Tenth Annual Groningen Declaration Network Meeting
10-12 November 2021

Executive Summary
PREFACE

What a great success! The 2021 Groningen Declaration Network (GDN) Annual Meeting featured inspiring contributions from thought leaders around the world. It was such a privilege to hold the position of 2020-21 GDN President and to host this annual meeting in the nation’s capital, Ottawa, just steps away from the seat of Canada’s federal government, Parliament Hill.

The 10th Annual Meeting was a historic one. Not only was it the GDN’s first in-person annual meeting held during a pandemic, it was also its first-ever conference featuring a hybrid format (in-person in Ottawa and virtual, worldwide). Notably, attendee participation was the highest in the history of the GDN. It was a moment of pride after two very challenging years. Thank you to the many speakers to have made this historic annual meeting an engaging exchange of ideas, inspiring new collaborations and new pilots worldwide. Thanks to all who attended. We hope that you found inspiration in your interactions with colleagues. And, thank you to the annual meeting organizing team members. You did an outstanding job. Special mention to Karen Hanna and Jeannie Boyes for handling the logistics so well.

The past two years have been filled with many difficult moments and challenges for the GDN, following the pandemic-related cancellation of the meeting in New Delhi, India. The Board and Board Executive rallied and many new initiatives were released over the 2020-2021 period, including the new website, the creation of the Advisory Council, the development of the T.R.U.S.T. Hub, the announcement of the GDN Ambassadors, the establishment of the GDN Patron initiative, the submission of the GDN Micro-credential Position Statement to the European Commission, and more. This was a year of hard work, with the key goal being to set the GDN on a stronger financial path. There is much to celebrate and more work to do.

There is strong evidence that the GDN continues to influence initiatives worldwide. Canadian colleagues from the Association of Registrars of the Universities and Colleges of Canada (ARUCC) announced the successful launch of MyCreds/MedCertif™ at this annual meeting. Canada’s new official digital credential wallet for postsecondary learners and graduates is one of the most transformative postsecondary initiatives in Canada in decades, advancing learner mobility and autonomy. As the 2020-21 GDN President, I’m proud that the development of MyCreds™ was inspired by the GDN Annual Meeting in 2014, at the annual meeting in Washington, D.C.

It has been my great pleasure to have been the President of the GDN for nearly 18 months in 2020-2021. Leading the GDN Board was an enriching experience and a chance to give back to the organization that inspired MyCreds/MesCertif™ and many other international initiatives. Thank you to the 2020-2021 Board members, who worked with such dedication to the GDN and its guiding principles throughout the year, including to support the development of this year’s event. The GDN Annual Business Meeting, which occurred during the annual meeting, was an opportunity to reflect on those contributions, and to hand over the GDN reins to my good colleague, Francisco Maldonado, who assumed the role of President (2021–2022). I wish him much success!

We hope to see you all at the 11th GDN Annual Meeting in October 2022 in Groningen, The Netherlands, the birthplace of the GDN.

Kathleen Massey
President, Groningen Declaration Network, April 2020–November 2021
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Overview
The 10th Annual Meeting of the Groningen Declaration Network was held at The Westin (Hotel), in Ottawa, Canada, from November 10-12, 2021. The theme of this meeting was Mobility, Digital Citizenship, and the Student Experience. This historic meeting was delivered in a hybrid format, with more than 60 international visitors attending in person in Ottawa, and more than 140 attendees from across the globe were attending virtually. Attendees were welcomed to the Annual Meeting by Dr. Suzanne Fortier OC, FRSC, Principal and Vice-Chancellor of McGill University, through a pre-recorded video address.

Key Sessions from this meeting included keynotes and panel discussions.

Keynotes
• Mobility, Digital Citizenship, and the Student Experience (Denise Amyot)
• Digitisation in India and Global Implications (Shri Dr. Vinay Sahasrabuddhe)
• Working Collaboratively for the Student Journey (Yvette Munro)

Panels
• Digital Credentialing: What Role for Small States?
• Cultural Diplomacy in the Digital Age: New Opportunities for Exchange and Credentialing
• Global Credential Interoperability & the Learner: Building Out a Global Learner Data Ecosystem
• Supporting Refugees in Crisis: Afghanistan and the Refugee Enabling Ecosystem
• Microcredentials and Learner Mobility: Removing Barriers & Connecting the Dots
• Global Talent Marketplace: USA's Learning & Employment Record – Skills Transformation
• The Secret to Connecting Education and Industry
• The Student Voice
• Bridging Yesterday to Tomorrow: A Knowledge Resource to Inform Policy Around Access & Mobility

Key Takeaways
I. Situation & Challenges
In virtually every session, the speakers and panelists discussed challenges faced by learners, employers, and institutions. These challenges include:

• Lack of access among learners to quality, affordable education.
• Lack of mobility for learners and difficulty among learners in taking their critical documentation and credentials with them to provide proof and verification of educational accomplishments, certifications, and skills.
• Lack of interoperability to easily share information among learners, institutions, and employers. Data exists in silos and is not easily shared. This lack of interoperability makes sharing of data slow, difficult, complex, and expensive. It hinders mobility for learners and makes it difficult for institutions and employers to assess qualifications. Factors contributing to lack of interoperability include lack of policy, governance, common vocabulary, and technical standards.

• For learners, these challenges are most pronounced at moments of transition, which include transitions from school to school, school to business, business to business, immigration, and business back to school.

In addition to lack of access, mobility, and interoperability, there is a mismatch in the labor market.

• Employers have large numbers of open positions, where they are seeking employees with specific skills.
• At the same time, many job seekers are unaware of these positions or are unable to access them.

• Part of the challenge is:
  – Difficulty among employers in communicating to institutions and individuals the specific skills they are seeking.
  – And difficulty among individuals in communicating to employers their skills through their credentials.

The conclusion: there is a need for more comprehensive insights into acquired skills, rather than only the degree awarded.

The situation within Canada is representative of problems across the globe. Mobility for learners has not traditionally been a priority and has not been supported by policymakers or policies, and different provinces and territories have had their own policies and rules related to mobility.

