Shaping the futures of learning and micro-credentials

SADE ONLINE AUTUMN CONFERENCE

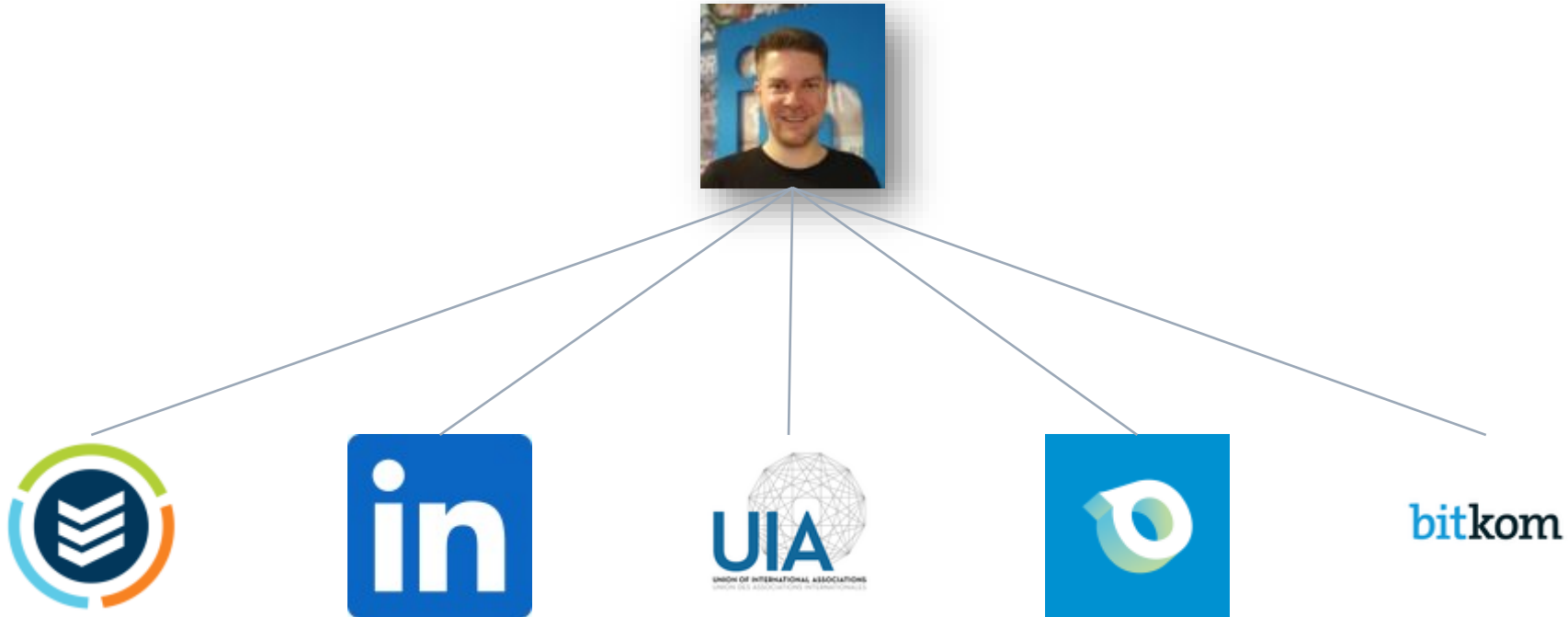**"SHAPING THE FUTURES OF LEARNING"**

24/09/2021

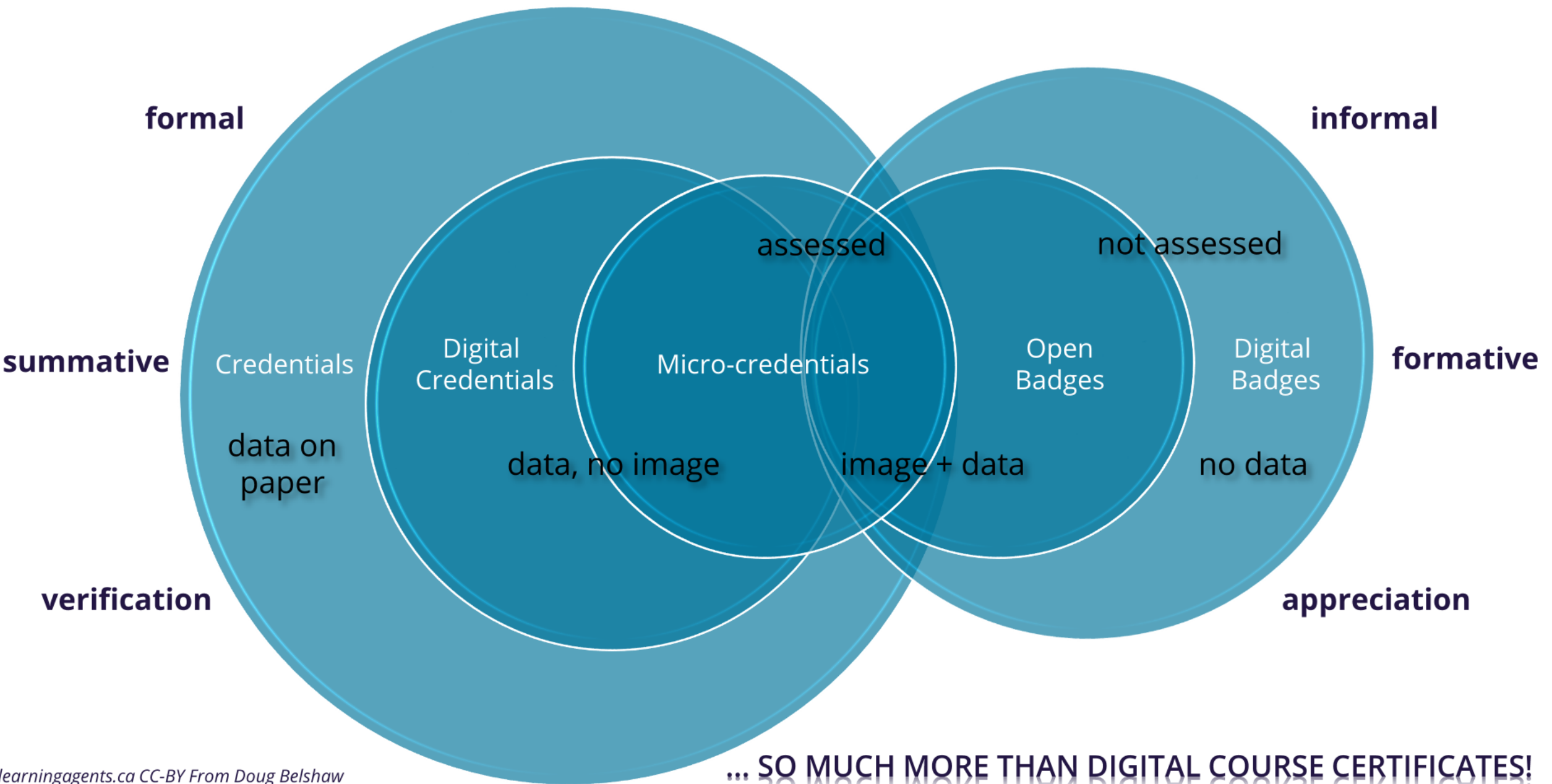ROLF REINHARDT

INTERNATIONAL COUNCIL ON BADGES AND CREDENTIALS

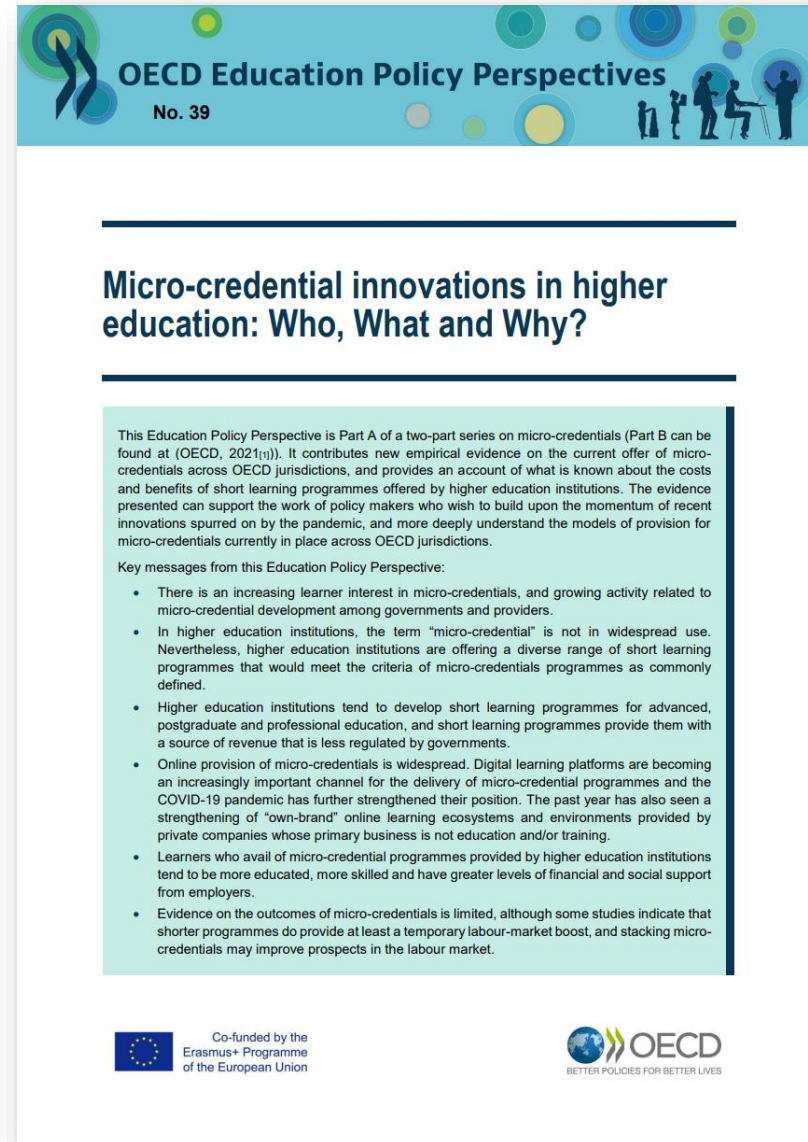Picture: https://landportal.org/news/2020/02/job-opportunity-network-researchers-coordinator

