cedefop
European Centre
for the Development
of Vocational Training

EUROPEAN YEAR OF SKILLS

**22 and 23 June 2023**
Virtual conference

# Macro(Trends) vs Micro(credentials):

# A “Complementary Opposites” pattern for a digitally enabled ecosystem of microcredentials

Simone Ravaioli
Director Global Ecosystem and Innovation, Digitary by Parchment

Credentialing Ecosystem Mentalist

# #DayJob

*// Turning credentials into opportunities*

DIGITARY by parchment

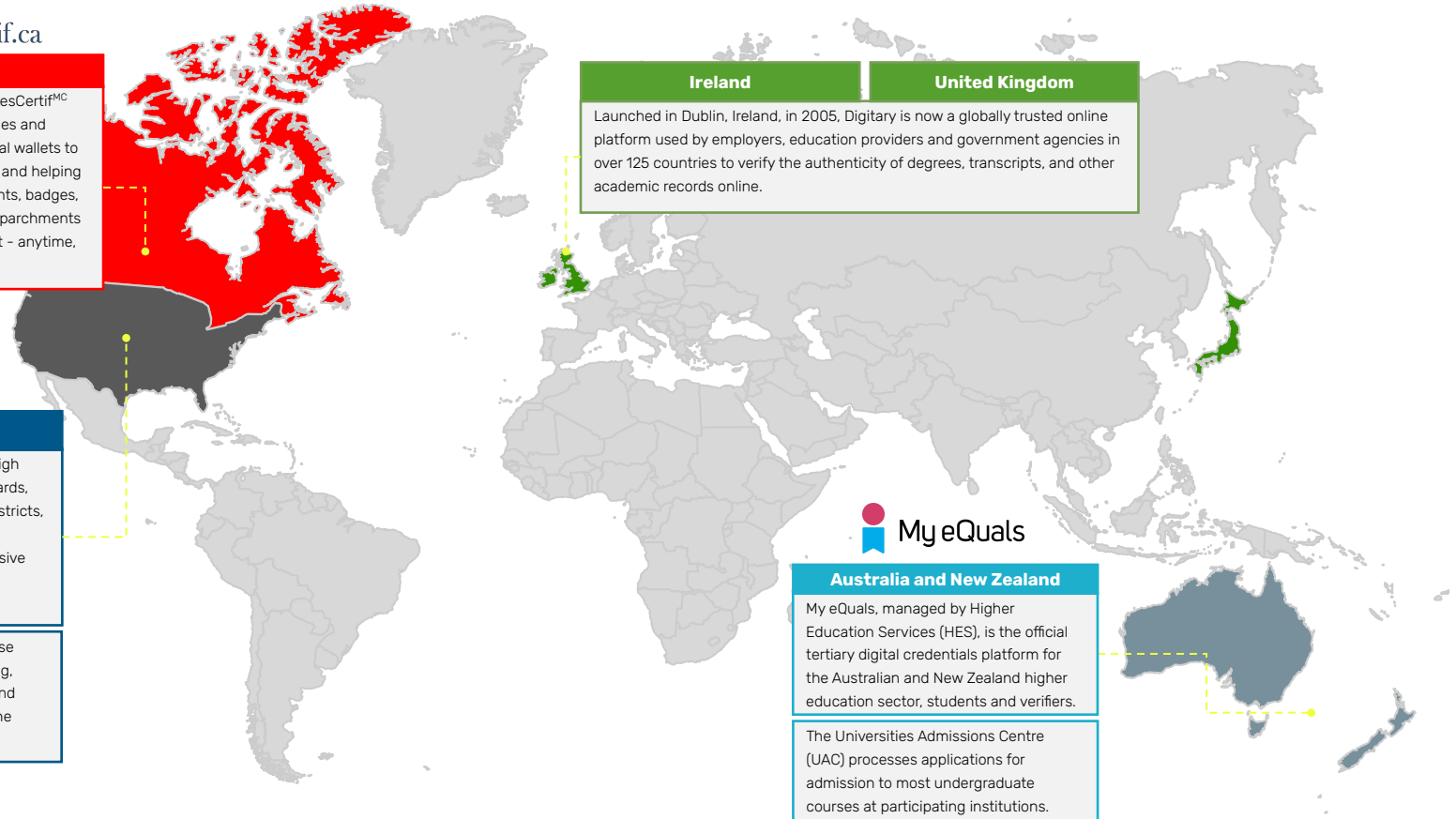
# #NightHustle

*// building the global credentialing ecosystem*

MyCreds.ca MesCertif.ca

## Canada

Through the ARUCC MyCreds™ | MesCertif[MC] National Network, Canadian colleges and universities are providing credential wallets to learners, giving them 24-7 access and helping them securely send their documents, badges, microcredentials, transcripts, and parchments wherever and whenever they want - anytime, anywhere.



parchment

## United States

Parchment has helped learners, high schools, universities, licensing boards, and employers and over 13,000 districts, exchange millions of transcripts, diplomas, certificates, comprehensive learner records (CLRs) and other credentials globally.

