

An adaptable meta-framework for Digital Credentials

Toolkit for "full spectrum" recognition

CAUCE 2023



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INTRO TO THE NOTES VERSION

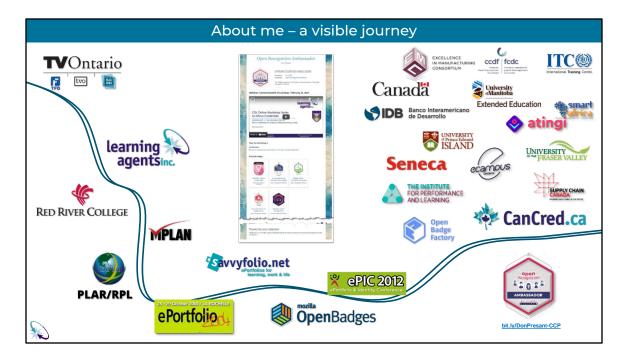
This is an "after the fact" version of a presentation I made in May at CAUCE 2023, the annual conference for the Canadian Association for University Continuing Education (which is why they call it CAUCE).

I hope it's useful, no matter what stage you're at with micro-credentialing, whether you're thinking about a framework, or thinking about revising the one you have and whatever credentialing platform you happen to use. In any case, I guarantee you'll find some new things to think about here that I hope are more helpful than troubling.

"Meta" means that it's platform agnostic and more of a customizable toolkit than a recommendation for full adoption.

"Full spectrum' means a full range of formality, from informal badges to microcredential certificates for credit.

This symbol " \rightarrow " is just a signal to advance the presentation, whether for animated builds or to advance a slide. Try to ignore it for these Notes.



A bit about me, to let you know where I'm coming from. This is about making skills and experience visible, so I've built a quick visual bio that includes a digital badge

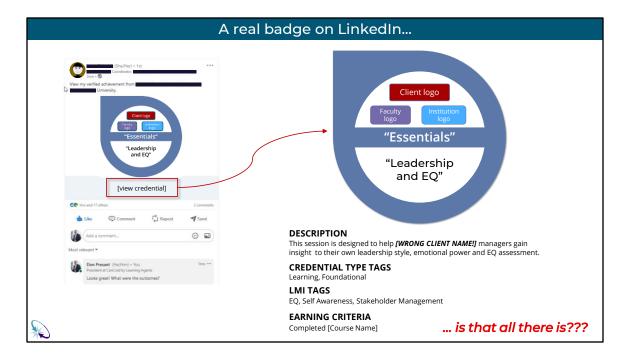
- → I started in edtech in the public sector at TVOntario I led the team that took them onto the Internet in the early 90s, I like to say before it was popular.
- → I left TVOntario in 2000 to set up Learning Agents as an edtech consultancy
- → Our first big client was Red River College in Winnipeg as a consultant for their contract training department, which is the sum total of my direct experience in CE. Winnipeg is where I'm still based.
- → Since then, Learning Agents has focused on career journeys, lifelong learning, and the recognition of lifewide learning, first with ePortfolios..
- → and then with open badges and micro-credentials since 2011.

At Learning Agents I currently wear three hats:

- 1. I advocate for more open forms of recognition of lifelong learning that go beyond course certificates
- 2. I provide consulting services for digital credential projects based on Open Badges..
- 3. → And we're the hosts of CanCred.ca, a leading Canadian digital badge and microcredential platform.
 - But this session is not about CanCred, I'll be talking about badges and micro-credentials in general, using examples from several platforms.
- → The logos you see are some of the clients we serve wearing our different hats.
- → As you might have guessed, I have a badge-based ePortfolio,
- → and I also invite you to check out my Open Recognition Ambassador badge which links out to that portfolio.



So, why a framework? Let me start with an example of what NOT to do.



A few weeks ago, I saw one of the worst badges I've ever seen...

I've anonymized things a bit to protect the guilty, but have a look at this..

I was invited by somebody in my LinkedIn network to view their verified credential... It looked nice, better than what you see here:

- •Impressive logos:
- •a badge title that linked leadership to emotional intelligence. (Promising...)

A **big label** saying something like "Essentials". So just a 101, but there's lots of room for different types of learning.

But when I clicked on view credential...

 \rightarrow

I found:

- •An **Open Badge** that was indeed a verifiable Open Badge, the standard digital container for most micro-credentials, displayed on a compliant platform
- → A couple of visual **labels** saying "Learning" and "Fundamentals" great, though it would nice to know the context for those choices
- → Three short "**skills**" terms that help describe what the badge is about pretty much just keywords, not really defined

→ **Description**: (what does this badge say about its holder): Something they must have pasted from the last time they delivered the course: "designed to help [WRONG ClientName] managers "gain insight" into..(how they relate to EQ as leaders)." Wrong. Client. Name. Still proudly displayed, as of yesterday. This is a public sector client displaying a private sector company's name.

Earning Criteria (i.e. what does it take to earn this badge): what I like to call the "beating heart" of the badge:

- → "Completed [RIGHT ClientName]:[CourseName]"
 One sentence? That's it? No learning activities? No duration? No outcomes? No assessment? What does all this add up to?
- → ..badge as pretty picture

I don't see how this half-empty container of poor information helps anyone, do you? I'm not blaming the platform here – it's not ours, but it's a perfectly good platform. So there's one good reason to have a framework. I plan to give you a few more.

Most micro-credentials & digital badges use "Open Badges"

Portable digital documents of learning achievement

Visual image & data Easily shared Structured data with links to verification & more info

Credentials are portable across silos, for employment, reskilling & flexible lifelong careers



AGILE LEARNING PATHWAYS Modular, stackable, remixable ...personalized

MAKES LEARNING VISIBLE lcons, learning maps, progress

SOCIAL PROFILE, FOOTPRINTBranding for earners *and* issuers Socialized in online communities

QUALITY, VERIFICATION

Transparent claims by issuers backed by evidence & endorsements makes learning <u>quality</u> visible



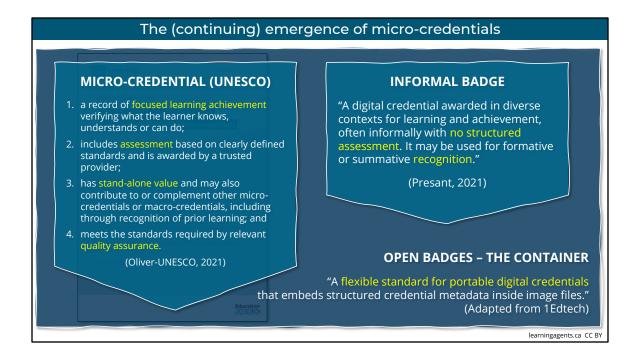


I think the reason we're talking about micro-credentials 2023 is because of the invention of Open Badges in 2011. so what I'd like to do now is go back to first principles to define Open Badges for the purpose of our discussions today.

- → Open Badges are credential documents dressed up as pretty pictures.
- → They're graphics files
- → that contain structured information with links to more information and ways of verifying that information.
- → We can look under the hood here to see the kind of information that's required on the left and information that's optional on the right. The actual content of those information fields is up to the issuer, which allows for lots of flexibility for content within that technology standard.
- →Open Badges can be created and shared on any platform that supports the standard.
- →Here are some examples of issuing organizations. A lot of them are education and training organizations, but in fact any organization can issue Open Badges, just as any organization can issue a certificate if they choose.

But unlike most certificates, the rich information inside an Open Badge can tell you very quickly what that badge is about: who issued it, what the topic or skill is, what the level of learning is, how much effort it takes to earn, how the learning is assessed, whether it's accredited, etc. This embedded detail makes badges more transparent and transferable to other contexts such as employment and career advancement. But you actually have to put that information in there for people to see.

- →Open Badges can be combined into clusters or pathways and those pathways can be personalized
- →and the badges themselves make the learning much more visible.
- →They can be shared on social media such as LinkedIn, to help build your professional digital footprint.
- A nice side effect is that when learners share their badges online, they're helping build the profile of the issuing organizations.
 And they're doing it in a very transparent way, and that makes the quality of the learning much more visible. A number of organizations issuing open badges have reported that their course outcomes and assessments went through a rapid improvement cycle after they came under an Open Badges lens.
- →Open Badges were invented by Mozilla Foundation in 2011 as a more inclusive and authentic way to recognize learning and achievement. In 2017, Mozilla passed the standard over to 1EdTEch, a US-based edtech standards body, which has led to some changes in the vision.



There has been lots of discussion about the definition of a micro-credential and several variations have been put forward..

- → This working definition from UNESCO captures a lot of common themes. I was one of 50 international experts who contributed to it. TMU's Lena Patterson was another. One element that's not there is the notion of workplace relevance, which does appear in most definitions and frameworks today. Lots of government funding programs incentivize partnerships between education and industry to make microcredentials relevant to workplace needs.
- → Beyond micro-credentials though, we still have a need for Mozilla's original vision: flexible ways to recognize lifewide learning and achievement to make a difference in people's lives. That includes **informal** learning and recognition. After all, most of the learning we do is informal and we should have better ways of recognizing it. I made this point during the launch event for the UNESCO document and I continue to make the point every chance I get.

I'll be talking more about informal badges later in this presentation, and providing examples.

 \rightarrow The key takeaway here is that Open Badges is a **flexible** standard container that can include formal and informal digital credentials. The credential can describe itself and communicate its purpose.