Other challenges include uncertainty among nations, institutions, employers, and individuals about what to do and how to get started in improving mobility and digital citizenship, lack of a common vocabulary, lack of collaboration among stakeholders, lack of clear standards and/or adoption of these standards, and lack of trust among different stakeholders. The result has been lack of portability of credentials and difficulty among learners in achieving mobility, including fair recognition of their credentials.

II. Goals
The goals expressed at this meeting include:

• Increasing the access of lifelong learners to high-quality and affordable higher education.

• Improving the mobility of learners by increasing the use and acceptance of authentic digital credentials and data.

• Accelerating lifelong learning and accelerating educational and career advancement by making it easier for individuals to share information about their credentials and skills, determine additional credentials and skills they may want to gain, and identify institutions that can provide this learning.

• For institutions and employers, goals include being able to more easily identify and assess learners and employees by reviewing digital credentials.

Additional goals include increasing student exchanges, increasing cultural diplomacy, supporting vulnerable populations such as refugees, and building greater support among stakeholders for digital credentials and student mobility.

Further, the following questions raised by Dr Calice Olivier Pieume merit attention:

• What remains critical when looking at issues related to digital credentials? Certainly, quality and equity remain critical.

• What change do we want to see? One important change is ensuring no one is left behind.

• What progress do we want to achieve?

III. What is needed to achieve these goals
Achieving these goals requires the creation of a digital ecosystem that is broadly adopted. Among the ideas, principles, and key elements of this ecosystem discussed during this meeting were:

• The ecosystem must be human-centered and learner-centered.

• The voice of the student is essential.

• The support and participation of multiple stakeholders is required. Stakeholders include learners, institutions, employers, governments, NGOs, technology vendors, and more.

• There must be credential portability.

• Learners must be able to control their credentials and data.

• Sharing of data requires interoperability. Interoperability requires a common language and vocabulary, common standards, governance, and digital trust frameworks. Interoperability is not a destination; it is an ongoing journey.

• All of the elements require collaboration among all stakeholders.
It is necessary to “meet people where they are.” It is unfeasible for individuals or organizations to change all aspects of their operations or technology to adopt a new standard or way of doing things. Therefore, it is essential to be able to meet organizations where they are in their journey and evolution.

One important element that must change is for employers to shift to “skills-based hiring.” Historically, companies have often hired based on a specific credential (such as a four-year degree), instead of skills. However, companies such as IBM are migrating to a skills-based mindset, seeking individuals with specific skills.

The emphasis on skills increases the importance of microcredentials. Individual lifelong learners can continue to advance by gaining targeted skills and microcredentials (which demonstrate proof of this skill) throughout their career.

IV. Examples
Several examples were shared of initiatives or programs that are advancing learner mobility and/or digital credentials.

GDN/UNESCO Initiative. Herman de Leeuw discussed the rationale for this initiative. He said COVID-19 drove home the relevance and benefits of virtual learning and digital credentialing. He shared the vision — which was repeated throughout this meeting — that citizens worldwide should be able to collect and share their authentic credentials and data anywhere, anytime, with anyone, based on a trusted, coherent, and comprehensive digital system. This system will drive the right to learning and lifelong learning. This initiative will further progress towards UNESCO SDG4 and UNESCO’s overall 2030 agenda.

The initiative will engage the GDN community in discussion about the rights of the learner and the potential for expanding accessible digital options and technology. It will create a knowledge resource that explores the history of digital credentialing and data exchange, with consideration for future policy guidelines and normative instruments. It will consider access, citizen mobility, and the rights of the individual over their data.

The underlying values are global learner rights and ownership of data, creating connections between communities, creating shared understanding, and ensuring open access to information. Among the main issues are initiating a dialogue about digital credentialing and digital learner currency as public goods, initiating dialogue about the need for policy advice and guidance, and promoting trust in digital certificates.

ONCAT’s partnership with MyCreds™|MesCertif™. Ontario Council on Articulation and Transfer (ONCAT) was created by the government and serves as the coordinating body for student mobility. ONCAT has formed a partnership with the Association of Registrars of the Universities and Colleges of Canada (ARUCC) to address one of the most significant issues related to student transfer, which is document exchange to assess transfer credits. MyCreds™|MesCertif™ is an amazing digital tool to support learners. For ONCAT, this partnership requires a commitment to the infrastructure of MyCreds™|MesCertif™ and to support institutions to participate and use this tool. “The ability to provide a tool like this is foundational and transformational for the seamless transfer process,” said Yvette Munro of ONCAT.

Article 26 Backpack for refugees. The Syrian Civil War shone a light on challenges faced by refugees. Among their challenges is the safety and security of educational documentation, such as transcripts, diplomas, professional certifications, and more. It is difficult for refugees to get access to this documentation, yet in the absence of documentation, it is difficult for academic credits and credentials to be recognized.

Professor Keith David Watenpaugh of the University of California, Davis, designed a digital ecosystem—the Article 26 Backpack—to lower the barriers faced by refugees in dealing with the safety and security of critical documentation. This backpack is a robust platform in use around the world today that has been translated into multiple languages.

The Backpack has been relevant in assisting Afghan students, academics, and researchers, who quickly had a need to safeguard critical documents and credentials. To date, about 400 Afghans have taken
advantage of this ecosystem, which is now being shared with refugees and people in Rwanda and made available throughout Sub-Saharan Africa.

In addition to the technology of the Article 26 Backpack, methodologies have been developed to assess the qualifications of individuals who are unable to produce documentation. One further example is the European Qualifications Passport for Refugees (EQPR). Another example, in Canada, is the methodology that has been developed and tested by World Education Services (WES) to provide refugees with a high-quality credential evaluation report to enable them to continue their education, pursue licensure, and regain their career in Canada. To date, more than 1,500 evaluation reports have been developed for refugees.

- **Indiana Achieve Wallet in the US.** In several sessions at this meeting, the concept of a digital wallet was discussed. The idea is that learners would be able to store data and credentials in their wallet to provide digital proof and verification of achievements, and share information as desired by the learner. One example of such a successful digital wallet is the Indiana Achievement Wallet being piloted in the United States.