About me: enhancing learning with „e"

Unboxing open badges, micro-credentials and digital badges

formal

informal

summative

formative

verification

appreciation

assessed

not assessed

Credentials

data on paper

Digital Credentials

data, no image

Micro-credentials

image + data

Open Badges

Digital Badges

no data

... SO MUCH MORE THAN DIGITAL COURSE CERTIFICATES!
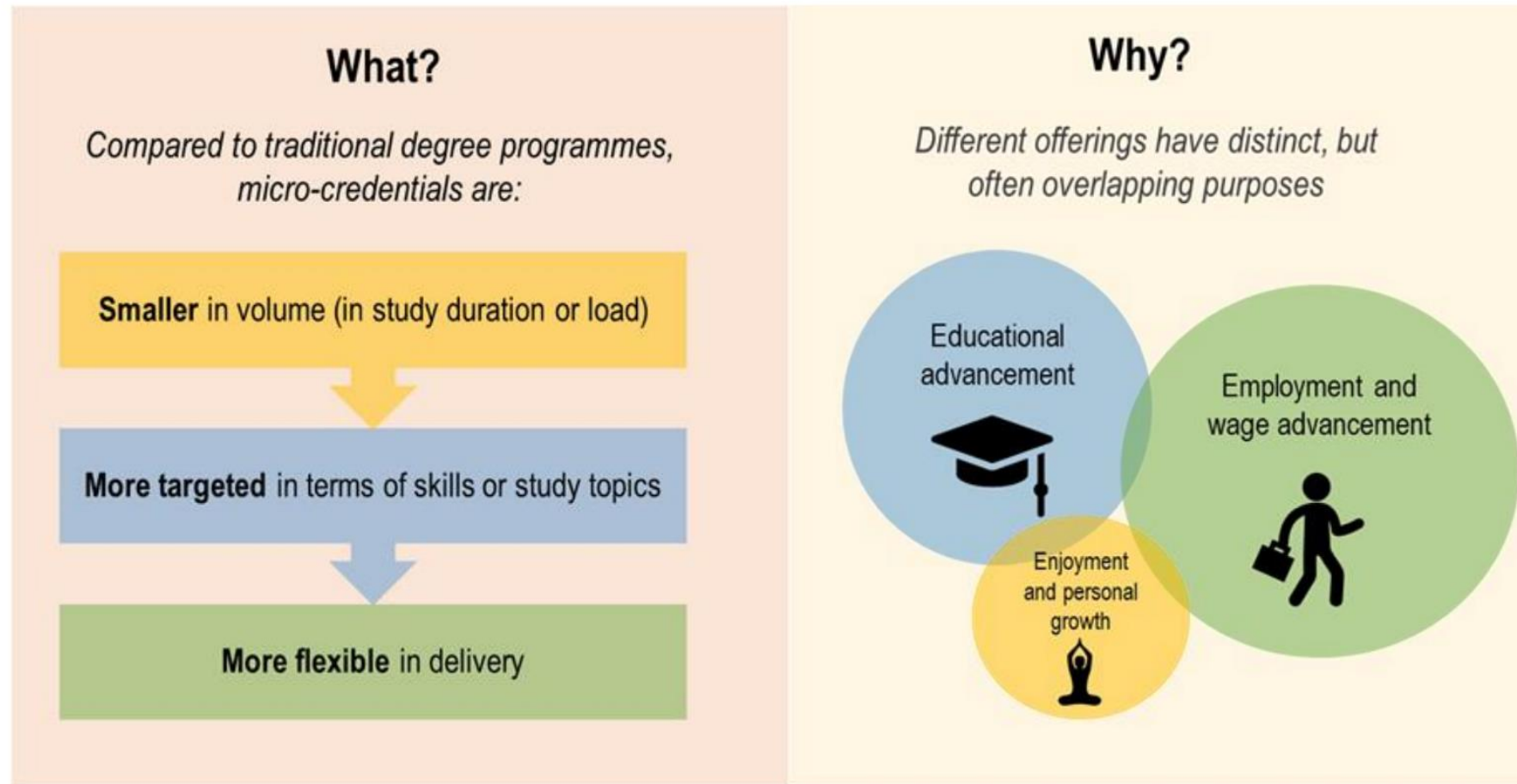
Just published!

