Midwest Credential Transparency Alliance: Building Pathways for States and Regions

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Credential Engine™

Topics

- MCTA Pathways Action Team - Jeff Grann
- Introduction to the Pathway Builder - Jeanne Kitchens
- Pathway Builder Demonstration - Jeanne Kitchens and Sneha Edula
- Q&A and Closing - Everyone

Credential Engine: Our mission and vision

Our Mission: Credential Engine is a non-profit whose mission is to map the credential landscape with clear and consistent information, fueling the creation of resources that *empower people to find the pathways that are best for them.*

Our Vision: We envision a future where *millions of people worldwide have access to information* about credentials that opens their eyes to the full range of opportunities for learning, advancement, and meaningful careers.

How do we make sense of the connections between credentials, skills, and jobs?
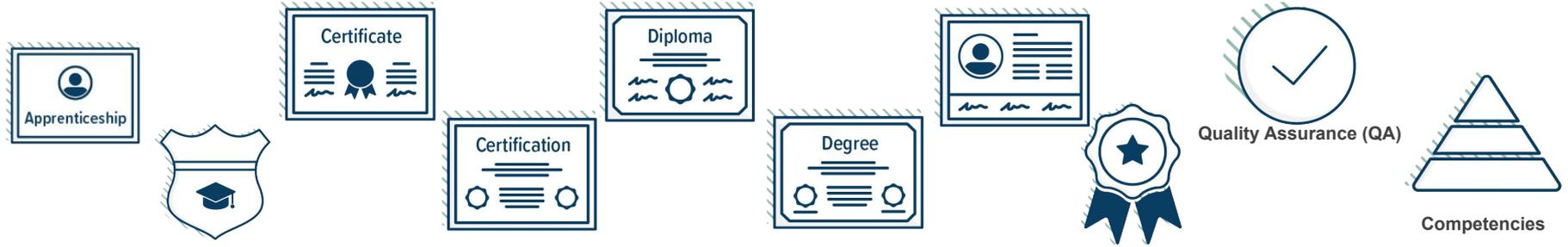
- Over 1 million education and training credentials are offered in the U.S., including degrees, certificates, badges, micro-credentials, licenses, certifications, apprenticeships, diplomas, and more.
- Credentials generally do not include information about the skills they represent.
- The relationships between credentials and jobs are generally not clear.
- Educators, employers, and learners/workers struggle to understand credentials' meaning and value so that they can be applied to advancement in learning and career pathways.
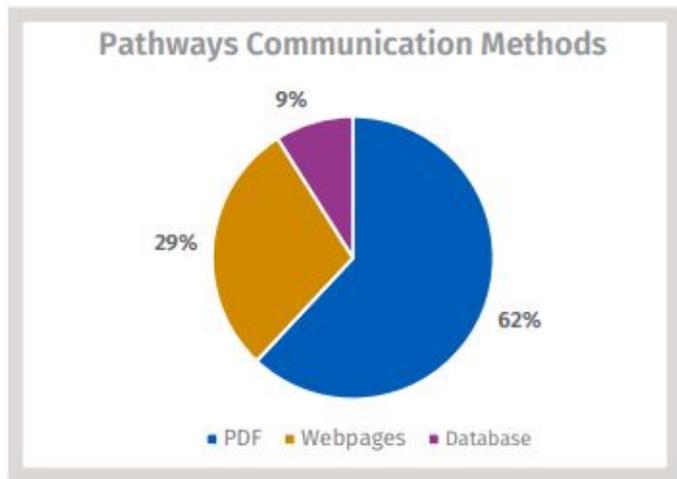
Midwest Credential Transparency Alliance Charter