Open Badges are flexible

ISSUE CERTIFICATES: MODULES, COURSES, PROGRAMS

assessed | credit/non-credit | e-learning/face-to-face/blended workforce entry, training | compliance | continuing professional development







CERTIFY COMPETENCIES / PROFESSIONAL STANDING

Standardized decoupled assessment: exam, portfolio, demo, assignment, etc. OR: custom performance-based programs with authentic assessment







RECOGNIZE NONFORMALLY, INFORMALLY, "APPRECIATIVELY"

participation | achievements | special awards | projects | makerspaces | events volunteers | mentors | experts | self assessments | declared goals | social good



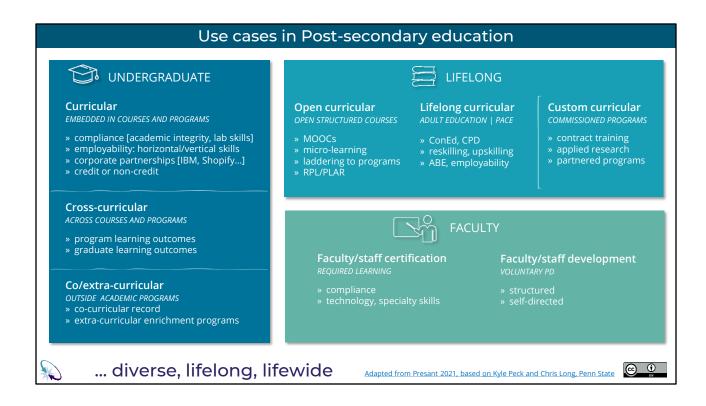




I'll say it again: Open Badges are flexible.

I'll show three main groupings here, with some examples for each...

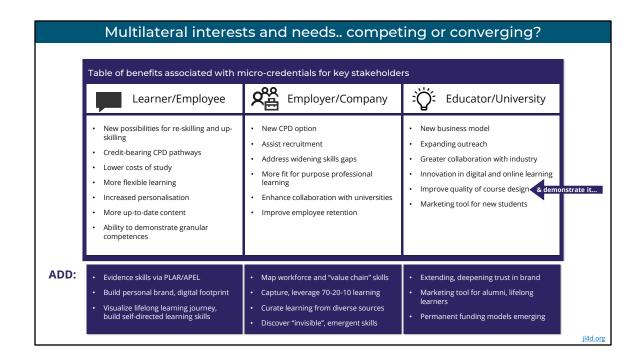
- → I have to say that most of the activity, probably 80 to 90%, is still in the top group: take a course or program, pass the assessment if there is one and earn a badge or micro-credential. A lot of the courses are delivered online, but they don't have to be. Most people would call these micro-credentials if they have assessment.
- → Credentials for certification and professional standing are also examples of more formal badges or micro-credentials, if you prefer. There's not as many of them because they require more work. Many certifications have requirements that go beyond simple assessments, things like applied experience, adhering to a code of ethics and continuing professional development.
- → The last category is the informal one that I was mentioning earlier, and you can see a lot more diversity there. These are not based on rigorous assessment, they're more about recognition, appreciation and even self-empowerment. They can be rich sources of learning and great community connectors for the people who hold them. One of my favourites is the Particularly Helpful Moodler badge that's awarded for community of practice activity on the moodle.org platfrom. For me, this badge demonstrates not only helpfulness, but also expertise – and that's not a bad combination to be recognized for. And it recognizes authentic performance.



Here's a menu of use cases for badges and micro-credentials in post-secondary. I adapted it from Penn State and you're welcome to adapt it further.

What I like about this is that it goes well beyond the micro-credential models that most people talk about, to get into a "whole of institution" mindset. And not all of these use cases require assessment. It also reminds us that Faculty and Staff are also lifelong learners.

That said, we're mostly concerned today with the top right...

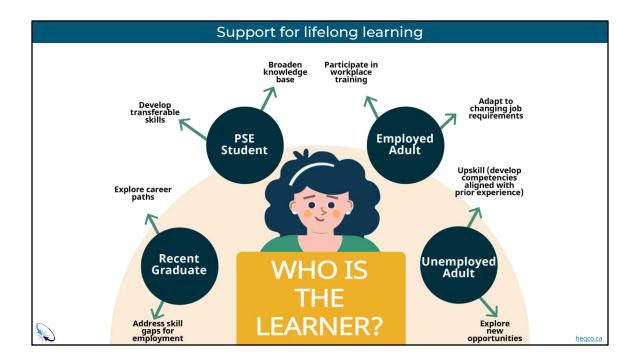


This chart of potential benefits from Mark Brown's team at Dublin City University for a Commonwealth of Learning journal helps us start to think in more detail just what are the various interests. I've added a few more benefits at the bottom..

And the arrow is a reminder that the institution is making claims about learning that it should be able to back up

We'll be returning to multiple stakeholders later in the context of the Saskatchewan framework.

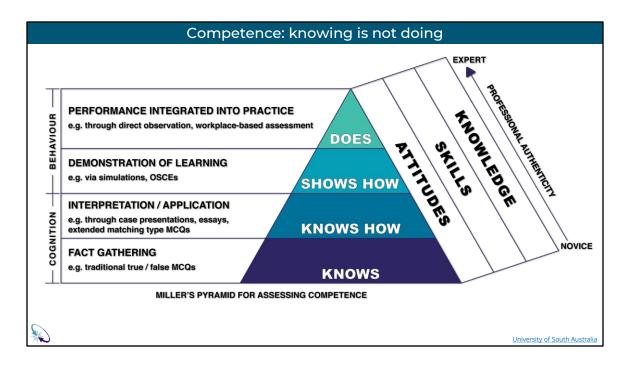
But most of the rhetoric is about putting the learner at the centre, but is it just one learner?



This great diagram from HEQCO helps make clear that Lifelong learning is a journey and your needs change over time.

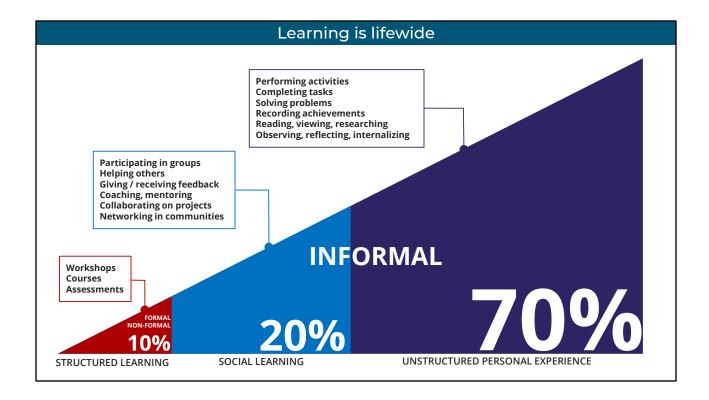
Badges and credentials can help in different ways at different stages of your life, often at times of transition, whether from school to work, or from one career to another. Would anybody add anything here?

I might add things like transition to Canada for international students and immigrants. Badges can be a very helpful way of making you and your skills visible.



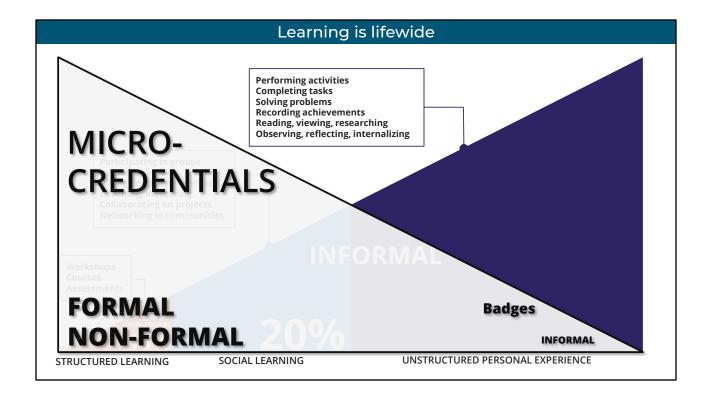
There's lots of talk about micro-credentials and competencies, but what about **levels** of competence?

Miller's Pyramid was developed for assessing clinical competence in health professions, but it also works well for other kinds of skills and knowledge. The bottom two layers are more about knowledge and reasoning, the upper two levels are about performance: being able to demonstrate the application of knowledge and skills. And the assessment changes as you move up the pyramid. Let me ask you: is it more important that your doctor got 100% on a surgery bubble test, or that they have a good surgical performance record?



Learning is lifewide. Most of it, happens in the wild, outside the classroom: it's informal and usually unstructured, sometimes work with others, sometimes by ourselves as we navigate all the things that we need to get done.

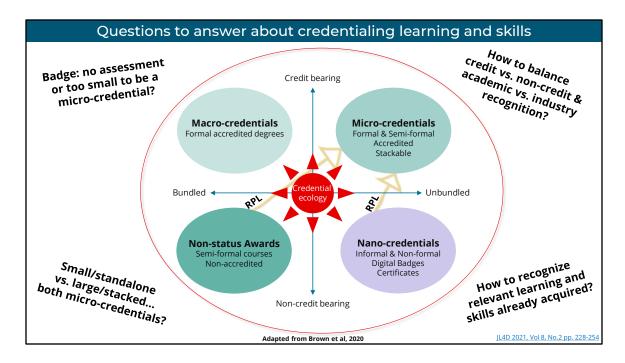
- → Here are some examples, slotting into something called 70-20-10 ratio. Some people like to quibble about the exact percentages, but most of us agree about the basic point: you can't take a course about everything.
- → Trouble is...



