Why Digital Badges for Washington?

Steve Gance, February 24, 2021

With the establishment of multiple open technology standards, the digital transformation of education is accelerating. These standards promise to support and expand an ecosystem of emerging, interdependent, and intersecting technologies to provide access to opportunities for quality, life-long education connected to the future of work and to democratic citizenship.

At the same time, COVID-19 has had a disruptive impact and has exposed and exacerbated existing inequities in education and access to digital resources. Overall, Fall 2020 enrollment at community colleges was down 10 percent from a year earlier with first-time enrollment dropping 21 percent, with enrollment of Black, Hispanic and Native American first-year students down even more. (PBS, 2021)

“Covid is accelerating all the challenges [community colleges] were facing beforehand and intensifying the competition they’re facing” according to Davis Jenkins, senior research scholar at the Community College Research Center, Teachers College, Columbia University. (PBS, 2021)

Digital badges and micro-credentials have emerged as a key mechanism to support the shift to provide more short-term options to build job-related skills. Badges are modular in that they can be “sized” according to the needs of issuers, earners, and consumers (Everhart, et. Al., 2016).

This whitepaper highlights some of the efforts in the US that illustrate how digital badging and micro-credentialing are being used to support career-related upskilling and address racial and other inequities. These examples suggest that Washington Community and Technical colleges needs to prepare for an expanded micro-credential ecosystem that supports staff, students, employees, and employers.

**What are Badges and Micro-credentials?**

A boy scout badge is a physical representation of an achievement. A digital badge is a digital representation of an achievement. A badge is designed to be displayed as a marker of accomplishment, activity, skill, interest, association, or identity.

The fact that a badge is digital means it can be shared on the web, sent in email, posted to social media, and shared in any software that handles digital representations. Digital information contained within the badge can be used to link it with other badges or credentials across a variety of learning contexts in new ways that were previously not possible. (Everhart, et. Al., 2016)

Open Badges can represent a more detailed picture than a CV or résumé, creating a constantly evolving picture of a person’s lifelong learning. Open Badges are verified before being displayed so interested parties can trust that an Open Badge represents a legitimate, authenticated achievement, the nature of which is described within the badge itself. Unlike traditional grades and transcripts, digital credentials can contain specific claims of competency and web-based evidence of those competencies. (Hickey, 2017)

Thousands of organizations and communities are awarding Open Badges to recognize learning, skills, and other achievements. These organizations include:

- Schools and universities
- Employers
- Community and non-profit organizations
As an illustration of the rapid uptake of Open Badges, in 2018, when SBCTC selected Badgr Pro as the
badging platform for all of the WA CTC’s, it was the only vendor supporting open badges. Today, there
are more than 20 Open Badge providers, and many more vendors that accept Open Badges. To date,
worldwide, over 43 million open digital badges have been awarded.

What are Micro-Credentials?

Although Open Badges can be issued for literally anything, they’ve gained a reputation as being useful
for ‘micro-credentialing’. Micro-credentials recognize smaller units of learning and achievement than is
usually the case when referring to degrees or other credentials. Badges are particularly apt for
representing micro-credentials because they can be arbitrarily combined in different combinations to
represent different pathways of learning.

In this whitepaper, we are primarily interested in those achievements that are certified, and thus are
properly micro-credentials, verified and backed by a trusted source. This contrasts with the use of
digital badges as “digital stickers” in gamification or for motivation that do not have robust evaluation
associated. These are often. The Open Badge standard has built-in verification mechanisms so badges
are well-suited to act as trusted representations of credentials.

Problems of Existing Credentials

Academic degrees have long been the currency of education and have traditionally been a requirement
for many jobs. A degree, unlike a micro-credential, is generally considered a single entity. In a
transcript, indications of the attainment of specific knowledge or competencies is not typically
apparent in the courses completed for a degree. These courses often do not carry independent value
outside that institution, even for students transferring from one institution to another. This lack of
independent value for parts of a degree are particularly problematic for students who stop out prior to
completing a degree, or find that their credits from previous degree work do not count toward a new,
even related program of study (Everhart, et. Al., 2016).

How do Badges Address the Problems of Existing Credentials?

Representing micro-credentials in digital badges is a way of trying to help students tell a story about
some dimension of their learning that might otherwise be merely a line on their resume. A resume has
never been enough. Job recruiters see digital badges as a way to better define talent (PBS, 2016).