"The MCTA also works as a group to identify **technical and business requirements for the procurement of tools and services** related to credential transparency, such as the issuing of digital credentials, career planning and pathway services, transfer and prior learning assessment services, credential data management services, and more. **Prioritized master contract opportunities** will be advanced through competitive RFP processes in order to spur supportive technologies at negotiated prices."
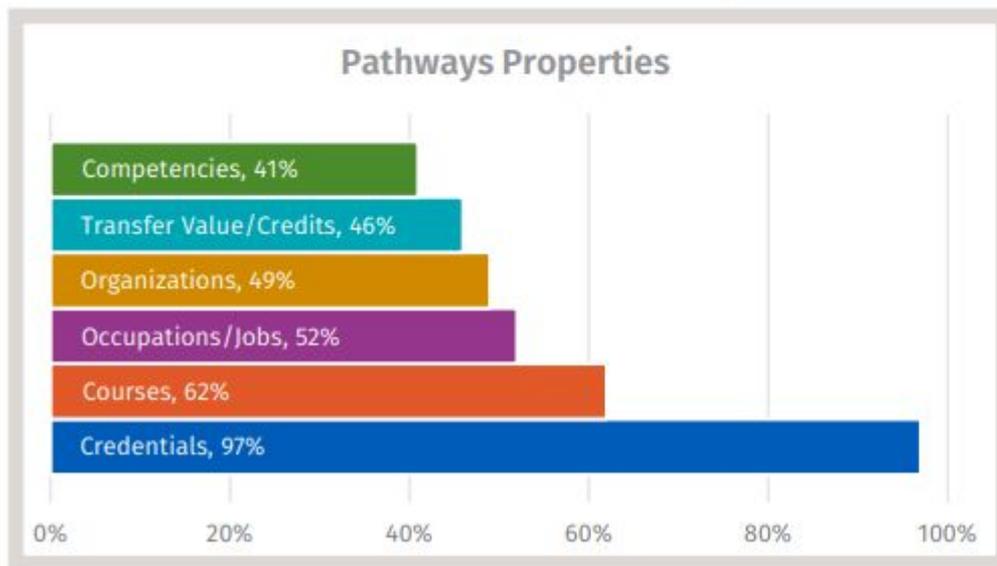
MCTA Charter - August 2021

Pathways Brief - October 2021

Pathways Communication Methods

- PDF
- Webpages
- Database

62% — PDF
29% — Webpages
9% — Database

n = 692 Midwest Pathways

Pathways Properties

- Competencies, 41%
- Transfer Value/Credits, 46%
- Organizations, 49%
- Occupations/Jobs, 52%
- Courses, 62%
- Credentials, 97%

"This is the direction we want to go, but we do not currently have the resources to move there without significant hands-on time......meaning **doing each pathway by hand and as a PDF**. We are working toward automating this process, but it has been slow."

Midwest pathway admin., Aug. 2021

Using Technology to Map the Credential Landscape

Transforming credential information into linked open data means it can be shared, connected, and used across applications.
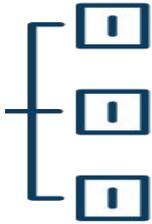
Credential Transparency Description Language (CTDL)

Linked open data schema that describes over 900 characteristics of credentials, skills, jobs, pathways, and providers.

CTDL Publishing Tools

Providers use the API or any of the publishing system tools to convert information to CTDL, publish to the Registry, and create globally unique identifiers (CTIDs).

Credential Registry

The Registry collects and connects credential, skill, and job data described with CTDL as a linked open data graph to power tools and applications, including the Credential Finder.

CTDL Linked Open Data & Consuming Tools

Providers use the API or any of the data consuming tools to use CTDL data in the Registry, powering ecosystems.
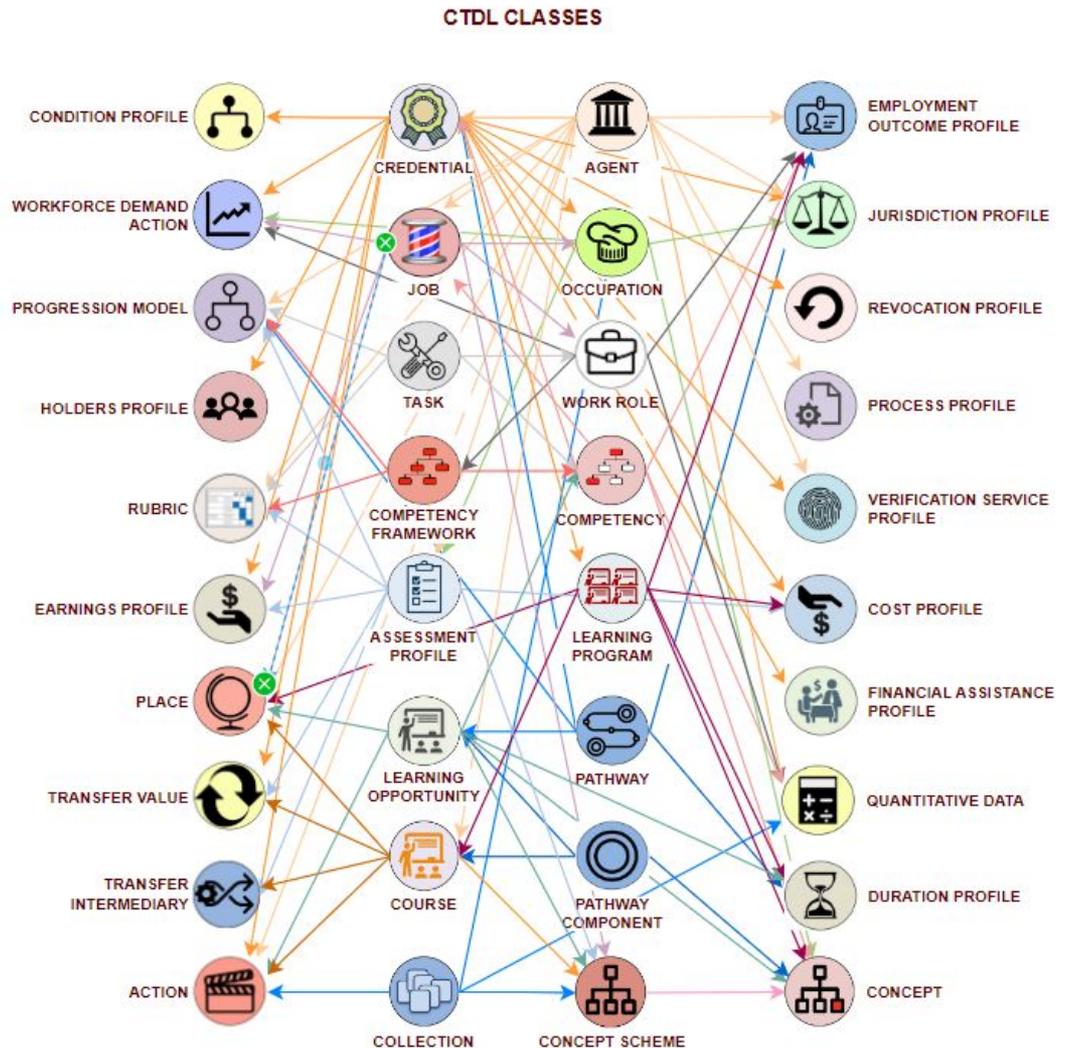
Technical site: https://credreg.net

