Learning and Employment Records Powered by CTDL
Credential Transparency Illuminates Paths to a Better Future

There are 1 million credentials offered in the U.S. With so many, it's hard to choose from—and without widespread adoption of standards for comparing and validating them, people get lost and lose out on opportunities. Together, we created the Credential Transparency Registry to build a universal catalog of credentials so that employers, educators, and learners can shop around with confidence.

WHAT IS TRANSPARENCY?
Credential transparency means providing clear and consistent information about credentials and competencies in a format that is easily accessible and usable, so that credentials can be better understood and pursued based on the value they create and the value they represent, and the gaps they can help to fill.

WHAT IS TECHNOLOGY?
Credential transparency is a modern solution to the problem of credentialing. The Credential Transparency Description Language (CTDL) schema allows us to coding and organize, and connect credentials and information about credentials from authoritative sources using CTDL. CTDL is open and available in the Credential Registry for anyone to search and compare credentials.

WHAT ARE PATHWAYS?
The easier it is to access and use comparable information about credentials, the easier it is for learners to find the most effective paths to learning and jobs. Credential transparency ensures that learners have the information they need to make strategic decisions about their careers.

WE CAN
more easily describe the credentials we offer, their quality and value, and how they need to learn the needs of individuals, businesses, and the community.

WE CAN
understand the industry's needs, costs, time, and value of the different credentials and courses we offer. Translating that understanding into actionable insights helps us plan and adapt our programs.

WE CAN
understand the cost, benefits, and value of the different credentials and courses we offer. Translating that understanding into actionable insights helps us plan and adapt our programs.

WE CAN
better understand the credential landscape, which is changing quickly, and can better support people to meet today's and tomorrow's needs.
Learners are central to the ecosystem

Connecting credentials and skills across lifelong learning and career opportunities
## Disconnected Learn and Work Records

<table>
<thead>
<tr>
<th>Stage</th>
<th>Data Collected</th>
<th>Where Is It Stored</th>
<th>Who Has Control</th>
<th>Who Has Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School</td>
<td>Grades, Attendance, Assessments, Diploma</td>
<td>Student Information System (SIS)</td>
<td>School District</td>
<td>Parents, Foundations, Programs, Researchers</td>
</tr>
<tr>
<td>First Job: Retail</td>
<td>Employment &amp; Wage Record, Resume</td>
<td>HRIS System Payroll System Online Profile</td>
<td>Employer</td>
<td>Future Employers Creditors</td>
</tr>
<tr>
<td>State College</td>
<td>Student Transcript</td>
<td>Student Information System (SIS)</td>
<td>Institution of Higher Education</td>
<td>Student, Foundations, Programs, Researchers</td>
</tr>
<tr>
<td>Second Job: Nurses Assistant</td>
<td>Employment &amp; Wage Record Skills &amp; Competencies</td>
<td>HRIS System Payroll System Online Profile</td>
<td>Employer</td>
<td>Employee, Future Employers Creditors</td>
</tr>
<tr>
<td>Unemployed: Workforce</td>
<td>State UI Case Management System</td>
<td>State UI Database &amp; Workforce Case Management System</td>
<td>State Agency &amp; Local Workforce Agency</td>
<td>State Programs, Training Programs, Researchers</td>
</tr>
<tr>
<td>Bootcamp</td>
<td>Student Record</td>
<td>SIS System Online Profile</td>
<td>Training Program</td>
<td>(Parents) State Agencies, Foundations, Researchers</td>
</tr>
<tr>
<td>Third Job: Manager</td>
<td>Employment &amp; Wage Record Skills &amp; Competencies</td>
<td>HRIS System Payroll System Online Profile</td>
<td>Employer</td>
<td>Employee, Future Employers Creditors</td>
</tr>
</tbody>
</table>

**U.S. Department of Education**
Connected learn and work records

Credential and skill transparency

Education/Training Opportunities

Workforce Demands

Credential and skill information

Powered by the Credential Transparency Description Language (CTDL) and uploaded to the Credential Registry

- Open
- Linked
- Trusted

- Accessible
- Useful
- Relevant
Learning and career pathway connections

Individuals’ Needs
- Skill acquisition
- Training and education
- Records of learning and employment

Education/Training Opportunities
- Training programs
- Military
- Colleges/Universities
- Apprenticeships
- On-the-job training

Workforce Demands
- Skill/job matching
- Workforce development
- Talent acquisition and management
What are Learning and Employment Records (LERs)?

“A Learning and Employment Record (LER) is a digital record of learning and work that can be grouped together with other individual LERs for use in describing their abilities when pursuing education and employment opportunities. An LER can document learning wherever it occurs, including at the workplace or through an education experience, credentialing, or military training. It can also include information about employment history and earnings.” (T3 LER hub)

- Digital records of learning from diverse sources
- Verifiable and secure
- Controlled and shareable by the individual
- Interoperable: transferable, meaningful, and machine-actionable across education and employment systems and processes
Global Open Standards

Standards support full transparency and interoperability of LERs:

- **W3C Verifiable Credentials and Wallets**
  - VCs for universal “envelope” data
  - VC wallets for collection and storage of LERs
- **Open Badges 3.0**
  - For organized content packaging of single records
- **Comprehensive Learner Records 2.0**
  - For organized content packaging of multiple records
- **Credential Transparency Description Language (CTDL)**
  - For meaningful linked open data so that LERs can be usefully understood and applied
How do LERs work as verifiable digital credentials owned and controlled by the individual?

Making it simple for people and organizations to exchange verifiable, trusted career credentials.

Velocity Network Foundation

Issuing Parties (employers, educators issuing digital credentials)

Relying Parties (employers, educators receiving digital credentials)

Claim digitally signed records from your work or college to build a verified career portfolio.

Stack proofs of your employment history, educational background, skills, and qualifications.

Organize all your career and education credentials. Store them privately.

Control who you share your records with.

Workforce (individuals)
LERs use human- and machine-readable data in the Credential Transparency Description Language (CTDL)

Making it simple for people and systems to exchange meaningful information in career credentials.

Credentials can be aligned and linked to the Credential Registry, which hosts rich linked open data about credentials, including their skills and occupational alignments.
How can learner/workers use their own records?

- Collect and curate records
- Analyze strengths and gaps in skills
- Explore career opportunities
- Include records in a professional or social profile
- Apply for, enroll in, and complete education and training
- Apply for employment
- Manage career advancement and transition

Learning and Employment Records for Greater Equity

Learning and Employment Records for Greater Equity

Power your LERs with CTDL

1. Define requirements for valuable information you can provide that makes your LERs valuable.
2. Organize your data about credentials, competencies, occupational alignments, etc. from one or more sources.
3. Design your LERs to use CTDL schemas, and for existing data, map it to CTDL schemas.
4. Include CTDL in the digital records that you issue to individuals.
5. Use CTIDs with Registry data to link to rich credential and competency information from within LERs.
6. Publish your credential and competency data as CTDL to the Registry and the Web.

See your LERs come to life in the ecosystems of linked open data across the web.
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