Bringing Credential Transparency and Literacy to the Marketplace

Credential Engine Application Showcase
September 5, 2018
The Problem – Lack of Understanding for All Credentials

The Marketplace of Credentials Is Confusing and Complex:

- Many different types of credentials with variation in content, quality and value.
- The market is expanding - over 330,000 confirmed in the U.S. alone.
- No common language to describe or compare credentials
- Misalignment between industry needs and educational offerings
- No mechanism for stacking credentials based on “competencies.”
Our Mission and Work

• To bring transparency to all credentials—their content, competencies, pathways and outcomes.

• To reveal the marketplace of credentials.

• To increase credential literacy.

• To help everyone make more informed decisions about credentials and their value.
How We do it: 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 apples-to-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.
## A Common Language Captures & Structures Credential Data

<table>
<thead>
<tr>
<th><strong>CREDENTIAL</strong></th>
<th><strong>ORGANIZATION</strong></th>
<th><strong>COST</strong></th>
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<tbody>
<tr>
<td>• Type</td>
<td>• Name / Parent Organization</td>
<td>• Price</td>
</tr>
<tr>
<td>• Description</td>
<td>• Type</td>
<td>• Cost Types</td>
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<tr>
<td>• Competencies</td>
<td>• Description</td>
<td>• Payment Information</td>
</tr>
<tr>
<td>• Owned/Offered By</td>
<td>• External Quality Assurance</td>
<td>• Residency</td>
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<td>• External Quality Assurance</td>
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<tr>
<td>• Renewal/Revocation</td>
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<tr>
<td>• Connected Credentials</td>
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<tr>
<td>• Jurisdiction</td>
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<tr>
<th><strong>ASSESSMENT</strong></th>
<th><strong>LEARNING OPPORTUNITY</strong></th>
<th><strong>IN DEVELOPMENT</strong></th>
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</thead>
<tbody>
<tr>
<td>• Name</td>
<td>• Types</td>
<td>• Labor Market Value</td>
</tr>
<tr>
<td>• Competencies</td>
<td>• Competencies</td>
<td>• Employer Requirements, Preferences, or Recognition</td>
</tr>
<tr>
<td>• Assessment Type</td>
<td>• Delivery</td>
<td>• Career Pathways</td>
</tr>
<tr>
<td>• Delivery Type</td>
<td>• Requirements, Duration, and Location</td>
<td>• Credential Holder Profiles</td>
</tr>
<tr>
<td>• Requirements, Duration, and Location</td>
<td></td>
<td>• Military-specific descriptors</td>
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For CTDLs full vocabulary of 300+ terms, visit [www.credreg.net](http://www.credreg.net)
Connecting Credential Data Across Systems

Product management tools  Learning management systems  Applicant tracking systems

Cost  Credential  Organization

Assessment  Learning Opportunity
Open Applications Marketplace

Credential Engine will accomplish its mission by supporting an open applications marketplace. Applications can publish to and pull from the Credential Registry. Applications pulling from the Registry will integrate data from multiple sources to address their customer’s needs.
About Today’s Showcase

To demonstrate how a wide variety of applications across the range of systems plan to utilize Credential Engine technologies, today’s presentation will introduce ideas and plans presented by our partners.

We will also highlight an exclusive look at a new tool the Credential Engine team is building.
Credential Engine Application
by
Innovate+Educate
About Us

• Innovate+Educate is a national nonprofit founded in 2008;
• Our first work in skills-based hiring was funded by the W. K. Kellogg Foundation in 2010
• Our vision is a skills-based ecosystem that allows multiple pathways to employment leading to economic success
• Our work is employer driven
• Through the last 8 years of pilots, we recognize more and more the importance of community level work (cities/states)
Today's Presentation

• Jamai Blivin, CEO, Innovate+Educate

• Dr. Merrilea Mayo, Lead Technical and Research Engineer – Future Skills Exchange

• Lois Johnson, Director of Workforce Strategies, Workforce Development Institute of New York– WDI-NY
The Problem - Consumers

Through Credential Engine, consumers can learn about a certification, but they still may not have enough practical navigation tools to get from here to there

• Where do I go, to sign up for training?

• Where and when is the test?

• Which jobs near me are asking for this certification?

• How much more will I make if I get this certification?

• Should I bother? Will I be able to get this certification in time to apply for the job?

• Do people who have this certification think it was worth getting?
The Problem - Employers

Employers need alternatives when looking for applicants in a degree-poor market. Modifying job ads to ask for certifications is a viable solution, but the logistics are not so straightforward….

• Which certification would best match the skills in my job description?

• Are the certification’s tests accessible to my applicant pool? (available locally/online)

• Which certifications will tell me if an applicant has practical skills vs. book-learning skills?

• Which certifications are popular enough, that if I ask for them, I won’t end up with an applicant pool of zero?