Released on 22/09/2021 by OECD:

Table 1. Selected definitions of micro-credentials

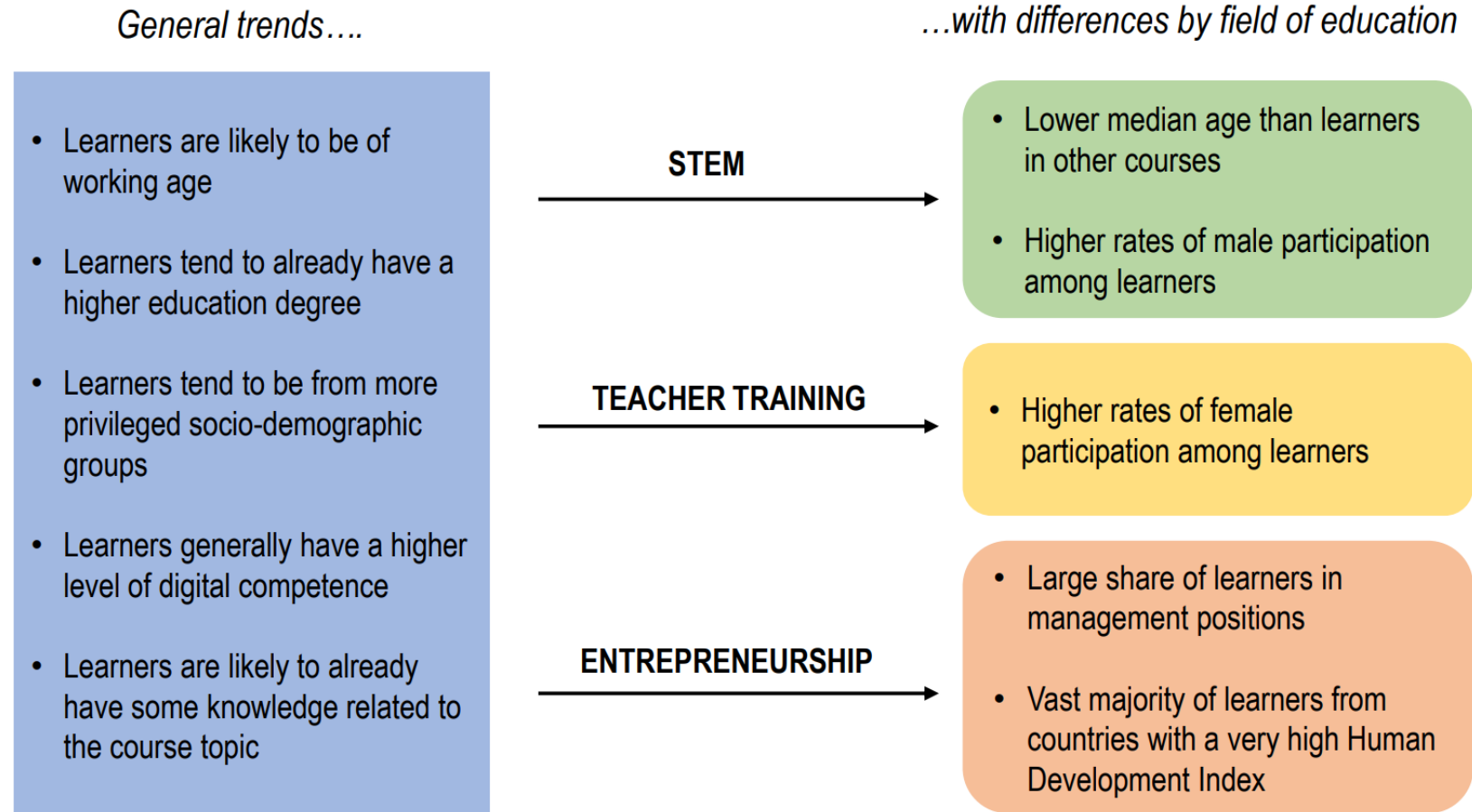| Source	Definition
European Commission (draft definition)	A micro-credential is a proof of the learning outcomes that a learner has acquired following a short learning experience. These learning outcomes have been assessed against transparent standards. The proof is contained in a certified document that lists the name of the holder, the achieved learning outcomes, the assessment method, the awarding body and, where applicable, the qualifications framework level and the credits gained. Micro-credentials are owned by the learner, can be shared, are portable and may be combined into larger credentials or qualifications. They are underpinned by quality assurance following agreed standards (European Commission, 2020[3]).
BloomBoard	Micro-credentials are a form of micro-certification earned by proving competence in one specific skill at a time, via a portfolio of evidence, created through classroom practice (BloomBoard, 2021[4]).
European University Association	A micro-credential is a small volume of learning certified by a credential (Cirlan and Loukkola, 2020[5]).
International Council for Open and Distance Education	A credential issued for a relatively small learning project that consists of several modules in a given subject (ICDE, 2019[6]).
MicroHE	A micro-credential is a sub-unit of a credential or credentials that could accumulate into a larger credential or be part of a portfolio. Examples are Verified Certificates, Digital Badges, MicroMasters, and Nanodegrees (MicroHE, 2019[7]).

Figure 1. What are micro-credentials, and what are they for?

What?

Compared to traditional degree programmes, micro-credentials are:

- **Smaller** in volume (in study duration or load)
- **More targeted** in terms of skills or study topics
- **More flexible** in delivery

Why?

Different offerings have distinct, but often overlapping purposes

- Educational advancement
- Employment and wage advancement
- Enjoyment and personal growth

Source: Authors' elaboration.

Figure 17. What does research tell us about micro-credential learners?

General trends….

…with differences by field of education

- Learners are likely to be of working age

- Learners tend to already have a higher education degree

- Learners tend to be from more privileged socio-demographic groups

- Learners generally have a higher level of digital competence

- Learners are likely to already have some knowledge related to the course topic

STEM →
- Lower median age than learners in other courses
- Higher rates of male participation among learners

TEACHER TRAINING →
- Higher rates of female participation among learners

ENTREPRENEURSHIP →
- Large share of learners in management positions
- Vast majority of learners from countries with a very high Human Development Index

Source: Cisel et al. (2015[50]), Castaño Muñoz, Punie and Inamorato dos Santos (2016[49]), Hennis et al. (2016[48]), Bali and Torcivia Prusko (2017[47]), Viana and Moura Santos (2018[46]) and Hollands and Kazi (2019[45]).

https://www.oecd-ilibrary.org/docserver/f14ef041-en.pdf

@bryanMMathers

THINK OUT LOUD CLUB

WHAT'S A BADGE REALLY WORTH ?

INSTITUTION
COMPANY
GROUP
INDIVIDUAL

ATTRIBUTE
KNOWLEDGE
ACHIEVEMENT
COMPETENCE
PARTICIPATION

INSTITUTION
COMPANY
GROUP
INDIVIDUAL

PATHWAY
MAPPING
MILESTONE
COMPOSITE

VALUE
CREDENTIAL

= (ISSUER VALUE + MEANING VALUE + ENDORSEMENT VALUE + JOURNEY VALUE) × VIEWER PERCEPTION

What is JobTech?

Job Seeker   JobTech   Employer

JobTech companies connect job seekers and employment by matching, training and placing candidates into jobs

Education, training or upskilling can be a component of JobTech, but not necessarily

JobTech ≠ HR Tech

HRTech makes HR more efficient by storing data securely, automating routine processes, improving the employee experience and providing analytics for better business decision making – HRTech improves legacy HR but does not change it

JobTech ≠ EdTech

EdTech assumes credentials are an end in themselves. It is focused on improving the delivery of credentials (including degrees) for individuals, and institutions

EDTECH

The advent of digital work and digital hiring have given rise to JobTech

GAP LETTER

Linked Learning

The Skills Companies Need Most in 2020

Top 5 Soft Skills

1. Creativity
2. Persuasion
3. Collaboration
4. Adaptability
5. Emotional intelligence

Top 10 Hard Skills

1. Blockchain
2. Cloud computing
3. Analytical reasoning
4. Artificial intelligence
5. UX design
6. Business analysis
7. Affiliate marketing
8. Sales
9. Scientific computing
10. Video production

Source: LinkedIn Talent Blog, The most in-demand hard and soft skills of 2020 , January 2020.