The National Student Clearinghouse offers solutions that meet reporting, research, verification, transcript, and data exchange demands across the K-20 to workforce continuum.

## Ireland | United Kingdom

Launched in Dublin, Ireland, in 2005, Digitary is now a globally trusted online platform used by employers, education providers and government agencies in over 125 countries to verify the authenticity of degrees, transcripts, and other academic records online.

My eQuals

## Australia and New Zealand

My eQuals, managed by Higher Education Services (HES), is the official tertiary digital credentials platform for the Australian and New Zealand higher education sector, students and verifiers.

The Universities Admissions Centre (UAC) processes applications for admission to most undergraduate courses at participating institutions.

# #EUYearOfSkills

*// What is the Skill of the Year ?*

# #CredsMaking

*// credentialing Sense-Making*

“the **badge** is to the **microcredential** as the **diploma** is to the **degree**.”

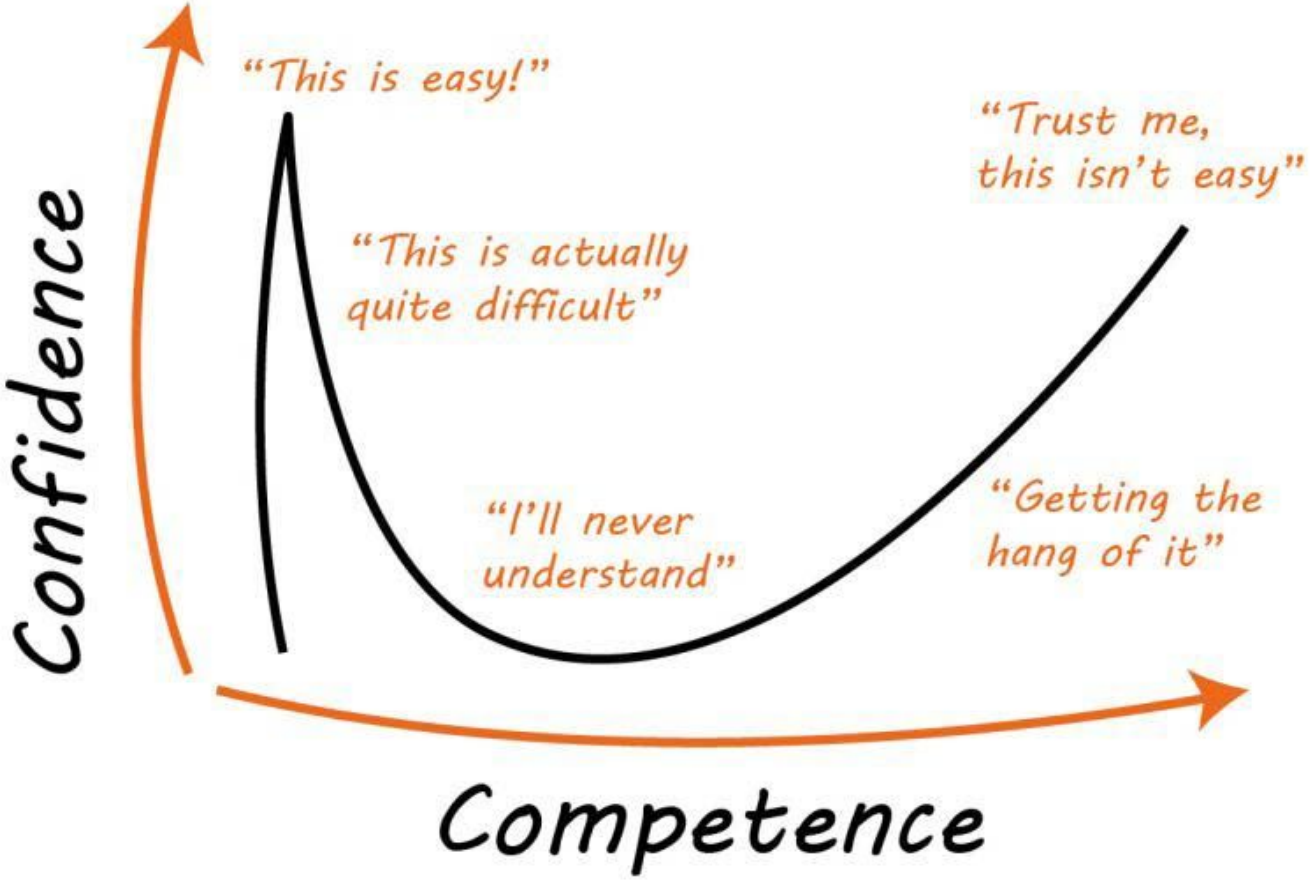
*Source: AACRAO*

# #Metonymy

*//the part for the whole*

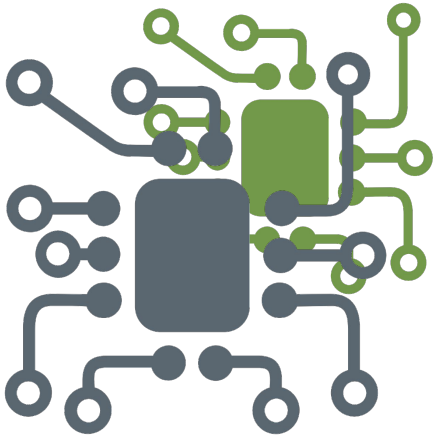
# #Dunning-Kruger Effect

*// unskilled and unaware*


"This is easy!"
"This is actually quite difficult"
"I'll never understand"
"Getting the hang of it"
"Trust me, this isn't easy"
Confidence
Competence

