Job Registry & T3 Innovation Network

Exploring Web 3.0 Technology Applications in Talent Marketplace

May 2, 2018
U.S. Chamber of Commerce

- Over 2,500 state and local chambers of commerce
- Over 3 million businesses representing all industry sectors and firm sizes

U.S. Chamber of Commerce Foundation

- Non-profit affiliate focused on strengthening America’s long-term competitiveness
- Center for Education and Workforce, Corporate Citizenship Center, Hiring our Heroes
Topics

• Job Registry

• T3 Innovation Network
The Job Registry will draw from and improve upon open competency frameworks.

Job Registry

GoodWork!

Create Employer Profile

Progress...

Company Name
MediMake, Inc.

Industry
Medical Equipment Manufacturing

Preferred HR Standards and Competency Models for Job Templates
- NIMS
- O*NET
- ESCO
- Medicert

Job Analysis & Description Services

Resource Library

Anonymized Job Data Repository
Employers verify and add competencies based on an industry standard and open competency models.
The Public-Private Data Infrastructure of the Future

• Applying Web 3.0 technologies to learner records, credentialing, and HR systems.

• Identifying high-impact use cases and pilots.
T3 Innovation Network

Improving the Talent Marketplace

Interoperability/Harmonization
Technical Standards

Trust
Distributed Ledger Technologies
Smart Contracts

Analytics
Artificial Intelligence
Machine Learning
Big Data Analytics

Transparency
Semantic Web Technologies

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Proposed Principles

Principle 1: Focus on High-Impact Stakeholder Use Cases

Principle 2: Promote Web 3.0 Convergence

Principle 3: Foster Open Collaboration

Principle 4: Develop Open Technical Standards and Protocols

Principle 5: Utilize Open Competency Frameworks, Taxonomies, and Ontologies
Proposed Principles (cont.)

Principle 6: Empower Individuals and Enable Self-Sovereign Identity and Data Management

Principle 7: Facilitate Open Data Access in Public-Private Data Management

Principle 8: Promote Ethical Practices
Work Groups

Work Group 1: Stakeholder Use Cases for Achieving Breakthrough Innovations

Work Group 2: Exploring Sustainable Data Standards Convergence

Work Group 3: Developing and Analyzing Competencies

Work Group 4: New Architectures and Uses of Linked Individual-Level Data
Stakeholder Use Cases for Achieving Breakthrough Innovations

- Identify the highest-impact stakeholder use cases where Web 3.0 technology convergence could improve interoperability and achieve breakthrough innovations in:
  - Employer signaling of hiring requirements including competencies and credentials;
  - Talent sourcing that includes recruitment, screening, verification, and hiring;
  - Learners pursuing careers, education, and credentialing opportunities;
  - Education and Training Providers improving the delivery of services to employers and learners.
Stakeholder Use Cases for Achieving Breakthrough Innovations

- Identify challenges and issues that should be addressed in the technical work groups.

- Identify performance metrics for evaluating the potential impacts of these use cases on improving the talent marketplace.

- Explore ethical considerations.
Exploring Sustainable Data Standards Convergence

- Identify stakeholder use cases that require additional data standardization and/or improved data standards harmonization.

- Develop plans and identify pilot projects for improving data standardization.
Work Group 2

Technical Standards Landscape

Workers
- HR Open Standards

Employers

Learners
- CEDS Standards
- IEEE LTSC Standards
- IMS Global Standards
- PESC Standards
- MedBiquitous Standards

Universities & Colleges
- CEDS Standards
- IEEE LTSC Standards
- IMS Global Standards
- PESC Standards
- MedBiquitous Standards

W3C
- Schema.org
- Credential Engine
- DCMI
Credential Ecosystem Mapping Team

- Mapped several data standards for competency frameworks.
- Now mapping data standards for credentials.
Developing and Analyzing Competencies

- Identify stakeholder use cases that require improvements in how competencies are developed and analyzed.

- Develop plans and propose pilots of how semantic web and artificial intelligence technologies can be used to improve the development and analysis of competency data.
5 Star Linked Open Data

5 Star: Open competency data is linked to other organization’s data to provide talent marketplace context

4 Star: Open competency data only uses semantic standards from W3C and identifies things with URIs

3 Star: Open competency data uses open formats instead of proprietary formats

2 Star: Competency data is structured and machine-actionable using any format

1 Star: Competency data openly available on the Web in any form with an open license
Work Group 4 Objectives

New Architectures & Uses of Linked Individual-Level Data

• Identify stakeholder use cases that have major implications for new trust architectures and protocols.

• Review existing and emerging trust architectures in relation to the use cases and identify key limitations and challenges.

• Identify pilot projects and key stakeholders capable of demonstrating new trust architectures that enable new uses of individual-level data.
Learner/Worker-Centered Approach

- **Verifiable**
  - Linked Open Data
  - Personally Identifiable Information

- **Distributed Lifetime Education & Work Record**
  - Student record
  - Employment & Wage Record, Resume
  - Student Transcript
  - Employment & Wage Record Skills and Competencies
  - UI Claims Workforce Case Management Record
  - Student Record
  - Employment & Wage Record Skills and Competencies

- **Technical Training**

- **High School**

- **Third Job**

- **Technical Training**

- **High School**

- **First Job**

- **Second Job**

- **Unemployed**

- **Government Agencies**

- **College**

- **UI Claims Workforce Case Management Record**

- **Student Record**

- **Employment & Wage Record Skills and Competencies**

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Implications for a Public-Private Data and Technology Infrastructure

• Public and private sector data and technology experts building on working group reports.

• Public sector
  ▪ Federal education, workforce, and statistical agencies
  ▪ State education, workforce, and statistical agencies
  ▪ Education and workforce policy organizations

• Recommendations for review in next stakeholder forum.
Next Steps

**Job Registry**
- Review the Clearer Signals paper.
- Participate in webinars and a forum.
- Participate as a pilot site.

**T3 Innovation Network**
- Review project background paper on the web.
- Join Work Groups.
- Review reports on the website and provide feedback.
MORE INFORMATION

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