## **Integrating Data Registries** in an HR Marketplace

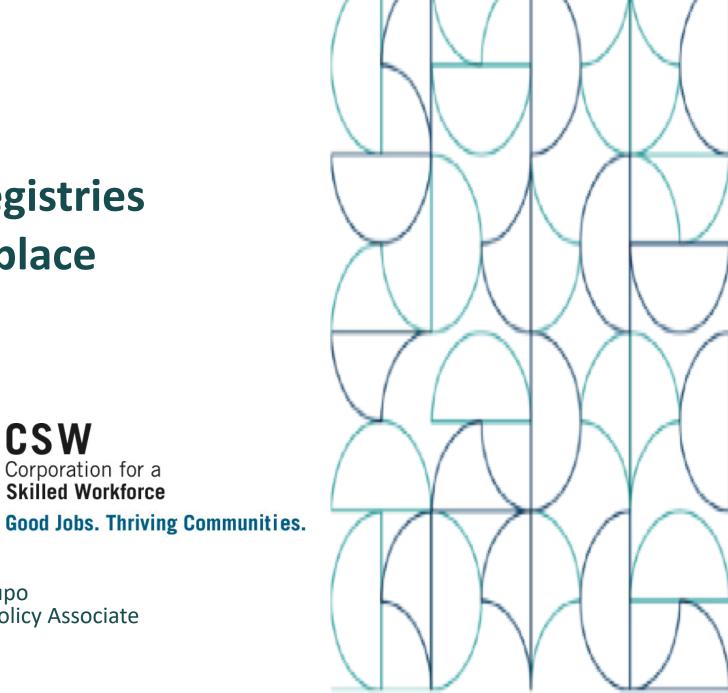
April 2019



Susan Lupo Senior Policy Associate

**CSW** 

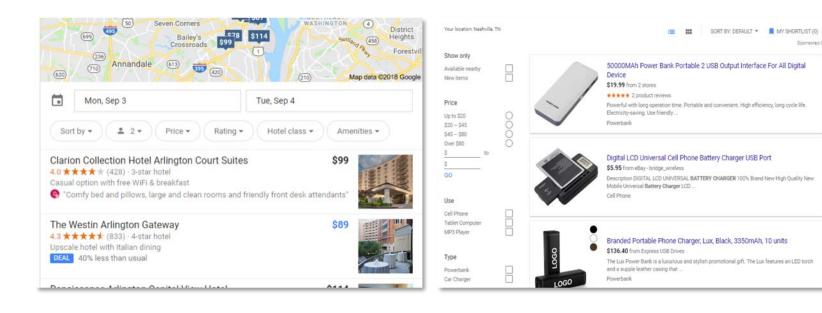
**Credential Solutions Lead** 

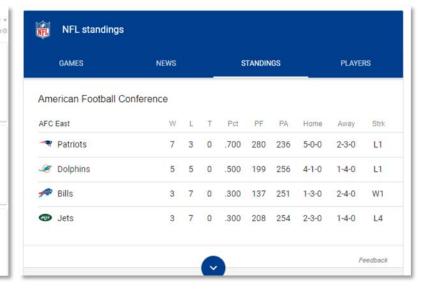


Jeff Grann



## It's become easy to find and compare online information for travel, products, sports teams, and much more.







#### Credential data hasn't kept up College Scorecard T Filter Results - Q Edit Search -73 Results SORT: % Earning Above HS Grad V Google IT programs in dc PAGE: 1 2 3 4 Rose-Hulman University of **Butler University** Indiana Wesleyan Shopping Settings Images Institute of **Notre Dame** Indianapolis, IN University Technology 3.998 undergraduate Notre Dame, IN Marion, IN 10.625 undergraduates 8.466 undergraduates Terre Haute, IN 2,165 undergraduate About 201,000,000 results (0.70 seconds) Purdue University Global | Online IT Degrees Career Bridge [Ad] go.purdueglobal.edu/InfoTech \* Find the education & training you need to get the job you want Own Your Education, Explore Purdue Global's IT Programs Today, Apply! Classes Start 6/6. Back Find Education Education Search IT Programs | South College© Online Print -Find Education Explore Careers [Ad] apply.south.edu/IT/Programs \* View Job Trends Accredited Online Education, Fill Out a Form to Get Started, Military Friendly, Ha APPRENTICESHIP.GOV Narrow your search by location, job title, and more. Night & Flexible Classes. Get Started Today! Services: Career Advisors, Modern Find Education Enter keywords or school/college name CAREER SEEKERS . EMPLOYERS . EDUCATORS FAQS RESOURCES . Pay for School Current & Former Military · Military Grant · Financial Aid · First Responder Grant Eligible Training HOME / APPRENTICESHIP FINDER / APPRENTICESHIP FINDER LISTINGS Search by Location Provider List Location (city, state, or ZIP code) Within Miles Adams DC Adult Training Programs Provide Career Certification, Information Technology Washington, DC 2003/ 10 miles 😩 SEARCH Chelan Clallam Clark Zip Code **OR** County https://osse.dc.gov/.../dc-adult-training-programs-provide-career-certifica Columbia Cowlitz Douglas Sep 28, 2012 - WASHINGTON, DC - District of Columbia adult learners were aw FILTER RESULTS Y Showing 9 of 76 Results certificates, trade certifications and immediate job placement ... **Additional Search Options** Offered Online Computer Occupations, All Other... Showing results for Washington, DC 20036 Programs with Performance Results (1) -- All Schools/colleges -IT certification programs Washington DC.Microsoft Cisco ETP Only () -- All Education Types --**Education Type** https://www.learn4good.com/.../washington-dc-computer-certification-pr TECHNOLOGY API/JAVA Q 1 miles Technology API/Java Developer DEVELOPER IT certification