  The idea is that lifelong learners will have “skills profiles” based on the credentials they have accumulated. In their wallet, learners can see their skills profile, identify skills gaps they may want to close, and see additional skills or credentials they may want to gain. Learners can be directed to institutions that offer courses or training in areas desired by the learner. In addition, learners can gain information about the skills needed and the salary for certain positions. For example, an individual interested in a career as a medical technician can see the skills that are required, the salary paid, how their current skills compare to the skills that are needed, and any gaps that exist. The learner can identify institutions offering courses and credentials to help the learner close their skill gaps and can learn about career opportunities. The learner can also choose to make their information discoverable by employers looking for people with specific skills.

  Such a wallet will empower individuals, provide pathways and opportunities, make it easier to identify and shore up skills gaps, and enable employers to connect with individuals with specific skills. The Indiana Achievement Wallet also has a wraparound “community of care,” which includes academic advisers and career coaches to assist individuals.

- **Blockchain in Malta.** Most small countries are thinking about digital credentialing but are not yet doing much. They are not sure what to do or where to start, and need help in areas such as capacity building, technical support, and funding.

  However, the situation in Malta is different. The Minister of Education seized on the opportunity to use blockchain for digital credentials. The rationale was that this was good for learners and good for Malta politically, positioning the country as an innovator since Malta is the first nation to go from paper certificates to digital. Malta has aggressively moved forward with digital credentialing, starting with pilots to build momentum. Now, when students leave school, they get a digital certificate on their mobile phone.

  According to Alex Grech, managing partner of Strategy Works, the experience in Malta shows that “small states have an advantage over large states in that we have potential access to decision makers. A lot of small states have aspirations to be labs for innovation.”

- **Digital Transformation in India.** In one of the meeting’s keynotes, Shri Dr. Vinay Sahasrabuddhe described the digital transformation that is occurring throughout India, and particularly in the educational sector. During the pandemic, most classes went online and the Indian government created free e-learning portals. Digitization is improving the administration of education, can help address issues with teacher shortages, will help with online accreditation, and is helping democratize education.

  These various initiatives and programs share the principle of being human and learner-centered. They also share the idea that tools and technology are essential to create the ecosystem and enable interoperability. However, technology itself is not the story or the solution. Achieving greater learner mobility requires vision, beliefs, goals, ethics, and multilateral cooperation among multiple stakeholders. That idea is bigger and more important than technology.
Ms. Amyot summarized what CICan does, highlighted mobility challenges in Canada, and shared examples of initiatives to improve mobility, develop 21st century skills, and create digital citizens.

CICan’s mission is to strengthen the college and institute system. The vision is for better futures for peoples and communities. The value proposition is to be a force multiplier. CICan delivers:

- **National programs** focused on skills development to meet employers’ needs, meaningful work experiences for youth, support for newcomers and their communities, and more.

- **Domestic initiatives** such as Planning for Canada, for people before they immigrate to Canada that educates them about working in Canada and helps develop a personal action plan.

Mobility in Canada is a huge challenge. There are mobility challenges within the country, within provinces, and even within cities. There are also skills development challenges. There are currently 400,000 unfilled jobs, while there are 1.3 million jobless people seeking employment. There is a mismatch between the skills that employers want and the skills and credentials that job seekers have. It is essential to address this gap.

CICan is focused on equipping students with the 21st century skills they need, which include: intercultural literacy, resilience, adaptability, intercultural communication, and empathy. CICan also wants to develop digital citizens, defined as:

- Empowered by technology
- Enabled by training and learning
- Engaged by civil society
- Supported by architectures of trust

Red Seal is a successful mobility program in Canada, focused on the trades. Trade skills in one province are recognized in other provinces for many (but not all) trades. It’s working well and encourages mobility in the trades. A key question: why is this only for the trades?

Canada has looked at successful global skills mobility programs in Europe and other countries, and initiated a pilot program focusing heavily on Indigenous students, students from low-income homes, and students with disabilities.

Also, while only 11% of Canadian university students and 3% of college students have overseas experiences, those students who have an overseas experience increase their chances of graduating.

Initiatives aimed at increasing skills and improving mobility include:

- **Microcredentials.** Micro-credentials show that a person has a competency in a specific area. CICan thinks microcredentials are part of the future – if there is recognition of them. They need to be competency-based, outcomes-based, and linked to the needs of the labor market.

- **Post-graduate programs.** These are short, eight-month programs that a graduate participates in focused on a particular area, like cybersecurity or data analytics.

- **Virtual reality.** Tools are being developed to provide training in particular areas, like nurses, paramedics, and lab technicians. They are a creative way to develop skills and competencies.
Dr. Sahasrabudde described the digital revolution taking place in India and how this revolution is impacting education.

Digitization is one of the most important trends in India and is helping propel India to the forefront of digital and technological innovation. India has made significant public investments in digital public goods, in creating a digital infrastructure, in bridging the digital divide, and providing broad access to digital tools and technologies.

“The public sector has been a strong catalyst for India’s rapid digitization. I would call this democratization of the digital economy and digital life.”

Shri Dr. Vinay Sahasrabuddhe

In India, digitization is improving the quality of life and is boosting citizen access to public services. Digitization is allowing the government to operate with greater transparency and efficiency.

India has implemented “Digital India,” as well as multiple platforms and initiatives. There is broad adoption and use by India’s citizens.

Digitization is also transforming education. During the pandemic, most classes went online and the Indian government has created free e-learning portals. Digitization is improving the administration of education, can help address issues with teacher shortages, can help with online accreditation, and is helping democratize education. Also, India plans to increase spending on education throughout the decade by 10% to 20%.

Initiatives include a hybrid model, blended learning, use of AI, and experiential and immersive learning. For higher education, priorities include making students industry-ready by assessing competencies and educating students based on what is needed by industry. Affordability and access to education are also important issues where digitization can help.

Last but not least, digitization will fundamentally change and improve teaching and learning models and methods. India will use technology to upgrade the skills of teachers, to advance remote teaching models, and to move away from models that emphasize memorization to models focused on critical thinking.
Ms. Munro discussed what ONCAT is and does, specifically around student mobility, and ONCAT’s partnership with ARUCC (Association of Registrars of the Universities and Colleges of Canada) regarding MyCreds™|MesCertif™.