• How much should I offer the applicant who has certifications vs. the applicant who has a degree?
The Problem - States

- States are looking for alternative education pathways, but they have no easy way to guide employers or jobseekers to those pathways
  - Degrees are well-understood and have a whole ecology built around them
  - There is a lot of interest in skills and credential/competency based hiring, but no one really knows where to go to learn more
  - Certifications can be a strong alternative, but local testing and training options, as well as market signals, are largely invisible
Our Proposed Solution

• Future Skills Exchange is the initial attempt to create a transactional environment for credentials – in partnership with Credential Engine

• Consumer side is under construction now - functionality being built out as cash flow allows 😊

• Employer side awaiting a Phase II effort

Thanks to a fortuitous conversation with Credential Engine, we are now building this button!
Where do I go to sign up for training? (links to I+E's training provider database)

When and where is the test? (links to I+E's testing provider database)

Do people who have this credential think it was worth getting (consumer review functionality)

Should I bother? Will I able to get this credential in time to apply for the job? (filter by prerequisites)

Which jobs near me are asking for this credential? (jobs view is future work/integration with Indeed)

Descriptions, requirements, expertise, occupation and skills, information all from Credential Engine. Then add…. 
Click on a certification’s main “card” to learn more about it.

Or click on map pins to access deeper information on affiliated training/testing options.

(training screenshot from development site last week)
Benefits to Partners and Stakeholders

• Thanks to WDI-NY, this ultimately can be a great tool for partners and stakeholders across New York
• This pilot could benefit other communities/regions/States if we show success
• A benefit to I+E to have Credential Engine’s tool
• A benefit to Credential Engine for us to assist in bringing more credentials in New York to the site through outreach

Our Motto: 1+1=3      Thanks Credential Engine!
Contact Us!

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CourseNetworking Collaboration with Credential Engine

Ali Jafari, Professor and CEO | Indiana University IUPUI / CourseNetworking
Alice Zhao, Associate Director of CyberLab | Indiana University IUPUI
Sept 5, 2018
About CourseNetworking (CN)

• The CN Company (LLC) was founded in 2011 by capital investment from Indiana University with the mission to develop and commercialize a cloud based “next generation” learning environment….. An AI based application suite offering all LMS, social networking and ePortfolio.

• The CN is been in production and in use for the last five years. Users from 174 countries

• CN offers both free LMS and free ePortfolio accounts to individual users and paid annual licensing to schools and corporations, worldwide.
About the CyberLab

In 1997 Ali Jafari founded the IUPUI CyberLab at the Purdue School of Engineering and Technology as an R&D Center to research, develop, and commercialize advanced educational technology systems. CyberLab is located on the campus of IUPUI, Indianapolis, Indiana, USA.

CourseNetworking (the CN), 2011 - Present
Epsilen Environment, 2007
ANGEL Learning, 1999
Oncourse / Sakai, 1997
CN and Credential Engine Collaborations

• The CN began its conversation and collaboration with the Credential Engine in late 2017.

• The first goal was to research and develop an intuitive UI/UX to dynamically filter **credential data** for all CN members based on their skills and interests. This function was released to all CN members on Aug 2018, worldwide.

• CN and Credential Engine are in conversation for a joined research and development collaboration in using **AI** to intelligently display credentials to CN users based on their ePortfolio data using **machine learning**, **reasoning**, **big data** analysis and other **AI** methods.
CN ePortfolio Demo

The following Credential Engine integration function is available to all CN members, worldwide.

www.theCN.com
Play a Quick Demo Video of the CN ePortfolio
Ethical Decision Making

4. How do the guidelines for ethical decision making and the cycle of reflection help or confound your understanding of ethics?

The cycle of reflection and the guidelines for ethical decision making lets social workers acknowledge their own biases, and try to examine the situation in a new light that allows them to separate these personal biases...
If you wanna join pphs theatre club, reflect please. we need more members.

Aidan Herzog: what is the main purpose of the theatre club?

Elliot Dosstan: To have fun and perform!
If you wanna join pphs theatre club, reflect please. We need more members.

Aldan Herzog: what is the main purpose of the theatre club?
Elliot Dosztan: To have fun and perform!
Ali Jafari: Elliot, how can we join? Does it meet in Indianapolis?
Certificate in Professional Writing
Indiana University South Bend
The goal of the certificate program is to produce highly skilled professional writers who are valued for their skills throughout their professional lives. The high academic standards of the program are established in recognition of the fact that good writing is difficult to produce. The program requires students to advance beyond mere competence and strives to enable them to perform well in professional settings, where the ability to plan and execute work independently is sometimes crucial.

B.A. in English (IU) - Writing & Literacy
Indiana University Purdue University Indianapolis
The Writing and Literacy concentration introduces students to the discipline of writing studies the professional possibilities for writers the public uses of writing the social issues implicated in language use. Students write and analyze many kinds of texts, including: academic papers, personal essays, non-fiction articles, web-based documents, technical and business reports, poetry and fiction. Writing and Literacy majors prepare for careers in publishing, editing, freelance writing, journalism, business and technical writing, and grant writing, as well as (among other things) graduate study in English, law, and library and information sciences.

