Data and the Talent Marketplace

August 17, 2022

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Competing on Data

- While we have improved our workforce data, major gaps remain
- We need better data on education and training outcomes, including skills
- We do not know enough about in-demand jobs and when they change, and we know even less about employment and earnings outcomes
- Existing LMI has been very useful, but we need a leap forward and more and better primary source data about jobs and employment
- In order to improve the quality, value, and usability of education and workforce data, it must be skills-based, interoperable, and structured (i.e., data about learning, people, and jobs)

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The T3 Innovation Network

The T3 Innovation Network's mission is to enable the digital transformation of the talent marketplace by promoting data interoperability and harmonization across diverse stakeholders, including:

- Employers;
- Education, training, and credentialing providers;
- Government agencies; and
- Technology partners.

This digital transformation will ensure that (1) all learning counts; (2) skills are used like currency; and (3) learners and workers are empowered with data to pursue education and employment opportunities.

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The T3 Innovation Network

Phase 1 identified data interoperability challenges and developed a roadmap to address them (9 months). Phase 2 implemented the roadmap through eight projects (2 years).

The T3 “Network of Networks” was launched to convene, align, and support stakeholders working on core data infrastructure components required for the digital transformation of the talent marketplace. General activities include the identification of barriers and gaps, setting priorities, and acceleration of shared solutions.

Four Founding Networks:

- Data and Technology Standards (DTS) Network
- Open Competency Frameworks Collaborative (OCFC) Network
- Learning and Employment Records Network (LERN)
- Jobs and Workforce Data (JWD) Network

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T3 Networks

DTS Network: Catalyzing for collaborative incubation and adoption of standards-based specifications and services that enable the learning and employment ecosystem.

OCFC Network: Improving the discovery and use of skills and competencies to power the talent ecosystem at scale.

LER Network: Piloting and establishing equitable and inclusive best practices for the creation and sharing of secure and standards-based records containing education, training, work, and individually acquired skills and knowledge.

JWD Network: Improving how employers and their HR technology service providers develop, organize, and share standards-based jobs and workforce (workers in jobs) data to create value for public and private stakeholders.

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T3 Network Workgroups

DTS Network

- Market Signals Steering Workgroup
- Technical Steering Workgroup
- Data Standards Use Workgroup

OCFC Network

- Requirements Workgroup on Skills and Competencies
- Technical Advisory Workgroup

LER Network

- Adoption and Implementation Workgroup
- Presentation Scenarios Workgroup

JWD Network

- Stakeholder Steering Workgroup
- Technical Workgroup

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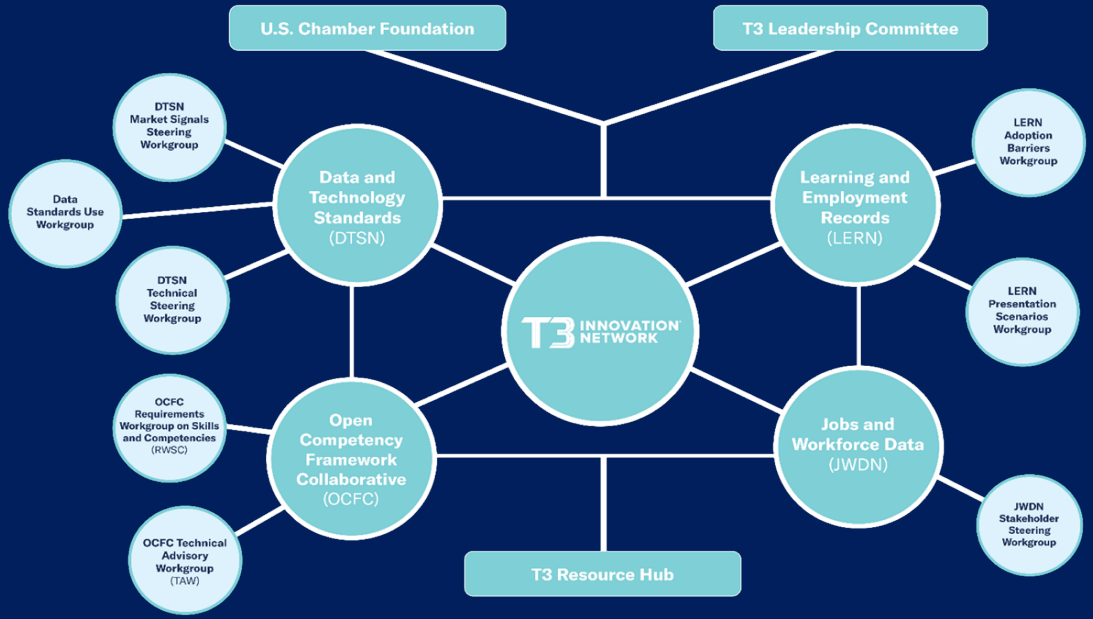
T3 Network Workgroups