In Canada, student mobility and credit transfer is managed primarily by each province or territory. In Ontario, the province in Canada with the largest population, the system of student mobility is relatively new. Ontario has 22 public universities, as well as 24 publicly-assisted colleges, and 9 Indigenous institutes. Total enrollment is almost 400,000 students, with many international students.

Colleges were initially intended to serve regional labor market employment training needs; there was not an intent that college students would transfer to a university. “Our system wasn’t designed for transfer,” said Ms. Munro. But over time – as students demanded greater mobility and as Ontario wanted to increase the number of international students – leaders and policymakers realized that Ontario’s mobility policies had to change. While some mobility efforts had taken place, in 2011 a policy statement in Ontario was issued that launched Ontario’s Credit Transfer System.

This announcement made clear a unique relationship among three groups:

1. The government was going to set the vision, framework, goals and accountability measures. The government: a) created ONCAT; b) created a public portal as a resource for students to find information on mobility pathways; and c) created a dedicated funding stream called the Credit Transfer Institutional Grant to support transfer and student mobility operations at institutions.

2. ONCAT which serves as the coordinating body for student mobility.

3. Institutions which do most of the work responding to student mobility needs. Institutions are on the front-lines.

ONCAT is the coordinating body that seeks to facilitate student transfer, so students seamlessly get the maximum number of credits when transferring from one institution to another. ONCAT is focused on responding to student needs. There had always been some aspiration for transfer, but that has grown. The desire for transfer is now multi-direction – from college to college, college to university, university to university – and transfers take place within the same region as well as across regions. This emphasizes the need for a more integrated system. In addition, more data is needed around both student demographics and student success outcomes.

ONCAT has formed a partnership with ARUCC for MyCreds™|MesCertif™. The partnership helps address one of the most significant issues related to transfer, which is document exchange to assess transfer credits. MyCreds™|MesCertif™ is an amazing digital tool to support learners. For ONCAT, this partnership represents a commitment to the infrastructure of MyCreds™|MesCertif™ and to support institutions to participate and use this tool.

“The ability to provide a tool like this is foundational and transformational for the seamless transfer process.”

Yvette Munro

To support this partnership, ONCAT has put together an onboarding funding program to assist institutions. Among the benefits of this partnership are the ability to share documents in a complete, verified, secure format to speed up the work of transfer. ONCAT also sees this as somewhat of a pilot, to show the value to other jurisdictions in Canada.
Panel – Digital Credentialing: What Role for Small States?

Dr. Ruby Alleyne, Vice President University of Trinidad and Tobago, Trinidad and Tobago
Alex Grech, Managing Partner, Strategy Works
Ms. Lealiifano Easter Manil-Silipa, CEO Samoa Qualifications Authority (SQA)
Dr. Mairette Newman, Education Specialist, Commonwealth of Learning, Canada (Moderator)

The panelists representing the small states of Trinidad and Tobago (Caribbean), Samoa (Pacific), and Malta (Europe), shared their perspectives on how small states are thinking about digital credentialing.

The situation in Trinidad and Tobago and Samoa is very similar. Educational leaders are concerned about credential fraud and about the inefficiency of paper-based certificates. Leaders and organizations are interested in the idea of student mobility and in verifying the authenticity of qualifications. They are interested in the idea of digital credentialing, but there has been little uptake in these countries and there is uncertainty about the future. Organizations are unsure of what to do or where to start. They feel they need help with capacity building, technical support, and possibly funding. As Dr. Alleyne said, "It's fair to say at the moment there's a high degree of interest in the region in terms of digital credentialing, but there has been little uptake in these countries and there is uncertainty about the future. Organizations are unsure of what to do or where to start. They feel they need help with capacity building, technical support, and possibly funding."

Mr. Grech acknowledged that the journey has not been easy, but he suggested that, "Small states have an advantage over large states in that we have potential access to decision makers. A lot of small states have aspirations to be labs for innovation."

The barriers to adoption are not technical. There is mistrust of technology like blockchain, there is confusion, and there is inertia in that people and institutions have been doing things the same way for many, many years. Change is hard and can be a threat to people and institutions. For this reason, Mr. Grech recommended being pragmatic, pursuing ideas that get buy-in and support (like "lifelong learning") and initiating pilots, sandboxes and other low-hanging opportunities, instead of talking about revolutionary things, which can scare people.

He also suggested the importance of focusing on the benefits to students. It is the digital sovereignty of students that matters most, not the entrenched practices of institutions.

Mr. Grech’s message about small states having access to leaders and decision makers resonated with the other panelists. He said, "Small countries have the advantage of being able to get the right people around the table at the same time." The other panelists agreed.
Panel – Cultural Diplomacy in the Digital Age: New Opportunities for Exchange and Credentialing

Kathleen Massey, President Groningen Declaration Network and Associate Vice President, University of Lethbridge
Yuma Inzolia, Head of Training and Capacity Development, UNESCO-IESALC
Zakari Liré, Head of Unit, CID – Center for Information and Documentation, CAMES Conseil Africain et Malgache pour l’Enseignement Supérieur
Kathleen Clancy, Project lead: Digital Credentials for HEIs (DiBiHo) German Academic Exchange Service (DAAD) (Moderator)

The panel offered a working definition of digital cultural diplomacy as use of technologies and other digital technologies to build international communities and advance intercultural and transnational awareness.

When asked why they were interested in and focused on digital cultural diplomacy, the panelists answered that it creates connections and community, fosters sensitivity, creates greater diversity and solidarity. It builds greater shared understanding and shared values. It increases the ability to hear more voices, and said Ms. Massey, “technology brings marginalized voices to the center of the discussion.” Digital cultural diplomacy creates opportunities for exposure and cohesion.