- A badge’s criteria can be used to link it with other badges/credentials across a variety of
  institutions/organizations to develop learning pathways in new ways. Technical interoperability is a
  key aspect of the Open Badges standard which allows badges to be adaptable to multiple purposes
  and allows them to be combined and stacked (Everhart, et. Al., 2016). Existing hard copy or PDF
  transcripts are not interoperable nor can they be easily digitally combined.

- Badges are self-validating: The issuing organization and the content of the badge can be verified
  at any time. The design of badges guarantees issuer verification, since the badge is technically
tied to the issuer (Everhart, et. Al., 2016). This self-validation contrasts with typical transcripts
  which must be verified manually with the original education provider.

- Given their metadata structure, badges can be designed to be hyper-relevant with regard to
criteria for earning the badge, standards for learning outcomes, competency frameworks, skills
attained, etc. For employers seeking employees with specific skills, badges have the potential to represent these skills in highly relevant ways (Everhart, et. Al., 2016).

- Badges can help to indicate learning pathways and future opportunities, and since they are owned by their earners, they can also serve to inform the learner of their past learning pathways and potential future directions (Everhart, et. Al., 2016).

**Who is Offering Badges?**

**WGU**

Western Governors University currently offers 15 badges and micro-credentials for certificates and degrees such as Data Modeling and Data Preparation, Professional Communication and Leadership, Accounting, and Business Essentials. WGU believes micro-credentials are particularly useful in fields that are constantly changing such as IT (WGU blog, April 20, 2020).

**IBM Credentials: Badges and Certifications**

IBM has issued over three million badges and hosts about 2,500 activities where badges are issued. On-the-job learning is now personal and transportable and creates a talent pool that helps democratize the labor market. More importantly, IBM has found that badges increase employee performance. Employees who earn digital badges show higher engagement scores and employees with skills level badges are less likely to voluntarily leave IBM. 72% of IBM managers now employ badges to recognize employees for achievement (Leaser, 2020).

**AWS**

AWS provides digital badges as a benefit of getting AWS Certified, automatically issuing a digital badge when a learner earns an AWS Certification. These Open Badges include DevOps Engineer Professional, Solutions Architect Associate, Machine Learning Specialty, Developer Associate, Security Specialty, and Cloud Practitioner.

**Microsoft**

Microsoft’s Digital Badging programs provide recognition of skills and achievements through secure and verifiable digital credentials. Microsoft offers over 400 Open Badges that can be earned for completing Microsoft training and certification. Microsoft badges allow badge earners to easily share certifications and exams with their professional networks and employers.

**Oracle**

Oracle offers more than 1000 digital badges for completion of Oracle certified training. Oracle Certifications are among the most sought after badges of credibility for expertise in the Information Technology marketplace.

**Wichita State University**

Wichita State University’s badge program offers more than 150 badges for workforce training and continuing education. These badges are targeted at practicing professionals and the coursework can be completed online and at a student's own pace.

Course credit is awarded for each of the badges earned. These credits appear on the WSU transcript. The badges themselves follow the Open Badge standard and can be shared with employers on Linkedin or social media, and can be combined with badges earned from other Open Badge compatible badge issuers.
Madison Area Technical College

Madison Area Technical College (MATC), located in Madison, Wisconsin, offers more than 190 credit and non-credit badges. Credit-bearing badges are awarded for successful completion of credit courses as a sign of knowledge, skill and/or ability and include a set of Core Workforce Skills badges in Speaking, Listening, Communication, Ethics, Self-Management, and Professionalism.

Non-Credit badges are associated with the majority of MATC's non-credit professional development courses. These include courses such as Introduction to Web Design, Workpress, Applied Statistics, Adobe InDesign, and Python Programming.

In 2012, MATC formed the Digital Credentials Institute (DCI) to develop and offer a portfolio of best practices to support organizations venturing into the micro-credential space. DCI’s badge taxonomy provided inspiration for SBCTC’s own badge taxonomy.

SBCTC

All Washington State Community and Technical Colleges have Badgr Pro available, paid for by SBCTC through June 2022. Badgr Pro features allow departments, programs, colleges or other educational and co-curricular entities to create Issuers and badges and give permissions for one or more instructors to award those badges in courses.

Through SBCTC professional development we have had over 1500 CTC faculty and staff earn nearly 4000 badges, including over 600 badges for Bridge-to-College Math and English instructors. Several CTC’s have utilized Badgr Pro to award thousands of badges to over 1000 staff for training in online learning. A number of CTCs are awarding badges to students for college orientation, information literacy courses, and other academic and co-curricular activities. A number of CTC faculty are using badges to gamify their courses, providing another mechanism for students to track their learning.

