated abroad and one country/region can't use the other's identification system. In autumn 2014, a new system will be launched for identifying foreign students: the Pan European Proxy Server (PEPS).
- Distrust between higher education institutions and national authorities could jeopardize a unified e-Enrollment system. That risk has been minimized in the Netherlands and Flanders because higher education institutions have bought into the project.

**Action Items**

There are several action items needed to facilitate an e-Enrollment system for Dutch and Flemish students:

- The scope of data exchange must be defined and then details must be hammered out, including workarounds needed to access data.
- Teams from both countries must commit to project schedules, timing, and budgets.
- A plan must be developed for managing large numbers of partners, once those stakeholders commit to project participation.

# Annual Report

**Groningen Declaration Executive Committee**

**Session Overview**

The Groningen Declaration Executive Committee offered its annual report, as well as briefings from the four task forces. Common themes included the need to maintain the network, as well as to further develop the organization and its initiatives.

Members of the Executive Committee are committed to looking beyond familiar ecosystems of digital student data and creating a roadmap that will support student mobility in the years ahead.


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**Key Takeaways**

- Although the Groningen Declaration is taking a volunteer-based approach to digital student data portability, the network is developing an organizational structure to guide its efforts. An Executive Committee was established and in 2014, a Secretariat was created for a three-year period. In addition, task forces were established in September 2013 focused on four areas: Business Case, Principles & Statutes, Pilots, and Dissemination.
- Rick Torres, head of the Business Case Task Force, emphasized that the business case for digital student data exchange must be established at both the national and local levels. The business case should be based on national and multi-institutional needs and benefits, as well as a road map to fiscal sustainability. Multiple uses must exist for data that is aggregated; asking for data for the sake of collecting data is not enough.
- The Business Case Task Force deliverable is a national model for value creation that is based on pain points and issue resolution. The model should offer a path to sustainability. Useful examples are NSC's economic value add calculator, as well as its annual savings calculator which applies to individual institutions.
- Mtro. Guillermo Pablo López Andrade, head of the Principles & Statutes Task Force, described the set of basic principles and code of conduct that the group is developing. The Groningen Declaration Principles are inspired by the NSC's Global Registrar EduRecord Exchange Network (G.R.E.E.N.). The task force is focused on a student-centered vision, a privacy policy for students, professionalism, interoperability, and applicability to all students, educational institutions, depositories, and service providers.
- In early December 2013, a first draft of the Groningen Declaration Statutes was submitted for review. Ideally, the document will be approved in September 2014 at the EAIE annual conference in Prague.
- Jan Otten, head of the Pilots Task Force, reiterated how students are counting on institutions to enable student mobility. Pilots are one way to achieve more, faster in this arena. The "think big, act small" philosophy guides the task force's pilots. Small-scale projects are valuable because they can uncover potential obstacles before larger initiatives are begun.
- Victoriano Giralt, head of the Dissemination Task Force, highlighted the group's deliverables including the new Groningen Declaration website and video. In addition, the team has increased visibility for the network by participating in sessions at various conferences, such as the June 2013 AACRAO meeting in San Francisco, the EUNIS annual conference in Latvia, and the EAIE meeting in Istanbul.

**Action Items**

- Greater participation is needed from institutions in Africa and the Middle East. The South African Qualifications Authority is organizing an African event in November 2014 and would like to work with the Groningen Declaration Secretariat.
- A participant suggested that the topic of ethics be covered in a conceptual paper or by a Groningen Declaration task force.
- The Canadian registrars' organization is meeting in June 2014 and a topic for discussion is a national framework for the Groningen Declaration and data exchange.

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## THIRD ANNUAL MEETING

# *The Future of Digital Student Data Portability*

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