What are the top soft skills for 2021

The top three areas of missing soft skills for candidates today include:
1. Problem solving, critical thinking, innovation, and creativity.
2. Ability to deal with complexity and ambiguity.
3. Communication.

These skills seem to crop up repeatedly in annual lists of skills most desired by hiring teams. For example, LinkedIn's annual release of the Global Talent Trend report puts some of these soft skills at the top of the list for desirable employee traits. LinkedIn says some of the more in-demand soft skills this year include:
- Adaptability
- Collaboration
- Creativity
- Emotional intelligence
- Persuasion

https://www.linkedin.com/pulse/top-soft-skills-2021-jenifer-lambert/

JobTech Ecosystem

To date, most JobTech companies are tech-driven point solutions solving select problems like identifying or certifying talent. The next generation of JobTech companies provide full-stack pathways to employment, where employers identify high quality talent directly from sources (e.g., colleges), train them, and audit their capabilities before hiring talent full time

Job Seekers

Employers

Platforms for Job Seekers ~$16b

Marketplaces (Job boards, temp worker platforms)~$4b

Platforms for Employers

Talent Discovery (Based on Skill, Fit etc.) ~$1b

Talent Engagement (Career Coaching, Skill Recognition etc.) ~11b

Talent Selection (Competency Skills Assessment, Interview Platforms etc.) ~$5b

Pathways to Employment (Avenica, TalentPath, WhiteHat) ~$2b

Labor Market Information

GAP LETTER

4

Zwei aktuelle Beispiele für LXPs
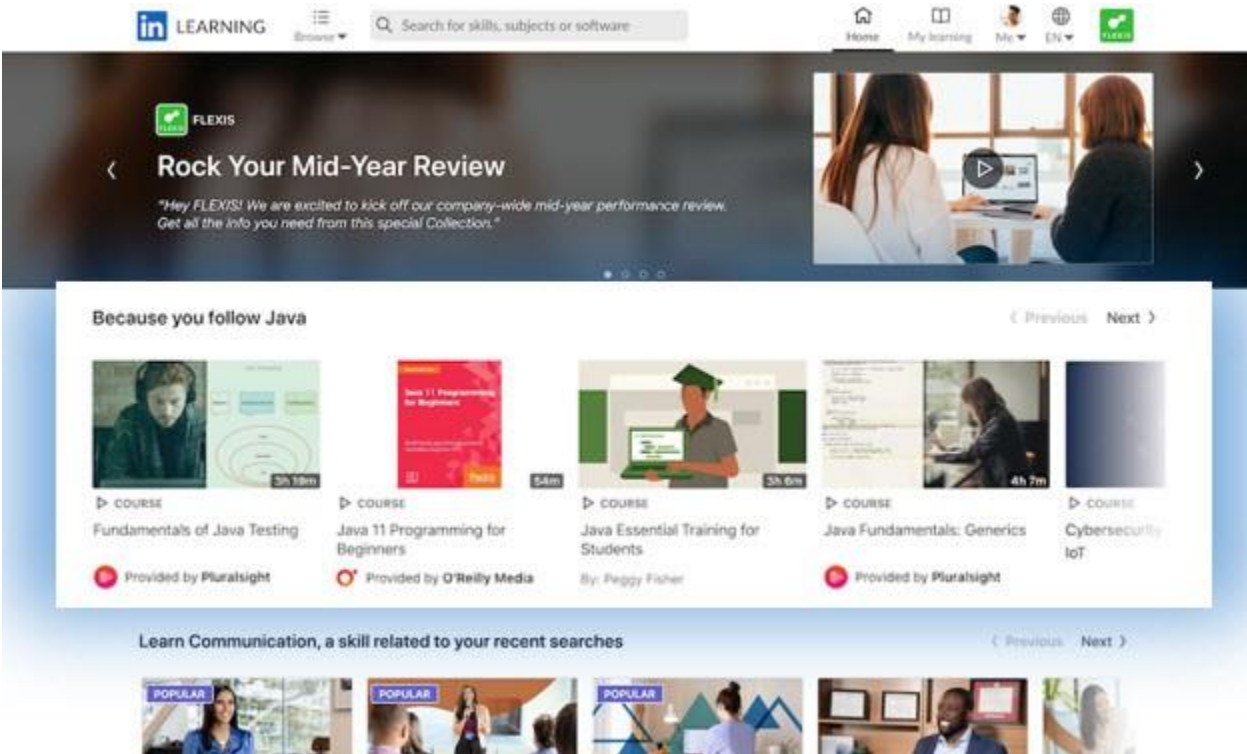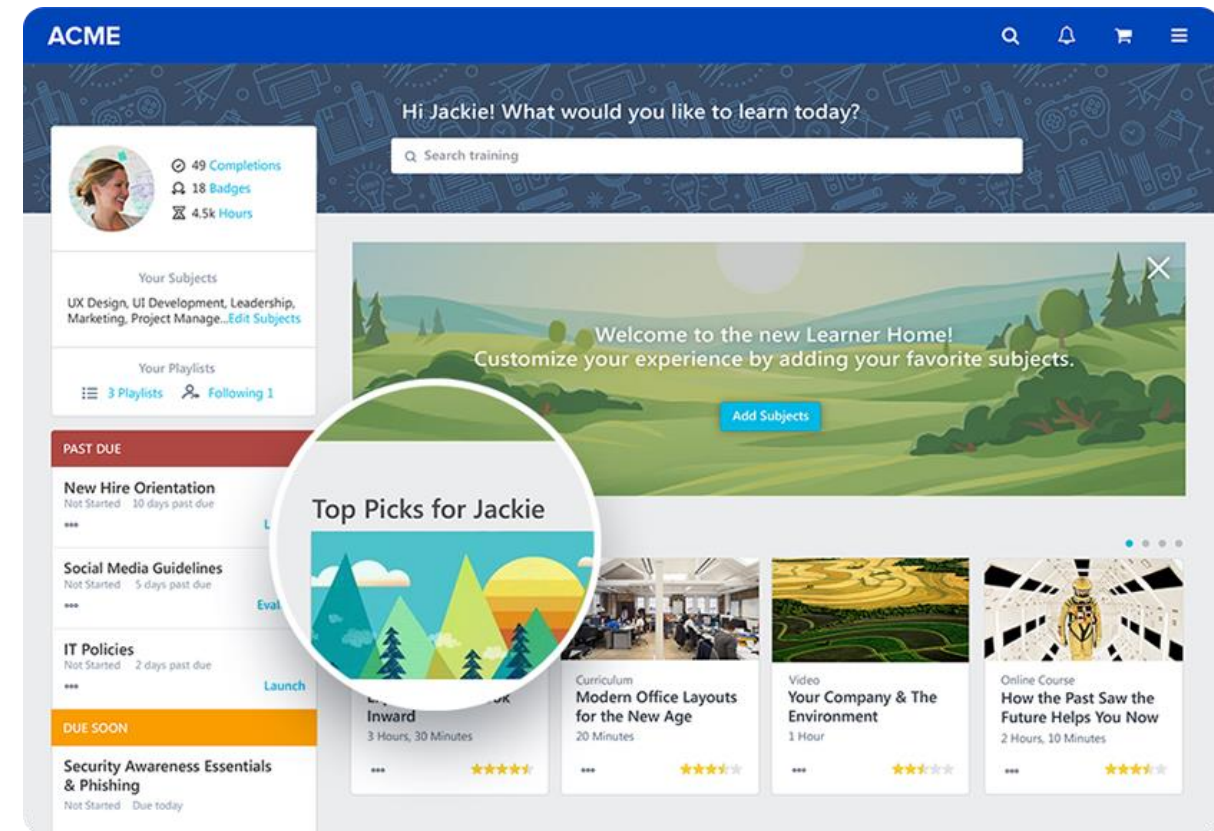
One Company's Distributed Learning Platform

