

Alternative Means to Show Student Growth and Learning:

Open Badges and Other Systems

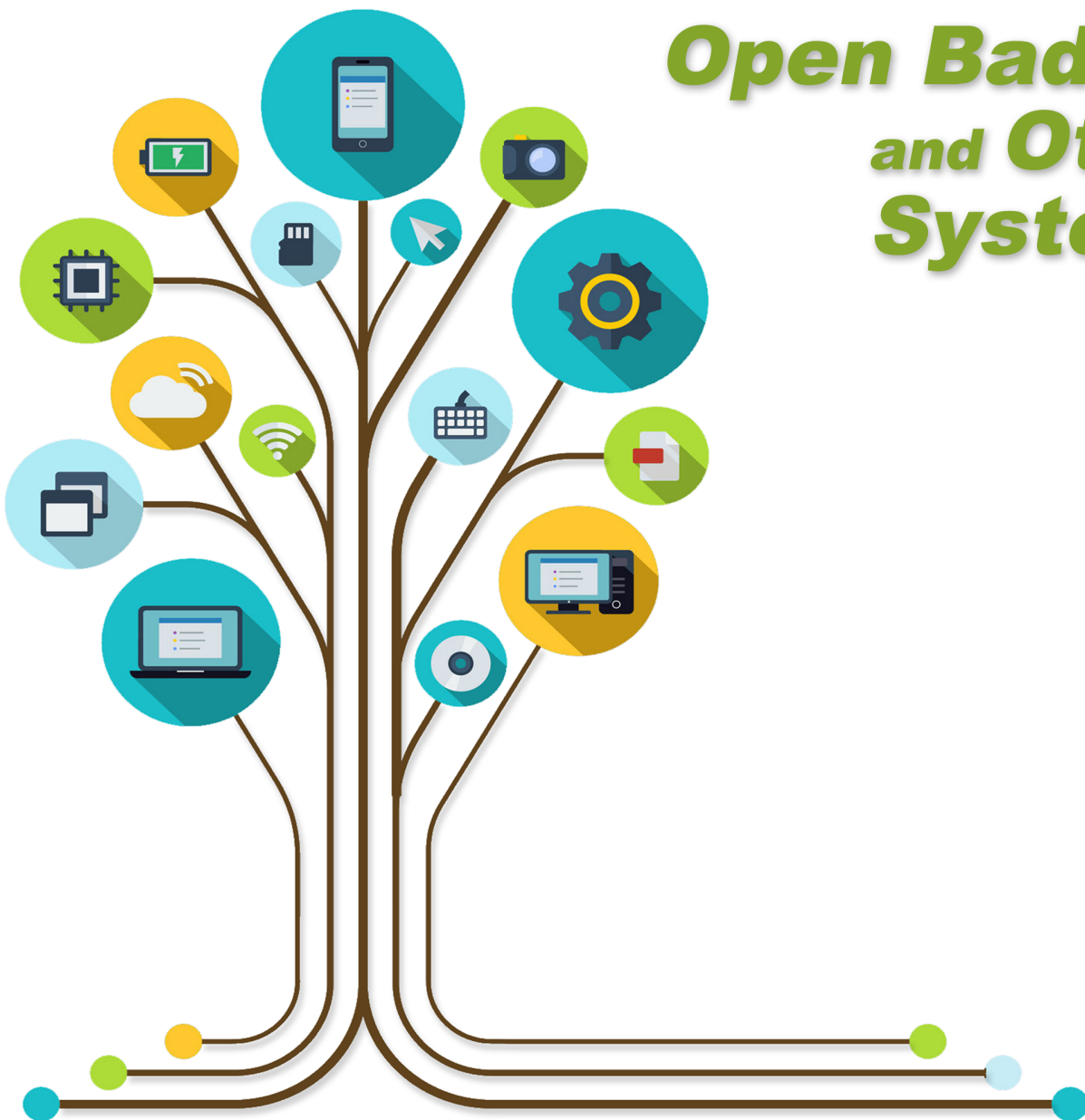




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Introduction

The Stark County elementary school principal had a rare opportunity. He had just gotten on the same elevator as Howard Gardner. This was the early 1990s and Gardner was still a big name in education circles. His landmark 1983 book, Frames of Mind: The Theory of Multiple Intelligences was still causing a stir, as well as his equally well-known work with Harvard's Project Zero¹ which focused on learning through the arts. The principal had seconds, not minutes, to tell Gardner about the advances Stark County teachers and students were making in the arts.²

Earlier that year at Middlebranch in the Plain Local Schools students had “danced around the gymnasium.” To the untrained eye, they were just kids goofing off or having a good time. Their dance, albeit not to scale, was a precise depiction of the solar system and the movement of planets. They were studying astronomy through the art of dance.