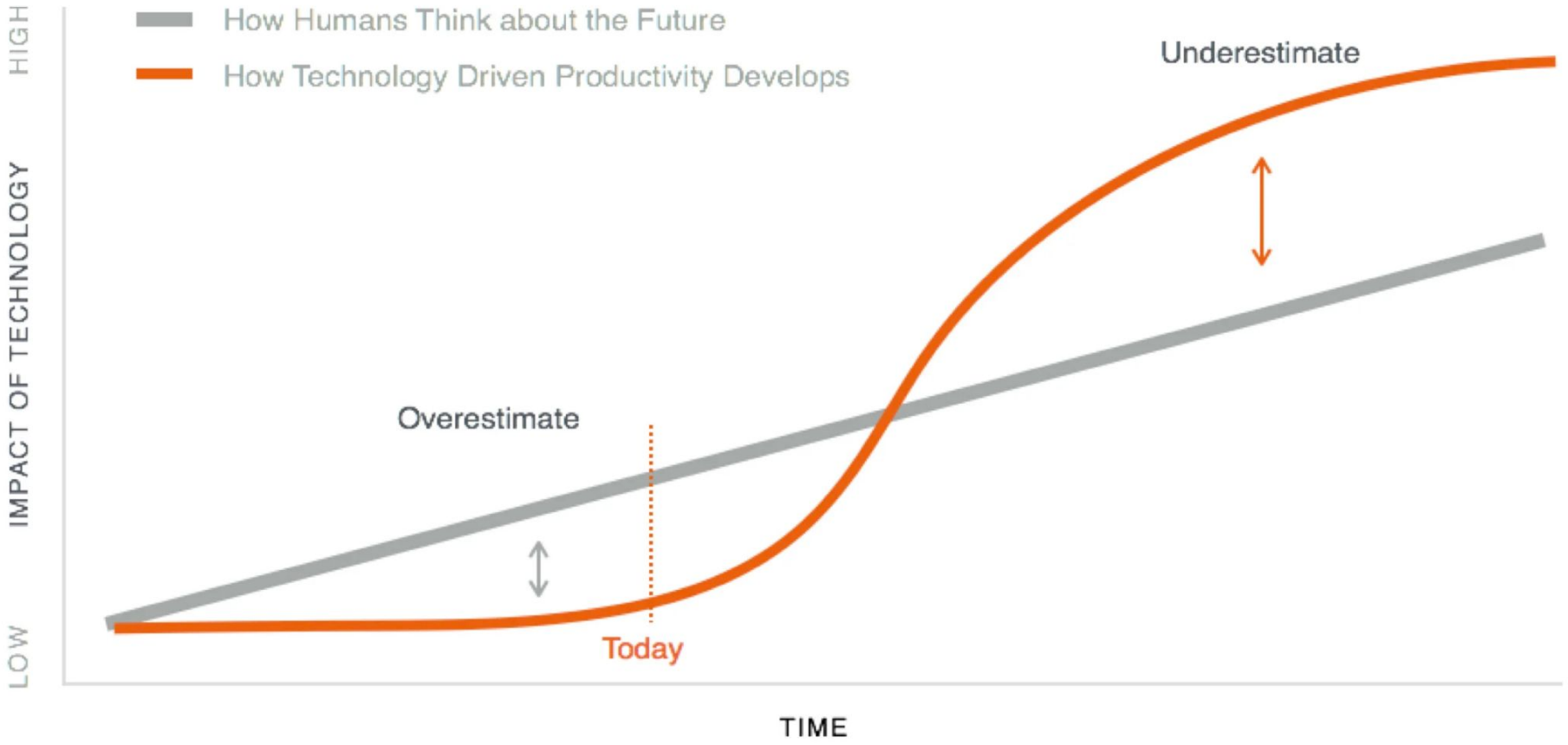
# #1 MicroTech

*// digital-credentials for micro-credentials*



# #Amara's Law

*// overestimate short term, underestimate long term*

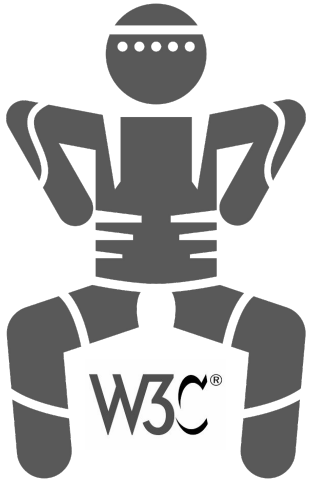



Source: Roy Charles Amara, Wikipedia

FYRFLY Venture Partners

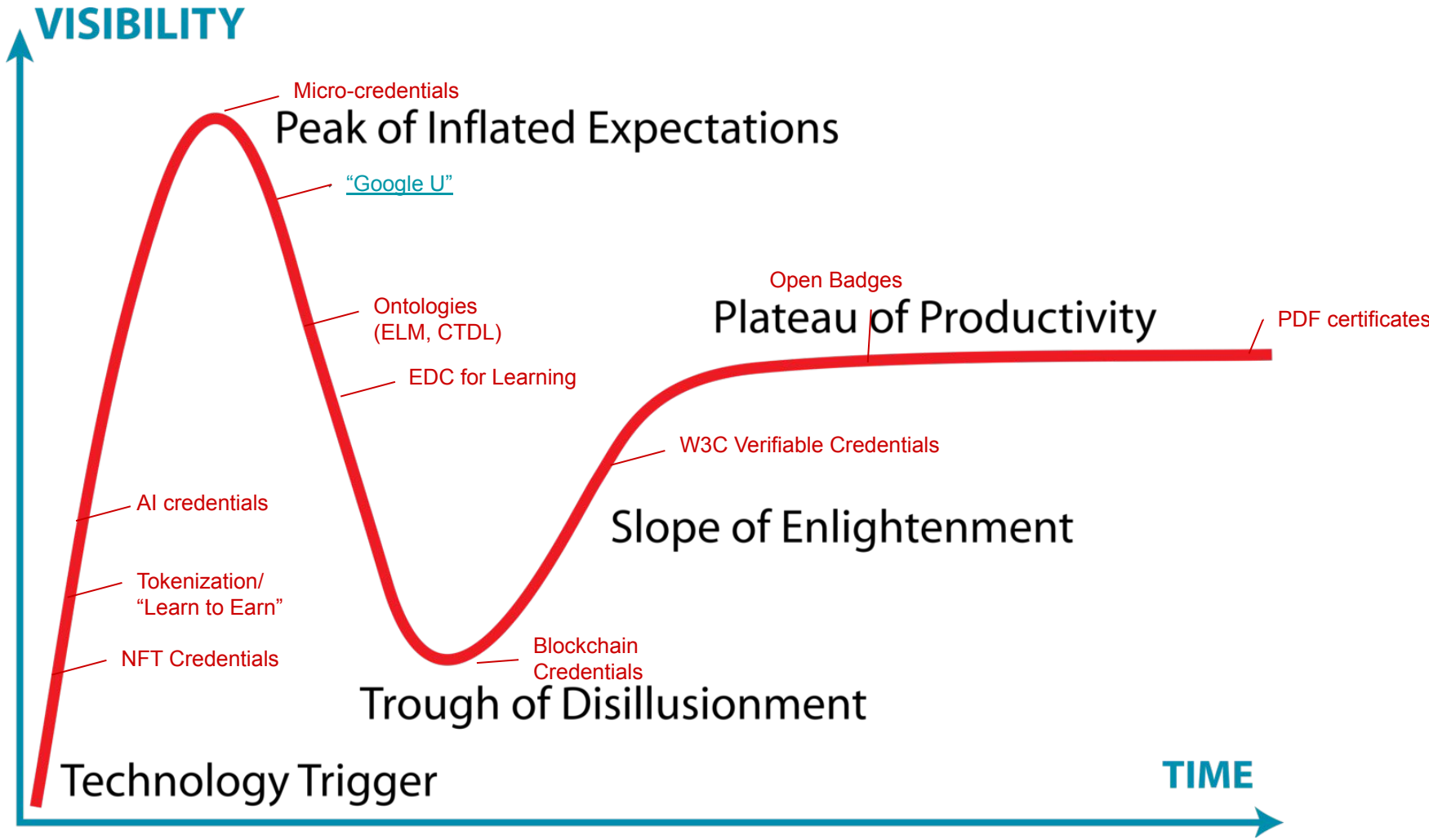
# #BadgeSapiens

*// the ancestors of modern recognition tech*



# #HypeCycle

*// (micro)credentialing hype ?  Yes, sir, No, mam.*


VISIBILITY
Micro-credentials
Peak of Inflated Expectations
"Google U"
Ontologies
(ELM, CTDL)
EDC for Learning
Open Badges
Plateau of Productivity
PDF certificates
W3C Verifiable Credentials
AI credentials
Slope of Enlightenment
Tokenization/
"Learn to Earn"
NFT Credentials
Blockchain
Credentials
Trough of Disillusionment
Technology Trigger
TIME