Credential Transparency Description Language (CTDL)

A common language modeled on the semantic web for transparency and comparability of credential and competency information.
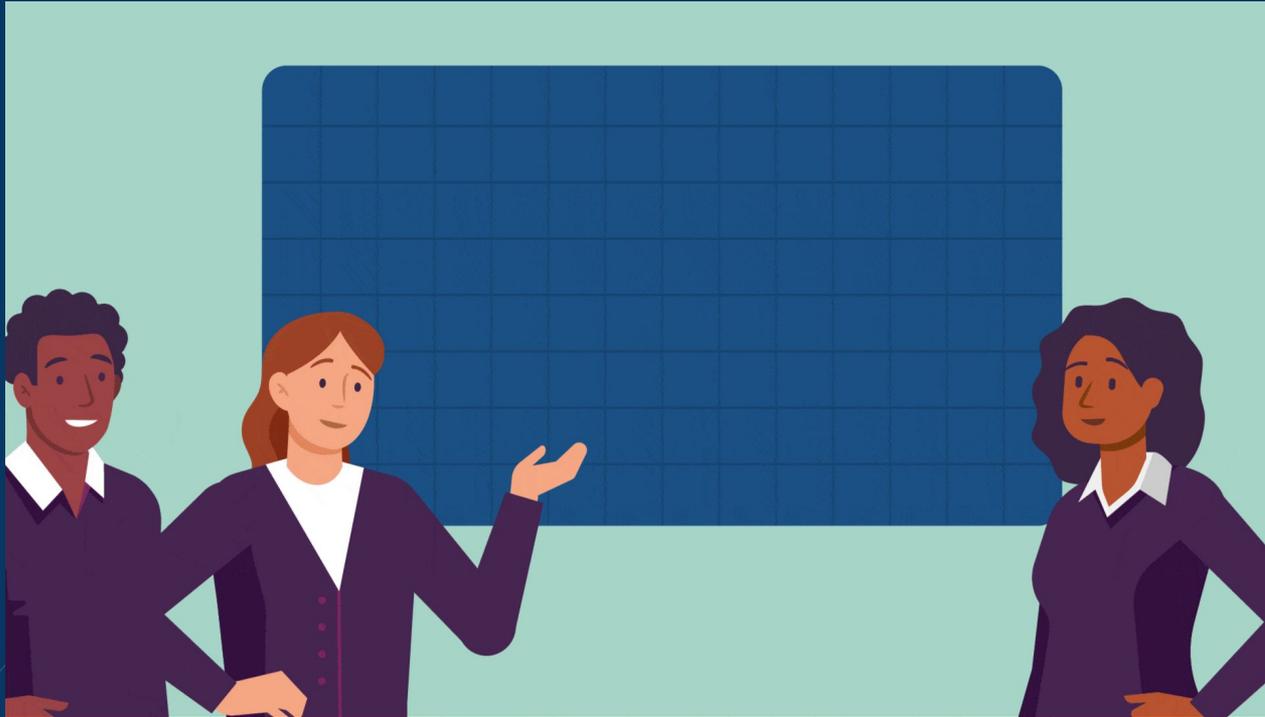
https://credreg.net/ctdl/handbook

