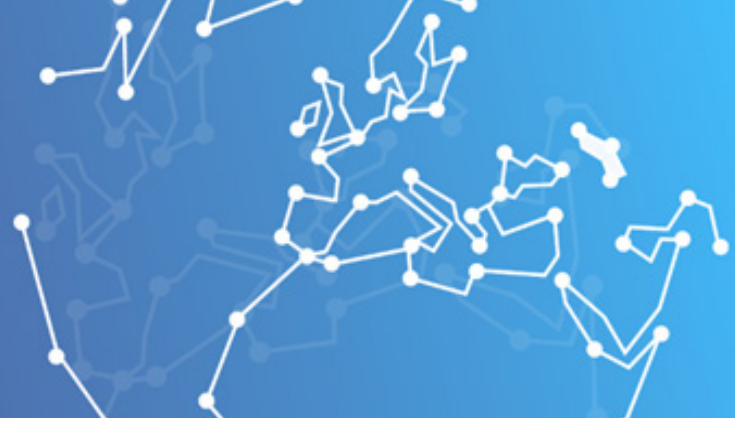




Groningen
Declaration
Network

PARIS 2018
18-20 April

The Age of Opportunity:
Privacy, Trust and Learner Mobility



Seventh Annual Groningen Declaration Network Meeting

18 - 20 April 2018

Sorbonne Université/Université Pierre et Marie Curie, Paris

EXECUTIVE SUMMARY



Groningen
Declaration



PREFACE BY GDN PRESIDENT NEIL ROBINSON

Dear relations of the Groningen Declaration Network,

It is with great pleasure that I present to you, on behalf of the Board of Directors of the Groningen Declaration Network, this Report of the 7th Annual Meeting of the Network, which was held this year at the Université Pierre et Marie Curie in Paris.

Since the founding meeting, in Groningen, in 2012 the Network has slowly but steadily gone from strength to strength. With over 160 delegates, the 2018 Annual Meeting was the largest and most diverse yet, with over 20 countries represented. This level of engagement is testament to the Vision established at our inception, to “seek common ground in best serving the academic and professional mobility needs of citizens world-wide by bringing together key stakeholders in the Digital Student Data Ecosystem”. The rich networking opportunities provided by the Annual Meeting and the timely contributions from our keynote, plenary and sessional speakers provide strong evidence of the relevance of the GDN today.

As the incoming new president, it was very pleasing to note that the network continues to attract new attendees while at the same time retaining its earlier attendees. To me, that is testament to the ongoing relevance of the network, and it is all the more pleasing given the evolution of the GDN from a virtual network to an incorporated self sustaining foundation since late 2016. With that evolution come challenges and opportunities — the vitality of the Network needs constant attention and nurturing. And that is where you — our relations — play a vital role, be it as a charter entity, participant, sponsor, supporter, signatory or in a combination of those roles. Let me acknowledge in particular our Premier Sponsor, Digitary, and our Charter Entities: AACRAO; CHESICC; DUO: National Student Clearing House; SAQA; Stanford University; University of Málaga; and University of Melbourne. Your involvement and commitment is of critical importance to the continuing sustainability of the Network. As are our supporters and, beginning over the last year, our Participants, whose annual participant contributions sustain the GDN Office and its operations between Annual Meetings. In keeping with discussions at the Annual Meeting, I therefore urge you to become, renew or encourage others to join the Network as Participants in 2018 and beyond — we all have a role to play, if we are to continue our work.

Finally, it is a great honour to have been invited to become the second President and Chair of the Board of Directors of the GDN. Let me acknowledge here Victoriano Giralt, our Inaugural President, for his tireless work and energy. In close cooperation with our Executive Director, Herman de Leeuw, their shared vision of a global network has come to pass.

I would also like to acknowledge outgoing Directors Tom Black — who delivered the seminal opening keynote at our Founding Conference in 2012 — and Navin Vasudev, who will remain co-chair of the GDN Task Force on Verification Policies and Best Practices.

I look forward to welcoming you to UPAEP (the Universidad Popular Autónoma del Estado de Puebla) in Puebla, Mexico, host of our 2019 Annual Meeting and until then, commend this report of the proceedings of the 2018 Annual Meeting to you.

Neil Robinson

President/Chair, Board of Directors of the Groningen Declaration Network



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Key Themes

Overview

The theme of the seventh annual meeting of the Groningen Declaration, held in Paris from April 18-20, 2018, was “The Age of Opportunity: Privacy, Trust, and Learner Mobility.” At this gathering, speakers shared optimism about the widespread acceptance of the Groningen Declaration, acknowledged progress that has been made related to Groningen, and discussed opportunities for the future.

Significant challenges still exist related to learner mobility, especially connected to privacy, trust, and access to equitable, high-quality education. These challenges can be addressed through closer international collaboration, policies, various digital technologies — such as blockchain — pilots, and sharing of best practices.

Key Takeaways

The educational landscape is undergoing significant changes.

Across the world, governments, NGOs, and individuals increasingly recognize the importance of higher education, yet these institutions are grappling with a perceived loss of trust.

