

MATTR

# MyCreds Credentials Overview

Considerations for interoperability

**Nader Helmy** | MATTR

**Prepared for W3C VC EDU WG**

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MYCREDS CREDENTIALS OVERVIEW | PUBLIC

# What is MyCreds "Virtual Skills Passport"

[MyCreds™](#) is a national, shared service and platform in **Canada** that provides students and graduates access to a secure, online, password protected learner credential wallet.

MyCreds **Virtual Skills Passport** acts as a digital wallet allows them to view and share their verified and official transcripts, credentials, and academic documents in a digitized format on a 24/7 basis – anytime, anywhere. It enables peer-to-peer document and data sharing between issuing organizations such as colleges and universities.



# How are we involved

MATTR products provide the building blocks for verifiable data and digital trust ecosystems.

The capabilities we build cover the **issue, verify, hold** "trust triangle" as well as the **ecosystem operations** necessary to create secure and trusted interactions.

Part of facilitating trust in an ecosystem is the process of developing common standards around how data is represented, conveyed, and understood.



Digitary and MATTR are the technology partners on the MyCreds Virtual Skills Passport, providing the platform and capabilities for digital credentials as part of the **MyCreds ecosystem**.

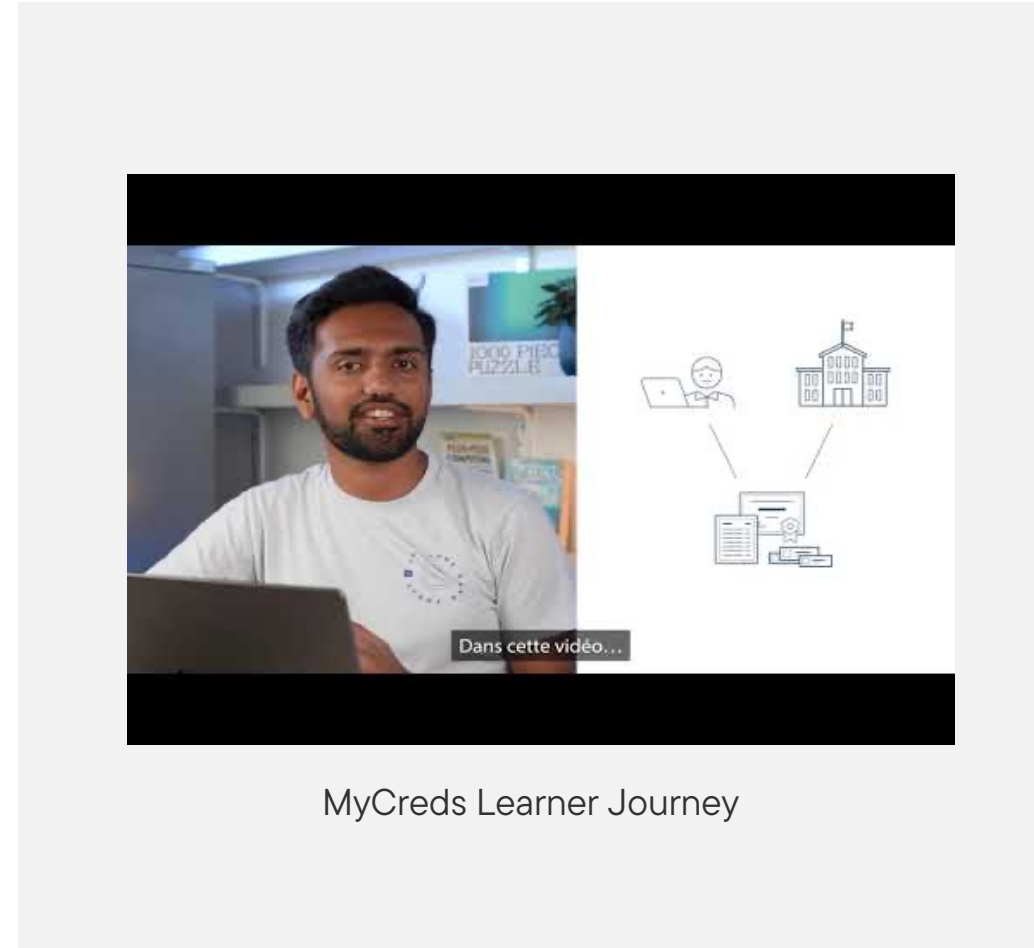
# How our credentials work

DIGITARY

- Academic credentials are issued by institutions as a digitally signed PDFs into a student account
- This happens on the Digitary platform, which powers MyCreds

MATTR

- When students login to their MyCreds account, there is an option for them to "Download the credential to a digital wallet"
- If the student opts in and consents, they download the MATTR wallet and the VC is created and issued to their wallet