Current CTDL family of schemas:

- CTDL
- CTDL ASN
- Quantitative Data

CTDL CLASSES

Illuminating Pathways

Introducing the Pathway Builder

The Credential Transparency Description Language (CTDL) and the Credential Registry provide critical solutions for data transparency. The CTDL linked open data structure is foundational for creating solutions that benefit everyone.

- The Pathway Builder tool builds off the data in the Credential Registry to communicate learning and career pathways.
- This tool enables publishing existing or creating new CTDL pathways.
- And no matter your role in creating, supporting, and sharing learning and career pathways, the CTDL is beneficial to you and your stakeholders.

PATHWAY BUILDER

When ecosystem players work together and publish CTDL linked open data structures, they are building connected ecosystems where everyone benefits.

![Credential Registry and CTDL illustration showing a city skyline with people and various circular icons]

Credential Registry and CTDL

Our goal is to empower people to build quality CTDL data in the Credential Registry that's foundational to pathways, and to link the components of learning and career pathways into beneficial human- and machine-readable data to power systems and applications.

Using the CTDL and Credential Registry data to build pathways illuminates the best path forward for learners, workers, and employers by providing actionable data.

Pathways: Many Shapes and Sizes

Learning and career pathways come in many different shapes, sizes and formats. The Pathway Builder supports expressing them as transparent, actionable routes to a destination, enabling people to succeed.

Pathway Builder Key Features

- **Pulling in data from the Credential Registry:** You can access the wealth of Pathway Components available in the Credential Registry to populate your pathways.

- **Interactive drag and drop tool:** The Pathway Builder provides an interactive interface where you can easily arrange and organize Pathway Components according to your desired pathway structure.

- **Build simple or complex pathways:** Whether your pathway is straightforward or intricate, the Pathway Builder accommodates pathways of varying complexity.

- **Combine data from multiple sources:** In addition to utilizing data in the Credential Registry that has been published from multiple sources, you have the flexibility to incorporate components from other sources, allowing for comprehensive pathway design. You can even create Registry resources on-the-fly while building your pathway.

- **Publish to the Credential Registry:** Once you have designed your CTDL pathway, you can publish it to the Credential Registry as CTDL linked open data, making it accessible to others.

Pathway Builder Users

All Publishing System users are required to have an account that is approved by Credential Engine. This is true for ALL Credential Registry publishing tools.

Pathway Builder Users: Pathway Builder ***users include professionals with organizations that are designing or using existing learning and career pathways to help people achieve their goals.*** These users desire the ability to visualize pathways, include a mix of components, and share them as CTDL data in the Credential Registry. Users can include:

- **Education, training, and other credentialing organizations**
- **Employers**
- **Professional associations**
- **Other types of organizations designing or housing created pathways**

By utilizing the Pathway Builder, these users can effectively design and construct pathways that align with their specific objectives and requirements. The tool provides them with the flexibility to integrate various components, visualize the pathway progression, and publish the pathways to the Credential Registry for wider accessibility and utilization.

Prepare for Building Pathways

Before you begin using the Pathway Builder, there are a few things you'll need in order to effectively build or design pathways:

1. **Pre-designed Pathway or Framework to Design a New Pathway**

2. **Analysis and Planning**

3. **Identify Pathway Components and Resources**

4. **Publish Pathway Resources to the Credential Registry**

5. **Determine if a Progression Model is Needed**

By having a pre-designed pathway or framework, publishing pathway components to the Credential Registry, analyzing the progression requirements, and planning accordingly, you'll be well-equipped to effectively build or design pathways using the Pathway Builder.

Learn More and Get Started

Our Pathway Builder Tool page has more information and the *Building Clearer Pathways Video*.

The Pathway Builder is available as open source code, and we encourage tech providers to incorporate these valuable capabilities into their own product and service solutions.

https://credentialengine.org/pathwaybuilder

Pathway Builder Demonstration!