SBCTC Education staff are working with several colleges to implement Badge Pathways that hold promise for implementing larger curriculum pathways associated with Guided Pathways.

What's Ahead for Badges?

Perhaps the most important reason to pursue digital badging efforts for WA CTCs is as a foundation for subsequent digital credential interchange standards such as the IMS Global Comprehensive Learner Record (CLR) standard released in 2020 and recently endorsed by AACRAO, The American Associate of Collegiate Registrars and Admissions Officers. The Comprehensive Learner Record standard is designed to contain all of the learning achievements earned at an organization by a learner–worker (Wellspring Project report Phase 1).

Two additional initiatives similar to CLR illustrate the current emphasis on providing a "holder" for all the learning and working achievements owned by the learner/employee. The US Chamber of Commerce T3 Innovation Network, whose goal “is exploring the emerging technologies and standards in the talent marketplace to create more equitable and effective learning and career pathways,” is supporting the scalable, pilot testing of learning and employment records (LERs) with the development and implementation of an LER Resource Hub. IEEE has created an ILR Working Group to develop recommended practices for issuing, holding, and presenting integrated learner records for education and employment achievements.

It is important to mention a new initiative involving WGU, the Open Skills Network, that began last year but has already demonstrated results in its recent skills descriptor showcase. Open Skills Network
is a group of more than 40 employers, educational organizations, and technology providers dedicated to accelerating the adoption of skills-based education and hiring by establishing a network of open skills libraries and skills data. With coordination from BrightHive, support from Walmart, Western Governors University, and the U.S. Chamber of Commerce Foundation, and building off of the work of Concentric Sky (providers of Badgr Pro used by WA CTCs), Credential Engine, EMSI, and others, the Open Skills Network is developing common standards and practices to serve as the infrastructure for widespread skills-based education and hiring practices (OSN, Sep 2020).

Badgr has already implemented skills-based tagging that can be added to any badge created with Badgr Pro, using the standards already accepted within Open Badges. SBCTC has already started to tag the badges it awards with existing open skills definitions provided by EMSI.

It is apparent that 21st Century transcript records will be written to these new standards which are being coordinated with the work of Credential Engine. The Credential Transparency Description Language (CTDL) describes the skills, competencies and experiences contained in each credential—whether a bachelor’s degree, a registered apprenticeship, a micro-credential, or a badge. In late 2019, the Workforce Training and Education Coordinating Board convened a Credential Transparency Advisory Committee with a grant from Credential Engine, supported by the Lumina Foundation. The grant enabled the translation of 6,500 Washington-based postsecondary education and training programs into the Credential Transparency Description Language. The Advisory Committee has recommended a permanent committee to coordinate credential work across Washington.

Implementing digital badges and digital micro-credentials in Washington Community and Technical colleges allows a robust method for faculty, staff and students to document their learning and employment skills. Open Badges themselves are a key component of the educational records of the future.

**Badge and Micro-credential Initiatives Referenced**


IBM Credentials: Badges and Certifications https://www.ibm.com/training/credentials

Microsoft Digital Badges: https://www.youracclaim.com/organizations/microsoft-certification/badges

Badgr listing of WGU badges: https://badgr.com/public/issuers/UP3FmZ9nS0amwFynM_5yUA/badges

About Oracle’s Certification Badges https://education.oracle.com/certification-badges

List of Oracle’s Certification Badges https://www.youracclaim.com/organizations/oracle/badges

Madison Area Technical College Badge Program https://madisoncollege.edu/digital-badges

Madison Area Technical College Digital Credentials Institute https://dci-madisoncollege.org/

Wichita State Badge Program https://badges.wichita.edu/badges

Wichita State Badge Catalog https://badges.wichita.edu/badgecatalog

IMS Global Comprehensive Learning Record https://www.imsglobal.org/about/clr

T3 Innovation Network Learning and Employment Record https://lerhub.org

AACRAO Comprehensive Learner Record https://www.aacrao.org/signature-initiatives/comprehensive-learner-record

Credential Engine: https://credentialengine.org

References


7 Things you should know about Digital Badges. ©Educause. 2019.

7 Things you should know about The Comprehensive Learner Record. ©Educause. 2019.

7 Things you should know about Credential Transparency Description Language. ©Educause. 2018.