- **Bits**
  - Books
  - Videos
  - Podcasts
  - Articles

- **User Generated**
  - Employee Generated
  - Validated
  - Experiences

- **Integration & Practices**
  - Roles
  - Competencies
  - Evolving skills

- **Places**
  - Campus Experiences

- **Collections**
  - Critical Topics
  - Critical Paths
  - Academies and Colleges

- **People**
  - Mentors
  - Reverse-Mentors
  - Coaches
  - Faculty
  - Experts

- **Moments**
  - Collections with exercises, activities, points for reflection
  - Simulations

- **Credentials**
  - Partner MOOCs
  - MOOCs
  - Classrooms

LEARNER or TEAM

© Bersin by Deloitte

https://joshbersin.com/2017/03/the-disruption-of-digital-learning-ten-things-we-have-learned/

==By taking a skills-based approach to the hiring process, diplomas and titles can sit alongside assessments, certifications, endorsements, and other alternate methods for determining the capability and fit of a candidate.== What's more, by focusing on skills, employers can increase the size of their talent pools, allowing them to pinpoint quality applicants for hard-to-fill roles. Once you've hired them, keep your employees engaged and your company ready to adapt to changing demands by creating a culture of learning. It's how we'll start hiring and developing talent for the future, not the past.

Ryan Roslansky is the CEO of LinkedIn, the world's largest and most powerful network of professionals. Ryan joined the company in May 2009 and has since held leadership roles in every part of LinkedIn's business. He led the evolution of LinkedIn's products into a single, holistic, global ecosystem of 756 million members, 57 million companies, 120 thousand schools, and 38 thousand skills. Under his leadership, LinkedIn has also seen record levels of engagement on the platform and accelerated growth across the company.

https://hbr.org/2021/06/you-need-a-skills-based-approach-to-hiring-and-developing-talent

Competitive intelligence about other applicants

Top applicants
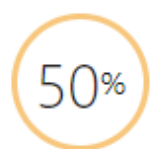
50% You're in the **top 50% of 18 applicants** based on your LinkedIn profile

Match based on your LinkedIn profile:

Current Role

Past Experience

Skills

Top skills

You have **5 out of 10 top skills** among all other applicants

✔ Management ✔ Business Development

✔ Microsoft Office ✔ Sales

✔ Business Strategy ✔ Marketing

✔ English ✔ Negotiation

✔ Salesforce.com ✔ Marketing Strategy
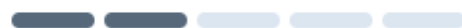
Seniority level

7 Senior level applicants

4 Entry level applicants

2 Manager level applicants

1 Director level applicant

Education

46% have a Master's Degree (Similar to you)

31% have a Bachelor's Degree

8% have a Master of Business Administration

15% have other degrees

in LEARNING

Browse

Search for skills, subjects or software

Home
My Learning
Me ▼
EN ▼
Go to Admin

Contents

Introduction ⌄

✓ What, why, and how to become resilient
47s

1. What Is Resilience? ⌄

○ What's resilience?
2m 7s

○ How resilient are you?
3m 7s

○ Chapter Quiz
1 question

2. Training for Resilience: Pre-Event ⌄

○ Build a resilience threshold
1m 16s

○ Practice response to rejection
2m 53s

○ Learn something new
1m 57s

○ Face uncomfortable situations
2m 41s

○ Manage your energy
2m 43s

○ Practice positive thinking
2m 40s

○ Chapter Quiz
5 questions

3. Training for Resilience: Post-Event ⌄

🖽 Overview   🗐 Q&A   📖 Notebook   ☰ Transcript

INSTRUCTOR

Tatiana Kolovou
Faculty Member at Kelley School of Business
View on LinkedIn · Follow on LinkedIn

RELATED TO THIS COURSE

👥 Learning Groups · **Show all**

📂 Exercise Files (2) · **Show all**

🗒 Certificates · **Show all**

📋 Continuing Education Units · **Show more**

✍ Exam · **Start Exam**

Give feedback

Skills covered

Resiliency   Personal Development   Life Skills

Viewers

CEU - Continuing Education Units (1 certification available)

National Association of State Boards of Accountancy (NASBA)
Continuing Professional Education Credit (CPE): 1
Recommended NASBA Field of Study: Personal Development

Sponsor Identification number: 140940
To earn CPE credits the learner is expected to:
Complete all videos and chapter quizzes
Complete the final exam within one year from completing the course
Score 70% or higher on final exam
Glossary: see PDF file in the *Exercise Files* area
Program Level: Basic
Prerequisite Education: There are no prerequisites for this course.
Advanced Preparation: There is no advance preparation required for this course.

If you undertake this course for CPE credits, you can leave final comments in the Self Study Course Evaluation.

Skills & endorsements

Add a new skill ✏️

(Take skill quiz)

E-Learning · 68

Endorsed by **Gilly Salmon and 30 others** who are highly skilled at this

in Endorsed by **6 of Rolf's colleagues at LinkedIn**

Blended Learning · 30

Endorsed by **Asha Kanwar and 1 other** who is highly skilled at this

in Endorsed by **5 of Rolf's colleagues at LinkedIn**

Learning Management · 15

Endorsed by **Rebecca Stromeyer,** who is highly skilled at this

in Endorsed by **3 of Rolf's colleagues at LinkedIn**

Which skills do my employees have listed on their profiles? (LinkedIn EMEA Demo's 17,893 members on LinkedIn) ⊙

Filter by: (Skill ▼) (Location ▼) (Job Title ▼) (Job Function ▼)   Clear (0)

Skill (100) ⇕	Employees	1y growth ⇕	1y hires ⇕	● % of your employees ● % of your peers (10)
LinkedIn	14,839	▲ 4%	2,292	83% / 0%
Recruiting	4,294	▼ -10%	473	24% / 4%
Java	4,241	▲ 6%	671	24% / 11%
SQL	4,171	▲ 4%	696	23% / 11%
Analytics	4,115	▼ -2%	653	23% / 7%
Software Development	4,049	▲ 4%	582	23% / 14%
Python (Programming Language)	3,959	▲ 7%	733	22% / 9%
Customer Relationship Management (CRM)	3,938	▼ -7%	512	22% / 5%
Digital Marketing	3,907	▼ -5%	620	22% / 4%
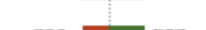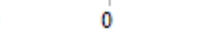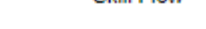
Hires & Departures By Skill Group

Skill Group	Skill Flow	Net Change	Hire : Departure Ratio
Digital Marketing	1,500 — 2,447	947	1.63x
Data Science	1,236 — 1,492	256	1.21x
Data Storage Technologies	916 — 1,058	142	1.16x
Development Tools	768 — 1,049	281	1.37x
Sales Operations	1,000 — 912	-88	-1.10x
Web Development	599 — 882	283	1.47x
Advertising	766 — 823	57	1.07x
Product Marketing	730 — 686	-44	-1.06x
Sales Leads	801 — 618	-183	-1.30x
Project Management	528 — 607	79	1.15x
Recruiting	805 — 601	-204	-1.34x
Management Consulting	630 — 594	-36	-1.06x
Business Management	571 — 588	17	1.03x
Human Resources (HR)	622 — 580	-42	-1.07x
Customer Experience	502 — 544	42	1.08x
Software Development	376 — 535	159	1.42x
Technical Support	403 — 530	127	1.32x
Software Development Life Cycle (SDL...	380 — 523	143	1.38x
Artificial Intelligence (AI)	352 — 495	143	1.41x
Enterprise Software	620 — 482	-138	-1.29x