M.F.A. in Creative Writing
Indiana University Bloomington
Our award-winning faculty works hands-on with candidates throughout a three-year program focused on the learning, application, and integration of craft concepts and the generation and workshopping of original student poetry and fiction. Your thesis is a book-length manuscript in the genre of your choice.
About Rumi Intelligent Agent Project

Rumi is the codename for an intelligent software agent being conceptualized, researched, and developed at the IUPUI CyberLab in collaboration with CourseNetworking LLC (theCN). For students, Rumi plays the role of a “digital” mentor, personal teaching assistant, and a caring classmate. It dynamically and intelligently recommends resources, learning activities, and social connection. It alerts students of forthcoming learning assignments and offers alerts with emotions. For instructors, Rumi offers alerts about students who might be falling behind and offers advanced analytics of students’ learning activities. Additionally, a smart backend algorithm will enable Rumi to offer more course management automation to course instructors and teaching assistants. (2017-Present)

CyberLab.iupui.edu
Rumi Intelligent Agent Demo

The following Rumi demo is an Alpha version under development at the IUPUI CyberLab.

CyberLab.theCN.com
Hey Allie, I was thinking if you were graduated today, considering your degree at IUPUI, what would be the available jobs for you? Unfortunately, there are not a lot of jobs in your field of study. I have searched for the certificates that they can increase your employability. I believe that if you consider the following certificates before your graduation, your chances of finding jobs will be increased by about 87%.

- **Certificate in Professional Writing**, via Credential Engine
  Indiana University South Bend
  The goal of the certificate program is to produce highly skilled professional writers who are valued for their skills throughout their professional lives. The high academ...

- **Certificate in Technical and Professional Writing**, via Credential Engine
  Indiana University East
  This certificate offers students a focused program in technical and professional communication skills, an area that includes the study of technical writing and communicat...

- **Graduate Certificate in Teaching Writing (IU)**, via Credential Engine
  Indiana University Purdue University Indianapolis
  The graduate Certificate in Teaching Writing is a 20-hour program of study for certified middle school or high school teachers, part-time university writing faculty and I...

- **Certificate in Public Relations (IU)**, via Credential Engine
  8/21/2018
Thank YOU!

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jafari@IU.edu
zhaomeng@IU.edu

theCN.com
Custom Search Widget Demonstration
The Problem

• The credential data available in the Credential Finder is extensive. Partners need to present a subset of the data specific to their target audience.

• Partners need to be able to embed a customized credential search in their website, with minimal technical knowledge required.

• Partners need to customize the interface elements to present the search as seamless as possible.
Our Proposed Solution

• Widgets
  • A fully functional application that is embedded in a partner’s website by copying URL code into a website, or a full page application.

• Credential Engine will provide the ability for registered partners to create a credential search widget for the purpose of customizing data and presentation to the needs of the partner.
Creating a Widget

1. Create an account.
2. Customize and save.
3. Copy and paste.
Widget Examples

Indiana Commission for Higher Education

Search

Found 3073 results

Network Engineering Technology
- Value university West Lafayette
- in networking the back-end of computers: networks of computers, whether it is wired or wireless, information must be able to travel the network securely and efficiently. The network engineering technology major prepares you to design and plan networks, with a foundation in hardware and software to solve computer networking problems. Information systems major prepares you for the IT industry to work in information technology, software, and systems administration.

Graduate Certificate in Primary Care Family
- Value university Bloomington
- The Master of Primary Care Family Nurse Practitioner is available to students who have completed a Master’s degree in nursing from an accredited institution. This certificate program consists of courses that lead to a graduate degree in primary care family nurse practitioner. The certificate program requires a minimum of 18 credit hours. The program is designed to prepare students to work as a family nurse practitioner in a variety of settings, including primary care, acute care, and community health settings.

Accounting Advanced
- Value university West Lafayette
- The Accounting program is designed to prepare students for careers in accounting and related fields. This program is offered in partnership with the Department of Accounting and Finance at Purdue University. The program requires a minimum of 36 credit hours. The program is designed to provide students with a strong foundation in accounting theory and practice, as well as practical experience in accounting and related fields.

Advertising and Design
- Value university West Lafayette
- The Advertising and Design program is designed to prepare students for careers in advertising, design, and related fields. This program is offered in partnership with the School of Design at Purdue University. The program requires a minimum of 36 credit hours. The program is designed to provide students with a strong foundation in advertising and design theory and practice, as well as practical experience in advertising and design fields.

Agriculture Mechanics
- Value university West Lafayette
- The Agriculture Mechanics program is designed to prepare students for careers in agriculture mechanics and related fields. This program is offered in partnership with the Department of Agriculture and Natural Resources at Purdue University. The program requires a minimum of 36 credit hours. The program is designed to provide students with a strong foundation in agriculture mechanics theory and practice, as well as practical experience in agriculture mechanics fields.

Employability Skills
- Assess applied knowledge, effective relationships, and workplace skills
- Provides a strong alignment to the Employability Skills Framework
- Available for use by all NOCTI Customers
Benefits to Partners and Stakeholders

• Access to a credential search that doesn’t require new development.
• Anyone can include a seamless credential search on their website.
• Customization is easy to use and save to the benefit of your customers.
• Presents data that may come from disparate sources on one page.
• Easy to compare credential information.
For More Information

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Credential Finder Search App Prototype: http://credentialfinder.org

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