The Potential for Micro-credentials in Education
Executive Summary:
Adoption of digital credential technology has accelerated in many sectors, primarily amongst employers, by virtue of digital transformation projects, cyber security concerns, employee engagement initiatives, and upskilling and re-skilling strategies. In the education sector, some modern universities have started to build a model around skill acquisition, learning and recognition with a fresh lens that does not depend on expensive multi-year programs and is backed by the notion of micro and alternative credentials. And yet, the majority of schools and higher education institutions lag in implementing this valuable technology.

Drawing on Trybe.ID’s partner schools as they pilot digital credentials, we explore their motivations to move forward with this digital form of recognition, the challenges and the envisioned impact to the student learning and development journey.

What are Digital Credentials?
Credentials are a tangible qualification, achievement, quality, or aspect of a person's background, especially when used to indicate their suitability for something. Digital credentials convert paper-based credentials such as a driver’s licence, movie theater ticket or high school diploma to a digital format. They create benefits such as being portable, easily transferable to third parties, and highly-visual and optimal for sharing on social media. The use of blockchain technology, the verifiable credentials data model and cryptographic proofs on the back-end of digital credentials also enables them to be truly user owned, secure, tamper-evident and therefore trusted and verifiable. A detailed comparison of digital credentials against traditional credentials in education is shown in Figure 1.
Why Micro-credentials in Schools?
The world is moving in this direction. A LinkedIn survey found that 57% of employer respondents indicated a shift in emphasis towards non-traditional credentials. Furthermore, 60% predicted hiring would be based on candidate ability vs. degree type. Northeastern University as well surveyed 750 HR leaders who indicated skill-based or competency-based hiring was gaining significant interest and momentum. The rapid pace at which the digital world and the nature of work is changing demands individuals continuously grow and reinvent their brand and skills in order to be relevant. Micro-credentials are designed to support this need of fast upskilling and learning. This is gaining global recognition as noted by Dr. Chalie Charoenlarpnopparut, Vice Rector for Academic Affair at Thammasat University: “To be future ready and respond to changes, learners are required to seek newly required competencies. Digital micro-credential will play a crucial role in the new skill training landscape.”

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While supporting the employer point of view is key to educational institution relevance, they also have an obligation to honor learners in their full capacity. Students acquire skills every day on their own, within and outside the classroom - the internet alone has expanded the many ways in which we find and access information and the sources from which we learn - and yet nowhere are they recognized for their initiative nor is it immediately visible to others.
Dr. Janette Hughes of Ontario Tech University thinks “education will shift towards skills/competency based learning more and more as we need a way to validate essential skills such as creative thinking, innovation, communication and more in addition to student’s course credits towards a diploma or degree. Students, now more than ever, want flexible, individualized learning opportunities and micro-credentials allow them to be rewarded for their evolving learning in a real-time manner.”

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Dr. Janette Hughes

The Impact to Students:
Surprisingly, the concept of micro-credentials is foreign to most students, even at the post-secondary level. Educators have some familiarity with digital badges which primarily recognize a person’s spirit and willingness to engage but do not confirm learning outcomes. Helen Pereira-Raso, Head of School at Holy Trinity School, believes that “to increase awareness, teachers and students need more stories of how they can curate a pathway for students to acquire a micro-credential and then apply it in the real world.” These include highlighting paths to new opportunities, branding, mobility, self-sovereignty, and better alignment and positioning for success. In creating micro-credentials however, schools must be mindful to design them to capture and hone skills that are transferable in all sectors and not simply issue micro-credentials for things students have to do everyday.

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Helen Pereira-Raso
Ultimately, Helen Pereira-Raso believes that micro-credentials should build a path towards, and recognize skills that are complex and have a logical sequence of progression and a continuum of proficiency that gets individuals to depth and mastery.