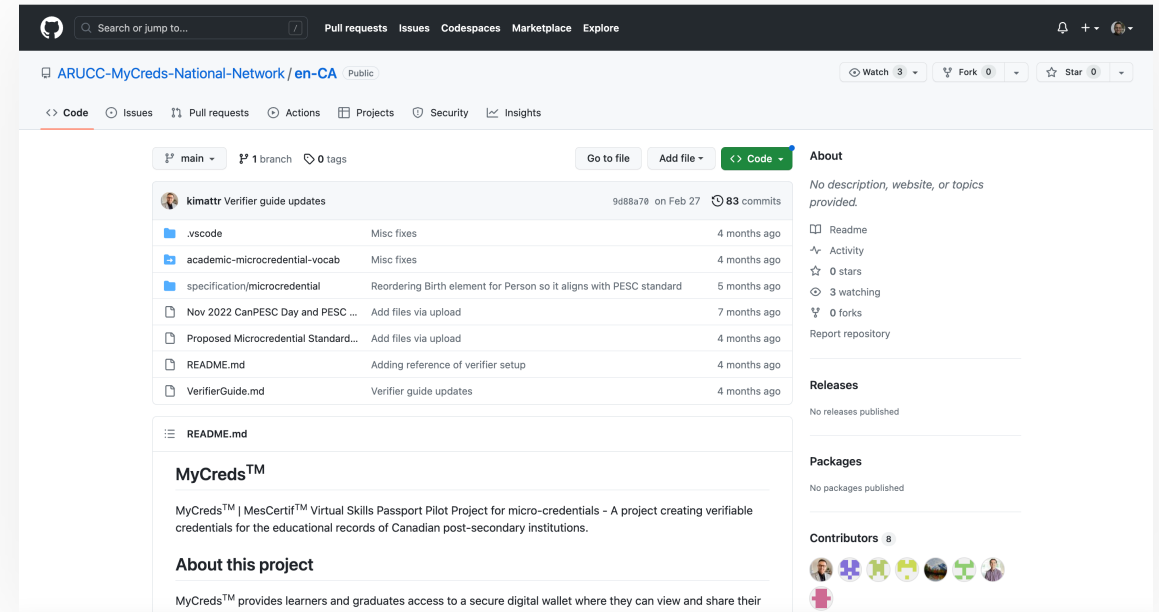


# Our standards approach

Fundamentally, we believe in building on top of open standards because we want to meet people where they are and foster transparency and open participation in an ecosystem.

This means creating solutions that leverage standards to define things like how data is represented, how it's secured, how users can authenticate to interact with that data, and more.

In the case of MyCreds, we needed a way to have a digitally-native education record that could be defined and modelled using open data vocabularies. Ultimately the Virtual Skills Passport was defined to support W3C Verifiable Credentials using JSON-LD.



<https://github.com/ARUCC-MyCreds-National-Network/en-CA>

# MyCreds Verifiable Credentials (microcredentials)

We modelled a JSON-LD vocabulary defining a type of VC which is known in MyCreds as a "microcredential"

This vocab is primarily based on a translation of PESC XML standards for college transcripts and academic credentials

PESC College Transcript and the PESC Academic Credential and Experiential Learning standards

<https://www.pesc.org/college-transcript.html>

<https://www.pesc.org/credential-and-experiential-learning.html>

**Unofficial Draft**

**Academic Micro-Credential v0.1**

A Linked Data vocabulary for expressing attributes related to an academic award vocabulary

Unofficial Draft 02 June 2023

▼ More details about this document

**Latest published version:**  
<https://academic-microcredential-vocab.matrlabs.com/v1>

**Latest editor's draft:**  
<https://academic-microcredential-vocab.matrlabs.com>

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**Feedback:**  
[GitHub ARUCC-MyCreds-National-Network/academic-microcredential-vocab \(pull requests, new issue, open issues\)](#)

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**Abstract**

This specification document refers to the standards, patterns and examples used for the Verifiable Credential issuance and verification of the educational records generated by a post-secondary institution in Canada. These

<https://academic-microcredential-vocab.matrlabs.com/>

# Interoperability challenges

Looking at the education landscape when it comes to standards, there's a very wide range of terminology being used and a wide variety of stakeholders trying to create their own kinds of academic records or digital credentials. These vary wildly in terms of:



**What the data is even meant to be modelling in the first place**

- Simple to complex, atomic to dynamic kinds of data
- e.g. Courses, skills, transcripts, diplomas



**The underlying technology being used for data representation**

- Legacy or future facing
- e.g. XML, JSON, VCs



**Where the data lives and how its managed**

- User-centric to institution-centric
- e.g. Paper documents, web portals, central databases, digital wallets



**Which standards are being conformed to and at which layer**

- Different standards intended for overlapping but distinct kinds of data
- e.g. CLRs, Open Badges, VCs, PESC standards, HR Open Standards, Europass Learning Model



**Whether or not there is a digital security layer and how the data is secured**

- How tamper-evident is the data, is there content integrity and/or origin authenticity
- e.g. Digital signatures, QR codes, LD-Proofs, VC-JWT, SD-JWT

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# Interoperability opportunities

With a few simple and concise goals, we believe there's an opportunity to cut through some noise and develop something **simple** and **collaboratively constructed** that builds on best practices for standards conformance:

1. Leverage the PESC XML standards which are already widely in use today as inspiration for the semantics and utility of the credential (*according to the National Student Clearinghouse, there are over 14 million PESC college transcripts issued over the last 5 years!*)
2. Build on top of the microcredentials guidance being provided by legislators, lawmakers, and experts around what data elements should be included
3. Synthesize different JSON-LD vocabs being built by the community so we can model a simple microcredential which contains the simplest elements of an Open Badge v3 (*both microcredentials and OBv3 are intended to be single assertion credentials*)

We think accomplishing the above simultaneously will help create an “MVP for interoperability” in the education space.

# Invite to collaboration

1. Contribute the work we've done on our JSON-LD vocab around microcredentials to VC EDU (*it's open source*)
2. Gather support for working on a common JSON-LD vocab that represents the best of what's out there in the space today and conforms to the 3 goals outlined in this presentation
3. Propose this new verifiable credential, modelled in JSON-LD, as an interop target for JFF Plugfest 3

Please note that this approach does not tackle the digital security layer of the problem or give any guidance for how institutions implement this from a data architecture and integration perspective, but instead attempts to find some common ground on a **simple but practical microcredential** that will be a **standards-based VC**.

This will allow the complex stakeholders in the education space to converge on a common, single-assertion, atomic unit of data that can be combined and constructed to suit each ecosystem or jurisdiction's needs.

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# Thank you

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