programs in Washington DC area; Computer training classes. ... SAVE TO MY DASHBOARD SEARCH THE KROGER CO Start New Search The Kroger Co A+ / Network+ certifications. ... Citiwide Computer Training Center in Washington Washington, DC 11 days ago WASHINGTON, DC corporation dedicated to helping underprivileged people acquire the skills they You searched for; job title: Computer Occupations, All Other..., only programs with performance results, counties: King CUSTOMER EXPERIENCE Q 1 miles Summary: Search Results 9 Per Page: 25 \$ Sort: Program Name : PLATFORM (CXP) DEVOPS Technology API/Java Developer Computer Training & Certification Courses | Washington. DEVELOPER Check boxes or click on a program title to view details Kroger Kroger Technology https://www.dcnewhorizons.com/training-certifications \* · Food services ETP () Washington, DC 11 days ago **Program Name** School Name Locations Length New Horizons Washington, D.C. is a premier training provider. And, with award-Blue Ash, Ohio, United States Applied Computing (BA) University of Washington/Bothell 4 Years no-cancellation policy, we are able to utilize the best ... From February 11, 2019 to February 15, 2019 ♥ 8 miles INSTRUCTIONAL DESIGNER Computer Science (AAS-T) Renton Technical College Renton 33 Months Full time · Salary to negotiate Deloitte DigiPen Institute of Technology 2 Years Computer Science (MS) Redmond 3 months ago Mclean, VA Be the first to apply for this job! Paid Training Jobs, Employment in Washington, DC | Inde Computer Science and Job description Software Engineering University of Washington/Bothell Bothell 2 Years https://www.indeed.com/q-Paid-Training-I-Washington,-DC-jobs.html > (Master of Science) FINISHING APPRENTICE 8 miles Requirements Computer Science and 5957 Paid Training jobs available in Washington, DC on Indeed.com. ... Education University of Washington 4 Years MacAulay-Brown, Inc.

Systems (BS)

Systems (BS)

(Certificate)

Data Visualization

Informatics (BS)

Computing & Software

Information Technology (BS)

University of Washington/Bothell

University of Washington

(WGU) Washington

Education

Professional and Continuing

Western Governors University

Bothell

Seattle

Bellevue.

Downtown

Seattle, Online

4 Years

9 Months

4 Years

54 Months

\* Entry level

\* Blue Ash

Description

\* No Education

\* Salary to negotiate

Technology API/Java Developer

24 days ago

**Q** 8 miles

2 months ago

Alexandria, VA

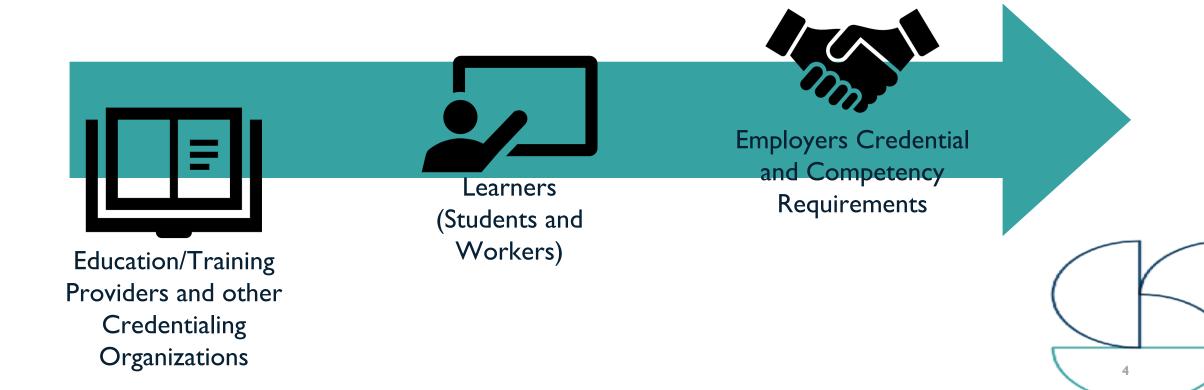
Deloitte & Touche

Mclean, VA

INSTRUCTIONAL DESIGNER

## Information About Credentials and Employer Requirements is Disconnected

Credentialing and employment information is not connected causing mixed signals in the talent marketplace including misalignment of training to competencies employers require or prefer.