**The Impact to Schools:**
In the journey to successfully implement skill-based learning programs, while the immediate benefit would be to students and learners, the greatest transformation would come from the educational institutions themselves. Schools would have to measure how any learning outside class time is captured and how micro-credentials would disrupt the way teachers view curriculum and teaching. And yet, even with all the challenges, schools are excited at the opportunity to transform and better serve their learners. The School District of Elmbrook in Wisconsin is Trybe.ID’s most recent education partner to launch a micro-credentialing program. The District’s Superintendent, Mark Hansen is excited to leverage credentials because “it will help learners have a portable, lifelong way to demonstrate proficiency on skills and dispositions that will help them achieve their academic and career goals. Credentialing will be tomorrow’s high school and college transcripts.”

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Mark Hansen

Micro-credentials will invariably reinvent schools, colleges and universities in a multitude of ways. Instead of catering only to the traditional K-12, undergraduate youth and young adult populations and supporting foundational learning, these institutions can now offer comprehensive short-cycle courses to anyone, at any stage in their lives, looking to build particular skills and competencies at accessible and affordable rates. More importantly, these offerings will help provide pathways to a variety of career opportunities as employers shift their focus towards non-traditional credentials and prioritize candidate abilities. Accessibility to learning is a major disruption and if schools in local neighborhoods can facilitate upskilling a mid-career individual, educational institutions could truly be revolutionary in removing barriers to lifelong learning within the community.
Strategies for Micro-credentialing Programs:
Micro-credentials in education are not a new idea. They have been around since at least 2010. The lag in implementation is a result of schools not being appropriately set-up to support skill-based learning which is about going a step further and planning, implementing and analysing skills gained through knowledge-based learning methods. Schools now need to reinvent themselves - they need to build a stronger and better ecosystem that involves post-secondary institutions, industry and technology providers as partners and emphasize and facilitate professional learning experiences for educators.

While digital credentialing technology creates great opportunity, not all solutions are built the same in their level of user security and privacy as well as credential access and ownership. Student privacy, safety and ownership of their data should be at the core of all credentialing decisions. As the rapid adoption of digital credential technology continues education institutions must consider these factors and do the necessary research before they settle on appropriate technologies and partners in the space to ensure the success of their initiatives and ultimately their students.

Finding the right partners to support the evolution of education institutions is vital but the consensus is clear: digital credentials are a key technology that supports this transformation.

Holy Trinity School (HTS): is a K-12 co-ed independent school in Richmond Hill, Ontario piloting Micro-credentials in various areas including Design Thinking. At HTS, students are empowered to chart their own pathways while supported by our incredible educators. In order to thrive, students will need to be lifelong learners who are confident in leveraging their skills and knowledge as they navigate life.

Ontario Tech University: is a University piloting Micro-credentials in the Faculty of Education preservice and in-service teachers, to acknowledge and track the professional learning they engage in on their own initiative. Professional learning is shifting from top-down district mandated professional development to agentive, self-directed professional learning based on individual needs.

The School District of Elmbrook: is a K-12 public school district piloting Micro-Credentials in an innovative Launch program, a program for 16-18 year old students who are looking to change the world. Credentialing will support a student’s ability to demonstrate proficiency in technical and human skills that transfer from the schooling years to lifelong learning and career development and acquisition. Through credentialing students will be able to demonstrate the skills and dispositions necessary to acquire high end careers.

Thammasat University: is a public research University in Thailand piloting credentials in their Specialization in Business Innovation which a 12-course program.

1 Horn, M. (2017). ‘Will alternative credentials replace college degrees?’. Available at: linkedin.com/pulse/alternative-credentials-replace-college-degrees-michael-horn
Trybe.ID is actively being utilized by over 30 issuing institutions globally, spanning 10 countries. Our Client Partners include:

Trybe.ID is a digital credentials platform that makes issuing, accessing and verifying digital credentials easy and secure. It is the only solution that grants users true complete ownership over and access to their credentials in the education market today. Trybe.ID allows credentials to be shared directly with only the parties the holder wishes as well as verified entirely independent of any third party, respecting end user privacy and security.

Please contact Chami Akmeemana at chami@trybe.id for further information on our digital credentialing programs with schools and ongoing pilot opportunities.