... many approaches to micro-credentials that I've seen assume that you can do it all through courses and programs.

There should be more **agile** ways to meet rapidly changing needs and help learners apply, transfer **and demonstrate** what they already know and can do, as a whole package, not just isolated technical skills.

Certainly opportunities for experience, demonstration, reflection, feedback, projects, and other ways to apply education to real world performance.

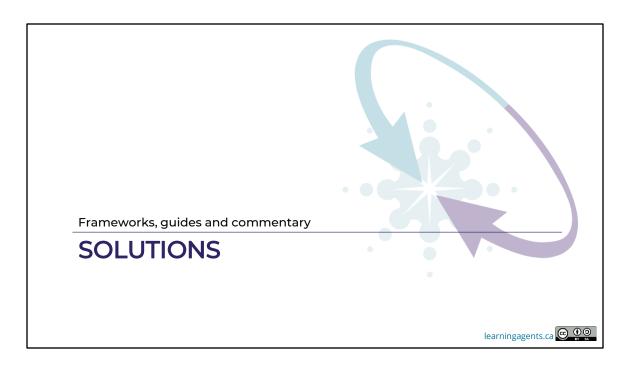


So there are some questions to answer. For example,

- → What's a badge compared to a micro-credential? For me, a badge is simply a flexible digital container, but for some the word badge has a specific value-based meaning, or should I say meanings: it's either not good enough to be a micro-credential because there's no assessment, or it's too small to be a micro-credential, which is seen as a stack or bundle of badges. Unless you're American, and thenyou just call everything digital badges, or maybe alternative credentials.
- → What happens when a bundled micro-credential becomes part of a larger bundled micro-credential what do you call that?
- And Malcolm Knowles told us that adult learners are mature human beings. They're not just empty containers for your knowledge, they want to compare what you're telling them with their life experience and what they need now. Maybe they don't know the details of electric cars, but they want not get into that sector, they've learned new things before and how to work with other people and those are very important in-demand skills. How can we recognize current capacities and human potential in our approach?
- → And then there are lots of discussions about the meaning of credit vs. non-credit and what that means for different purposes and different audiences. For example, industry pays far more attention to the reputation of the institution than they do to the credit status of the credential

→ Back to Mark Brown's team at Dublin City University and their paper for the Commonwealth of Learning. Mark has a history with the startup of the Mahara ePortfolio back in New Zealand in the early 2000s, so he understands the integrative power of recognition, learning portfolios and that the whole can be more than the sum of its parts.

→ I've adapted his Credential Ecology diagram and added the visual element of RPL/PLAR, which Mark's team imagined as a diagonal axis in the text of their paper. For our purposes today, I'll use the more inclusive term of RPL, because that can include the articulation and transfer of badges and micro-credentials.



So, I hope I've done a good job explaining why we need frameworks that can evolve over time.

I think it's important that the framework you use reflects your context. Experience is a great teacher as I was mentioning earlier, but it's also good to learn from others, so..

Let's have a look at some of the solutions out there...



- → eCampusOntario was an early mover in Canada with the Micro-credential Principles and Framework in 2019, quickly modified it in 2020. It has certainly provided clarity for many, not just in Ontario but across Canada and beyond. As a one-page infographic, it communicates quickly, although that means they had to leave a lot out.
- → CICan came out with their framework later on, based largely on Beverly Oliver's seminal paper in 2019. It's also short and sweet.
- → BC's Micro-credential Framework was published in 2021 and it added some interesting things, such as including Indigenous communities as stakeholders and putting in placemarkers for further development of components like RPL and transfer. It's an evolving document and I'm waiting to see a new version that incorporates findings from research projects across six areas that was delivered early 2022. I led the team that worked on the RPL one, working with BCPLAN and David Porter
- → One of the things I really like about Saskatchewan's Guide is its multi-stakeholder structure that also includes government as a stakeholder.
- → There's another provincial framework about to come out in Nova Scotia that I've had a peek at, to help an industry client provide feedback. I can't really say more about it at this point, other than I've embedded it in my understanding of what's

out there. And I hear that there's one coming out in Alberta.

... so that's formal frameworks, but a lot of people have writing on the topic. I've included a document I wrote on business models that touched on frameworks, but lots of smart people have weighed in different aspects, at different levels of formality. Because this is my presentation, I've included my own blog, but the Contact North blog is also pretty useful. ... The most recent paper is from Alex Usher's team at HESA, who are here at the conference. By the way, I'll be providing you with an interesting way to access these these references at the end of the session.

So that's a good sampling from Canada, let's look further afield...



- → The New Zealand Qualifications Authority Guidelines attracted lots of attention when they came out in 2020, because aligning to them meant public funding for your program. My biggest takeaway from the Guidelines was their insistence that programs couldn't just be chopped up into micro-credential fragments each micro-credential had to have standalone value.
- → The Malaysian Qualifications Authority have taken a fairly old school approach.
- → But I refer to the Australian National Framework a lot it's structured very well and uses plain language. Beverly Oliver chaired the working group and her influence really shows, such as in the Requirements section, which is based on her suggestions for a Critical Information Summary back in 2019. She's been a huge influence in this space and I'm only sorry that she's now retired.
- → The EU framework is sort of a Bologna in miniature, but it does provide an alternative perspective
- → I find the US Registrar AACRAO document really refreshing for its naming of Open Badges as a flexible technology standard for different kinds of recognition, and I find its best practices approach quite helpful.

In terms of other work in this area...

→ Madison College's Digital Credentials Institute developed this very helpful

- infographic in early 2020. Note that it's all digital badges, even the more formal types of digital credentials
- → These two papers, one from Rutgers in 2019 and the other from the American Council on Education in 2016 are a bit older, but they have inclusive approaches to quality that touch on concepts such as equity and socio-economic impact that still resonate today
- → Speaking of today, I've included the very recently published Unified Credential Framework from Western Governors, who have been influential in this space. On a single they manage to include Principles, levels of mastery and a credential taxonomy.
- → To round things out, I'm one of a few Canadians who's been invited to participate in National Advisory Committee for the US multi-state Credential As You Go Initiative. What you see here is their so-called Incremental Credentialing Framework.
- → You can see that External and Prior Learning are explicitly featured in the framework.
- → By the way, a great way to keep up with the literature is through the Microcredential Observatory at Dublin City University that's Mark Brown and his team again.



I mentioned certificates and certification earlier. These terms are often used interchangeably, but they're actually pretty strictly defined in international standards that relate to professional and workplace-related learning.

- → Program certificates are for successfully achieving learning outcomes by completing assessed courses and programs.
- → Certifications are robust, **independent** assessments of the knowledge, skills, and/or competencies required for competent performance in a role. To meet the standard, the assessment can't require any course or program. So standards-based certifications are RPL on steroids.

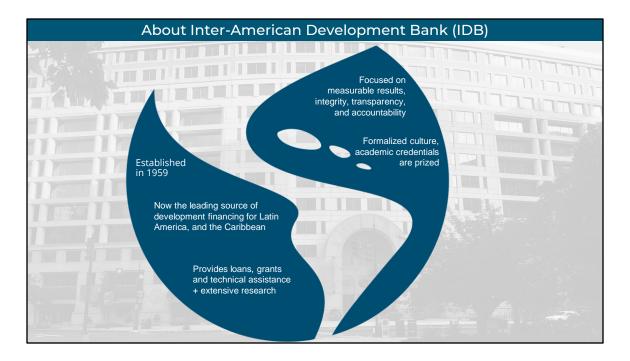
These standards cost money and they tend to be, shall we say "sparsely written". I have them...

- → but I've found this backgrounder from ICE very helpful,
- → as well as the Business of Certification from Lenora Knapp. Her book is not free, but it did mention micro-credentials when it came out in 2017.
- → I particularly appreciated when she said that that trying to make micro-credentials into mini-certifications severely limits their range of use as a flexible, incremental form of recognition.



I'm going to take you now through a detailed case study of an organisation that's not a post-secondary institution, but it's a multinational intergovernmental organisation that takes a comprehensive approach to digital credentials. Their approach included a close examination of educational micro-credential frameworks and they are now using their framework to partner with post-secondary institutions.

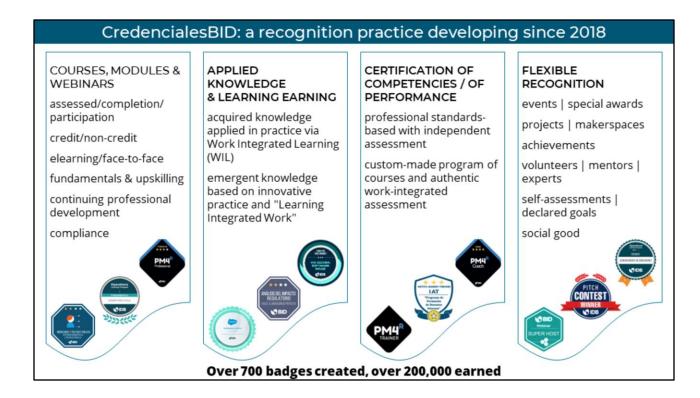
I've worked on several credentialing frameworks over the years, inside and outside the education sector, but this is so far the most fully articulated framework we've worked on and it's only recently published. So it's a good snapshot of current thinking, and I'll spend some time generalizing the paradigm afterwards.