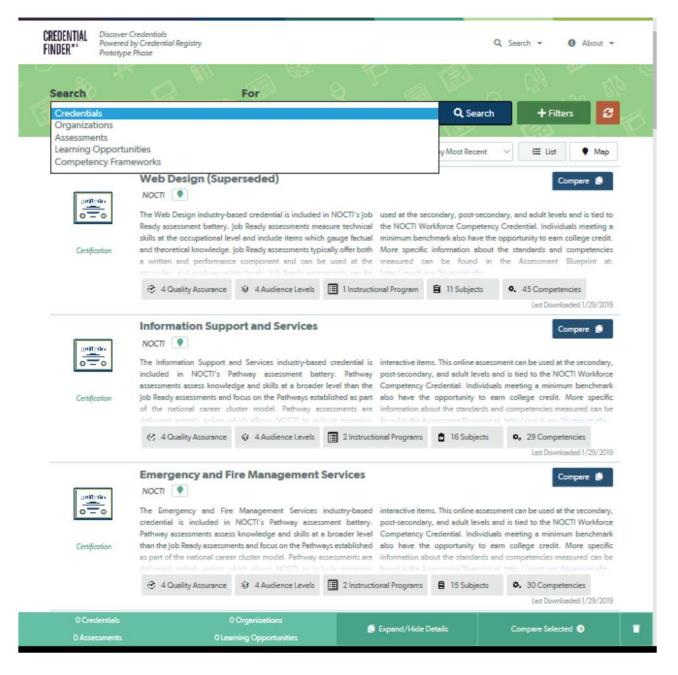




## Credential Engine's Mission

## We are a "public-good", open-source non-profit working:

- To bring transparency to all credentials—their content,
   competencies, quality indicators, pathways, outcomes, etc.,
- To reveal the marketplace of credentials,
- To increase credential literacy,
- To help everyone make more informed decisions about credentials and their value.