Digital cultural diplomacy can also promote exchanges, both personal and virtual exchanges. Exchanges – where a person is immersed in another culture – have great value in creating understanding. Virtual exchanges are different and shouldn’t be directly compared to personal exchanges. However, virtual exchanges can provide opportunities to individuals who are unable to travel. One approach, one that can add significant value to exchange programs is a pre-mobility virtual exchange program where there is advanced learning and relationship building, before a physical exchange occurs. Then after the personal exchange, there is a subsequent virtual reflection and conversation that deepens the learning experience. It’s a blended approach.

The panelists and audience members see digital credentials and use of technology as making exchanges more accessible and facilitating international exchanges. There are many practical issues that are barriers to exchanges, such as delays in sending information, uncertainty whether credit is transferable, documents that get lost in the mail. Zakari Liré emphasized that the Conseil Africain et Malgache pour l’Enseignement Supérieur (CAMES) provides a verification mechanism and service for third parties, thus improving the confidence in and recognition of credentials, enabling students to study abroad. Use of digital technology can remove some of these barriers. “The digital credential piece is the underpinning facilitative component of this,” said one attendee.

In Canada, only about 50,000 students per year out of approximately 3 million post-secondary learners participate in an exchange program. Barriers include lack of awareness, finances, fear, and administrative issues. Technology can provide greater connectivity, which can help enable exchange programs.

“We cannot build an international community only by tools of virtual exchange and credentials. That seems quite obvious. But we definitely need them to expand our community and improve access.”

Kathleen Clancy
Panel – Global Credential Interoperability & the Learner: Building out a Global Learner Data Ecosystem

Dr. Claire Barber, CEO, MATTR
Kerri Lemoie, Director, Digital Credentials Research & Innovation, Concentric Ski
Valerie Thomas, Lead, Talent Mobility Strategy, Digital Change Office of the Chief Information Officer, Treasury Board, Government of Canada
Irene Hernández, CEO, GATACA
Simone Ravaiolli, Director Strategic Partnerships, Digitary (Moderator)

This panel of technology experts discussed what interoperability is, key principles to achieve it, and use cases where interoperability is important.

Val Thomas offered a definition of interoperability as facilitating the sharing and use of data between disparate systems. She emphasized the importance of putting humans at the center so a person can present his/her credentials, collect credentials from all systems, share with any verifier, receive from any issuer and create the support network for that to happen.

Other panelists talked about interoperability as a journey, not a destination, one that enables the portability of data throughout an ecosystem. It requires standards, which only have value if they are adopted, building bridges and breaking silos. Interoperability also means that participants in an ecosystem, especially vendors, speak a similar language.

Ecosystems in which interoperability is important include the one that concerns academic diplomas, open badges, and credentials that verify a person’s skills. The desire is for diplomas to be sent across borders to other participants in an ecosystem. Open badges involve the portability of a badge so it can be shared online. In Canada, a project called Talent Cloud is a platform for skills-based hiring to reduce barriers to hiring people who have skills and competencies to do work but don’t necessarily have other credentials. Demonstration of skills can involve assessments and credentialing. This can benefit both employers and potential employees. In all of these use cases, interoperability is essential.

Other comments related to interoperability include: the need for trust; the need to meet people and institutions where they are by building bridges (including through APIs); the need to have standards and limits for interoperability; there is not one single way to achieve interoperability; interoperability is never complete – it is a journey, a moving target, and something that people in an ecosystem should always be working on. Also, interoperability doesn’t come about through one party working alone; it comes about through the work of an entire community.
Article 26 Backpack initiative

From 2013 to 2016, Professor Watenpaugh led field research projects in Jordan, Lebanon, Turkey, and Greece to assess the impact on refugees who had been displaced during the Syrian Civil War. At the time, fewer than 3% of refugees had access to higher education. Through this research Professor Watenpaugh found that the safety and security of educational documentation – transcripts, diplomas, professional certifications, and more – was a major concern of refugees. It was difficult for refugees to return to Syria to get this documentation, yet the absence of proper documentation led to difficulties and discrimination in higher education.

With the support of the Open Society Foundation and AACRAO, Professor Watenpaugh designed a digital wallet to lower the barriers faced by refugees in dealing with the safety and security of critical documentation. The idea received grants to develop this wallet, which led to an early form of the Article 26 Backpack, used in Lebanon in 2017. Based on the outcomes of tests and pilots, the Backpack was revised into the robust platform in use around the world today. It has been translated into multiple languages.

As the situation in Afghanistan quickly eroded in mid-2021, thousands of Afghan students, academics, and researchers quickly had a need to safeguard critical academic documents and credentials. In fact, Melanie Gottlieb shared a conversation with a colleague at the American University of Afghanistan who told her in a short span of time that the leadership at the university realized the safety of students, faculty, and staff was at risk, and evacuated them, before proceeding to collect and burn all documents on campus. This meant a complete loss of all information for about 1,000 students. In addition, all servers were destroyed to prevent leaving an electronic record behind. Some students were placed abroad and efforts are underway to assist the other students.

To make students and researchers in Afghanistan aware of the Backpack, Professor Watenpaugh’s team collaborated with several organizations to create awareness of the background. To date, almost 400 Afghans have joined the ecosystem. The Backpack is now being shared with refugees and people in Rwanda and will be made available throughout Sub-Saharan Africa.

European Qualifications Passport for Refugees initiative

In assisting Syrian refugees in Europe in 2015 and 2016, there was a need for establishing special recognition and alternative recognition procedures. A methodology was developed and piloted to assess the qualifications of individuals who could not produce documentation, leading to what is now known as the European Qualifications Passport for Refugees, EQPR. This methodology involved a series of interviews conducted by evaluators who have been thoroughly trained. This methodology has become the gold standard and the approach is endorsed broadly.
WES Gateway Program initiative

In Canada, World Education Services (WES) has been evaluating international academic credentials and advocating for recognition since 1974. During the Syrian Refugee Crisis, WES tested a methodology to ensure providing Syrian refugees with a high-quality credential evaluation report to enable them to continue their education, pursue licensure, and regain their careers in Canada. The program that was developed – the WES Gateway Program – is available to individuals from other countries, including Afghanistan. To date, more than 1,500 academic evaluation reports have been developed for refugees, including some refugees from Afghanistan.
Panel – Microcredentials and Learner Mobility: Removing Barriers & Connecting the Dots

Dr. Borhene Chakroun, Director Division for Policies and Lifelong Learning Systems, UNESCO
John Hart, Freelance Consultant; former Head of Qualifications Strategy, Scottish Qualifications Authority
Dr. Beverley Oliver, Principal Consultant, Edubrief (wasn’t able to join; a video was shared)
Dr. Patrick Devey, Associate Vice President Global, Online, and Corporate Learning, Algonquin College of Applied Arts and Technology
Joanne Duklas, President, Duklas Cornerstone Consulting Inc. (Moderator)

Dr. Oliver opened the discussion by offering thoughts on who mobile learners are in the post-pandemic world, why microcredentials are so important, and some potential pitfalls. She focused on learners across the lifespan, not just young people.