# #SmartCredentials

*// (Programmable) Verifiable Credentials*

```
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https://core.digitary.net/schema/mycreds/vsp/2022/11/01">
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         <MiddleName>Scott</MiddleName>
         <LastName>Billypun</LastName>
      </Name>
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         <Email>john.snow@college.com</Email>
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         <AwardProgram>
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# Job Application

Dear [Hiring Manager's Name],

I am writing to express my interest in the [Position Name] role at [Company Name], and I believe that my academic background in manufacturing and my passion for AI make me an excellent fit for this role in the Industry 4.0 sector.

I recently completed a Micro-credential in Manufacturing at XYZ College, where I gained a comprehensive understanding of the manufacturing process, including design, development, and improvement of manufacturing systems and processes. Furthermore, I am deeply interested in the application of AI in manufacturing, and I have been following the latest research and trends in this field. I am confident that my knowledge and skills would be an asset to your team, and I am eager to contribute my expertise to help drive innovation and growth in the Industry 4.0 sector.

I am particularly excited about the opportunity to work in the Asia-Pacific region, where Industry 4.0 is rapidly advancing and creating new opportunities for innovation. I am confident that my skills and experience, as well as my passion for AI, would be a valuable asset to your team as you continue to drive progress and growth in this dynamic field.

Thank you for considering my application. I look forward to the opportunity to discuss my qualifications further and how they align with the needs of [Company Name].

Sincerely,
[Your Name]

# Career Pathways

**Manufacturing Engineer:** Manufacturing engineers design, develop, and improve manufacturing processes and systems to increase efficiency and reduce costs. They may also work on product design and development, test and validate new products, and manage projects.

**Production Manager:** Production managers oversee the production process and ensure that products are made efficiently, on time, and to the required quality. They may also be responsible for planning and scheduling production, coordinating with other departments, and managing inventory.

**Quality Control/Quality Assurance Engineer:** Quality control and quality assurance engineers are responsible for ensuring that products meet or exceed customer and industry standards. They may conduct inspections, perform testing, and analyze data to identify and resolve quality issues.

