T3 INNOVATION NETWORK

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#T3Network

Data Standards and the Future of the Talent Marketplace

April 29, 2020

The T3 Innovation Network

- Launched in 2018 as an open innovation network

- Made up of technology vendors and stakeholders, including business, education, government, nonprofits, etc.

- Building the data and technology infrastructure of the future for the talent marketplace, where (1) all learning counts, (2) competencies and skills are currency, and (3) learners are empowered

- Use case driven, standards-based, and vendor neutral

- Promoting solutions that are open, ethical, and equitable
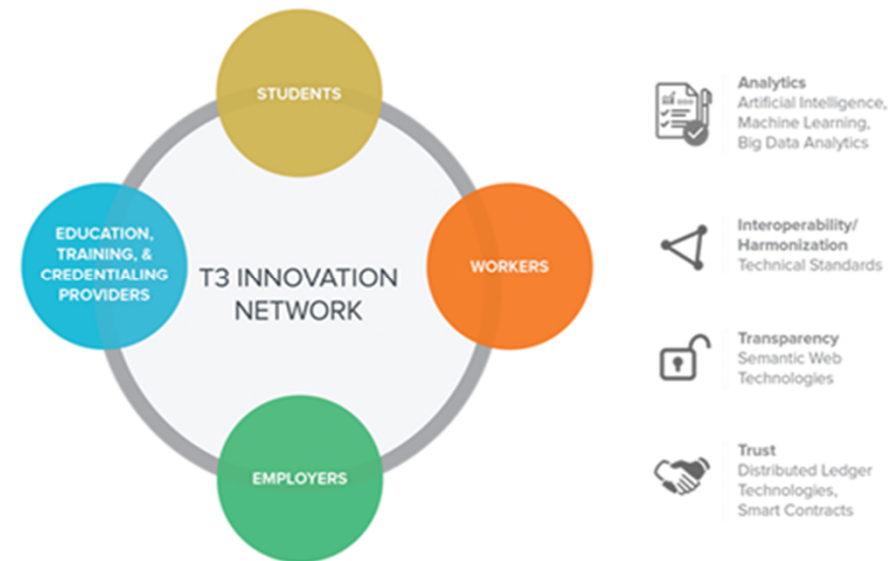
ILR Background

- Currently a lot of activity with regard to generating records of learning in multiple domains (e.g., higher education, employment, military)

- Need to bridge these activities to ensure data can flow across products and platforms seamlessly without loss of data (i.e., fully interoperable)

- Recent interest spurred by the American Workforce Policy Advisory Board (AWPAB) and their 4 pilots

AMERICAN WORKFORCE
POLICY ADVISORY BOARD

White Paper on Interoperable Learning Records
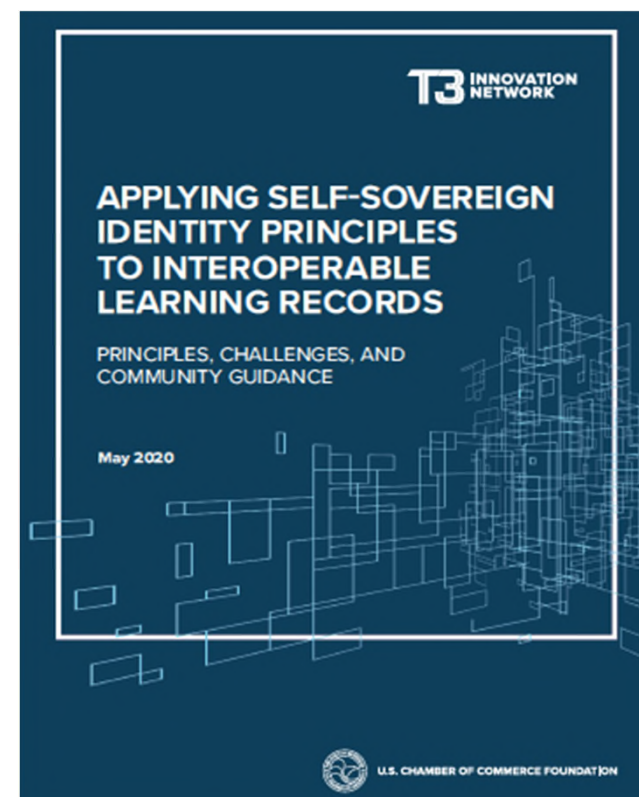Data Transparency Working Group