Pathway Builder Q&A/Closing
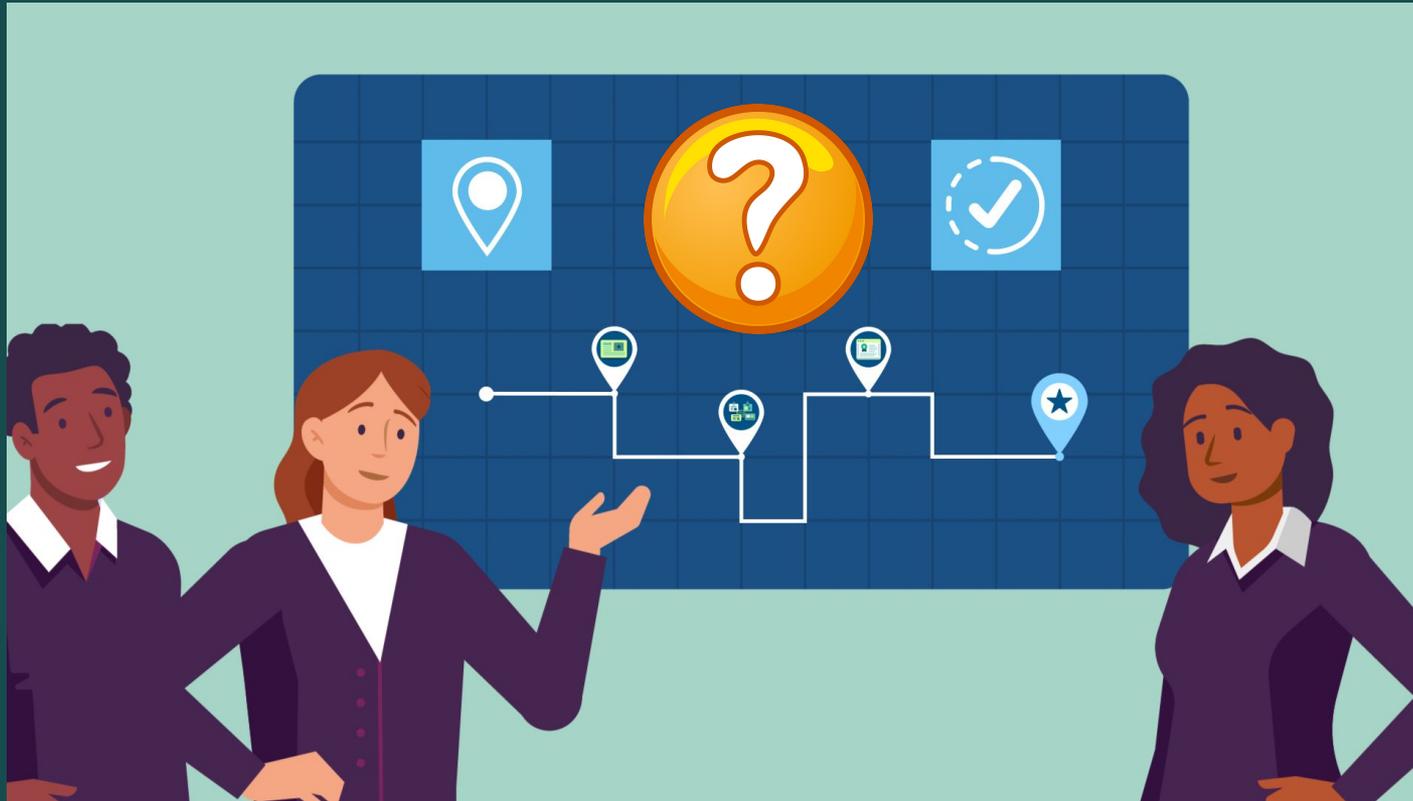
Build Pathways

The Pathway Builder is available now.

(1) Use the Pathway Builder Help resources
https://credentialengine.org/pathwaybuilder/

(2) To get started, create or log in to your Credential Registry Account
https://apps.credentialengine.org/accounts

(3) Begin building and publishing pathways to the Credential Registry.

Contact publishing@credentialengine with any questions. We monitor this account during normal U.S. business hours.

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Pathway Builder Guidance and Instructions

Our Pathway Builder Tool page has the guidance and instructions you need to get started, including Google Slides and videos in our YouTube playlist!

- Introduction
- CTDL Pathways and Credential Registry Pathway Builder
- CTDL and Pathway Builder Terminology
- Planning and Analysis for Building Pathways
- Publish Your Pathway Components
- Start Building Your Pathway
- Deeper Dive Into Building Your Pathway
- Returning to Your Pathway
- Resolving Conflict and Error Messages
- Conditions and Constraints
- Publishing a Progression Model
- View Your Published Pathway
- Pathways Resource List

https://credentialengine.org/pathwaybuilder

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