The Inter-American Development Bank is based in Washington DC, but its focus is socio-economic development across the global region of Latin America and the Caribbean. Its mission lines up very well with the broad-based UN's Sustainable Development Goals, including things like improving Education, reducing Poverty and increasing gender equality.

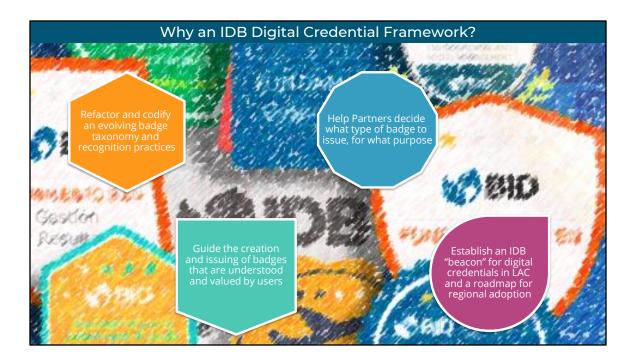
IDB digital credentials are a solution for professional development for IDB and its partners. This increasingly includes building communities of practice around economic development issues such as international water resource management.

The team is quite innovative but as a whole, the IDB culture is somewhat hierarchical and formal academic qualifications are valued highly. So care needed to taken when introducing alternative credentials to this context.



CredencialesBID is Spanish for IDB Credentials, which is the arm of AcademiaBID, a learning ecosystem for IDB and its partners that works alongside its research, knowledge creation and dissemination activities. Since 2018, CredencialesBID has been developing digital credentialing solutions, beginning with course certificates across multiple platforms such as Coursera, edX and Success Factors and branching out into webinars, work-integrated learning and encouraging professional communities of practice.

→Lots of partners, an increasing number of ways to learn and develop and LOTS of badges... over 60 thousand are currently issued annually. Experience has been a great teacher – they've learned a lot since they started.



So why did **they** need a framework?

- → Well, it helps to write things down. It gives you an opportunity to reflect and adjust...
- → It helps guide your partners who lack your experience
- → And a Framework with the elements spelled out helps communicate and regulate your quality
- → And, it doesn't hurt to profile your organization as a leader in your sector or region. In this case it's Latin America and the Caribbean, but it could also be a province, as eCampusOntario has done so well in Ontario.

So I worked with the CredencialesBID team to develop a Framework that would do all these things.



First, we felt we needed to show that we didn't dream up this Framework from thin air, that it was well-researched and well-aligned with global practices, the needs of the region and the mission of the Bank.

We framed things in terms of:

- → Foundational principles, such as the UN SDGs and the Principles for Digital Development, both of which the Bank explicitly espouses..
- → Micro-credential frameworks, such as the ones I've been mentioning...
- → Broader educational equity principles, such as Open Educational Resources and Practices and UN recommendations on adult learning..
- → Technology standards, such as Open Badges..
- → Professional and industry standards, like the ones I mentioned earlier, but also standards for things like Corporate Social Responsibility, which is important for Learning Organizations, a concept I'll dig into a little bit more later



I developed a grid for comparing frameworks a few projects ago and we adapted this for IDB's context.

It's a big Google Sheet that's really hard to display properly, but it's been a great reference to quickly compare concepts such as relevance, partnership or credential formality across different frameworks when you're writing up your own approach to a particular concept.

Overview			
		FRAMEWORK	
MANIFESTO	BADGE TAXONOMY	DETAILED ELEMENTS CRITIC	CAL INFORMATION APPENDICES
IDB mission, goals		Pragmatic approaches to quality: "Fit for Purpose"	QA checklist Glossary
Socio-economic values,	WI WALL TO THE REAL PROPERTY OF THE PARTY OF		References
practices			gnment guide for
		ext	ternal recognition
	REI	LATED SUPPORTS	
GOVERNANCE	PROCEDURES	COMMUNICATIONS	REQUIREMENTS TEMPLATES
Relationship to AcademiaBID IDB Group	Creating, issuing badges Earning, sharing badges		Guiding templates/workbooks for badge creators: an internal
LAC region		Key messages, plain language Clear calls to action	Alignment guide, QA tool
Quality principles, standards			Common to all badges + specific to badge type

Here's an overview of the IDB Digital Credential Framework that we developed... First is the Framework itself, split into sections...

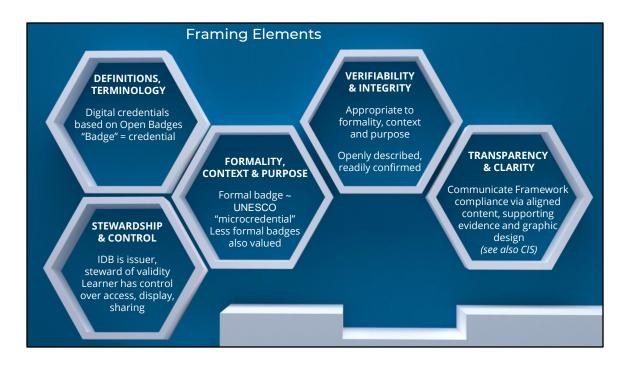
- → Then the Related Supports, many of which had already developed organically at IDB, but are now refactored and made more explicit for better transparency
- → I'll now go through the sections at a fairly high level



It starts with a "Manifesto", which is not just a noun in Spanish, it's also a verb, a public way of saying "I declare"

→ IDB's Manifesto clearly aligns its mission in the mission of the Bank and its policies, as well as in broader principles and goals related to international development, the public good and learning and recognition in particular.

Its overall goals are centered on three main areas: selfempowerment, open learning in communities, and the continuous improvement of positive outcomes for the region.



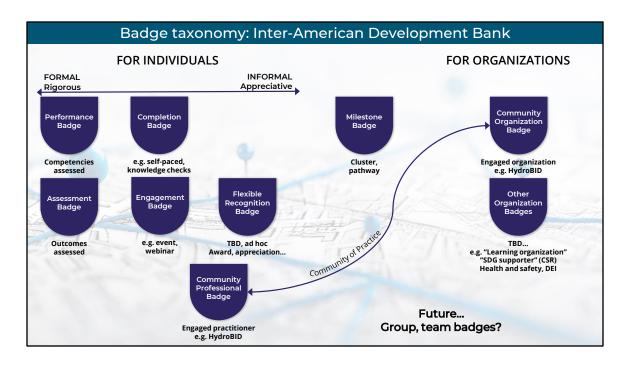
Framing elements are fundamental concepts that connect the principles of the Manifesto to IDB's approach to digital credentials within the Framework.

By integrating these core elements, IDB aims to provide a comprehensive and cohesive foundation to guide IDB's digital credentialing initiatives.

This approach ensures that its credentialing ecosystem remains aligned with its mission, values, and strategic goals, while fostering innovation and adaptability to address the evolving needs of learners, employers, and educational institutions.

For example, Open Badges are explicitly cited as a foundational technology and levels of verifiability are driven by the contextual purpose...

Viewer expectations will be managed by clear, transparent representation of the credential, with additional support as appropriate for the purpose.



Part of that transparency comes from a clear taxonomy.

We could call the more formal IDB badges microcredentials, but IDB avoids the term to prevent the fostering of a binary credential mindset, such as microcredentials/badges, credit/non-credit, high value/low value, and so on. They prefer a more continuous spectrum of badges that can be adapted to context and extended as needed.

→ A **Performance** badge is based on a robust learning experience and summative assessment of the knowledge, skills, and/or competencies required for competent performance of an occupational or professional role or a cluster of work-related tasks

- and responsibilities. Other organizations might term this a certification, but it could also be based on a specific comprehensive program.
- → An **Assessment** badge is typically based on a courses or program where intended learning outcomes are summatively assessed. Your typical course-based micro-credential.
- →A Completion badge is typically awarded for a selfpaced course with structured learning objectives, but with a less rigorous assessment, such as a "knowledge check" that allows multiple attempts
- → A **Participation** badge may recognize taking part in a webinar or workshop that might feature discussion and interactivity but not a rigorous summative assessment..
- → **Milestone** badges recognize learning pathways and aggregated collections of other badges
- → Flexible recognition badges are for emergent and customizable ways to recognize a wide variety of achievements, such as:
 - ightarrow Specific achievements that have an impact in IDB or the region.
 - → Experience and participation in events, projects, missions, or years of experience.
 - → Volunteer Service
 - → Community recognition of expertise that aren't formal certification.. a "Guru" or even a Mentor
 - → Special Awards for specific competitions or lifetime achievement.
 - → Quests or other special achievements: informal recognition beyond simple participation, for example building a product in a makerspace
- → I mentioned Communities of Practice earlier, and there is a Community Professional badge for individuals who have actively engaged in their community..
- → But they're also working towards Community Organization badges to recognize organizations as distinct actors who have formed partnerships, developed plans, collaborated on projects or helped create, transfer or adopt knowledge and innovation for development. Think of MoUs on steroids....