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Supporting the Skills Data Workflow

- **Standardization**: Enable the ability to create machine actionable skills data
- **Conversion**: Convert existing unstructured skills data to machine actionable data
- **Authoring**: Author new skills data as structured, machine actionable data
- **Curation (Host & Present)**: Store and make available structured skills data
- **Search**: Make structured skills data searchable and discoverable
- **Use**: Access and put structured skills data to use (e.g., applications in learning, curriculum alignment, employment services, hiring, career advancement, etc.)
- **Translation**: Compare and translate between skill languages

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Standardization and Conversion

Data Ecosystem Schema Mapper (DESM) – Developed to ease the burden of creating crosswalks using spreadsheets, to make the mappings of properties and classes more expressive and to support future data harmonization

Competency Framework Extraction Module (CFEM) – An open-source competency management solution to make competency and skill data machine-actionable and exportable to a variety of standard digital formats used by learning, training, and credentialing software

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Authoring Examples: Frameworks, Collections, Jobs, and Employment Records

Open Skills Network

IMS GLOBAL

JEDx Jobs and Employment Data Exchange

JobSIDE Application

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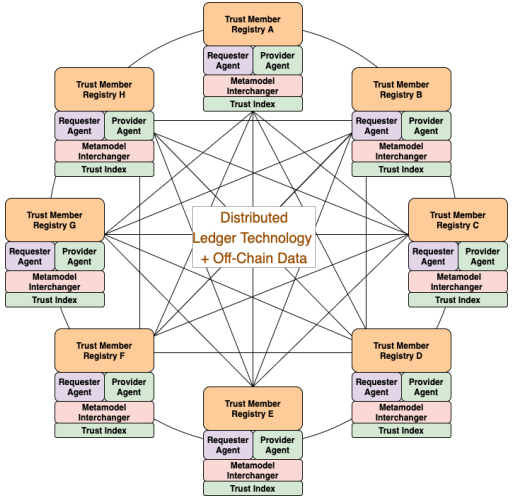
Curation & Search: Library Examples and Networks (OCFC)

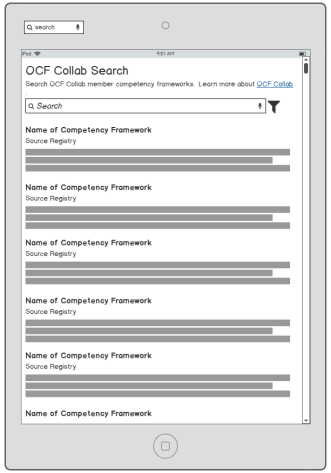
IMS GLOBAL

Credential Engine™

D2L™

Open Competency Frameworks Collaborative (OCFC)





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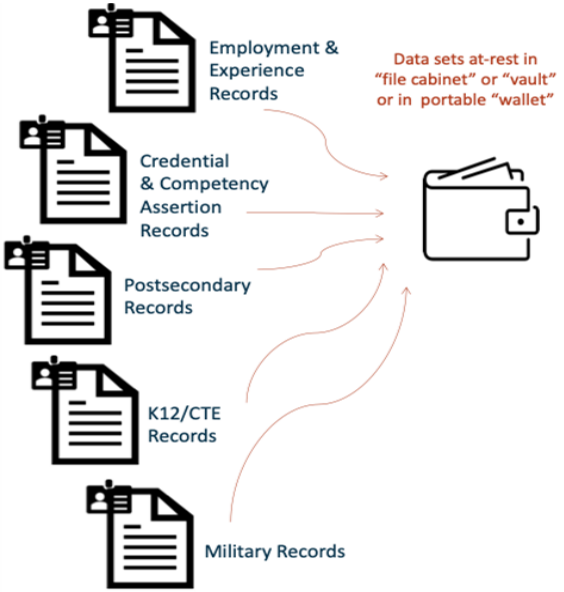
Use Example: T3 and LERs

