

Enabling Skills Intelligence through Credential and Skill Data Transparency

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The Need for Skills Intelligence

Challenges:

- ✓ Today's learn and work ecosystems are complex, siloed, and fast-changing
- ✓ Education, training, upskilling, and lifelong learning are disconnected
- ✓ Individuals need clarity on credential value and pathways
- ✓ Employers need clear skill data to make better hiring decisions
- ✓ Policymakers need insight to support workforce development

Opportunities:

- ✓ Make credential and skill data open and accessible
- ✓ Empower people with an understanding of their own skills
- ✓ Adapt to the evolving demands of job markets

Everyone needs transparency

Connecting
credentials, skills, and
jobs across lifelong
learning and career
opportunities



Credential Engine: Who We Are & What We Do

Our Mission: Credential Engine is a non-profit whose mission is to map the credential and skills 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 we accomplish our Mission and Vision:

- Partnerships across education, industry, and government
- Building open data infrastructure



Credential Engine's Open Technologies



Open Data: CTDL and Credential Registries

Transforming credential and skill information into linked open data means it can be shared, connected, and used across applications beneficial to everyone.



Credential Transparency Description Language (CTDL)

An open schema that describes key features of credentials, organizations, skills, pathways, jobs, quality assurance, and more.

Credential Registry

Open Registries that collect and connect CTDL data to support AI and an open applications marketplace.

Credential Finder

A tool for seeing all of the data in Credential Engine's Registry.

Credential Transparency Description Language (CTDL)

- ✓ Linked open data schema with 1300+ terms
- ✓ Describes credentials, skills, pathways, quality assurance, jobs, and more
- ✓ Human- and machine-readable
- ✓ Enables transparency, comparability, and interoperability
- ✓ Provides structured data for more reliable AI applications
- ✓ Anyone can use CTDL
- ✓ The [CTDL Handbook](#) and many other resources are openly available
- ✓ *Does not include information about people– no personally identifiable information*



Structuring Skills Data with CTDL

219,000+ skills and competencies structured as CTDL in Registry

CTDL structure includes:

- ✓ Competency and skill frameworks
- ✓ Individual skills with globally unique identifiers
- ✓ Proficiency levels
- ✓ Contextualization with other CTDL data
- ✓ Alignment to jobs

Benefits:

- ✓ Consistent description of skills across credentials, courses, and jobs
- ✓ Improved workforce alignment
- ✓ Informed decision-making

Real-World Applications

- ✓ **Skills mapping across credentials, courses, and jobs**
- ✓ **Learning and career pathways**
- ✓ **Learning opportunity recommendations**
- ✓ **Skill profiles**
- ✓ **Job matching**
- ✓ **Skills-based hiring**



Powering AI with Transparent CTDL Data

CTDL is a large set of clearly defined, linked terms that structures data in ways that computers and people can both use. It follows global standards for publishing data on the web so it can be connected across systems.

- ✓ Machine-readable and semantically rich data
- ✓ Fair and explainable skill-based algorithms
- ✓ Enhances precision and fairness in AI tools
- ✓ Foundation for next-gen skills intelligence systems



Global Impact

Transparent skills data enables learning mobility around the world.



Qualifications Frameworks

CTDL

Learning Mobility

- ✓ Consistent skills data across countries and regions
- ✓ Alignment among qualification frameworks
- ✓ Comparability of qualifications and credentials
- ✓ Recognition of skills in different jurisdictions
- ✓ Learning and talent mobility



Take Action for Transparent Skills Data

- 1. Join us in advancing global skills transparency**
- 2. Partner with Credential Engine**
- 3. Publish your data using CTDL**
- 4. Consume and apply CTDL data**



Resources

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Credential Transparency
Description Language (CTDL)

Credential Registry

Website: credentialengine.org

Email us: info@credentialengine.org

Technical Information: credreg.net

Credential Finder: credentialfinder.org



Social Media

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