To deliver relevant, modern education to even more students, traditional institutions are innovating in multiple ways, including by incorporating more digital technology in the learning process. Learning now often takes place online and may involve MOOCs.

At the same time there is growth in non-traditional education providers and greater recognition of the importance of lifelong learning to equip individuals with relevant skills for a changing workplace. In addition, education is a global undertaking, as more students study in foreign countries. These trends are not passing fads; they are expected to continue and accelerate.

The changes taking place in education present multiple challenges.

The fundamental challenge is to provide access to equitable, high-quality education for all. While this idea sounds simple, achieving it is not. Education has often been delivered via a one-size-fits-all approach, and millions of students are left behind. An abundance of research and policies exist; what is needed is greater action to fix educational systems across the world.

Delivering on access to high-quality education for all requires learner mobility. The goals of the Groningen Declaration focus on mobility. Groningen’s aims include giving students data portability so they can access and share credentials, while keeping data secure and private. Mobility must be accompanied with comparability across educational systems and transferability of qualifications. Lack of comparability and transferability creates major obstacles.

Exchanging information requires further technological progress on multiple fronts.

Learner mobility requires being able to share information between students and institutions. This sharing of information must be private and secure, and the entire process must be trusted. Key technological elements that are necessary for mobility were discussed throughout the conference.

- **Infrastructure:** Digital tools require significant infrastructure, including electricity, bandwidth, data centers, networks, and software. All are essential.
- **Data storage:** Accurate and updated information must be stored and made accessible. Multiple models and architectures exist for storing and exchanging information. These include centralized national or regional depositories, exchange networks, hub-and-spoke systems, badging platforms, and blockchain.



- **Identification and authentication:** Digital information requires identification and authentication. Several initiatives are focused on this.
- **Compliance:** the EU's General Data Protection Regulation (GDPR) went into effect on May 25, 2018. Its purpose is to protect the data privacy of EU subjects, and many educational institutions will be affected. Institutions must understand GDPR and take steps to comply, yet many organizations are still not prepared.

Far beyond technology, achieving Groningen's goals requires further collaboration, pilots, learning from best practices, and scaling what works.

Multiple speakers emphasized that the challenges that exist are not just technical, but are human. Solutions and progress require champions and demand greater collaboration and coordination among stakeholders.

Many efforts and multiple initiatives are underway. This includes strong and growing support for Groningen in Europe and elsewhere. A great deal can be learned from the activities that are underway.

- **Bologna Digital.** The Bologna Process has been a success. Now, efforts are underway to expand this success by bringing together stakeholders to support a series of recommendations about digitization in higher education, referred to as "Bologna Digital." These recommendations cover many topics including the admissions process, degrees and qualifications, internationalization and mobility, and recognition of non-formal learning.
- **UNESCO's Global Convention.** UNESCO is preparing a Global Convention on the Recognition of Higher Education Qualifications, to be adopted in 2019. Recognition opens doors and enables mobility. Under this Convention, recognition must be given unless the recognizing authority can demonstrate a "substantial difference" between the foreign qualifications and qualifications from the country where recognition is sought. This moves away from the strict requirement of "equivalence."
- **European Commission.** A priority of the European Commission is supporting the use of digital technologies for teaching and learning. This involves training teachers

and students on new technologies, creating hubs of initiatives at the national and regional level, and having platforms to exchange information.

- **Blockchain.** There was much discussion about the potential of blockchain as a means to improve trust in higher education when information is exchanged. Blockchain is a form of a distributed ledger. Instead of verifying paper-based credentials through a laborious manual process, through blockchain, credentials (or other documents) could be verified instantly, by anyone, anywhere in the world. Blockchain holds much potential in education as the need for portable credentials and lifelong learning grows.
- **Quality assurance.** Even if there is safe, reliable, and accessible delivery of student data, particularly credentials, how do we know they are quality credentials? For many years, quality was assumed if a credential was from a reliable, accredited institution. But with the proliferation of educational providers, quality can't be assumed. Efforts (such as CHEA) are underway to assure and verify quality.
- **Common standards.** An aspiration among attendees is to have, within two years, agreement on common standards for digital sharing of student data.
- **Multiple initiatives.** Participants from across the globe discussed initiatives and pilots in countries such as the US, China, and The Netherlands. Highlighted below are efforts in France and Malta:
 - *France.* France's Ministry of Education is formulating a strategy for digital technologies and is leading several initiatives. This includes a roadmap for the network layer, a program for data centers, and guidelines for managing data at universities. There is also an initiative focused on national digital identity for students.
 - *Malta.* A small country that has been exposed to multiple policies in the past two decades, Malta is now focused on literacy, employment, and an equitable, quality education. It is departing from a one-size-fits-all educational model with flexible, real-world learning and vocational programs.



Areas of consensus from all of the initiatives that were discussed included:

- **Pursue pilots.** Participants emphasized taking action by having a sense of urgency and moving rapidly to initiate pilots. The GDN Pilot Task Force supports and publicizes piloting efforts through the [I.D.E.A. \(International Data Exchange Advancements\)](#) hub, a space to share information about innovative pilots and projects and to connect with colleagues across the world.
- **Share best practices.** One of the most common themes of the entire conference was the importance of sharing learning with others in the Groningen community about what works.
- **Scale success.** When something is working, in addition to sharing best practices with others, focus on how to scale successes rapidly to help more students.