-2,000   0   2,000

Food Server

Food & Beverage

Teamwork

Waiting Tables

Time Management

Communication

Hospitality

Customer Service

Social Media

Organization Skills

Multitasking

Restaurant Management

Public Speaking

Cashiering

Customer Satisfaction

Event Planning

Microsoft Access

Research

Interpersonal Skills

Sales

Catering

Store Manager

Store Management

Visual Merchandising

Merchandising

Loss Prevention

Retail Sales

Retail

Inventory Management

Driving Results

Inventory Control

Big Box

Fashion

Apparel

Merchandise Planning

Operations Coordinator

Operations Coordination

Operations Management

Event Planning

Time Management

Logistics Management

Office Administration

Data Entry

Social Media

Customer Service

Inventory Management

Event Management

Teamwork

Communication

Teaching

Sales

Team Building

Administrative Assistance

Microsoft Access

Public Speaking

Marketing

There are over 36,000 unique skills we measure across more than 6,000 unique job titles on LinkedIn. Here are three different jobs where our data shows **Time Management** - one of the most common skills we track - ranks among the top skills.
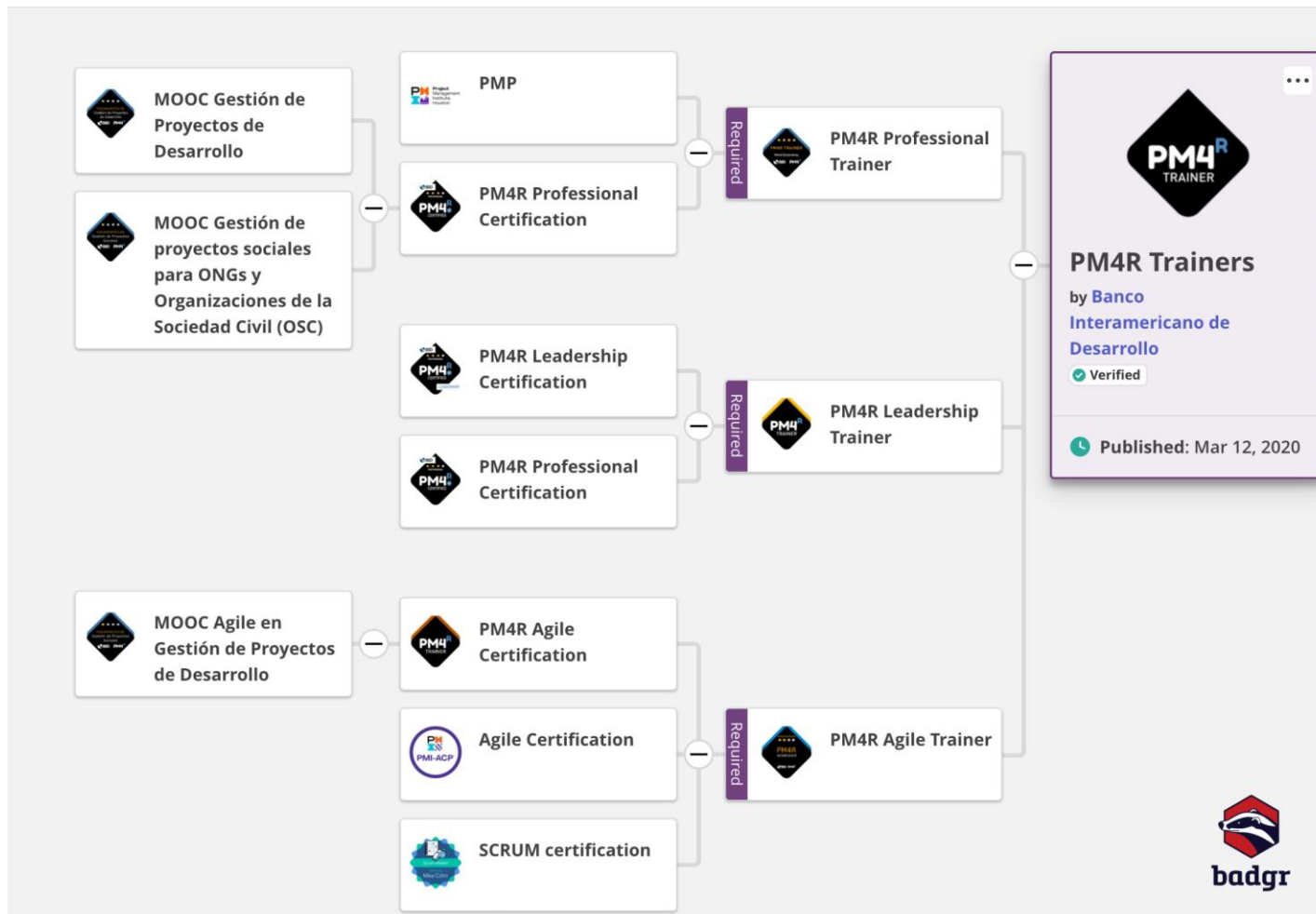
Example: Badgr & IDB (& PMI)

Career pathways with micro-credentials

Example: Credly & Hospitality Maine

Stackability to employability

What is Trusted Digital Identity?

Verifiable Credential

Owner/Holder

Proof

Trust

Issuer

Verifier

Verifiable credentials are new technology standards for issuing and sharing identity data about **people, organizations, or things**.

Trusted digital identity confirms that you are who you say you are.