# CREDENTIAL FINDER

Powered by the / Credential Registry

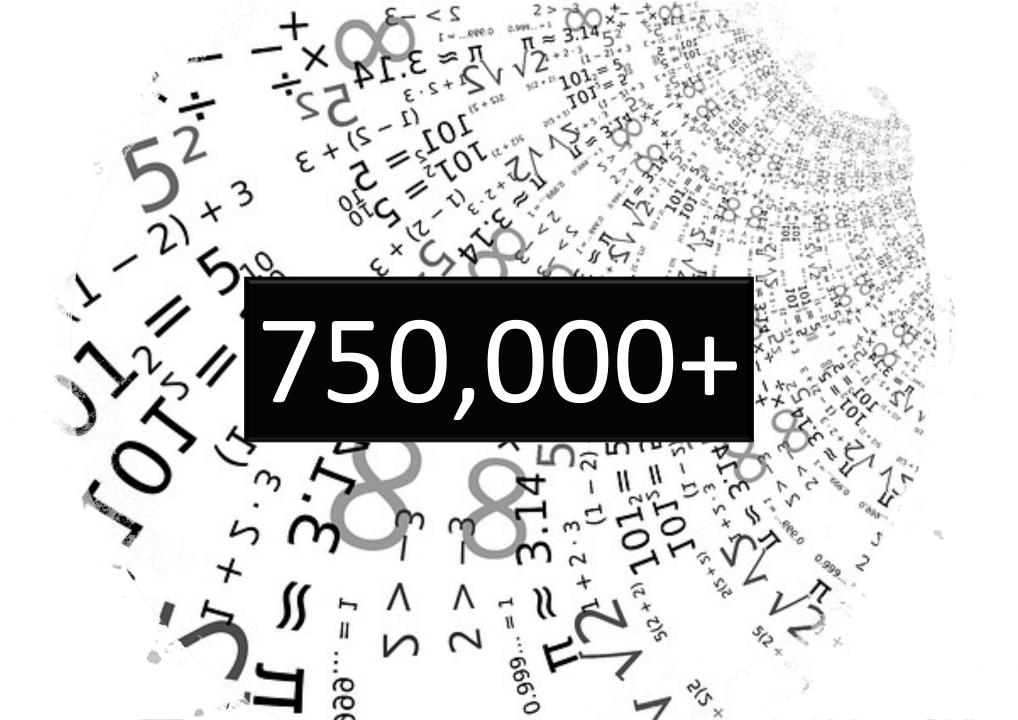


## • Competency Statements describe what a person knows and is able to do.

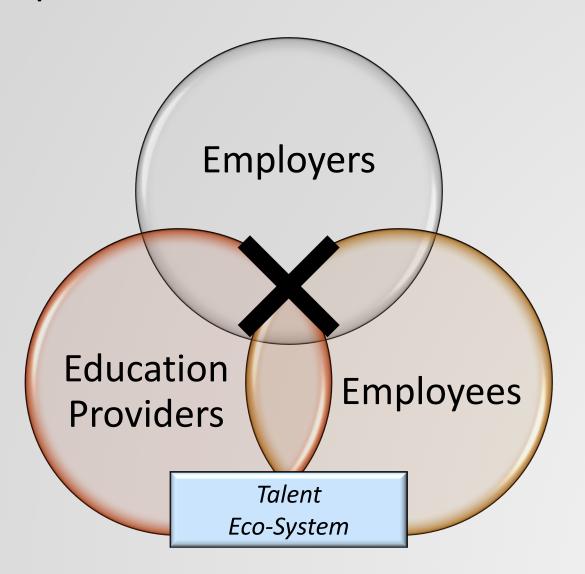
- Incorporates a range of design strategies to effectively integrate solutions into the user experience in ways that users with a range of backgrounds become excited.
- Establishes clear goals and expectations even when achievement processes may be complex.
- Installs and configures software, hardware, and networks for optimum functionality.
- Monitors system performance and executes troubleshooting strategies.
- Knows and follows JSON schema design formatting rules.
- Sets up and uses client-side virtualization including knowing the purpose of virtual machines, resource requirements, emulator requirements, security requirements, network requirements, hypervisor.

## Think About:

- How you learned the competency?
- How you would measure your proficiency?
- How you would communicate this competency to an employer?
- How an employer/educational provider could validate the competency?
- How an employer could use the competency statement?



## Competencies as Connective Tissue



## **Competency Exchange**

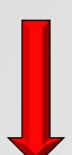


Profile Builder (App)



Published
Profiles
Courses/Programs
Industry Certifications
Job Descriptions







Competency
Calibrator
Embedded in App
Available for Other Use

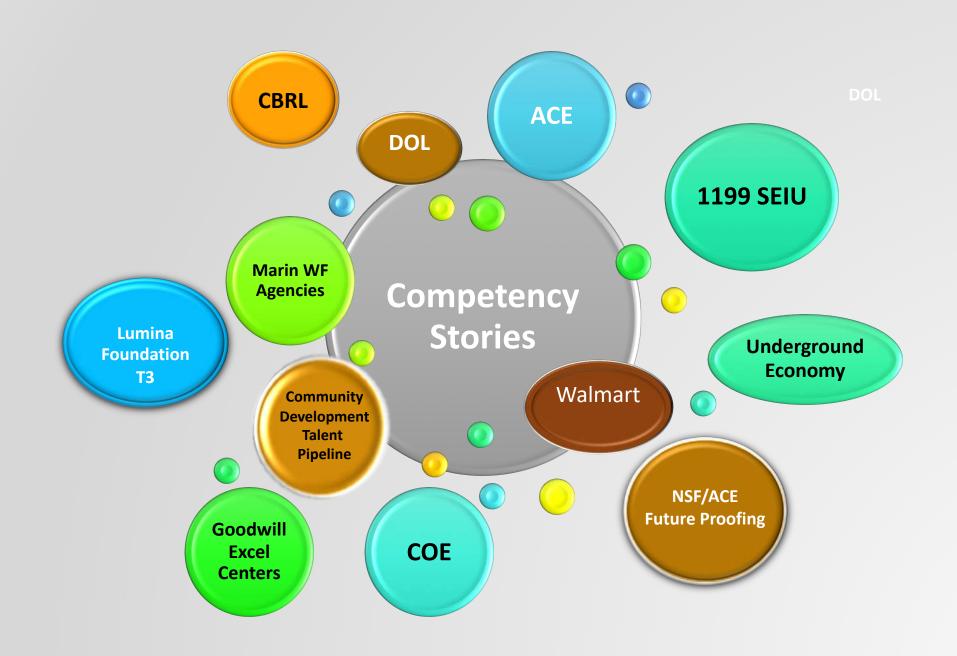


Exchange Resources

- ☐ Use competencies to compare competency-based programs or courses
- ☐ Use competencies to align industry credentials to a course or program at your institution
- ☐ Use competencies to compare credit and non-credit programs at your institution
- Compare job competencies to program learning outcomes
- ☐ Use competencies to build credentials
- Use competencies to qualify, hire and assess talent
- Use competencies as a way to future-proof (individual and organization)