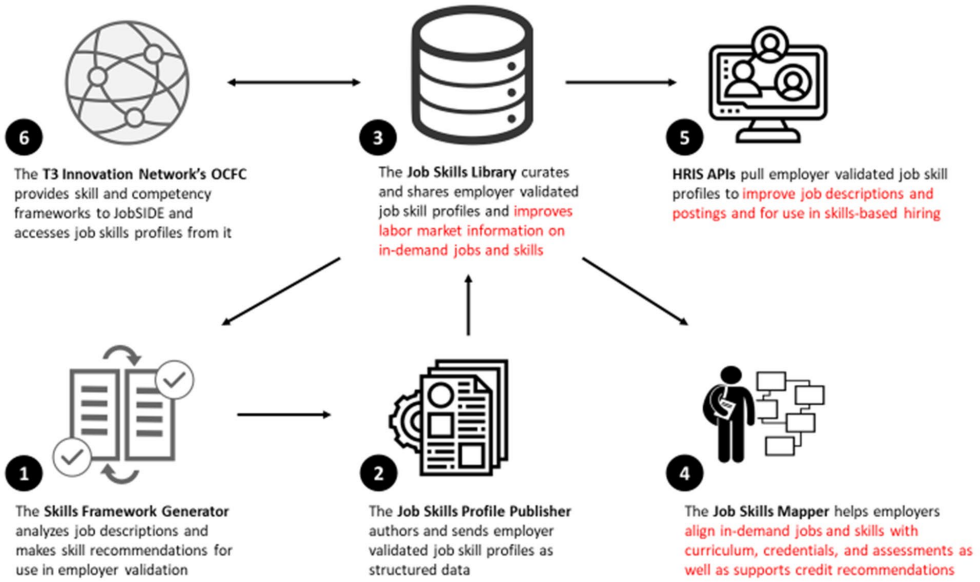
- The T3 Network is supporting the production, sharing, and scaling of skill and competency-based LERs for use by learners and workers
- Making all learning count and empowering learners and workers with data.
- Addressing gaps in the data infrastructure to make LERs more interoperable:

    (1) Digital wallet specification
    (2) Equity considerations for LERs
    (3) Single skill endorsement standard
    (4) Resume profile specification
    (5) Experience You



Use Example: JobSIDE

- Produces, shares, and uses data on employer-validated skills profiles for in-demand jobs
- Generated through TPM's Strategy 3 workflow as well as through a standalone application
- Enables use of competencies in job postings and in mapping employer validated competencies to curriculum, credentials, and assessments



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Use Example: JEDx

JEDx Jobs and Employment Data Exchange

- A public-private approach for organizing, collecting and using standards-based data on jobs and employment to (1) improve government reporting (e.g., UI wage records); (2) support workforce analytics; and (3) make possible verifiable employment records for workers
- Launched a seven-state partnership to (1) set data priorities for the technology; and (2) build a system architecture to support the organization, collection, and sharing of jobs and employment data (e.g., APIs)

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The Last Mile: Translation

- AI is a cross-network issue that needs to be addressed by the ecosystem to fully unlock the potential of skills and competencies as data;
- A both/and approached to data standards and AI
- On August 4th the T3 Innovation Network convened meeting where we explored the role of AI in supporting skills translation and analysis
- Identified priority applications like Experience You, an effort to use AI to bring your past forward and make LERs an innovation available to everyone

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T3 Projects to Watch For

- **Use Cases**

  Master use case for skills-based hiring and advancement

- **LERs**

  Single-assertion credentials

  Resume profile specification

  Experience You

- **Tools**

  DESM tool improvements and standards mapping

  OCFC improvements and launch

  Coordination with JobSIDE

  Coordination with JEDx

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My Ask of You

- Join the T3 Innovation Network at **T3NetworkHub.org**
- Learn more about JEDx at **uschamberfoundation.org/JEDx**
- Contact the U.S. Chamber of Commerce Foundation at **jtyszko@uschamber.com** to explore how you can get involved today

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Contact Information

Make no plans small and be bold, your future competitiveness depends on it

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