Self-sovereign identity (SSI) keeps the Owner in control of where and how their verifiable credentials are accessed.
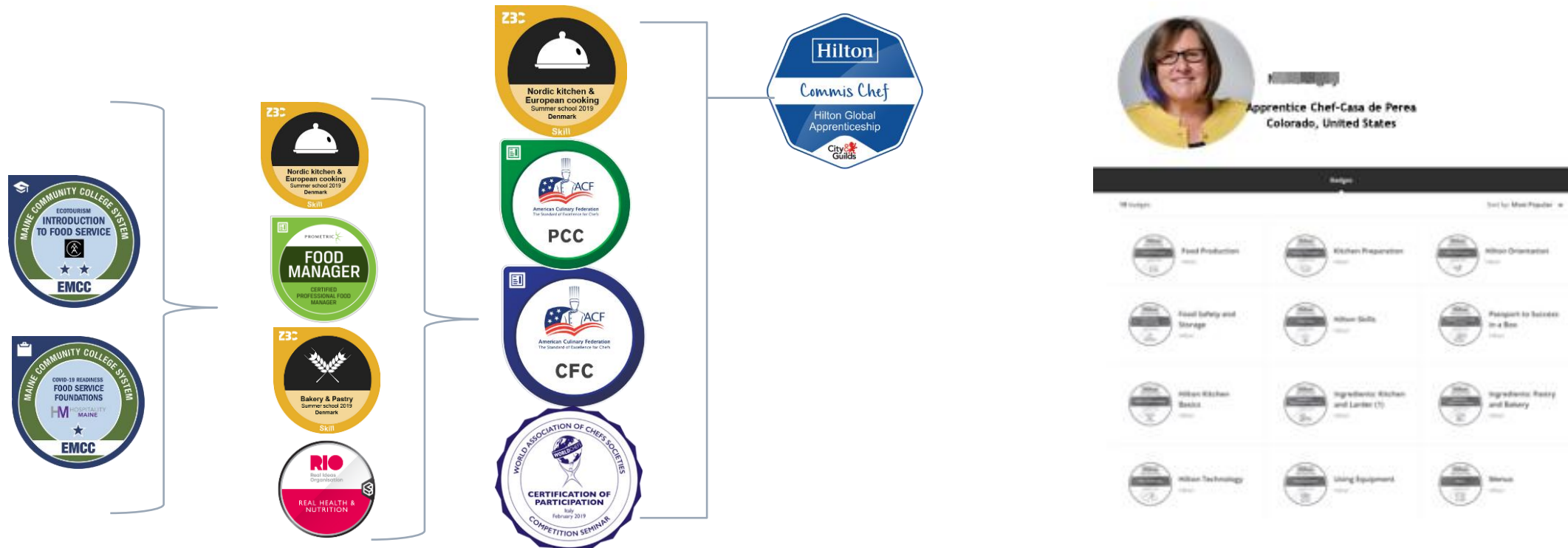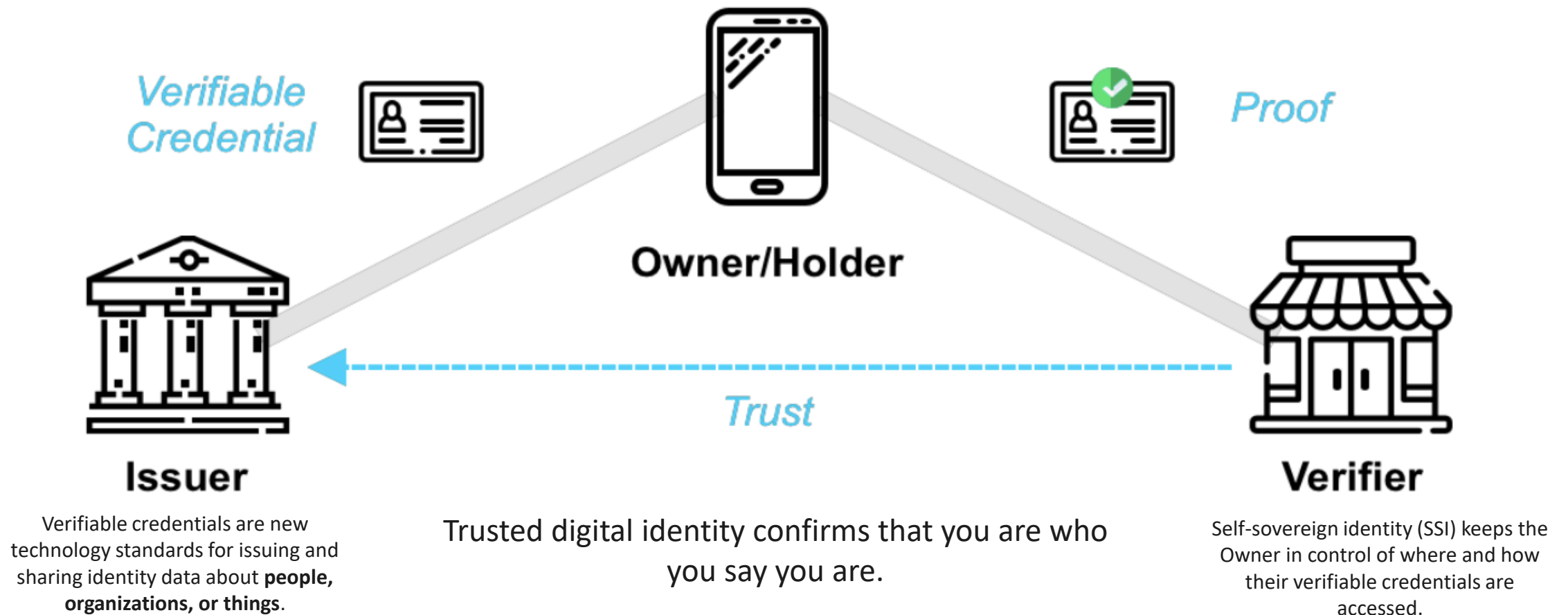
Self-Sovereign Identity (SSI) example via walt.id
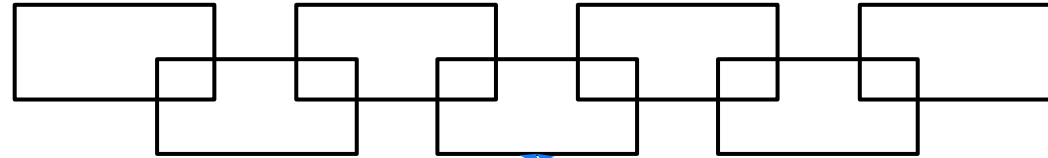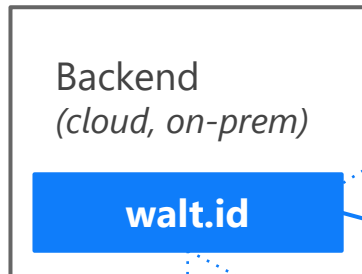
Registry

e.g. EU Blockchain Service Infrastructure; Ethereum; Domain Name Service, ...

Source of Truth / Trust & Governance.

Issuer

Gov, school, insurance ...

write
read

write
read

write
read
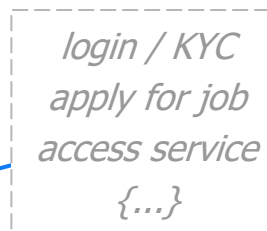
Verifier

Bank, employer, SaaS

Holder

Person, Business

Backend
(cloud, on-prem)

walt.id

ID Card
diploma
certificate
{...}

Web &
Mobile App

walt.id

login / KYC
apply for job
access service
{...}

...

Backend
(cloud, on-prem)

walt.id
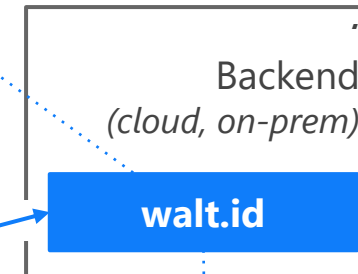
Integration of open source solutions in backend.

Sign   **Issue**   **Store**   **Present**   **Verify**

Enabled Functionality.

Example: Credivera

Training Credential is Issued to Credivera Wallet

The Driver Attaches Additional Regulatory Proof to Their Training Credential

2. Danatec

3. Credivera Wallet

4. Credivera Wallet

Driver Confirms Identity & Approves Training to be Issued to Credivera Wallet

The Driver and the Employer Have a Shared View of the Verifiable Digital Credential

5. Employer System

1. The Driver

Nationale Bildungsplattform für eine durchgängige Nutzungsreise

Bundesministerium für Bildung und Forschung

Metaplattform im Bildungsraum

Lebensbegleitend Lernender

Beratung

Orientierung

Zugang

Teilhabe Bildung

Auswertung der Daten durch Forschung

Ergebnisse Beratung

Testergebnis / Selbstorient.

Teilnahme

Kompetenz-erweiterung

Data-Wallet

inkl. zusätzlicher Daten über die Nutzung der Systeme (für z.B. Learning Analytics)

Anonymisierungsservice

Metadatenmanagement

Metadaten

DAAD g.a.s.t. kiron RWTH AACHEN UNIVERSITY TECHNISCHE HOCHSCHULE LÜBECK

Beispiel: Rich Skill Descriptors als Verbundstoff

Required fields

Infrastructure Component Security

Author: Western Governors University

⊕ Published Jan 26 2021

SKILL STATEMENT

Secure Amazon Web Services (AWS) infrastructure components, including Amazon Elastic Compute Cloud (Amazon EC2), Amazon Simple Storage Service (Amazon S3), and hosted database instances.