September 2019

Coordinating ILRs through the T3 Network

- Scaling ILRs is mostly an infrastructure problem, not a product problem

- Can be produced by some stakeholders but not all—and sharing them (i.e., machine readable and computable) remains an issue

- Scale and interoperability is possible through the emerging T3 data infrastructure (e.g., leveraging projects supporting data standards and competencies)
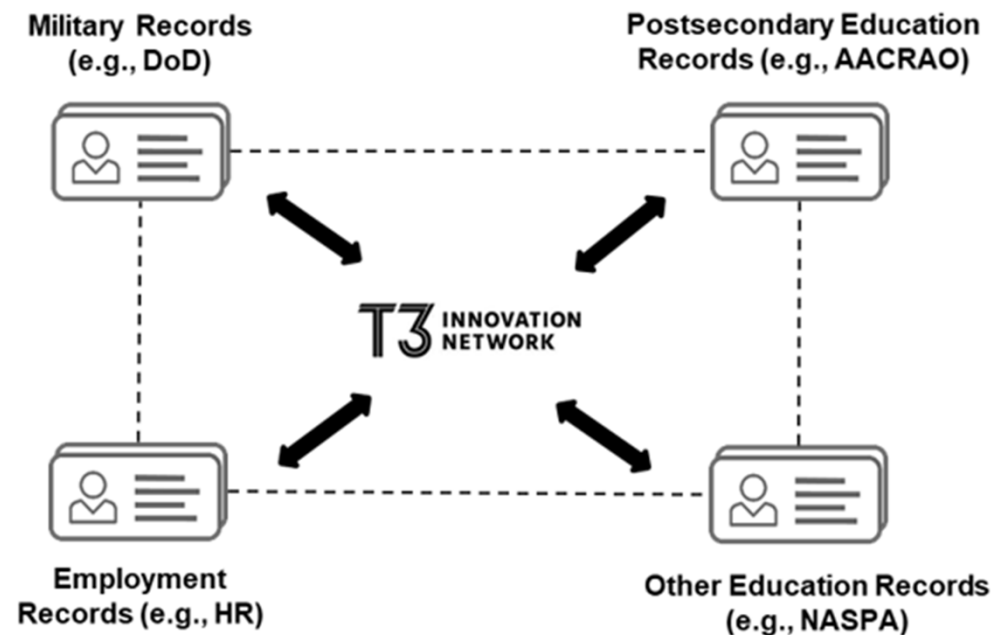
T3 Commitments in Support of ILRs

- Hosted an ILR pilot design workshop (i.e., March 9th convening) and appointed an T3 ILR Community Manager, Phil Long

- Developing recommendations for long-term ILR governance and data standards mapping (P1 & P4)

- Launching an ILR Resource Hub in June in partnership with Learning Economy Foundation and Public Consulting Group, featuring access to:
  - (1) relevant data standards and specifications (P3),
  - (2) competency data (P5 & P6),
  - (3) guidance on self-sovereignty (P10), and
  - (4) pilot partner profiles and community management tools

- Addressing technical gaps for successful ILR pilot testing (e.g., the transport of ILRs and integration with JDX)

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APPLYING SELF-SOVEREIGN IDENTITY PRINCIPLES TO INTEROPERABLE LEARNING RECORDS

PRINCIPLES, CHALLENGES, AND COMMUNITY GUIDANCE

May 2020

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ILR Pilot Characteristics – All Learning Counts

Pilot Goals and Expected Outcomes: Clearly established goals and measures of success

Cross-Domain: Demonstrates data interoperability with at least two partners (e.g., employers, educational institutions, military, nonprofits, other)

Multi-System: Has at least two systems demonstrating interoperability across domains (e.g., one SIS and one HRIS)

Data Standards-Based: Uses data standards for exchange of records that are publicly available and accessible through the ILR Resource Hub

Competency Rich: Includes skills and competencies sourced from an open data resource

Individual-Controlled: Involves the exploration of individual learner access and control of the record

Interoperability Considerations: Record Info

Different record types using different data and packaging standards can share a secure transport of portable data, if provided basic information such as:

1. **The Payload**: The content of the ILR.
    Payloads can use different existing standards or models.