- **Mobile learners**: She sees mobile learners as people that: 1) are physically mobile and go to a different region to learn; 2) are digitally mobile; and 3) anyone with a mobile device on which they may learn.

- **Microcredentials**: Throughout a person’s life, people do a great deal of informal learning, which is not assessed or credentialed. Microcredentials offer an opportunity to provide proof of having acquired certain learning outcomes. Most credentialed learning takes the form of macro-credentials, acquired relatively early in life. Macrocredential as a term indicates learning achievement of a broad and transferable body of knowledge and technical proficiency, often awarded by accredited, recognized, or regulated educational and other institutions, often taking a number of years to complete. While some are pursued for personal or general educational advancement, others are associated with qualifying to practice a particular profession or career path. Macrocredentials include degrees, diplomas, certificates, and licences.

Microcredentials would run across a person’s lifespan. Microcredentials are “more.” They are shorter, they usually cost less money, and are focused on a particular skill set. Dr. Oliver believes they should be assessed. They are for people who want proof of warranted achievement. A microcredential can be a pathway into, alongside of, or out of other credentials, macro or micro. “Microcredentials can be a ticket to better work or a better life,” concluded Dr. Oliver.

- **Pitfalls**: There needs to be agreement on what microcredentials are; until there is agreement, there won’t be agreement across borders, digital or physical, on recognizing what is learned elsewhere. It is unclear if microcredentials complement or replace other credentials. How can quality be assured? What is the evidence of their value? And, what are the risks or unintended consequences?

Dr. Chakroun added two additional dimensions to mobility: mobility in terms of learning in that learners will take learning with them throughout their lives, wherever they go; and mobility for the career path. He also offered thoughts on keys to achieve international adoption and support for microcredentials: there must be adoption of a common definition that is acceptable and understandable for different stakeholders; there must be guiding principles; and there needs to be solidarity and cooperation.

“Microcredentials can be a ticket to better work or a better life.”

*Dr. Beverley Oliver*
Mr. Hart said that there has already been a lot of good work on microcredentials in countries and sectors. They have been offered in some countries for years, even if not termed “microcredentials” at the time. In other countries, they are not offered at all. Mr. Hart stressed the importance of going global and emphasized finding ways to work with people that meet them where they are and provide respectability to their existing system.

In Dr. Devey’s experience in Ontario, to date, microcredentials have been local or provincial, based on the needs of the labor market and industry partners. He feels the key is industry partnerships and the current moment – with a massive skilled-labor shortage in Canada – represents good timing for increased focus on microcredentials. Both employers and employees like the idea of gaining skills quickly, focused on a particular topic, without leaving the labor market for 1 or 2 years. Examples of popular microcredentials at Algonquin College are project management, AutoCAD, and Microsoft Office skills, such as spreadsheet skills that can be assessed and validated.

Ms. Duklas asked how to get institutions to consider and use microcredentials as a way to advance scalable assessment of admissions and transfer?

It is important to have links and partnerships between educational entities that would provide the learning for microcredentials and workplaces that are demanding skills. In Canada, there are industry advisory councils that provide input to educational institutions. Educational institutions can be agile in offering these types of learning through continuing education, corporate training, and lifelong learning.

To boost the acceptance of microcredentials globally, Dr. Chakroun sees the need for collaboration by organizations such as GDN, UNESCO and various member states. He also sees the need for gathering data and evidence to better understand microcredentials. Ms. Duklas said that research and evidence from Canada finds that the motivations for microcredentials are to provide access to the job market and to provide access to more education.

The panelists agreed there will continue to be a role for macrocredentials, while also a role for microcredentials to help people begin and accelerate their careers. In addition, it is essential for people to be able to move their credentials in a digitized world. Ms. Duklas summarized, “Let’s work with GDN. Colleagues, let’s work with the UNESCO community.

“Let’s work with our faculties and schools and our systems people and try to solve how we can make these credentials accepted, adopted, portable, and appropriately reflective of the kind of quality assured learning that we hope will help people to further their careers.”

Joanne Duklas
There are several challenges associated with the current talent market in the US. Overall, there is a mismatch in the skills that employers are looking for and the skills that employees have. Here’s how this mismatch plays out: for employers, there are labor shortages and difficulties communicating the skills being sought. For individuals, there is difficulty understanding what skills are desired and challenges communicating their skills. For individuals, challenges in communicating their skills arise in transitions from school to school, school to business, business to business, and business back to school. Another major challenge is if credentials are not digital and interoperable.

Envisioned is an ecosystem and a learning and employment record (LER) infrastructure where individuals can acquire skills, provide digital proof and verification of their skills, identify and shore up skills gaps, and learn about job opportunities where they can use their skills. Such an ecosystem needs to be digital and interoperable. Efforts underway to build parts of this ecosystem include:

- **National Student Clearinghouse**: The Clearinghouse is a nonprofit established 28 years ago that collects data on 98% of postsecondary enrollment in the US, reported by schools, and from 19,000 high schools. NSC provides trusted data, along with privacy, purity, and transparency.

- **Wallets**: A key part of the ecosystem is providing individuals/learners with a digital “wallet” where they can collect and store verification and digital proof of achievements. If an employer asks an individual for their diploma, degree certification, resume, occupational license, or other information, it will be stored in the digital wallet.