Keynote Sessions

Digital Technologies in French Education

Dr. Mehdi Gharsallah, Strategy Advisor on Digitisation to the Director General for Higher Education and Employability at the French Ministry of Higher Education, Research and Innovation

Session Overview

France sees both the need and opportunity for digital technologies in higher education and lifelong learning. In some areas, such as open recognition and badges, France is behind other European countries, but France is moving forward rapidly with a digital strategy and initiatives.

Key Takeaways

- France has a vision of lifelong learning aided by digital technologies. Individuals would have a digital student identity, which they can use to upload their educational attainments and subsequently share with others. Individuals will be able to validate skills gained and obtain new skills (using free online resources), as well as a new certification or diploma. This vision is becoming reality.
- Digital tools in education rely on adequate electricity and bandwidth; high-quality infrastructure, including data centers to securely store data; and networks to transport data. Also needed are software and online services such as LMS.
- A significant challenge is coordinating stakeholders. Often groups focus on just one topic; coordinating all stakeholders to focus on a goal like managing student data is difficult. A governance structure has been created with committees.

"It's not so easy to have a strategy accepted by all the schools and universities in France."

Mehdi Gharsallah

- France's Ministry of Higher Education is formulating a strategy for digital technologies, and leading several initiatives. This includes a roadmap for the network layer, a program for data centers, and guidelines for managing data at universities. Among the issues to be addressed: ethically sharing data and a national digital identity for students.

"The vision, aims and goals that are advocated by the Groningen Declaration Network may provide inspiration to the French Ministry of Higher Education, Research and Innovation towards the development of the French digitization vision with regards to education and lifelong learning."

Mehdi Gharsallah

- To date, France's efforts have not involved looking at information from European or international sources.

Action Items

France will proceed to aggressively pursue its vision, which means greater collaboration among stakeholders in implementing various initiatives within education. France planned to sign the Groningen Declaration during this conference, plans to continue with various demonstration projects, and plans to catch up to other countries in areas such as open badges.



The Alternative is Not Necessarily Inferior — Re-thinking Education Pathways

Dr. Francis Fabri, Permanent Secretary, Ministry for Education and Employment, Malta

Session Overview

Francis Fabri, a teacher from Malta who is the Permanent Secretary of the Ministry for Education and Employment, sees millions of students falling behind. He believes educational systems are not providing an equitable, quality education for all students and not preparing students for the future. He summarized Malta's progress in taking actions to educate all students.

Key Takeaways

- Educational leaders need to confront two issues: 1) equitable provision of quality education to all students; and 2) preparing students for the future.
- Dr. Fabri's conclusion: "Schools are not preparing students for today, let alone for tomorrow."
- Problems include:
 - Curricula and syllabi are political and are set by a few top leaders.
 - Education systems have a one-size-fits-all model.
 - There is a gap between what happens inside and outside of schools.
- Over decades, prevailing policy discourse keeps repeating the same obvious messages. These messages deal with equitable access, quality education, lifelong learning, and skills to succeed.

"Enough discourse has been said and written and researched. Now is the time to fix the system, to turn it upside down . . . shouldn't we challenge the status quo?"

Francis Fabri

- The Maltese experience in reforming education has three phases:
 1. *Globalized discourse in local policy:* From 1995 through 2013, a globalized discourse was articulated through multiple policy documents, but was not textualized locally. Teachers were complaining that Malta was not providing an equitable, quality education to all students.
 2. *Research-based policies:* In 2014 more policy documents were created, but these were more specific, focusing on literacy, employment, and equitable, quality education. A six-page policy document with four key targets focused all stakeholders. These targets are: 1) reducing the gap and raising the bar among students; 2) addressing high dropout rates; 3) investing in vocational education and training; and 4) promoting lifelong learning.
 3. *Equitable provision of quality learning opportunities:* This was a reform effort, branded as "My Journey." Departing from a one-size-fits-all model, it caters to all students. It provides learning programs at European qualifications, as well as vocational and applied learning programs. It extends the classroom into the real world and helps students become lifelong

Action Items

Countries need to go beyond policies to take actions to provide equitable, quality learning to all students. This requires rejecting the status quo, departing from a one-size-fits-all model, and providing multiple educational paths — straddling traditional learning, vocational and applied learning, and lifelong learning.

learners.



Safe & Open Higher Education Institutions: A Balancing Act

Paul Goossens, Rotterdam University of Applied Sciences, Program Integral Safe Higher Education, The Netherlands

Session Overview

Higher education institutions need to create safe environments while also providing openness and accessibility. To address multiple challenges — such as crisis management, privacy, cybersecurity, and students with mental health issues — institutions need to have realistic, integrated safety and security approaches.