**Supply Chain/Logistics Manager:** Supply chain and logistics managers are responsible for planning and coordinating the movement of goods and materials through the supply chain. They may also be involved in sourcing, procurement, inventory management, and transportation.

**Automation Engineer:** Automation engineers design, develop, and implement automation systems and technologies to increase efficiency, reduce costs, and improve quality in manufacturing environments.

# Startup pitch

"Imagine a manufacturing process that is more efficient, more sustainable, and more adaptable to change.

My name is James Scott Billypun and I have a background in manufacturing, and I am passionate about the application of AI in this field.

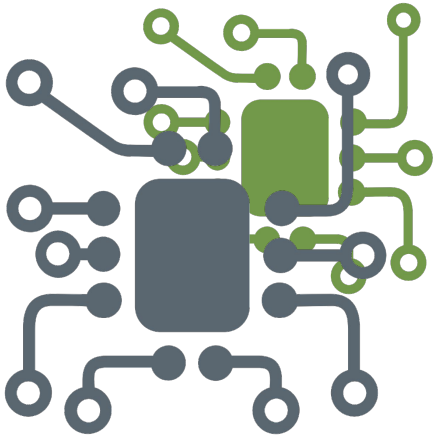
My vision is to create a startup that combines these two areas, utilizing AI algorithms to optimize the manufacturing process, from design to delivery, and improving efficiency, reducing costs, and creating new opportunities for innovation.

I see a great opportunity in the Industry 4.0 sector, particularly in the Asia-Pacific region, where this technology is in high demand. With my knowledge and experience,

I believe I can create a valuable solution for businesses looking to stay competitive in today's ever-changing market. Let's revolutionize the manufacturing industry together"

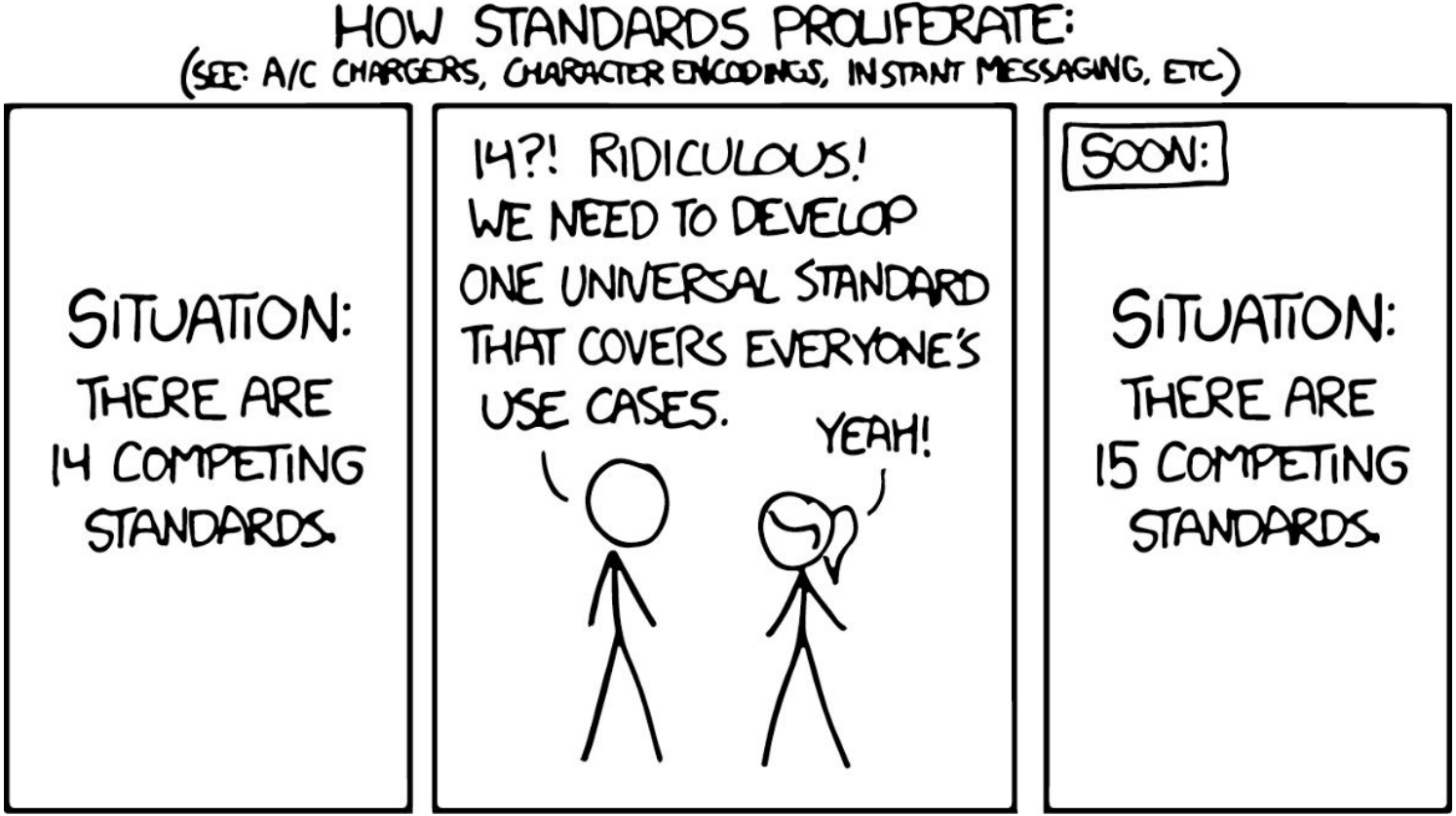
# #2 MicroInterop

*// of portability and fidelity*



# #HumanCoordination

*// of Consensus and Plugfests*