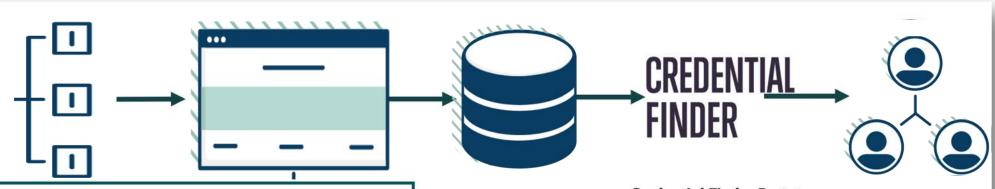
## **Customer Service Profile**

Organizational Function	Related Work Functions	Cross-Cutting Competencies (Retail and Hospitality)	Framework Level		Validation		Within Work Context Entry Level		
	ranctions		K	SS	P	S	Yes	No	Mid-Level
		Understands and identifies internal and external customers.	2	2	2	1			Manager Entry-Level
Customer Service	Assess and meet customer needs	Is pleasant, courteous and professional when dealing with internal and external customers.	2	2	2	1			Entry-Level
		Greets and acknowledges customer promptly and offers assistance, speaking clearly and using proper grammar.	2	2	2	1			Entry-Level
		Attends to what the customer is saying, taking time to understand the points being made, ask questions, and does not interrupt at inappropriate times.	2	2	2	2			Entry-Level
		Clarifies customer needs and objectives and confirms by re-stating information.	2	3	2	2			Entry-Level
		Applies company policies and procedures appropriately to meet customer needs.	2	2	2	1			Entry-Level
		Employs the most efficient interview technique when gathering information from the customer.	3	3	2	2			Entry/Mid-Level
		Provides prompt, efficient, and personalized assistance to meet requests, requirements and address concerns.	3	3	3	3			Mid-Level
		Identifies the social and cultural aspects of the customer in order to understand expectations for products and services	3	3	3	4			Mid-Level
		Tailors approach to meet the needs of customers with different demographic characteristics (e.g. age, cultural background, disability status) and personalities.	4	4	3	4			Mid-Level
		Establishes boundaries as appropriate for unreasonable customer demands.	3	3	3	3			Mid-Level
		Anticipates future needs of the customer.	3	3	3	3			Mid-Level





## Transparency Through Technology



#### Credential Transparency Description Language

(CTDL) – Common language that describes key features of credentials, credentialing organizations, and quality assurance bodies.

Common descriptors will allow for better applesto-apples comparison between credentials.

Publishing – After creating a user account, organizations use the API, Registry Publisher, bulk upload, or-in the future-harvest structured data to convert organization, credential and quality assurance information to the common language and publish to the registry.

Organizations will have a suite of options to add information to the registry.

#### Credential Engine Registry –

houses information described by the common language and supports an open applications marketplace.

Developers will create specialized applications for different types of users, like employers, military veterans, and students.

## **Credential Finder Prototype Application –** Basic search to view information in the

registry.

The public will use Credential Finder to see all information in the registry.

#### Community -

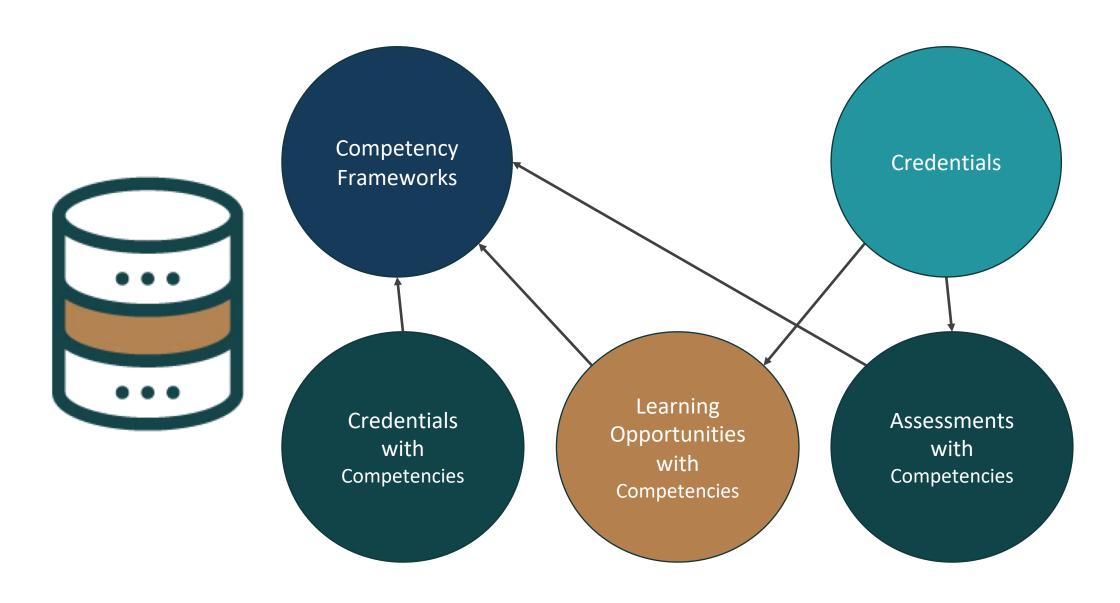
Receives technical assistance and other services to consume from and publish to the registry.

