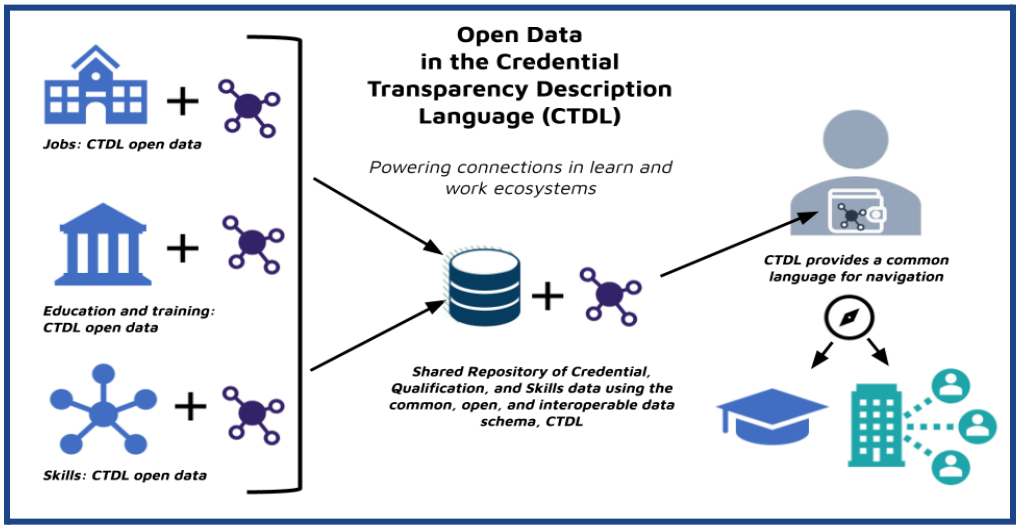
Credential Engine

Open, Interoperable Data for Actionable Credential Ecosystems

Creating an effective, efficient, and fair marketplace for credentials, qualifications, and skills requires collaboration among various stakeholders, including employers, educational providers, quality assurance organizations, assessment bodies, funders, and guidance platforms.



Since 2016, Credential Engine has led the development and evolution of the open-source Credential Transparency Description Language (CTDL). This language encompasses over 1000 terms for rich descriptions of credentials, competencies, skills, jobs, occupations, providers, quality assurance entities and processes, assessments, pathways, learning opportunities, outcomes, and more. CTDL is a continuously evolving framework that supports global linked open data for credentials. Credential Engine offers unparalleled technical, programmatic, application, and policy expertise.

CTDL Data for Describing Work

Occupation - Profession, trade, or career field that may involve training and/or a formal qualification.

Job - Set of responsibilities based on work roles within an occupation as defined by an employer. (Job describes an abstraction or template of which specific job postings or openings could be instances.)

Work Role - Collection of tasks and competencies that embody a particular function in one or more jobs.

Task - Specific activity, typically related to performing a function or achieving a goal.

One key value of CTDL lies in its utilization of CTIDs, which serve as globally unique identifiers linked to specific credential-related resources. Currently, the Credential Transparency Description Language (CTDL) defines 69 different types of resources utilizing CTIDs, such as providers, credentials, programs, courses, organizations, competencies, and more. Each CTID adheres to a standardized format, comprising a universally unique identifier (UUID) prefixed with "ce-". This unique structure ensures the distinctiveness of each identifier, facilitating easy resource identification and reliable data exchange.

Using CTDL and the Credential Registry promotes an **open standard, transparent, and data-driven approach to bridging the gap between education and work in data ecosystems**. It supports informed decision-making, effective skill matching, and collaborative partnerships for the betterment of learners, employers, and the economy.

Using CTDL and the Credential Registry offers several key benefits for improving the connections between learning and work in data ecosystems:

- **Seamless Pathways:** By leveraging CTDL, projects can create clear pathways connecting learners' educational achievements to relevant work opportunities, facilitating smoother transitions from learning to working by providing a structured understanding of how skills gained through education align with specific job roles.
- **Effective Skill Matching:** With CTDL, partners can create detailed profiles of work roles and their associated competencies, enabling more precise matching of individuals' skills and qualifications with job requirements, leading to better-fitting placements.
- **Enhanced Visibility:** CTDL enables detailed descriptions of credentials, assessments, courses, and learning programs, enhancing visibility and their alignment with industry needs, helping learners make informed choices about their education and career paths.
- **Reduced Friction:** CTDL and the Credential Registry reduce friction in the labor market by providing accurate, up-to-date information about credentials and job opportunities. This can result in faster and more efficient hiring processes for employers and a smoother job search experience for candidates.
- **Innovation in Learning:** Projects can leverage CTDL to create innovative learning programs that are directly aligned with the skills needed in the job market. This encourages continuous learning and upskilling, enabling individuals to adapt to evolving industry needs.
- **Economic Development:** By linking learning and working more effectively, people contribute to the overall economic development of a region. A well-aligned workforce can attract investment and encourage economic growth.

Supporting Learning and Employment Records / Skills Passports

Over a lifetime of learning and employment, a person's achievements are represented in many different types of credentials, from various providers. Unfortunately, most of our systems for creating and managing records of learning and work are siloed and disconnected. Credentials from schools, colleges, jobs, military, on-the-job training, and many other sources are issued and stored differently, using various data structures and types of control. This fragmentation isn't just inconvenient; it's unfair and inequitable. These disconnects can:

- create barriers to academic and career progress;
- delay critical support and services;
- systematically exclude people who lack resources to obtain credential records; and impede economic advancement, both for individuals and communities.

To address these barriers, digital Learning and Employment Records (LERs) provide verifiable, interoperable, portable credentials that document people's skills, educational experiences, and work histories. LERs capture learning and experience wherever they occur. The basic concept is that a person collects their own records of employment, education, training, and skills in a digital

wallet they control, empowering secure and verifiable exchanges of these records across many different learning and work systems and processes. With open standard LERs:

- learners can share their achievements and match them with opportunities and jobs;
- employers can identify and recruit talent more efficiently and equitably; and
- education and training providers can clearly communicate the value of their offerings.

LERs are most effective when they include clear and relevant open data. While credentials issued to a person contain limited information, the CTDL enables credential providers to communicate much richer information. CTDL contextualizes LER data by linking to a global knowledge graph of data in CTDL, amplifying the range of information conveyed about these credentials. LERs that include CTDL are meaningful, interoperable across different types of systems and processes, and actionable, so that people and systems can do useful things with them.

The Credential Registry does not collect or track information about individuals or the credentials that have been issued to them. Credentials issued to an individual in an LER include links to related data in the Credential Registry, providing transparency about what a person's credentials mean and how they are valuable.

Contact us at info@credentialengine.org if you have any questions.