HOW STANDARDS PROLIFERATE:
(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC)
SITUATION: THERE ARE 14 COMPETING STANDARDS.
14?! RIDICULOUS! WE NEED TO DEVELOP ONE UNIVERSAL STANDARD THAT COVERS EVERYONE'S USE CASES.
YEAH!
SOON:
SITUATION: THERE ARE 15 COMPETING STANDARDS.

# #MapsOfMeaning

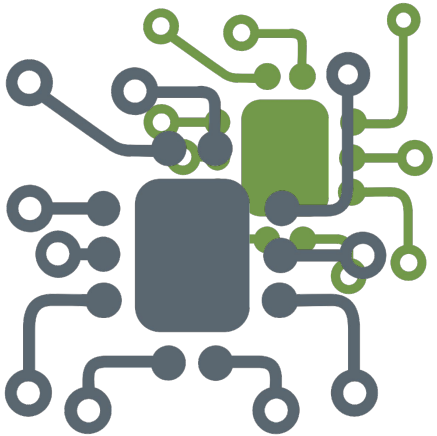
*// Credentials Transparency (ELM, CTDL)*

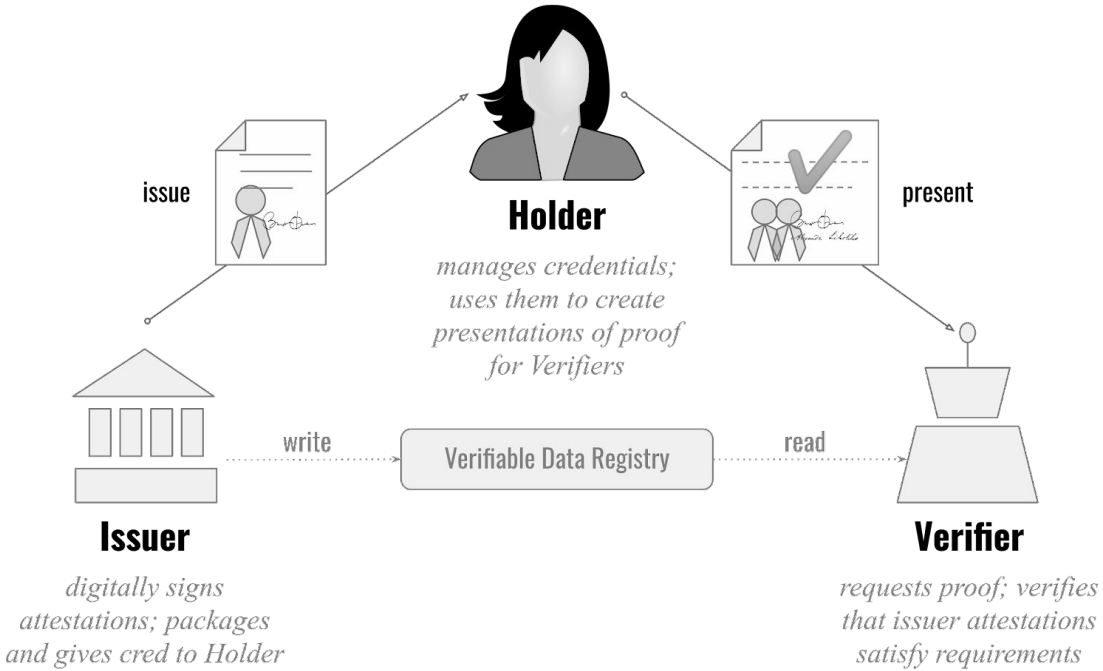
# #Call to Action

*// MC Data Elements comparison*

# #3 NewNormal

*// shifting trust paradigms*




issue
present
Holder
manages credentials; uses them to create presentations of proof for Verifiers
write
Verifiable Data Registry
read
Issuer
digitally signs attestations; packages and gives cred to Holder
Verifier
requests proof; verifies that issuer attestations satisfy requirements

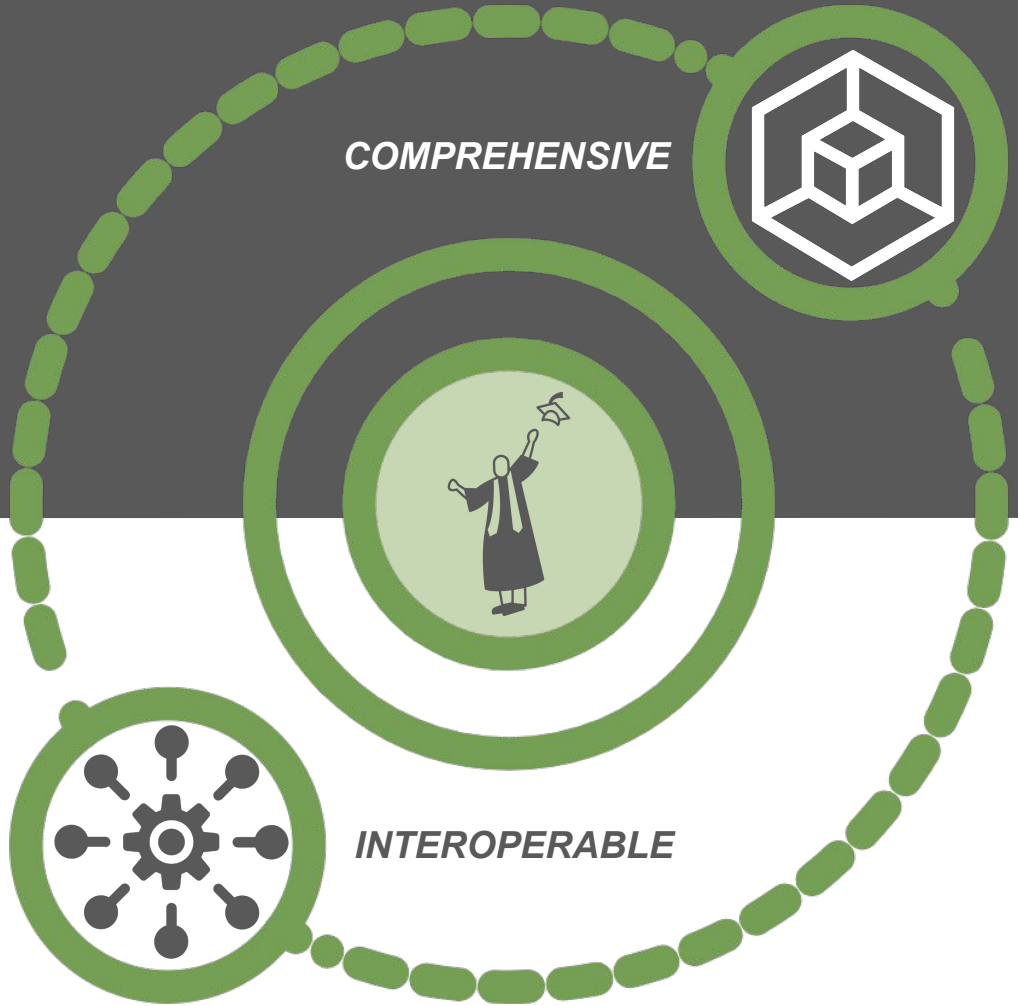
# #LearnerGravitas

/ˈləːnə gravɪtɑːs/

*attitude*

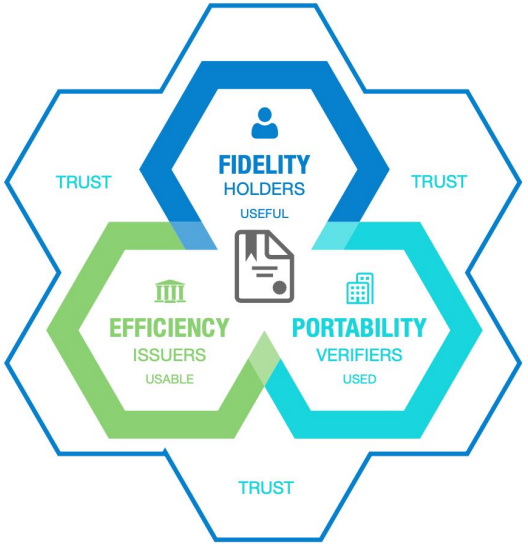
1. acting out learner centric principles with integrity, deliberately.

# Learner Records




// Self-Sovereign mindset

// Distributed attitude




# #MentalModel

*// Usable - Product (Fit for Purpose)*
*// Useful - Learners (unlocking opportunity)*
*// Used - Ecosystem (solving the [adoption] dilemma)*

# #IncovenientTruths

*// adding friction, not solving problems*

# #BetterQuestions

*// aka Prompt Engineering *Skill of the Year 2023*

Credentialing Ecosystem Mentalist