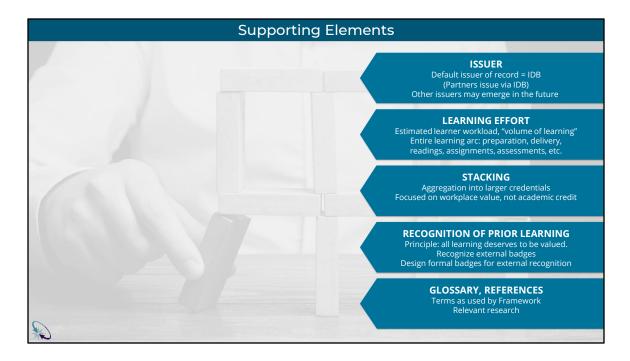
→ They also plan to develop other Organization badges that build on the notion of Learning Organizations and group recognition, so this area of the Framework will probably change shape over the short to medium term.

RELEVANCE AND ALIGNMENT Active consultation and partnership | Shared competencies, standards, domains, goals | Explicit alignment to the Framework OUTCOMES & COMPETENCIES Measureable outcomes for formal badges | Show application, performance where feasible LEARNING EXPERIENCE, ACTIVITIES Clearly describe experience, modality | e.g. course/event/WIL, virtual/F2F/blended ASSESSMENT AND EVIDENCE Rigorous, well-aligned for more formal badges | Direct evidence is optional, can add value | Earner can add further evidence after issue LEVELS Competence level vs complexity, ambiguity of context | Type, formality of assessment QUALITY ASSURANCE Fit for purpose, appropriate for badge type | Administered via Badge Requirements | Periodically reviewed and updated THIRD PARTY ENDORSEMENT "Optional - recommended" | Endorse issuer, generic badge | Endorse individual badge after issue

Shifting now to the content of the badges, we came up the category of Key Components for content elements that credential viewers and evaluators are likely examine closely, whether for recruitment, or CE unit approval or maybe for RPL credit recognition.

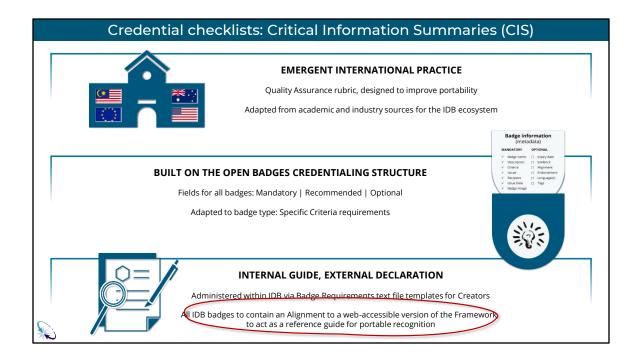
- → For relevance and alignment, we emphasize collaboration, but also alignment to commonly shared frameworks for standards and competencies, including explicitly aligning to our Framework, again pushing that Transparency and Clarity agenda.
- → More formal IDB badges will focus on outcomes and competencies that support effective performance and IDB encourages include appropriate demonstration of that
- → IDB encourages its partners to think beyond training courses to include experiential and work-based learning engagements at varying levels of formality to increase the role of authentic workplace learning and recognition. Regardless the learning experience should be clearly described..
- → For Assessment and Evidence, more formal badges will clearly describe assessments that are well aligned to intended outcomes and competencies. Direct evidence that's authored by the learner may be included in the credential if it adds value, otherwise the credential itself is indirect evidence, backed by the issuer. IDB

- allows for evidence to be added after issuing, which is possible with at least a couple of platforms out there
- → More formal badges such as Assessment badges and Performance badges may optionally align to levels of learning that may be internally formulated or externally sourced. IDB has developed internal levels that balance complexity with the type of assessment
- → IDB's Quality Assurance is centrally administered. Their approach to quality is pragmatic: how will requirements fit the purpose of the badge? They have already improved this process through their Framework-aligned Badge Requirements text templates that Badge Creators complete and submit to the central credentials team
- → IDB believes that Endorsement is a vastly underemployed feature of the current Open Badges standard and I agree. They strongly encourage their partners to seek clear, authentic endorsements from multiple third parties to build trust and add significant value to their badges, not just those partners who have collaborated on the badge.



The Supporting elements are less crucial – I won't go into great detail here, just maybe highlight a few things:

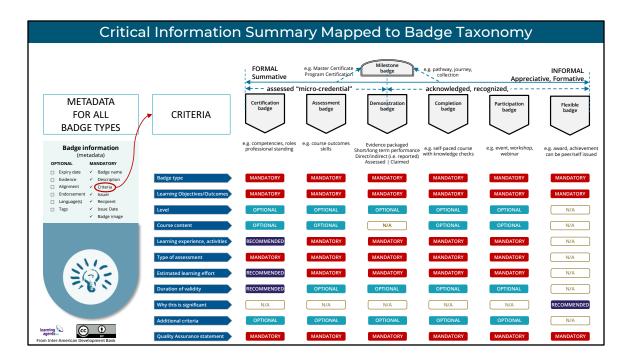
- → Learning Effort is a useful concept from the Australian framework, otherwise known as "Volume of learning": how long would it take a newbie to learn and demonstrate these outcomes? This can be a simpler way to describe the "size" of a credential than credit value, which can vary by institution.
- → Stacking is not a high priority for IDB. Nothing is currently for credit, so any stacking is for workplace recognition. As academic institutions, your mileage will differ here..
- → IDB supports the principles of RPL and undertakes to actively explore flexible methods of recognizing knowledge and skills, including recognizing external badges from other issuers. More formal IDB badges should be compatible with accepted RPL processes at professional bodies and academic institutions. Experience will tell how "credit ready" they are.



The notion of a Critical Information Summary of badge content was first suggested by Beverly Oliver in 2019 as a way to encourage greater consistency between microcredentials and increase their portability.

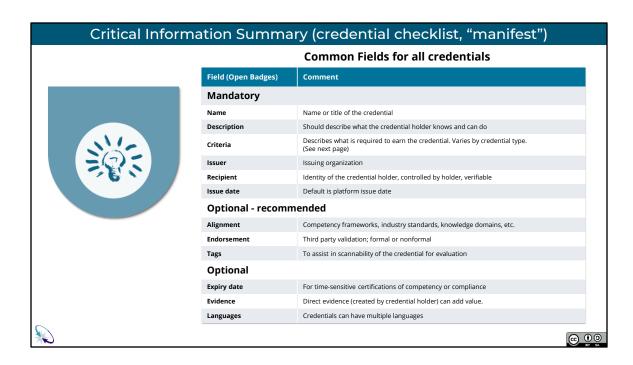
The term became "critical information requirements" in the 2021 Australian Microcredential Framework. Requirements are "Required" or "Recommended." The European framework takes a similar approach.

- → IDB has adapted this idea by taking the Open Badges standard as a starting point and then developing variations for the different types of badges in their taxonomy. This approach is an example of them avoiding a "micro-credential monoculture", choosing instead to support a broad spectrum of recognition.
- → Each badge is explicitly labeled in the Criteria (e.g. "Participation badge") and contains a link to the Framework Taxonomy, using the Open Badges Alignment field, just to make things very clear



Here's a **very** detailed version that was part of a recently published IDB Technical Note on the initiative...

- → It starts with the taxonomy...
- → Then the various requirements mapped to different badges in the taxonomy You can see the Open Badges fields coming out of the badge on the left. The Criteria field breaks out into 11 sections that may be Mandatory, Recommended, Optional or just not Not Applicable, depending on the type of badge.



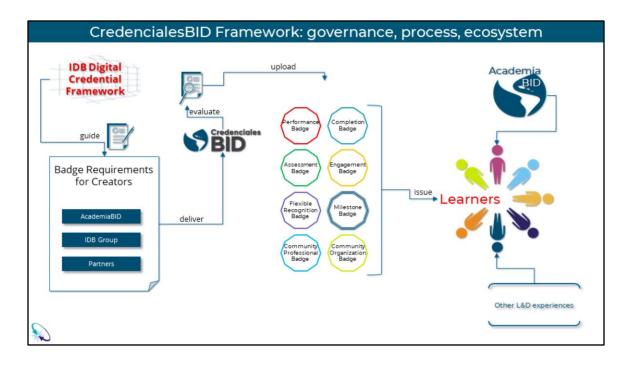
The Critical Information Summaries drive the Badge Requirements templates that Badge Creators use to develop their badges.

They're structured with components that are common to all badges...

Course (or Program) Certificate		Competency Certification		
ELEMENT	COMMENT	ELEMENT	COMMENT	
Mandatory		Mandatory		
Credential type	Course (or Program) Certificate	Credential type	Competency Certification	
Quality Assurance statement	Aligned to credential type within the Framework. Assists in validation and recognition.	Quality Assurance statement	Aligned to credential type within the Framework Assists in validation and recognition.	
Learning Objectives / Outcomes	Measurable, demonstrable, relevant to workplace needs	Learning Outcomes, Competency(ies)	Measurable, demonstrable, relevant to role or task.	
Learning experience,	e.g. F2F, virtual, WIL, group/solo	Description of assessment	Clear, supported claim of reliability	
activities	e.g. F2F, Virtual, WiL, group/solo	Maintenance, renewal	Requirements for maintaining currency	
Description of assessment	Clear, supported claim of reliability	Recommended		
Estimated learning effort	Total In hours	Learning experience, activities	If relevant, e.g. custom program	
Optional		Estimated learning effort	Total In hours, if relevant	
Level	e.g. Novice, Competent, Expert	Optional		
Learning content	If relevant and brief	Level	e.g. Novice, Competent, Expert	
Additional criteria	If it value is added, e.g. useful information about specific recognition event	Learning content	If relevant and not too long	

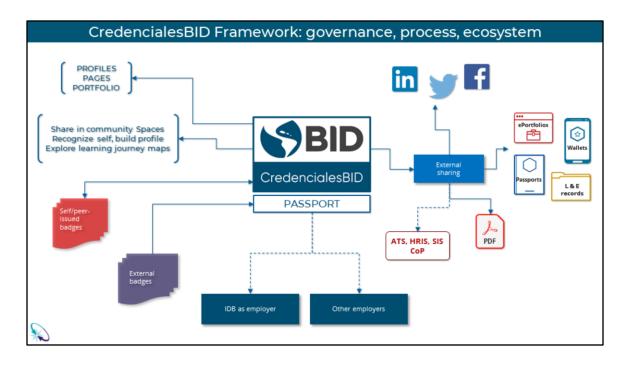
.. followed by structure details for the Criteria field that are customized to each Badge type.