Key Takeaways

- Higher education institutions face numerous challenges related to safety and security. These include crisis and incident management, alarming behavior and extremism, privacy and cybersecurity issues, fraud and cheating, and student mental health issues, which include loneliness and extreme peer pressure. Many of the issues on campus mirror societal issues.
 - Even with these challenges, institutions are attempting to be open, which is a balancing act.
 - Amid this complex landscape, institutions have limited budget for safety and security, don't have dedicated safety and security staff, and attempt to deal with safety and security alone.
 - The Rotterdam Declaration calls for working on a realistic safety and security policy within an organization, integrating teacher empowerment and prevention policies, and working together.
 - In The Netherlands a network of higher education institutions focused on safety and security was formed in 2016. It promotes integrated safety and security policies, emphasizes bottom-up participation, and includes participation of local safety and security managers. It is financed by the Dutch Ministry of Education and the Dutch National Coordinator for Terrorism and Security.
 - Advantages include wide support and trust because of involvement and local expertise, and reduced costs because of less commercial consultancy.
 - Disadvantages include financing being an annual fight.
- The Dutch program involves several products; all are available in English:
 - A risk analysis for higher education institutions.
 - An integrated safety and management system for higher education.
 - E-learning on alarming behavior.

Action Items

Institutions can learn from the activity in The Netherlands, use tools that have been created, and develop integrated safety and security policies. Representatives at institutions can work in collaboration with others, instead of working alone.



On UNESCO's Global Recognition Convention and the Relevance of Digitization for Recognition and Mobility

Stig Arne Skjerven, Director of Foreign Education at NO-KUT, Norway; President of the ENIC Network

Session Overview

Millions of international students and working migrants need recognition of their foreign education. UNESCO is working on a global recognition convention that will ensure people have the right to have their educational qualifications recognized outside the country of study. Doing this digitally in a safe and trustworthy way, instead of via paper, has numerous advantages.

Key Takeaways

- UNESCO continues to prepare a future Global Convention on the Recognition of Higher Education Qualifications, with an aim of formally adopting it in November 2019.
 - UNESCO defines recognition as “a formal acknowledgement by a competent authority of the value of a foreign education qualification or of particular studies or prior learning.”
 - There are two types of recognition: academic and professional. Academic is recognition of periods of study or qualifications from academic institutions. Professional recognition is an official authorization to practice a particular profession. UNESCO is focused on academic recognition and aims to regulate global practices of academic recognition.
 - Recognition is a door opener to further studies and can be a gatekeeper in keeping out those without adequate qualifications.
 - Recognition is important because it allows and enables freedom of movement and responsible migration.
 - Movement is extremely important in higher education. The number of international students in higher education has risen from 800,000 in the late 1970s to 4.6 million in 2015.
- A prerequisite for student mobility is comparability across education systems and transferability of qualifications. Lack of comparability and transferability creates major obstacles.
 - The Lisbon Recognition Convention came into place in Europe in 1997. An Asia-Pacific Regional Convention took effect in 2018. The UNESCO global convention will be the first instrument with global scope.
 - Key principles of the global convention in enabling academic mobility are:
 1. The right to have foreign qualifications assessed in a fair, nondiscriminatory manner by national competent authorities.
 2. The laying of the burden of proof on the recognition authorities. Recognition must be given unless the recognizing authority can demonstrate a “substantial difference” between the foreign qualification and qualifications from the country where recognition is sought. This moves away from the strict requirement of “equivalence,” which is practically impossible.
 3. The establishment of an obligation to put in place procedures for recognition for refugees and displaced persons.
 4. The desire to have transparency and build trust.
 - Participating countries must provide accurate and updated information and must establish national information centers, like Europe’s ENIC-NARIC offices.
 - Digital technologies present opportunities to contribute to reducing the barriers for academic mobility and can facilitate easier recognition.
 - Recognition bodies need verified trustworthy information. It is easier if this information is in databases.
 - Digital information improves identification and authentication. Several initiatives focus on improving identification and authentication.
 - Portable, digital student data will solve many problems and will change the game for student mobility.



- Automatic recognition is the Holy Grail of recognition. Within Europe, there is a commitment to automatic recognition.

“The future is global. It’s digital. And it’s happening right now.”

Stig Arne Skjerven

Action Items

Support the further development and the adoption of UNESCO’s Global Convention on the Recognition of Higher Education Qualifications, and support the continuing development of digital technologies to support recognition and mobility.



Weaving All of the Above into One

Sir John Daniel, Former President and CEO, Commonwealth of Learning; Former Assistant Director-General, UNESCO; De Tao Master of Education

Session Overview

Successful innovation and implementation of new policies and technologies must start from an accurate reading of the institutional context. This context is shaped by government policies, public attitudes, staff perception, finance, and multiple other elements. While the title of this gathering refers to “The Age of Opportunity for Privacy, Trust, and Learner Mobility,” the reality is that at the moment it is truly an age of challenges in these areas. Realizing opportunities requires overcoming multiple challenges.