An example of a wallet being piloted is the Indiana Achievement Wallet. In addition to storing documents, learners have “skills profiles” based on the skills they have accumulated. They can understand what skills they have acquired, identify skills gaps for a potential job, see institutions offering credentials to help them develop skills and close the gap, and see employment opportunities and salaries for individuals with their skills.

For example, an individual interested in working as a medical technician can see what skills are required, see how their skills compare and what skills they are lacking, as well as where to get these skills. They can also see salary information and employment opportunities. In addition, an individual can also choose if they want to be discoverable by employers that are seeking individuals with specific skills. Employers can look for potential employees with a particular skills profile, and can engage those individuals who are open to being discovered by employers. This type of wallet will empower individuals, provide pathways and opportunities, will make it easy to identify and shore up skills gaps, and will help employees connect with employers that need their skills. Part of this pilot also provides a wrap-around community of care, including job and career coaches, and academic advisors to support learners.
Use cases and growth opportunities for wallets and interoperability include: supporting individuals along a broad and varied lifelong learning journey; promoting individual agency by empowering individuals to own and control their data; and being able to exchange data in a way that is safe, private, and universally accessible.

In bringing this ecosystem and wallet to life, important needs include:

- **Common vocabulary.** This way all parties use the same language to describe the same skills.

- **Participation by all key stakeholders.** The key stakeholders are learners, the community of care, educational institutions, and employers.

- **Interoperability.** Credentials must be digital, portable, and the ecosystem must have interoperability so that all parties can send and receive information. This requires standards.

- **Culture change.** This is especially needed by employers to shift from hiring based on credentials (such a 4-year degree) to hiring based on skills. IBM, for example, realized that many individuals were not considering IBM for a career because requiring a 4-year degree for many positions could be an impediment. IBM realized that many positions should be based on skills, such as coding skills. This has worked well. In the last year almost 50% of the jobs IBM has made available are skills-based.
Panel – The Secret to Connecting Education and Industry

Takis Diakoumis, Chief Technical Officer, Digitary
Pierre Roberge, Co-founder and General Manager, Digital Identity Laboratory of Canada
Luke McIntyre, Chief Product Officer, MATTR Global
Joanne Duklas, President, Duklas Cornerstone Consulting Inc. (Moderator)

Joanne Duklas moderated this international panel that discussed connecting education and industry. Industries need to identify and onboard qualified employees while institutions need to assess and bring into their communities qualified students. The panel discussed standards, interoperability, verified credentials and market adoption. They noted how GDN has been instrumental in bringing together diverse expertise on this topic and getting digital ID deployed in multiple jurisdictions.

In looking at some of the components in connecting partners and networks to support learner and labor mobility, the panelists identified: governance, standards (including technical standards), trust frameworks, technology and plumbing, and wallets. These components are necessary for interoperability, which is essential to connecting education and industry.

“Eventually, the consolidation and acceptance of standards for credentials and different artifacts that we’re going to share and interoperate with is the key.”

_Takis Diakoumis_

To further support learner data sovereignty, the support of policymakers is needed so standards are upheld. Also necessary are various technologies and tools.

As was said in a previous session, “People care about security until it is inconvenient.” In terms of employers verifying academic credentials, only about 30% do so. The reason this is so low is because verifying credentials has been hard, slow, expensive, and complicated. Learner sovereignty could be key in turning the tables here. But in many cases, reality is still far from there. To advance learner sovereignty, what is needed is to reduce friction in enabling learners to achieve their goals. The panel emphasized the importance of always “keeping the learner at the center” and in control of their information.

In enabling learners to move credentials and information between wallets and to share information as desired, important considerations include portability and interoperability to connect different parts of a disparate ecosystem. There must be trust and there must be functional tools to give users control. Also important, noted the panelists, are open standards that allow all parts of the ecosystem to participate.

Governments can play a role in driving connections by incentivizing framework creation, innovation, experimentation, collaboration and by providing funding. “Governments can create the conditions,” said one panelist, and can help get the market started by encouraging proofs of concepts. Governments can also be an early adopter of standards, frameworks, and tools. In addition, governments can create legislation in areas such as privacy.

Among recommendations and best practices offered by the panelists were:

- Push for standards and consensus among standards bodies, which is really hard.
- Collaborate extensively; parties need to talk with each other.
- Don’t view interoperability as a goal; view it as an ongoing journey that takes collective willpower. It is a continuing activity.
- Always focus on the learner.
- Think about interoperability as a way to allow greater operational agility.
Panel – The Student Voice

Jakub Grodecki, Vice President, European Students’ Union (ESU)
Holly Kletke, President, University of Lethbridge Students’ Union
Peter Kwasi Kodjie, Secretary-General, All-Africa Students Union (AASU)
Ankit Tripathi, Steering Committee Member, Global Student Forum
Kathleen Massey, President, Groningen Declaration Network and Associate Vice President (Students), University of Lethbridge (Moderator)

This panel gave leading students from around the world a voice to hear their perspectives on challenges and opportunities learners are facing.

“The voice of the student or learner must be at the center of the discussion of digital credential portability and credential recognition.”

Kathleen Massey.

Ms. Massey offered the following definition for “student mobility.” For the purpose of this session, digital portability or digital credential mobility refers to the interoperable availability of digital educational credentials, (formerly perhaps paper-based documents) which learners may autonomously access and release to third parties for the purpose of further education, career advancement, or immigration. Digital credentials validate learning. Mobility speaks to the availability of trusted technology-supported networks through which credentials can be shared. Examples include digital credential wallets. The point is, in the world of a student, student mobility can mean many things.

In discussing big-picture thoughts, the panelists shared challenges and opportunities as highlighted in the chart below.

Peter Kwasi Kodjie pointed out that in Africa, not only is internet access an issue, but so is access to electricity. He said at some point it is important to consider the internet as a basic fundamental human right across the globe.