Credentialing organizations, developers, and other users will have access to resources like best practices, user guides, and staff support.





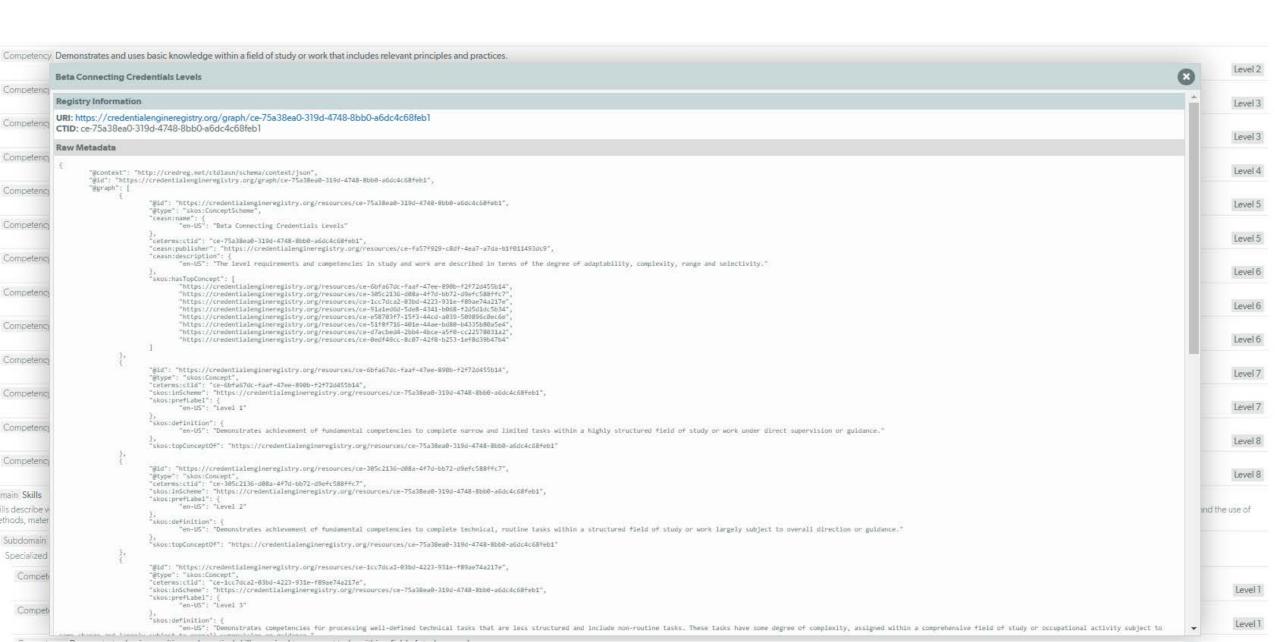
## **Example: Competency Frameworks**







## **Encoded Competency Framework**

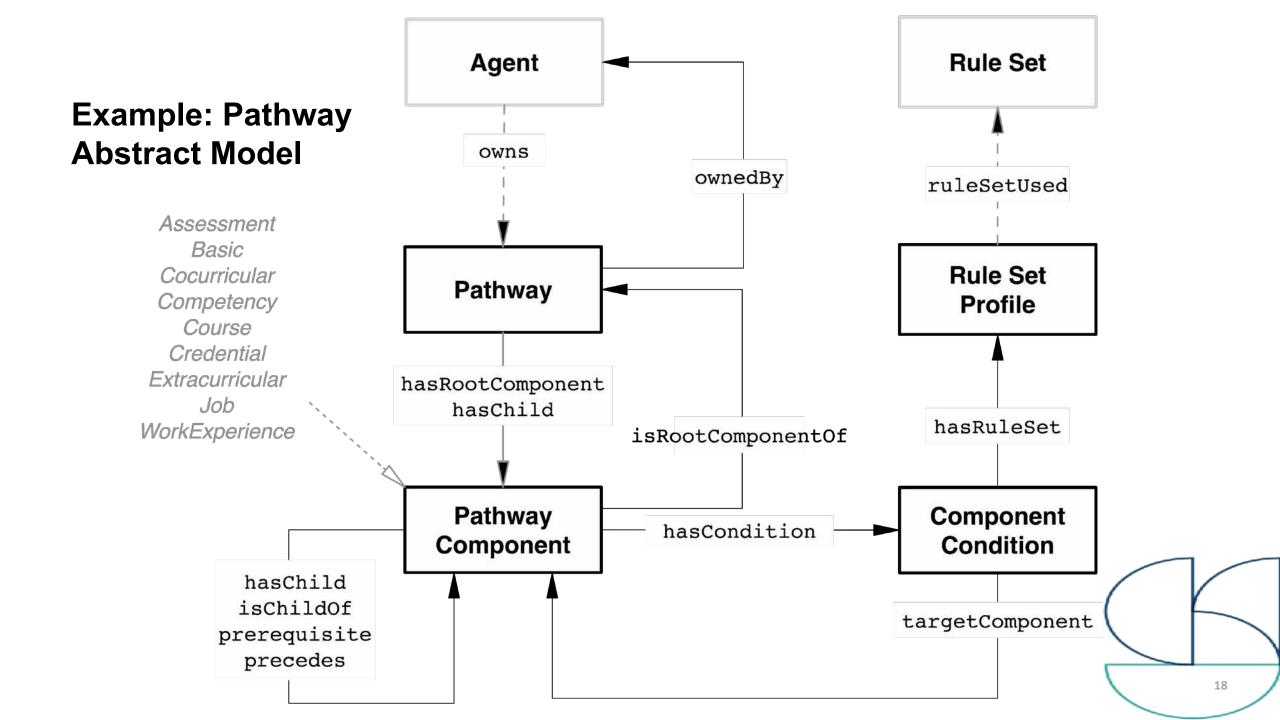


# Pathway as 'Transit Map'—Defining 'Station Stops'

In the context of Credential Engine:

- Pathway is...
  - A structured set of objectives and qualifying conditions defining points along a route to fulfillment of a job, occupation or career.
- Qualifying conditions include sets of prescribed, preferred or recommended artifacts:
  - Competencies (knowledge, skills, abilities)
  - Relevant awards
  - Recognitions (formal or peer)
  - Credentials earned
  - Relevant experience
  - etc.







## Example: Quality Assurance

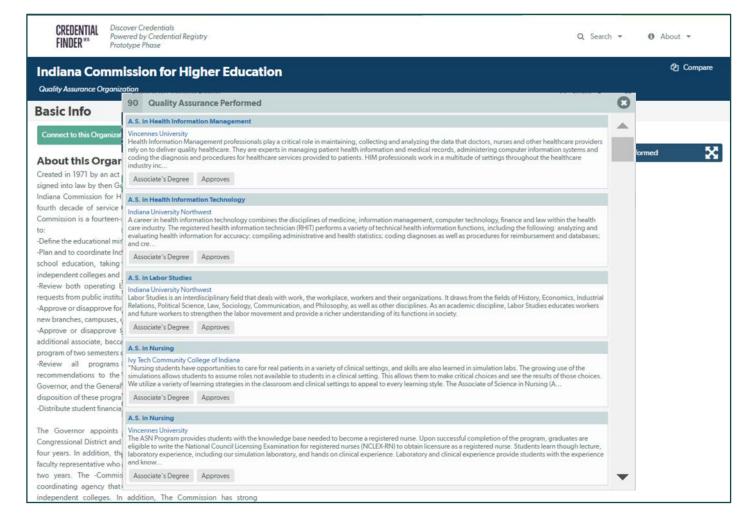
## Supports QA actions

- Approves