Key Takeaways

- The conference theme is “The Age of Opportunity: Privacy, Trust, and Learner Mobility.” But it may not feel like an opportunity to:
 - Software giants grappling with a loss of public confidence in their protection of users’ privacy.
 - Governments trying to counter a loss of trust in institutions.
 - Universities trying to manage enrollments amid unpredictable changes to student mobility patterns.
- Perhaps a better theme for the conference might have been “The Age of Challenge.”
- Privacy: Many consumers don’t seem to care about privacy and spray around their data without thought. The default settings require opting in and taking action to get privacy. Privacy requires new rules. The EU’s General Data Protection Regulation is a start.
- Trust: Public trust in government and institutions has been declining, in the United States and elsewhere. Restoring trust is much harder than undermining it. Erosion of trust in institutions is damaging to society. We live in a “post-truth” era where emotion and personal belief are overriding facts.

Universities must serve as a “good memory” for humanity in providing facts that show the progress of recent decades and that the “good old days” weren’t as good as today on many dimensions.

“Faced with the prospect of a post-factual society, universities have to reestablish a respect for objective truths and powerful arguments — through our educational programs and through our public research . . . universities should be trust building and truth seeking.”

Sir John Daniel, quoting Ole Petter Ottersen

- Learner mobility: This is not new; mobility has existed for centuries. Some believe that the internationalization that characterized education from 1990 to 2015 has come to an abrupt end, due to upheavals like Brexit, the election of Donald Trump, and disruptive actions of China. Others expect continued growth in learner mobility.

Action Items

Turning these challenges into opportunities requires vigilant action on multiple fronts. It requires new rules about privacy, universities reestablishing a respect for objective truth, and continued efforts to enable learner mobility.



Plenary Sessions

GDPR and Higher Education Privacy Standards: A Global Perspective

Moderator

Rick Torres, National Student Clearinghouse, USA

Panelists

Mary Chapin, National Student Clearinghouse, USA

Mehdi Gharsallah, Ministry of Higher Education, Research and Innovation, France

Melanie Gottlieb, AACRAO, USA

Valère Meus, Erasmus without Paper Consortium, Belgium

Session Overview

The General Data Protection Regulation (GDPR) of the EU goes into effect on May 25, 2018. Its purpose is to protect the data privacy of EU subjects. Educational institutions must comply if they are controllers or processors of personal data covered under the GDPR. It is important to understand the regulation and have processes in place to comply. This may involve getting assistance from experts and counsel.

Key Takeaways

- Among conference participants, words that come to mind when thinking of GDPR are privacy, compliance, costs, regulation, cumbersome, enforceability, and more work.
- GDPR is “extra territorial.” It covers any organization that does business with anyone in the EU, including EU citizens or residents. It represents a potential power shift from businesses to consumers.
- Why is GDPR important to the world? GDPR is legally binding regulation for any organization doing business with people or organizations in the EU. The penalties and breach protocols are significant. Security and data privacy are at the heart of educational institutions and institutional reputation is at stake.
- The definition of personal data is: any information relating to any person (such as job title, address, etc.), whether it is identifiable or not.

- Two key roles are:
 - *Controller*: The natural person or legal person, public authority, agency, or other body that determines the purposes (why) and the means (how) of processing personal data. If you determine the purpose or means, you are a controller.
 - *Processor*: The person or entity that processes data on behalf of the controller. A processor acts only at the written direction of a controller. A processor must keep records of all processing activities and every cross-border transfer of this data, and has to implement measures to assist a controller in complying with GDPR.

Processing is any operation or set of operations performed on personal data.

GDPR applies to any controllers and processors established in the EU, regardless of where the processing takes place, or controllers and processors outside of the EU if the processing relates to offering goods or services to EU data subjects.

- Important elements of the scope of GDPR include:
 - Transparency
 - Consent
 - Breach notification
 - Data minimization
 - Right to access
 - Right to rectification
 - Right to erasure
 - Data portability
 - Privacy by design
 - Data protection officers



- Lawful processing is an area of much confusion; organizations should consult with legal counsel.
- GDN principles focused on privacy and data protection are extremely relevant to GDPR.
- Per one panelist (V. Meus), education is unlikely to be a primary target of GDPR. That said, transparency and consent are extremely important in education. Today, initiatives such as Erasmus without Paper have an advantage of already incorporating student consent.
- Questions include items such as, “Who controls the data at the end of the day?” For example, do students control information about their grades, or is this controlled by the institution? And, in light of right of erasure, how will this be addressed by blockchain providers that market and stress the immutability of records on the blockchain? Add to this that at the same time, everyone expects the data about himself/herself to be stored at least for the length of one’s active educational and professional career so as to contribute to making life long learning a tangible reality.

Action Items

It is important to understand data protection regulations around the world, as we may be at the beginning of a tidal wave of data protection regulation. Data privacy policies are coming from Asia and possibly individual European countries. A good resource is www.dlapiperdataprotection.com.

For particular areas, such as lawful processing, it is important to consult with legal counsel.

Under the Hood of Digital Qualifications, Qualifications Frameworks and Their Policy Challenges

Panelists

Borhene Chakroun, UNESCO, France

Andy Dowling, Digitary, Australia and Ireland

Andreia Inamorato dos Santos, Joint Research Centre, European Commission, Spain

Session Overview

Representatives of three international organizations discussed key issues related to digital qualifications. These include data privacy, storage, and various policies and frameworks.