1. **The Wrapper Metadata**: Minimum info needed about "the Payload."
    a. Identifier
    b. Issuer Identifier
    c. Type
    d. Date
    e. Name
    f. Description
    g. Image
    h. Learner Proof of Control Identifier
    i. Payload Type
    j. Payload Format
    k. Payload Encoding
    l. Payload Compression
    m. Payload Encryption

Data Standards: CLWMR Charter List of Standards/Specs

Data Standard Title	Data Standard Publisher	Data Standard Title	Data Standard Publisher
Common Education Data Standards	CEDS	College Transcript	PESC
Credential Transparency Description Language (CTDL)	Credential Engine	Common Credential	PESC
CTDL Achievement Standards Network (ASN)	Credential Engine	High School Transcript	PESC
Assessments	HR Open Standards	PESC EDEXCHANGE	PESC
Candidate	HR Open Standards	GEO CODE	PESC
Position Opening	HR Open Standards	ELMO	CEN / EMREX (EU)
Screening	HR Open Standards	EDCI	European Commission
Resume or CV Standard	HR Open Standards	Europass	European Commission and Cedefop
Open Badges 2.0	IMS Global	CCI	Lumina
Competencies and Academic Standards Exchange (CASE) 1.0	IMS Global	Professional Profile	MedBiquitous, AAMC
Comprehensive Learner Record 1.0 (Candidate Final)	IMS Global	Educational Achievement	MedBiquitous, AAMC
		W3C Verifiable Credentials and Distributed Identifier (DID)	W3C
Schema.org	Shema.org/W3C	IEP and Student Demographics	A4L
		Joint Services Transcript*, Universal Learner Record and Total Learning Architecture	DoD