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Opportunities</th>
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<tr>
<td>• Relevance of higher education for students, especially during this time of disruption</td>
<td>• Digitalization can remove barriers to access, can increase capacity and reduce costs</td>
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<tr>
<td>• Access to higher education, which is still limited to the privileged</td>
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<tr>
<td>• Access to a quality education</td>
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<tr>
<td>• Capacity constraints of higher education</td>
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<tr>
<td>• The need for higher education to adapt to the rapidly changing reality of the world</td>
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<tr>
<td>• The time it takes to receive an education</td>
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<tr>
<td>• 1.3 billion children aged 3 to 17 have no internet access at home</td>
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Regarding challenges and opportunities with credential mobility, Ankit Tripathi sees progress. A decade ago, in 2011 or 2012, applying to a university was done by mailing documents. By 2015, it was possible to scan documents and send them electronically. However, anyone from a country that speaks a language other than English or French still faces challenges in getting credentials recognized, which impacts access and imposes costs. Costs come from application fees, translation costs, visa, travel, and more. It is important to remove these barriers. By streamlining processes, it is possible to reduce costs, increase the credit students receive, and shorten the length of time students are in a program.

Digital credential portability supports student mobility and affordability by reducing the barriers, reducing costs, while at the same time increasing access. This needs to be part of the digital revolution in education and at universities. An important part of digital credential portability is the idea of autonomous access and use so that credentials are there for the learners to access, use, and distribute as desired. Autonomy increases student freedom, increases portability and mobility, gives students greater control, and helps turn students into lifelong learners.

In addressing UNESCO’s recently adopted Global Convention on the Recognition of Qualifications concerning Higher Education, Mr. Kodjie applauds its intention to provide an inclusive global framework for the fair, transparent, consistent, coherent, timely, and reliable recognition of qualifications in higher education. He sees it as a necessary idea. As to student agency, Mr. Tripathi said that while the idea is important, it has not yet become a reality. He stressed the importance of including all stakeholders in the process of facilitating global mobility. He also mentioned that organizations building solutions are often doing so in a vacuum and in silos. “The ideas are great,” he said, “but the implementations are not.”

The students didn’t have strong views about the technology used to share documents, but Holly Kletke stressed that it must be user friendly for students.

As parting thoughts, the students reiterated the importance of listening to students as well as engaging with policymakers and all stakeholders in a meaningful way.
Panel – Bridging Yesterday to Tomorrow: A Knowledge Resource to Inform Policy Around Access & Mobility

Joanne Duklas, President, Duklas Cornerstone Consulting Inc.
John Hart, Freelance Consultant; former Head of Qualifications Strategy, Scottish Qualifications Authority
Herman de Leeuw, Executive Director, Groningen Declaration Network
Dr Calice Olivier Pieume, Lead, Cluster Skills for Life and the World of Work; Regional Adviser for Africa on TVET & Skills, UNESCO

Mr. de Leeuw shared a few firsts in digital credentialing, starting in 1968 with the electronic data interchange standard, including the XML Structured Data Formats Standard in 1995, and including multiple other firsts along the way and continuing to current times.

In announcing the UNESCO-GDN Initiative, the rationale includes the following considerations:

• COVID-19 drove home relevance and benefits of virtual learning and digital credentialing.

• It is the right time to showcase the timeline of digital credentialing developments around the globe, suggesting where things may go in the future.

• Citizens worldwide should be able to consult and share their authentic credentials and data anywhere, anytime, with anyone, based on a trusted, coherent and comprehensive digital credential banking system.

• The desire to drive Lifelong Learning and Right to Learning.

• The desire to further progress towards UNESCO SDG4 and its overall 2030 Agenda.

• Linkages with normative instruments such as UNESCO’s Global and Regional Conventions on the Recognition of Qualifications concerning Higher Education.

The targets of these initiatives would be to:

• Engage the GDN Community in discussion regarding the rights of the learner and the potential for expanding accessible digital options and technology.

• Anchor discussions and opportunities in the context of sustainability and SDGs.

• Create a knowledge resource that explores the history of digital credentialing and data exchange, with consideration for future policy guidelines and normative instruments.

• Consider dimensions of access, citizen mobility and the rights of the individual over their data, transcending national/regional perspectives.

• Combat digital divides/further digital access worldwide.

• Further digital skills.

• Advocate sustainability of digital credentialing movement as key to social mobility and SDG4.
The panelists stressed the importance of looking back and understanding history to help shape the future. In looking at history, focus on the origins, the purpose for why things were done and created, and the principles. Ms. Duklas emphasized doing journey mapping of individuals to understand their journey. She also sees the potential to create a "history wall" as a knowledge resource to help in moving forward. In moving forward, interoperability across multiple dimensions is required – technology, the political pieces, conventions, principles, people, governance, and more.

Mr. de Leeuw said, “Technology at the end of the day is not really about technology alone. It’s just as much about our beliefs, our convictions, our goals and ethics; all of that comes into play.”

Dr. Pieume laid out three questions he believes must be answered:

1. **What remains critical** when looking at issues related to digital credentials? Certainly, quality and equity remain critical.

2. **What change do we want to see?** One important change is ensuring that no one is left behind.

3. **What progress do we want to achieve?** The progress is that credentialing is a tool to combat and remove learning poverty. Learning poverty is that hundreds of millions of people do not have foundational skills.

Ms. Duklas said that along with the GDN-UNESCO initiative having specific next steps, an important call to action is for other organizations to work with GDN and UNESCO over the next 12 months on this initiative.

The panelists agreed that at times the broader agenda can look technical, but the key is to remember that the agenda is human-centered, which means it is about the right for people to acquire skills, get those skills recognized, and have the recognition statements accessible. All efforts must be multilateral and involve multiple stakeholders – with GDN involving multiple stakeholders while UNESCO involves member states multilaterally.

Scotland was mentioned as providing a personal, updatable, lifelong record of learning for its citizens with certified learning in school, colleges and universities, and in the workplace.

The underlying values of this initiative are:

- Global Learner Rights and Ownership of Data
- Creating Connections between Communities
- Creating Shared Understanding
- Ensuring Open Access to Information

The main issues are to:

- Initiate dialogue about digital credentialing & digital learner currency as public goods, not simply commodities.
- Initiate dialogue about the need for policy advice and guidance.
- Promote technical trust in digital certificates.
- Protect learners and their privacy.
- Promote interoperability and cross-country data exchange.

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