Key Takeaways

- GDN is trying to: 1) give students data portability so they can access and share credentials with third parties; 2) keep data secure and private; 3) enable participation of all stakeholders.
- Recurring themes around GDN include:
 - *Verification* of the authenticity of qualifications.
 - *Format* – what does a digital credential look like? Is it a badge? A micro-credential?
 - *Storage* – are credentials stored? For how long?
 - *Exchange* - how are digital credentials exchanged in a secure, trusted way?

Different systems all deal with these themes in some way.
- Five models and architectures of systems (per Andy Dowling) are:
 1. *Central depository*: There is a central database populated by participants, put together on a regional or national basis. Trust and communication are key.
 2. *Exchange networks*: These are secure transmission mechanisms that require technical integration. They give rise to data standards so senders and receivers of data can communicate.
 3. *Hub and spoke*: Each university gets a depository; to exchange data, depositories are connected. A student portal gives students control. The challenge is getting it to scale.

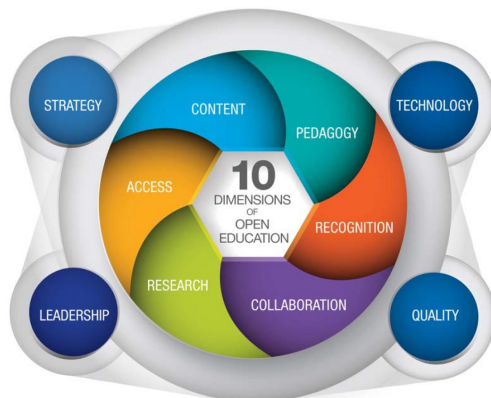


- 4. *Badging platforms:* These are popular frameworks, and badges are easy to issue. But there are issues with trust.
- 5. *Blockchain:* This is good for verification but not for storing or exchanging credentials.

“There are loads of ways of dealing with digital credentials, loads of different frameworks . . . it’s not one-size-fits-all. What I see are opportunities to collaborate with partners.”

Andy Dowling

- Joint Research Centre (JRC) is the in-house science service of the European Commission. JRC’s main goal is supporting policy making in Europe via research evidence. JRC has over 100 reports on education, including reports on Open Education. Highlights of JRC’s work include:
 - A digital education action plan.
 - The Selfie, a tool for schools to self-assess their digital skills.
 - Frameworks for digital competence for consumers and educators.
 - A framework for higher education institutions to implement open education.
- JRC’s perspective on open education is that credentials and recognition of learning should include formal, non-formal, and informal learning. The OpenEdu project contains a framework, cases, research, and more. JRC thinks about Open Education along 10 dimensions, including recognition.



“We have eight areas for development to create an open education ecosystem. Accreditation and recognition is one of them.”
Andreia Inamorato dos Santos

- UNESCO is working to revise regional qualifications for higher education and planning for a Global Convention to be adopted in 2019. UNESCO’s Education 2030 agenda focuses on skills, higher education, and lifelong learning.
- UNESCO has a platform that includes a regional qualifications framework. UNESCO is producing a global inventory of how countries are reforming their qualification systems. UNESCO is also doing technical work on learning outcomes, looking at comparability of credentials, trying to develop a common language, and developing a tool for benchmarking credentials.
- Trends UNESCO is seeing include:
 - A shift from full qualifications to acceptance of micro credentials.
 - Representation of skills and learning outcomes in ways such as e-portfolios, not necessarily credentials.
 - A shift from where credentials are owned by a government authority to where badges come from private sources.
 - A shift from analog to digital. This shift has happened in some countries, but many remain analog.
- UNESCO has seen an uptake in digital credentials among learners but less evidence of use among employers. Also, the “stacking” of credentials is not evident.
- A risk is that digital credentialing will create gaps and leave people behind.

Action Items

Ensure there is awareness and understanding of various frameworks and models, as well as the strengths and trade-offs of each. Ensure that digital credentialing is inclusive and doesn’t create gaps, and continue to engage in pilot studies of various frameworks, technologies, and open education.



What Role for Europe in the Global Digitisation-in-Education Effort?

Moderator

Alexander Grech, StrategyWorks, Malta

Panelists

Vanessa Debiais-Sainton, Head of Unit, representing European Commissioner to the DG Education and Culture Tibor Navracsics, Belgium

Denis Despréaux, Director of Europe and International Division at Ministry of Higher Education, Research and Innovation, France

Marjan Hammersma, Secretary-General, Ministry of Education, Culture and Science, The Netherlands

Peter Hassenbach, Head of Division International Exchanges in Higher Education, Internationalization, Federal Ministry of Education and Research, Germany

Session Overview

Representatives from the Ministries of Education in in France, Germany, Malta and the Netherlands, and from the European Commission in Belgium discussed the role for Europe in digitization of education. Key themes in this discussion included the need for collaboration, pilots, sharing of best practices, and building trust.