- Accredits
- Recognizes
- Regulates

## Supports QA claims

- Approved By
- Accredited By
- Recognized By
- Regulated By

Bi-directional Verification



## Credential Registry Data Publishing Options

Manual Entry via the Publisher App	Bulk Upload via the Publisher App	Application Programming Interface (API)	Harvesting CTDL Structured Data from the Web
Enter			
Enter small quantities of credentials and competency frameworks.	Upload information using spreadsheets.	Programmers publish structured data in real time.	Future: Get and synchronize data from the Web.



## Credential Transparency Partner Program

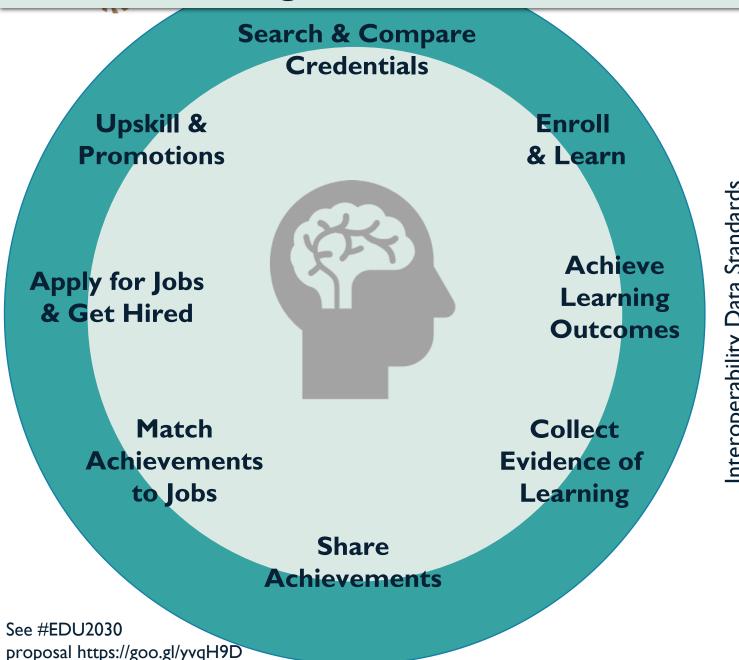
"By making data searchable and comparable through a common language, we will bring data transparency not only to credential providers, but also to the students, counselors, employers, and other users who need clear data to make critical education and career decisions."