I'm just showing the more formal ones here..



So now a little bit about the end to end process of creating issuing and socializing a badge in the IDB community...

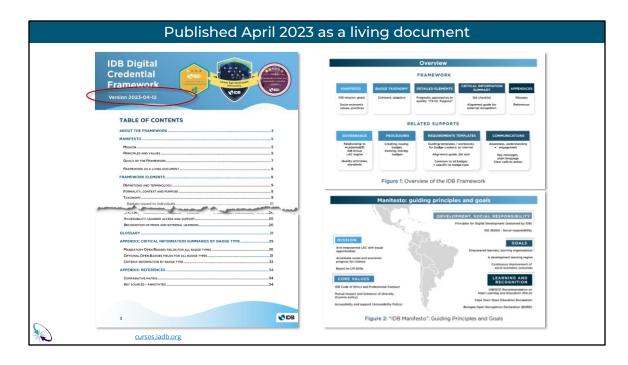
- → The IDB Framework is embodied in the Badge Requirements templates..
- → Badge Creators complete these templates...
- → They deliver them to the central CredencialesBID team .
- → The CredencialesBID team evaluates the completed template...
- → and if it meets requirements they upload it as a specific badge type to the platform they're currently using, which is actually their third platform..
- → The badge is issued to learners, as a result of completing an AcademiaBID elearning course or some other type of engagement...



Learners accept their badges in a dedicated badge portfolio platform called the CredencialesBID Passport...

- → They can choose to share the badge straight to social media, or they download a verifiable pdf copy...
- → Or store it on their Passport account, along with other badges they earn, with the ability to build them up into badge portfolios that can include other content like pictures, documents or even embedded video.
- → And they're not alone they become part of an online IDB community where they're encouraged to connect with others and explore other learning journeys..
- → They can add external badges they've earned to their portfolios...
- → Using the Passport platform affordances, they can also start to self-assert their own achievements and recognize their peers to help build their skills as self-empowered lifelong learners...

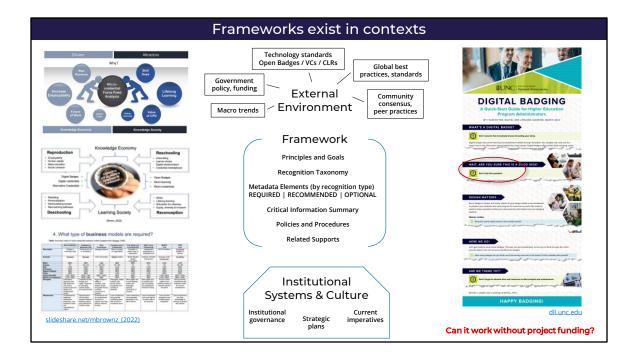
- → IDB and other organizations can engage with the learners in the community Spaces... in the future this can evolve into more explicit forms of career advancement.
- → Meanwhile, the learner is free to share their badges to other systems, whether wallets or actual talent management systems that can read them.. although this is still more vision than reality today



Meanwhile, the IDB Digital Credential Framework does exist today – it was published in April and it's a living document that will be updated over time.



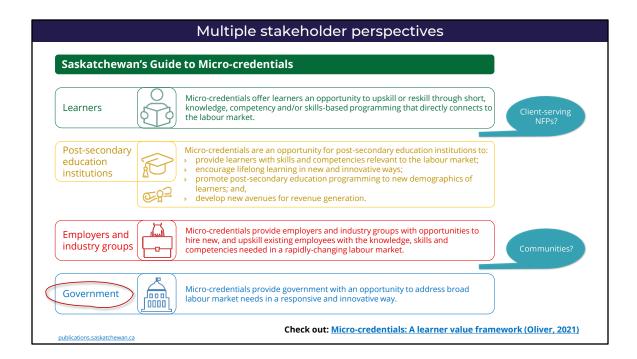
OK, let's look at how you can adapt all or parts of IDB's Framework for **your** purposes, assuming you think that's a good idea..



As a post secondary, your context is different from the IDB, but there will be similarities also,

- → For example, you face many of the same elements in the external environment, with a few differences
- → I'm leaning on Mark Brown's work here again, in this case a Slideshare from an International Micro-credentials Summit in March 2023 in Barcelona..drives of society as a whole, different approaches in learning and development..
- → I'm happy that he extended my business model framework from 2019 to include MOOCs and Online Program Management. He's even updated OPM to OPX, which HolonIQ tells us is a new category, "collectively defining the entire spectrum of services models supporting Universities in the design, development and delivery of online higher education". Your business model will certainly be different from IDB: you'll likely need to build demand for a demand-driven B2C model as opposed to IDB's funded workforce model, although if you're from Ontario, you do have that OSAP connection, which helps!
- → I like University of North Carolina's high level quick start guide, particularly the part about "Are you sure this is a good idea?"
- → Certainly your internal context is quite different, and that will have an impact on your framework, not to mention the policies and procedures that support it

runs out?	



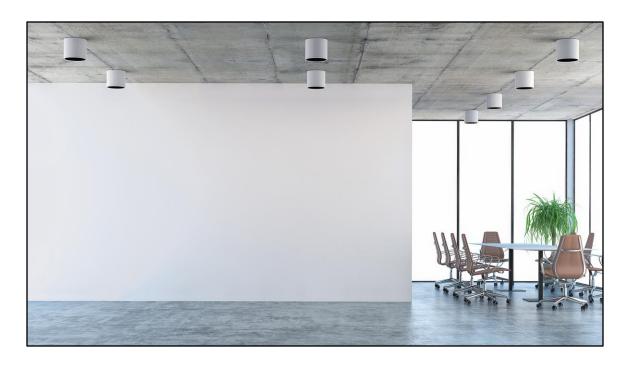
There are multiple stakeholders with different needs, to be aware of and the Saskatchewan Guide reminds us to look beyond the three usual suspects to include government, although maybe you could say they're the elephant in the room even if you don't acknowledge them

What Saskatchewan didn't mention was:

- → client-serving not for profits, charities, community base organizations...
- → even communities themselves, such as Indigenous communities, as mentioned in the BC Framework

These stakeholders have different parts to play, at different parts of the process.

One more plug for Beverley Oliver: her **Learner Value Framework** is worth a look, if you're serious about putting the learner at the centre. It was published as a "provocation" (love that term!) in the Journal of Teaching and Learning for Graduate Employability.



Having complicated your lives so far in this presentation, let's have a look at simplifying the Framework for you...



Let's start with Principles values and goals, as a Section 1

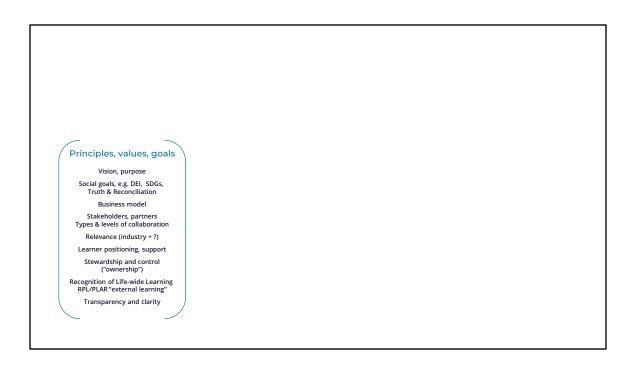
I'm posting some sample elements for you to look at:

- → Vision and purpose is the WHY and maybe your institutional strategic goals can help here..
- → Some examples of social goals, such as Diversity and Inclusion..
- → A business model is important and will affect how you express your goals
- → How do you view your various stakeholders? How do you plan to engage?
- → A lot of frameworks emphasize relevance to industry others include lifelong learning and citizenship. Where will you land?
- → Will you be learner-centred, or will you balance their needs with those of employers? How will you support learners and make your micro-credentials more accessible? How can they express their needs to you? Do they have a voice?
- → Who "owns" the micro-credentials? Will learners have to pay to share them?
- → What's your take on recognizing learning that you haven't delivered?