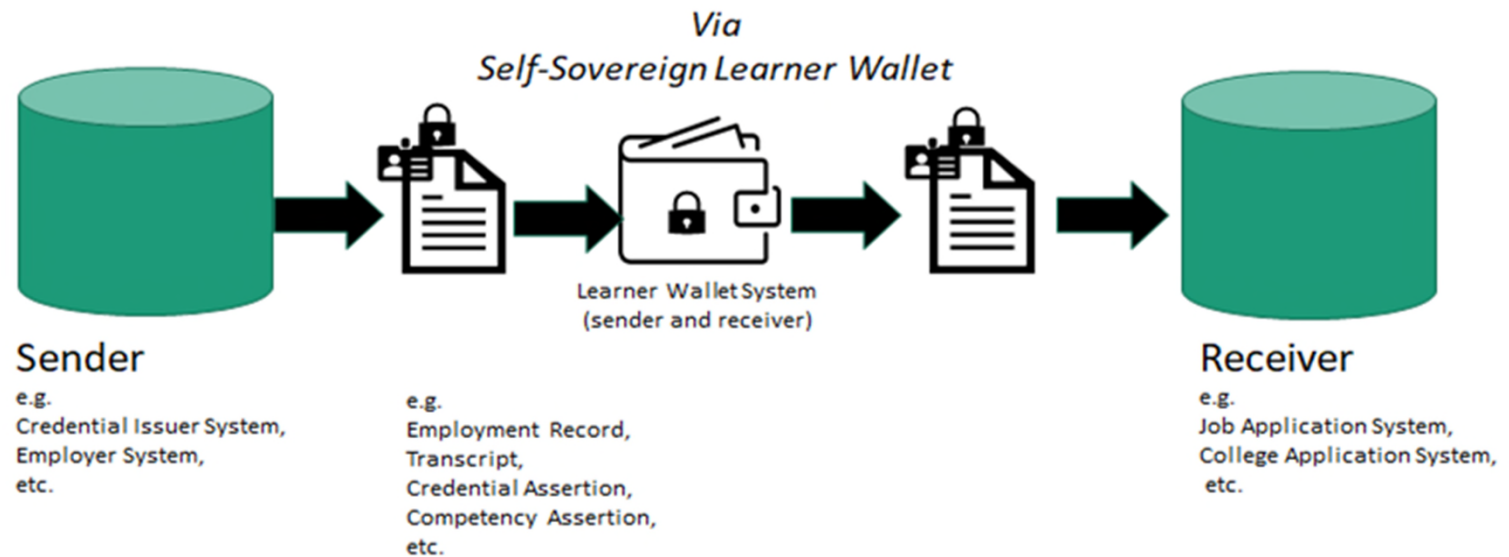U.S. CHAMBER OF COMMERCE FOUNDATION

*Standardized PDF format

System to System

Sender
e.g.
Credential Issuer System,
Employer System,
etc.

e.g.
Employment Record,
Transcript,
Credential Assertion,
Competency Assertion,
etc.

Receiver
e.g.
Job Application System,
College Application System,
etc.

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Interoperability Considerations: Transport

Via
Self-Sovereign Learner Wallet

Sender
e.g.
Credential Issuer System,
Employer System,
etc.

Learner Wallet System
(sender and receiver)

e.g.
Employment Record,
Transcript,
Credential Assertion,
Competency Assertion,
etc.

Receiver
e.g.
Job Application System,
College Application System,
etc.

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Interoperability Considerations: Transport

Different record types using different data and packaging standards* can share a secure container

Employment & Experience Records

Credential & Competency Assertion Records

Postsecondary Records

K12/CTE Records

Military Records

Data sets at-rest in "file cabinet" or "vault" or in portable "wallet"

*e.g.
IMS CLR (Open Badges, CASE, QTI, etc..)
HR Open (Applicant info, Work experience...)
PESC (Transcript, Certificate...)
A4L
...other standards and data not yet in serialization standard.
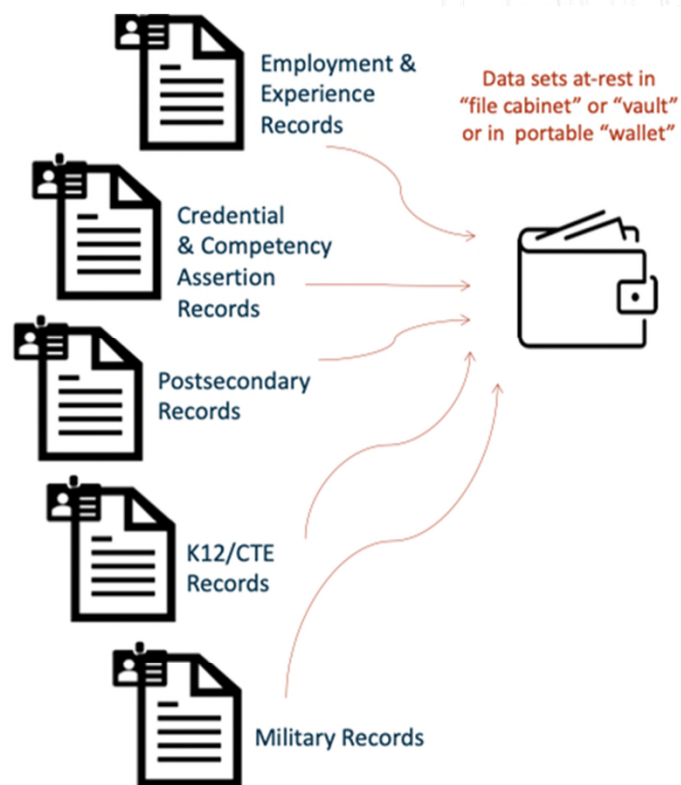
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Translation Between Learning and Jobs