Scott Cheney
Executive Director of Credential Engine





## Harmonizing Data Standards for a Learn & Work Ecosystem



Access 4 Learning (A4L): SIF

Advanced Distributed Learning Initiative (ADL): Competency & Skills System (CaSS), Experience API (xAPI)

Credential Engine: Credential Transparency Description Language (CTDL), CTDL-Competency Framework, Credential Registry

Common Education Data Standards (CEDS): Elements and Data Model

Ed-Fi Alliance: Ed-Fi Data Standard

HR Open Standards: Assessments, Interviewing, Recruiting and Screening

IMS Global: Caliper, Competencies & Academic Standards Exchange (CASE)", Learning Tools Interoperability (LTI), OneRoster, Open Badges, Question & Test Interoperability (QTI)

Postsecondary Electronic Standards Council (PESC): Standardization of Postsecondary Electronic Data Exchange (SPEEDE)

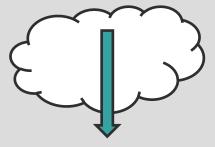
US Chamber of Commerce: Job Data Exchange (JDX)

World Wide Web Consortium (W3C) Community: Schema.org

Other domain-specific specifications such as competencies, maintenance task analysis, occupations...

## Credential Registry Data Consuming Options

Search API



**Customizable Widgets** 



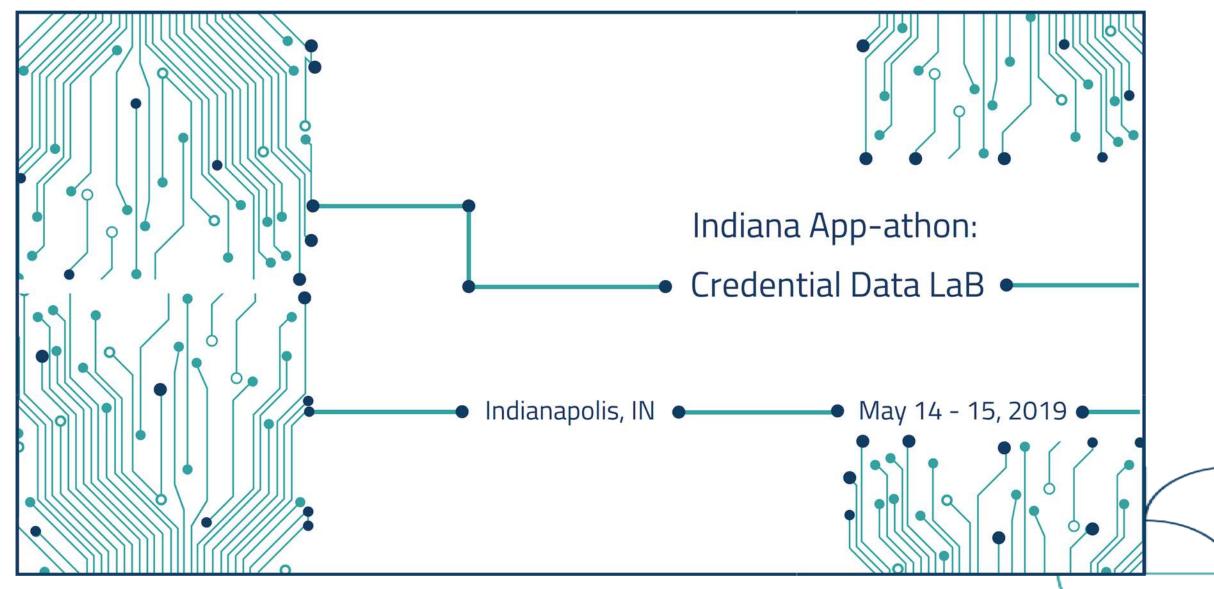
Application programmers can consume data from the Registry.

This requires knowledge of implementing APIs.

Organizations can create customized search widgets that seamlessly embed in their websites. This does not require an application programmer; it only requires the webmaster to copy/paste code snippets provided by the widget creator tool into their website.



## Register Now



## Thank you!

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