.... These are just some examples. Maybe you'll want to skip some of these and add others , such as Universal Design of Learning

→ However, I strongly suggest Transparency and Clarity should be included her	e, if
only to avoid that empty Badge I shared at the start	

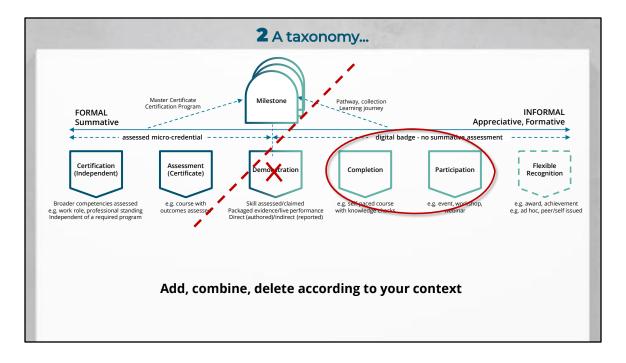
... so, let's park that and keep moving..



Let's park that on this page and keep going...



It's often good to develop a taxonomy early on, to help facilitate discussion...

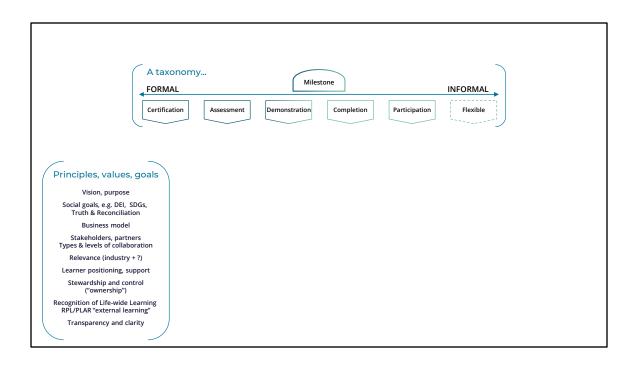


This is the current version of a generic taxonomy that we offer clients as a starting point; you're welcome to mix and match as needed..

Some examples of potential adaptation:

- → Maybe you just want to collapse Completion and Participation into one category?
- ightarrow Maybe you want to drop the idea of a Demonstration badge altogether?
- ightarrow Maybe you want to categorize stacked micro-credentials in different sizes?
- → Maybe you want to clearly separate badges from micro-credentials?

Your choice...



So, that's the taxonomy, now let's talk about credential content



...what we expect to see inside those badges and micro-credentials..

	3 Cred	lential content	elements	
Open Badge standard		Criteria guidance (Adapted for Assessment micro-credential)		Other researched
MANDATORY	Issuer	MANDATORY		options
	Recipient	Credential type	Learning effort ("size")	Jurisdiction
	Name			,
	Description	Learning experience	Credit / recognition value	Pre-requisite/s
	Issue date	Objectives / Outcomes	Statement of quality /	
	Criteria		Critical Info Summary	Recommended Prior
RECOMMENDED		Assessment type		
RECOMMENDED				Inherent Requirements
Evidence	Alignment	RECOMMENDED	OPTIONAL	
Endorsement	Tags, keywords	Level	Learning content	Supervision & ID verification
OPTIONAL		Stacking recommendation	Further information	Grade achieved (?)
			IIIIOIIIIatioii	(:)
Expiry	Language(s)	Price / Financial Assistance		

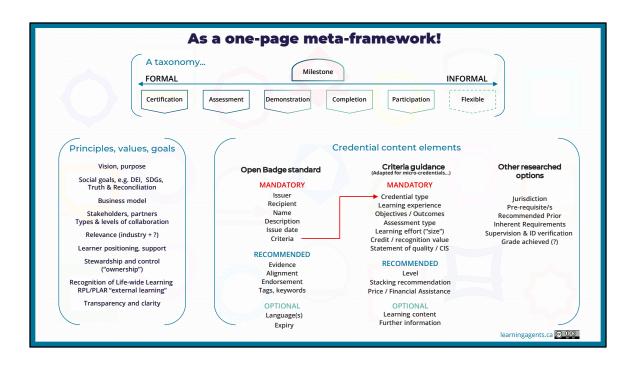
If you're using Open Badges for your credential container as IDB is, some of these elements are already laid out for you.

The Open Badges standard specifies the Mandatory fields, so there's no choice there,

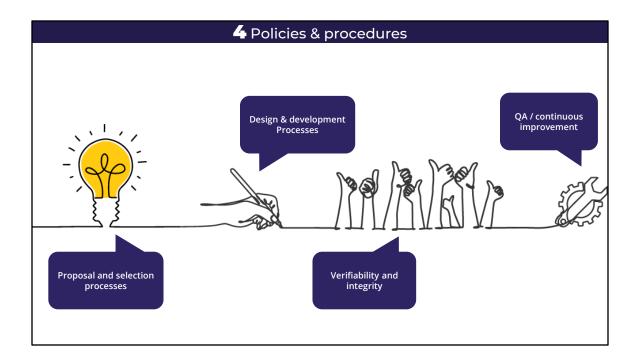
- → But I've also laid out some recommended and optional fields for you, which you're at liberty to rearrange.
- → Now, one of the Mandatory fields is Criteria...
- → which breaks out into a list of sub-requirements. What I'm showing here are the Criteria requirements we normally recommend for an Assessment microcredential. In this case, Mandatory is whatever you and your Framework decide
- → I've also provided some other options that surfaced during our research for IDB, which we don't currently use.
 - "Inherent requirements" means things like do you need a laptop..
 - "Assessment supervision and identity verification" are obviously more important for high stakes assessments and you have to decide whether your smaller microcredentials are worth that trouble, or if there are other ways to ensure verifiability that go beyond blindly trusting in blockchain..
 - For me, "Grade achieved" feels like it's getting away from the notion of "meets requirements", which is where badges and microcredentials began, but others may

feel differently

 \rightarrow .. Now we can map these to our one-page framework:



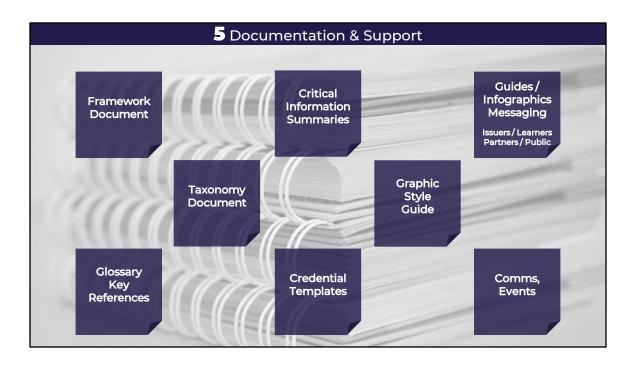
So this is what appears to the public... simple right? Let's have a quick look at what's needed to support this...



And I do mean quick..

It's hard to provide detailed advice here, given the variations in policies and procedures, but frameworks from individual institutions such as University of Toronto, Algonquin, and KPU may be helpful, and more are coming online as we speak.

I'll mention a couple of broader-based efforts a few slides down.

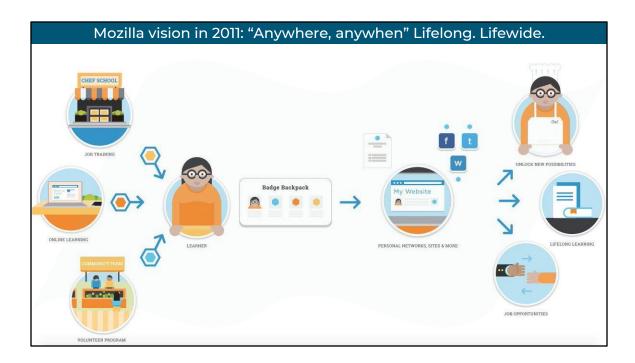


In terms of documentation and support...

- → It's great to publish your Framework in public, as many have...
- → It's good to be well supported with references to clearly show how you define the concepts and why
- → You'll want to break out your Taxonomy, and provide an infographic overview for quick communication
- → You'll want to supplement the high level one-page snapshot with detailed requirements in the form of Critical Information Summaries...
- → ..along with content templates that operationalize those, to manage quality
- → A graphic badge style guide will provide not just branding, and a protocol for all the logos, but also a visual language to communicate your framework at a glance
- → And of course you'll want to developing messaging and documentation for your various stakeholders
- → And build that out with public relations, comms and marketing...



This has been a pretty fast-paced session, let me see if I can leave you with a few things as we come to a close...



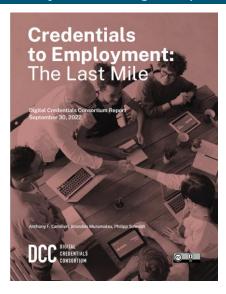
I do think the key reason we're talking about micro-credentials in 2023 is because of the disruptive impact of Open Badges in 2011.

Open Badges began as an inclusive way to recognize authentic *lifewide* achievements and that power is still embedded in its DNA.

In 2023, we're in the early stages of reacting to the disruptive impact of generative AI which will have a lifewide impact of its own, in ways that are currently hard to predict. In the badges and micro-credentials world, there are lots of conversations and even pilot projects exploring how learning, assessment and recognition can benefit from large sets of unstructured, "life happens" data, that goes way beyond what can currently be captured in a micro-credential.

But let's not get carried away by the hype. For example, Mozilla never actually promised that earning badge **X** would automatically get you job **Y**, just like pressing a button...