Key Takeaways

- Within Europe, there is strong and growing support for the basic ideas in the Groningen Declaration. The ideas of mobility and recognition are extremely important. The European Commission will be making a recommendation to provide support to ministries to ensure that any qualification that is acquired will automatically be recognized across member states.
- Participants agreed: Steps Europe can take include engaging in pilots and facilitating the sharing of best practices to build a collective intelligence.
- A priority of the European Commission is to support use of digital technologies for more relevant teaching and learning. This involves training teachers and students, creating hubs of initiatives at a national and regional level, and having platforms to exchange information. Other priorities include greater development of digital skills and competencies, and modernization of educational training systems.

- Digitization — in general, and within education — is a priority in many European countries. This priority is being supported through multiple initiatives such as a digital identity (France) and a diploma register (The Netherlands).
- Including students as part of digitization efforts is essential and is being done.
- In a climate of rising nationalism and anti-immigrant sentiments, it is more important than ever to enable student mobility so that students can travel and study in foreign countries and cultures.
- Improving Bologna: Panelists were asked what they would like to see happen at the upcoming Bologna Policy Forum during the EHEA Ministerial Conference in Paris. One response was that the collaborative process was more important than any particular decisions or actions. Others would like to see a new peer review structure, more focus on innovative learning, and even more collaboration. Also, while progress has been made in developing standard guidelines for quality assurance for joint programs and online learning, even more needs to be done for quality assurance related to (micro)credentials and (open) badges.

Action Items

Continue to engage in pilots and increase efforts to share best practices.



“Bologna Digital” — Shaping the Digital Future of the European Higher Education Area

Panelists

Florian Rampelt, KIRON, Germany

Peter van der Hijden, Belgium

Session Overview

The Bologna Process has been a success. It is now possible to extend this success by bringing together stakeholders to support a series of recommendations about digitalization in higher education, referred to as “Bologna Digital.” These recommendations, which cover multiple topics, will cause digitalization to be viewed as a means for meeting many existing challenges within higher education.

Key Takeaways

- The Bologna Process has been an attempt by the Ministers of Education of the European Higher Education Area EHEA to bring some order to higher education degrees. It is an “attempt” — not a law or a decision — and it is top down. But it has brought order by creating a qualification framework, a credit system, and quality assurance.
- Bologna is a political platform where ministers meet every two to three years to take stock of where they are and where they want to go.
- Digitalization represents a new dimension for Bologna, which deserves attention.
- Bologna Digital is a position paper with 17 recommendations. These are not amazing new or innovative recommendations, but they represent the combined views of multiple stakeholders.

“We tried to listen and we tried to frame some very basic but very crucial recommendations on what could shape the European higher education area in the future, with a focus on digitalization.”

Florian Rampelt

- Bologna Digital was developed based on two premises:
 - The full potential of digitalization has not been reached on a systemic level.
 - Digitalization should be viewed not as an additional challenge, but as a powerful means to meet existing challenges for higher education.
- Bologna Digital's recommendations cover areas such as:
 - Admission processes.
 - Degrees and qualifications.
 - Internationalization and mobility.
 - Recognition of non-formal (digital) learning.
- Examples of the recommendations include:
 - Discontinuing paper-based admission processes and expanding electronic student data.
 - Inviting countries to support the establishment and networking of centralized national depositories of student data.
 - The EU Student Card, proposed by the European Commission, should be considered a lifelong learning card.
 - Institutions are encouraged to publish a list of MOOCs and micro-credentials they accept as part of their degree programs.

Action Items

Review and understand the Bologna Digital recommendations and provide any comments or feedback. Then, advocate for the adoption of these recommendations.



Global, Mobile Learners: A Self-Sovereign Future

Panelists

Alexander Grech, StrategyWorks, Malta

Natalie Smolenski, Learning Machine, USA

Session Overview

The idea of a distributed ledger to record transaction data isn't new. Blockchain takes this established idea and brings it into modern times, using technology to improve the trust in transactions. This has use and applicability in education to share and verify information. Malta believes in this premise and is moving rapidly to conduct multiple pilots.