RICH SKILL DESCRIPTOR

Infrastructure Component Security

Author: Western Governors University

⊕ Published Jan 26 2021

SKILL STATEMENT

Secure Amazon Web Services (AWS) infrastructure components, including Amazon Elastic Compute Cloud (Amazon EC2), Amazon Simple Storage Service (Amazon S3), and hosted database instances.

CATEGORY

AWS Certified Security Specialty

KEYWORDS

AWS Certified Security Specialty; AWS Cloud Security

STANDARDS

NICE: Protect and Defend

CERTIFICATIONS

CCSP

OCCUPATIONS

DETAILED OCCUPATIONS
15-1212 Information Security Analysts

O*NET JOB ROLES
15-1122.00 Information Security Analysts

View All Groups

EMPLOYERS

ALIGNMENT

AWS Certified Security Specialty

COLLECTIONS WITH THIS RSD

Cybersecurity Collection

Supporting metadata

Open Skills Network

CATEGORY

AWS Certified Security Specialty

KEYWORDS

AWS Certified Security Specialty; AWS Cloud Security

STANDARDS

NICE: Protect and Defend

CERTIFICATIONS

CCSP

OCCUPATIONS

DETAILED OCCUPATIONS
15-1212 Information Security Analysts

O*NET JOB ROLES
15-1122.00 Information Security Analysts

View All Groups

EMPLOYERS

ALIGNMENT

AWS Certified Security Specialty

Skills covered

Resiliency   Personal Development   Life Skills

Viewers

20,694 members like this content · 191,892 people viewed this content

CEU - Continuing Education Units (1 certification available)

National Association of State Boards of Accountancy (NASBA)
Continuing Professional Education Credit (CPE): 1
Recommended NASBA Field of Study: Personal Development

Sponsor Identification number: 140940
To earn CPE credits the learner is expected to:
Complete all videos and chapter quizzes
Complete the final exam within one year from completing the course
Score 70% or higher on final exam
Glossary: see PDF file in the *Exercise Files* area
Program Level: Basic
Prerequisite Education: There are no prerequisites for this course.
Advanced Preparation: There is no advance preparation required for this course.

If you undertake this course for CPE credits, you can leave final comments in the Self Study Course Evaluation.

Cross-regional initiatives

International Standardisation

Organisations on the way to capability management

Professional providers in the ecosystem

Accredited education providers

"We promote the global exchange, cooperation and development for the recognition of informal, non-formal and formal learning with badges and credentials."
Subscribe to our newsletter at www.icobc.net

Large Orgs: The BCM-FLO Workshop Format

Join the WG: it is free.

Modernization

Innovative

Constructive

Traditional

Visibility

Taxonomy

Inter-operability

Assertion

Learner

Organization

Education

Ecosystem
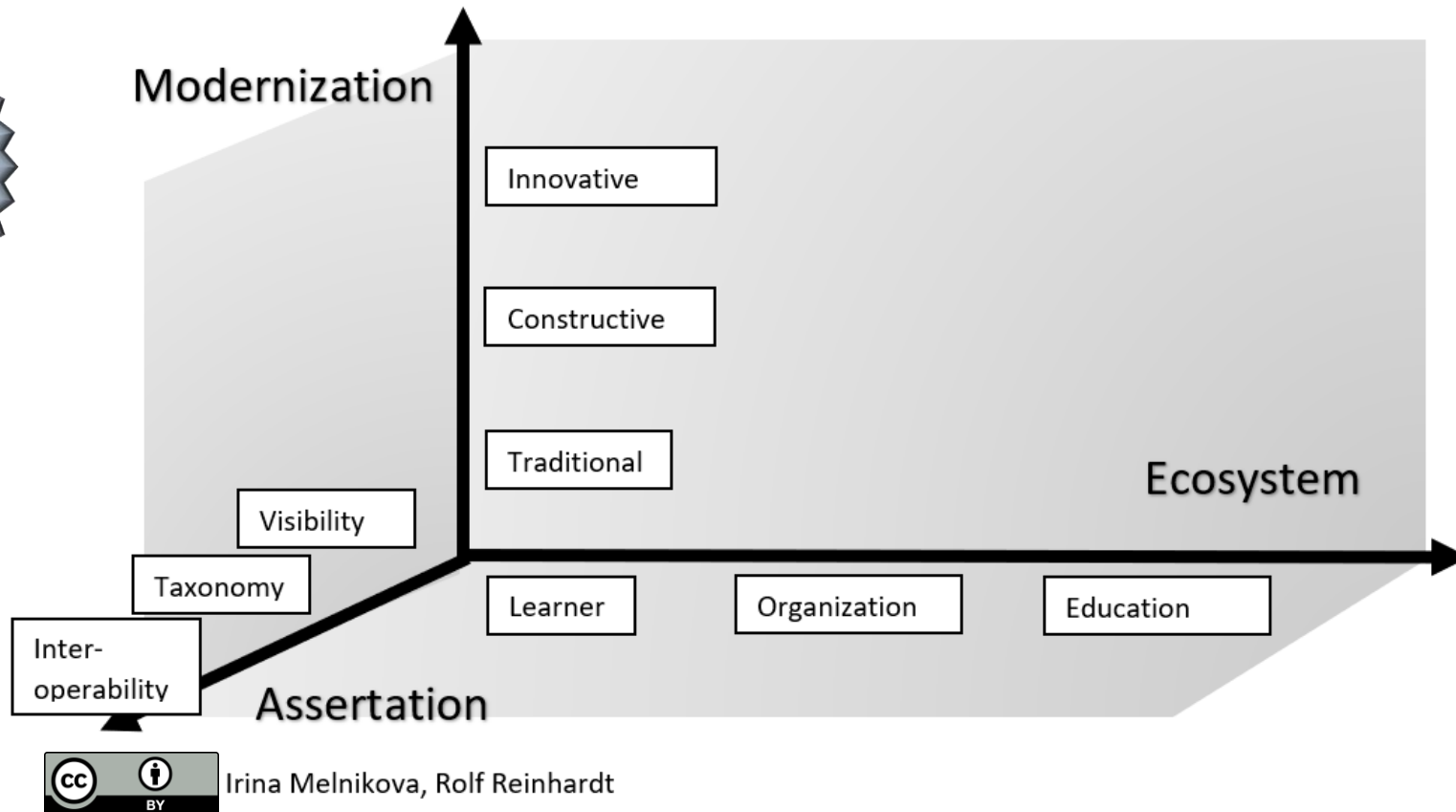
"Demonstrate understanding of current global developments in the field of badges and credentials and their local adaptation by means of examples."

ICoBC Statutes

Irina Melnikova, Rolf Reinhardt

Access via

www.icobc.net

Figure 1. ICoBC Taxonomy for Badges and Micro-credentials

Einladung zu unserem ersten Symposium in Berlin am 30.11. unter anderem mit...

Sheila Jagannathan
Global Head
Digital Learning &
Capacity building
World Bank

Klemens Riegler
Managing Director
Bildungsplattform der
WKÖ GmbH

Sue Martin
Global Head Personnel
Certification
TÜV Rheinland

Doug Belshaw
Founding Member
We Are Open Co-op

More at https://ic-badges-credentials.org/en/icobc-symposium

24.09.2021