Reality check: badges as portable workplace skills currency (MIT-DCC)



Some findings ("not yet")

- Large awareness gap for employers that is closing slowly
- Largely PSE-centric; employers are often not at the table
- Needs are diverse: large employers, SMEs and regulated professions, etc.
- Lack of widely accepted digital trust and endorsement protocols
- Big disconnect between **future** promise and **current** reality, due to lack of critical mass and lack of tooling for an end-to-end ecosystem

Some recommendations ("keep going")

Employers

- · Pilot employer-based credential-issuing
- Invest in sectoral competence frameworks

Governments

Support innovation in credentialing

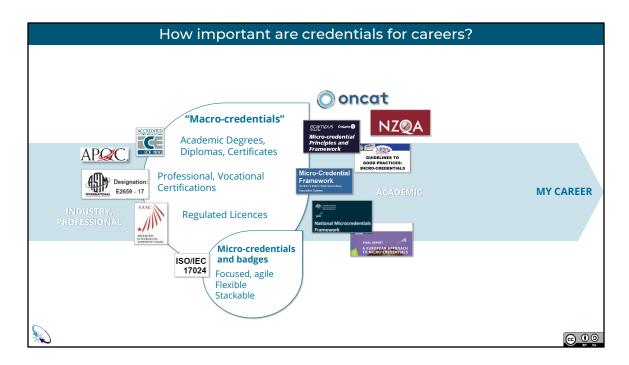
Joint Action

- Create a roadmap for an integrated skills ecosystem
- Enhance the evidence-base around employer benefits
- Support development of tools for validation of abilities and achievements

Credentials to Employment: The Last Mile. Digital Credentials Consortium 2022.

The Digital Credentials Consortium out of MIT came out with this study in September 2022 and it works well as an anti-hype Reality Check.

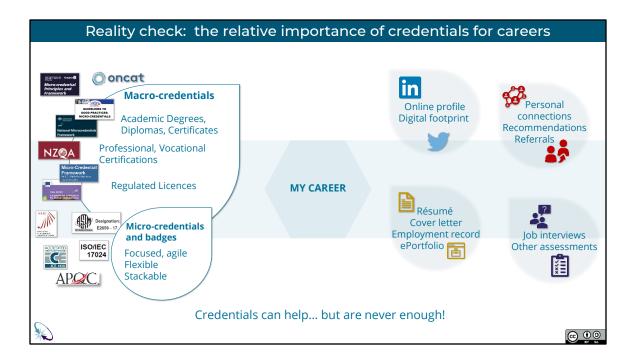
Basically we're not there yet. We need to work and innovate together to climb Gartner's "slope of enlightenment". Everybody has their part to play before we can reach the plateau of productivity.



Let's have a closer look at the current role that credentials play in career advancement

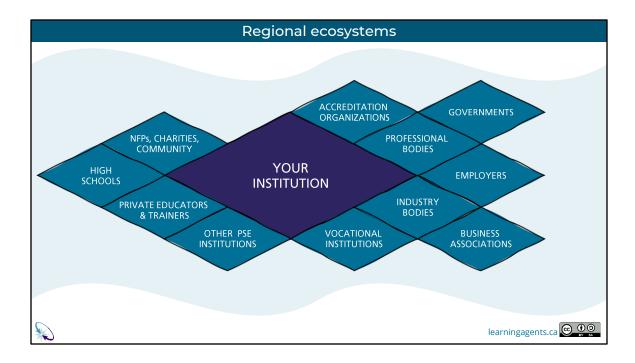
Academic institutions and professional bodies are justifiably proud of their big macrocredentials. These diplomas and certifications are often required for entrance into professions

- →Elaborate quality systems have been built up around them. But these macrocredentials take a long time to develop and earn, and they don't change very quickly.
- →Enter micro-credentials: focused, relevant, agile.. and stackable into macro-credentials, although insisting on credit can make them a lot less agile.
- All these credentials are supposedly tickets to jobs and careers.
- → But in terms of actually finding a job and pursuing a career...



...we still have the resume and cover letter..

- → Hopefully we've got a profile on LinkedIn
- → If we're lucky and work at it, our personal networks can help us make connections... that's usually been a big factor for me, and there are inetentional ways to build your network
- → Ultimately, the job interview is always going to happen, with those behavioural and situational questions... and maybe other types of assessment, checking out not just what your skills are, but what you'd be like to work with...
- → So... credentials can help get you the interview and they can support what you say in the interview, but ultimately the employer needs to know who YOU ARE, not what credentials you have. Professions, especially regulated ones, are different, but not really: a diploma is necessary, but not sufficient.



The emergence of micro-credentials builds on the realization that post-secondary institutions are embedded in their communities and that most learners have some expectation of employability as an outcome of their learning.

Post-secondary institutions are increasingly seen as important players in a broader social and economic ecosystem, working with organizations across sectors beyond education.

Steps to develop your Framework

Experiment, pilot, consult stakeholders

Reflect on your current practice, examine global practice

Centre on your "why": principles and values, business model

Develop a taxonomy that will achieve your goals

Describe the elements of your taxonomy in clear detail

Develop processes, tools and controls to ensure trustable "fitness for purpose"

Publish, publicize and explicitly align to your Framework

Monitor, maintain, update

Just an overview here of some steps that you might want to follow. I'll just let you read them..

 $\rightarrow \rightarrow \rightarrow ...$

Maybe you're already doing this, but I'd like to emphasize that the more you can learn from **actual experience** to test assumptions and try things out before fixing your ideas the better, and the more immersive the better. Maybe you consider earning a badge yourself, say from eCampusOntario's Extend or something similar...

Ca	anadian Guides
eCampusOntario's	BC's Micro-credential Toolkit ETA: Summer 2023 (June/July?) Author: Annie Prud'homme-Généreux for BCcampus & PSEFS Introduction
Micro-credential Toolkit	Welcome to Background Definitions
Part L. Definitions 1. Do we need a micro-credential definition anyways? 2. What are, aren't and might be micro-credential? 3. Micro-credential Ufrecycle From Sunrise to Sunset	Implementation
Part II. Collaboration	Micro-credential Financial Campus Quality Marketing Life cycle Matters Collaborations Assurance and Launch
4. Sector Relations and Cimployer-Educator Partnerships 5. Connecting Lusimers 6. Faculty and Cross-Campus Collaboration 7. Collaboration Across Development and Delivery Phases	Collaborations
Part III. Structures 8. Program Pathways to Micro-ordentials	Employers, Professional Business (Agricum and Community Organizations Collaborations Learners
Assessments Technologies and Platforms	Learning Design
Part IV. Recognition 11. Quality /esurance 12. Policy and Regulation of Micro-credentials	Design Educational Recognition Cycle Pathways of Learning
Micro-credential Quality Checklet Transcriptability Recognition and Common Currency	Conclusion
ecampusontario.pressbooks.pub/microcredentialtoolkit/	Outlook
*	

That's just one slide, but here are a couple of resources that can help you get started or take it to the next level.

→ eCampusOntario's Micro-credential Toolkit came out in mid 2022, built on its Micro-credential Principles & Framework. It's a living document and frame of reference that is being tested through a series of pilot projects. It's also Creative Commons, so you can take it and make it your own



Just winding things up...

If you enjoyed hearing the IDB case study today, you may be interested in reading the recently published Technical Note that I co-wrote with Stella Porto.

- → Another recent publication is this one from the ITCILO, the Training Centre for the International Labour Organization, which is part of the UN system. I led the team to recommend a non-formal framework for digital badges as a complement to an existing framework for certificates and diplomas. It was a great opportunity to apply many of the concepts developed for IDB to the task of "opening up" recognition for learning and development beyond scheduled training.. the 70 and 20 from that slide about 70:20:10. It was also a chance to dive into the capabilities of a competing platform, which was great.
- → We'll be presenting those findings in a webinar for the broader UN community on June 6th, and I *think* anyone can take part in the session. I haven't got the link yet, I expect it soon. Reach out to me if you're interested
- → And then a couple of events that lean toward the less formal: The Badge Summit at University of Colorado Boulder in July, which will feature a lot of the standard micro-credential content, but will also have an open recognition thread, because it's now partnered with ..
- → The ePIC conference, taking place this year in Vienna, with the theme of Open

Recognition for a Sustainable Planet. You may remember from my visual bio that this began as the ePortfolio and Identity conference in 2003. I discovered it in 2004, and brought Mozilla's Open Badges to it in 2012 and it has consistently explored themes of inclusive recognition, learner empowerment and peer recognition in communities of practice since that time. It's the highlight of my conference year and I've been helping program it since about 2010. You'll see a bit of CanCon there with Candy Ho of KPU and UFV as a keynote, partly because she's also the chair of CERIC, who gave a great presentation at CAUCE 2023. At ePIC 2022 in Lille, we featured eCampusOntario and Susan Forseille of TRU.

Finally, did anyone learn anything from this session?

60

Ca	apture your learning: earn a	badge
learning agents according to the second seco	EXPLORER: OPEN BADGES AND MICRO-CREDENTIALS Learning Agents Frequency and the continue representation of the continue representation on the continue representation of the continue representation on the continue representation on the continue representation of the continue representation of the continue representation of the continue representation of the continue repr	bit.ly/CAUCE23

If so, here's your chance to capture that learning now with a Participation badge from Learning Agents. And not just participation, we're asking for some light reflection that can help us improve future presentations..

If you complete this form telling us what you learned and how you might apply that in your work, you'll be issued a digital badge that will contain links to this recording, a speaking notes version of the presentation deck and a list of key references that I've been using.

So you'll have the content, what you thought about the content and some ways to dig deeper, all in one digital package.

Not a micro-credential, more of a learning capsule that may help you going forward.



Thanks for your attention, I look forward to your feedback!