Key Takeaways

- With blockchain, it is easy to get mired in the technical details and lose track of the real social value that makes this a disruptive innovation.
- For thousands of years societies have had record keeping, which is a form of “community memory.” Record keeping evolved to incorporate “tokens” and ledgers.
- Socially, ledgers involve power dynamics. A centralized ledger is controlled by one party who can keep and interpret the ledger. A distributed or decentralized ledger can be accessed by members of a community.
- Blockchain can be thought of as a super ledger, a new memory system for humanity. In particular, blockchain remembers transaction data.
- The data from a transaction is termed “on chain” data. Data that is not recorded is “off chain.”
- Block certs is a technology standard where off chain data—like a diploma or credential—is taken and linked to a blockchain transaction. This makes the document independently verifiable without relying on the issuing institution. The document can be verified instantly, by anyone, anywhere in the world.
- Take for an example a Syrian refugee with paper documents who is migrating to Germany or France. Verification of these documents can't be done, as the issuing institutions no longer exist. This is a human tragedy which can only be prevented by issuing digital credentials to people anchored in the blockchain as a secure anchor of trust.
- The need for portable credentials will grow as the need and demand for lifelong learning rises.
- Malta, as a small country, is able to quickly engage in pilots and test new things. Malta has identified four quick pilots. Sharing best practices from the pilots is critical.
- Areas of focus in Malta include open standards and the belief that the control over certificates is going to pass from institutions to learners. Also, Malta has announced plans to become a blockchain country and has a sense of urgency to make progress quickly.
- Many questions still exist, such as whether learners and employers will see the value in the blockchain; whether open standards will become the norm; how quickly pilots can scale up; and whether this will work in larger countries.
- A conclusion: human networks are critical. Progress cannot be made without champions and without horizontal and vertical networks where all stakeholders get something out of it.
- For those interested in setting up a blockchain network the options are:
 - A public blockchain, like Bitcoin or Ethereum.
 - A private blockchain implementation, using an open standard. Doing so requires allocating considerable financial and human resources to build the network, and requires large numbers of nodes to provide sustainability over time.
- Refugees and others in the world — in countries in Africa, for example — exist in a “trustless economy.” Blockchain and other ways of establishing trust can be very helpful. But the real value of blockchain is preventive, by creating a distributed ledger before a catastrophe. It is an infrastructure investment at the nation-state level.
- While some refugees with paper-based records may get them verified, it is only a small fraction of all refugees. And, the verification process takes weeks and months. Blockchain will enable instantaneous verification at scale.

Action Items

Understand what blockchain is and how it works. Look for opportunities to participate in pilots of using blockchain for sharing important educational documents and information.



The Mobility Agenda — Barriers and Opportunities

Panelists:

Melanie Gottlieb, Deputy Director, AACRAO, USA

Stamenka Uvalić-Trumbić, Former Head of Section Higher Education, UNESCO, France; Senior Consultant, CHEA (Council for Higher Education Accreditation), USA; Education Master, DeTao Masters Academy, China;

Dr. Judith Eaton, President, CHEA (Council for Higher Education Accreditation), USA

Dr. Hilligje vant Land, Secretary-General, IAU International Association of Universities; Executive Director, International Universities Bureau, France

Stig Arne Skjerven, Director of Foreign Education at NOKUT, Norway; President of the ENIC Network

Session Overview

These representatives from organizations that broaden the conversation around mobility described their organizations and how they are thinking about mobility. They also reflected on themes from the entire conference.

Key Takeaways

AACRAO's role

- In the US, AACRAO's members — who are registrars and admission officers — represent the function of mobility at higher education institutions. Members hold the academic records at institutions, including transcripts and transfer and articulation agreements. Domestic academic mobility has been critical in the US, as 40% of students transfer institutions.
- Privacy and trust are the core of AACRAO's values.
- AACRAO members also work in the sphere of international mobility. Unlike in other countries where there are ministries and ENIC-NARIC, in the US, the Department of Education is a funding organization. Institutions make decisions about recognition and academic placement. Many institutions use AACRAO's EDGE database to help with recommendations.
- AACRAO and its members play a key role in spreading the word and driving the conversation.

UNESCO over the decades

- In 1994, UNESCO, the Council of Europe, and the European Commission came together in cooperation to launch the ENIC-NARIC network, which was followed by the collaboration on the Lisbon Recognition Convention, which gave greater rights to students. Today the Lisbon Convention has gone global.
- The same three organizations developed the Joint Diploma Supplement, which is a transparency tool giving information about students' qualifications.
- Today the world has moved on with Bologna Digital, digital badges, blockchain and other tools.
- In 2005 a partnership resulted in the 2005 UNESCO OECD cross-border guidelines. There have also been efforts in looking at degree mills, and the future problem of badge mills is anticipated.
- After MIT first made hundreds of courses available for free online, UNESCO organized a meeting on open educational resources, which led to the drafting of the 2012 OER Declaration.
- Groningen is now leading to a more global, collaborative network.

Quality Assurance

- Even if there is safe, reliable, and accessible delivery of student data, particularly credentials, how do we know they are *quality* credentials?
- For many years, quality was assumed if credentials came from reliable, accredited colleges or universities. But that is no longer an acceptable indicator of quality, with assorted new providers of education, including companies, MOOCs, and non-institutional providers. But there is not a non-institutional quality review mechanism or consensus.
- With growth of non-traditional providers, there is a challenge and opportunity for quality review.
- CHEA has developed a tool, the Quality Platform, which is a form of review of providers that are outside of the traditional higher education space. It is an outcomes-based review that culminates in a certification for



three years. There is a process for self-review and peer review. It is efficient and expeditious. It can be used nationally or internationally and has been piloted in China. Over time the intent is to emphasize comparability.

International Association of Universities

- IAU, based at UNESCO, brings higher education institutions together globally. Issues IAU helps advance include leadership, higher education and research for sustainable development, and internationalization of higher education and technology. Two key initiatives are:
 - The World Higher Education Database, which is a free online tool.
 - Global surveys on internationalization which collect information on new trends.

Major Conference Themes

- The Global Convention, which will hopefully be adopted in 2019, will boost mobility for the 2.5 million students studying outside their own region.
- There are several important initiatives on digitization to improve student data portability.
- An aspiration is in two years to have agreed on common standards for digital sharing of student data.

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