Cross-Standards Container for ILR Sets

Different record types using different data and packaging standards* can share a secure container

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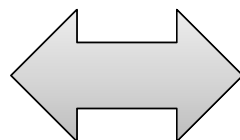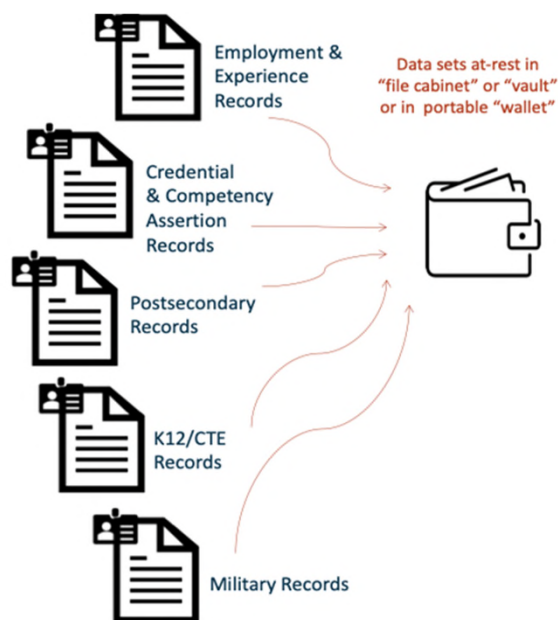
JDX
Job Data Exchange

- Appointing a JDX Community Manager to promote adoption and use of JDX JobSchema+
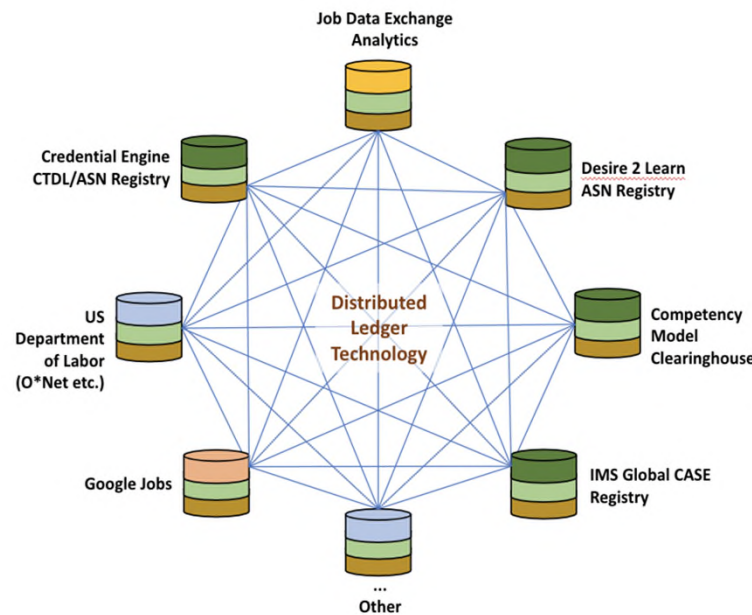
- Integrating JDX into the ILR Resource Hub

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Competencies as Talent Marketplace Currency

- T3 Competency Framework Extraction Module (in progress)

- T3 Open Competency Framework Collaborative (in progress)

- Competency authoring, editing, and publishing tools/applications (in discussion)

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An Example of Scaling Tool Use: TPM

TPM — TALENT PIPELINE MANAGEMENT

A Chamber Foundation-led movement comprised of hundreds of employer collaboratives and thousands of employers in 33 states, DC, and Canada.

TPM Academy™

Strategy 1: Organize Employer Collaboratives
Strategy 2: Engage in Demand Planning
Strategy 3: Communicate Competency and Credential Requirements
Strategy 4: Analyze Talent Flows
Strategy 5: Build Talent Supply Chains
Strategy 6: Continuous Improvement

An end-to-end supply chain approach for talent development that is

(1) authentically employer-led,

(2) built on industry best practices, and

(3) focused on employer-ROI

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