Whether or not Stark County and its principal ever made a lasting impression on Howard Gardner is not known. What is known is that researchers from the Getty Institute later called the Stark County Summer Arts Institute for Teachers the finest in the country and the Smithsonian offered to exhibit the work of Stark County students. The bottom line is that different students learn differently. For some, the arts as a medium open a world of possibilities. These successes would never be measured by a standardized test, nor go on a school report card. If students learn differently, why do we measure their, and their school's, success on a narrow range of multiple choice items or on a standard “one-size-fits-all” rubric?

The take away from the principal's chance meeting with Howard Gardner is two-fold. Gardner's theory of multiple intelligences (not to be confused with learning styles) means that each student has multiple ways of processing information. For the Middlebranch students, bodily-kinesthetic intelligence enabled them to use their own bodies to replicate the movement of the planets. It follows then, that there must be multiple ways of demonstrating knowledge and for our purposes, measuring and recognizing achievement. What, if building on all this, we treated every child as though they were gifted? What if every child received recognition and were told that they were really good at something? How might that change the culture of schooling, even the way students treated each other and adults?

One way is through the award of an authentic credential. Something that is recognized widely and seen as credible. Open badges are one such possibility.



On “Badges” and Alternative Means to Showing Growth and Learning

The issuing of badges for achievement is not necessarily a new concept for adults (consider the military), nor for children (look at scouting). Yet, except for sports trophies and award days, the concept is alien to education where letter grades and scores on standardized tests remain the primary means of recognition. Quasi-badges of sorts exist for students in honors diplomas, high ACT or SAT scores, and through groups like the National Honor Society but these recognitions often leave the “rank and file” behind.

Granted, for schools themselves, there is the federal *Blue Ribbon* award, rankings by U.S. News and the Washington Post and occasional state tags, like the recent Ohio *Purple Star* designation³. Once again, however, the “rank and file” are often left behind. How does an inner-city school fighting the ravages of high poverty compete with a high wealth suburban school on AP scores and college-going, even though that urban school might be the bulwark that provides stability for children in dysfunctional families and holds a deteriorating neighborhood together? Yet, schools are ranked on the first, not the second.

Additionally, low wealth urban, extra-urban and rural schools will always be disadvantaged in conventional rating systems by inequality of resources. As Meredith Broussard, a data journalism professor at NYU’s Arthur L. Carter Journalism Institute, wrote in *The Atlantic*, poor schools will never win at standardized testing because “*standardized tests are not based on general knowledge...they are based on specific knowledge contained in specific sets of books: the textbooks created by the test makers.*” The problem being that poor schools can’t afford those books, replace losses, or keep the books up to date.⁴

All of this is confounded by some basic issues. Are we then, indeed measuring what is important? Are we fairly assessing what teachers teach, under what circumstances, and what students know and can do under similar circumstances? In essence, we need to re-think and broaden how we look at and evaluate what is important.

Google is undoubtedly one of the most successful high-tech companies in history. Yet, it’s Oxygen and Project Aristotle studies, looking at what makes for high performing groups and good management sent “shock waves” through the company and business world in general. Following old assumptions, as Julia Rozovsky, analyst for Google People Operations (HR) puts it, they were “*pretty confident that we’d find the perfect mix of individual traits and skills necessary for a stellar team -- take one Rhodes Scholar, two extroverts, one engineer who rocks at AngularJS, and a Ph.D. Voila. Dream team assembled, right? We were dead wrong. Who is on a team matters less than how the team members interact, structure their work, and view their contributions.*”⁵

What mattered most was:

1. Psychological safety: Can we take risks on this team without feeling insecure or embarrassed?
2. Dependability: Can we count on each other to do high quality work on time?
3. Structure & clarity: Are goals, roles, and execution plans on our team clear?
4. Meaning of work: Are we working on something that is personally important for each of us?
5. Impact of work: Do we fundamentally believe that the work we’re doing matters?⁶

None of this, of course, is to mean that academic subjects are unimportant. Yet, Google found the most critical factor was psychological safety, literally feeling safe to share your ideas, no matter how they might be perceived, no matter whether they were thought “right” or “wrong”, without fear of embarrassment or criticism. Psychological safety further meant that you were given permission to admit failure, that no question “is a dumb question”. All of this being somewhat different from the way we have constructed schooling and testing, but not different from the way master teachers construct their classrooms. Yet, when looking at individuals, the eight top qualities Google identified for employees, STEM knowledge came in dead last. The seven other top characteristics for success at Google were all soft skills: being a good coach; communicating and listening well; possessing insights into others

(including others different values and points of view); having empathy toward and being supportive of one’s colleagues; being a good critical thinker and problem solver; and being able to make connections across complex ideas.⁷ Yet, we measure or acknowledge none of this in our standardized testing scenarios.

Yet, all these align with the four “C”s of 21st Century Learning⁸; critical thinking, collaboration, communication, & creative innovation and Lerner, Almerigi, Theokas & Lerner (2005) six “C”s of positive youth development; confidence, competence, character, caring, contribution, connection⁹. Clearly, an alternative way to standardize testing to demonstrate learning and growth in these domains is desirable. Yet, there are always issues of credibility as soft skills don’t lead to credentials. or do they?



Alternative Measures

How about a professional certificate in soft skills that focuses on: active listening, written and verbal communication in the workplace; leading, and working well with team members and peers; best practices for performing a strategic analysis of a problem in the workplace and several other elements all from the prestigious Rochester Institute of Technology?¹⁰ Not credible enough? How about an instructor-signed certificate from Harvard University verifying your achievement in any one of a number of on-line courses, that you can also electronically send to potential or current employers?¹¹

Both are possible through EdX offerings¹², an offshoot of the open learning concept (MOOCs) originated by MIT and other institutions to offer free, online, quality courses. Today, an estimated 14 million persons are enrolled in 52 million EdX

courses. While we often herald the notion of “learning for learning’s sake”, it wasn’t long before participants were willing to pay tuition for college credit, or a gratuity for a certificate or award that verified they had completed a course. So, began the use of digital badges in earnest. Such badges are known in EdX circles today as “verified certificates”. EdX explains how this works:

EARN YOUR EDX VERIFIED CERTIFICATE AND SHARE IT WITH THE WORLD

Sometimes you want to take a course just for the sheer joy of learning something new. But sometimes you need to complete a course for a better job, a promotion, or a college application.

A verified certificate from edX can provide proof for an employer, school, or other institution that

*you have successfully completed an online course. Verified certificates require you to verify your identity using a webcam and a government-issued ID, so employers and schools know that you completed the course work.*¹³

While the individual receives a “paper” certificate, EdX maintains a dedicated on-line link that can be shared with employers and others. Here, EdX has

successfully handled the issue of credibility on two fronts. Certificates are signed by the instructor and carry the institution’s logo and the recipient is verified. While courses can be audited for free, a small fee is generally charged for the certificate. Harvard’s introductory course on the Pyramids, for instance, it is \$99. Fees collected go back into the system to help maintain free courses for everyone.



*Open Badges are visual tokens of achievement, affiliation, authorization, or other trust relationship sharable across the web. Open Badges represent a more detailed picture than a CV or résumé as they can be presented in ever-changing combinations, creating a constantly evolving picture of a person’s lifelong learning. - Discover Open Badges*¹⁴

The “gold standard” in digital badging today is the Open Badges concept. It was created by Mozilla in 2011 with funding from the Mac Arthur Foundation and other partners specifically to “(develop) a new way to recognize learning wherever it happened – in and out of formal education and online.”¹⁵ Called a “disruptive technology” by Mozilla, Open Badges are seen as reimagining ways to recognize learning beyond formal credentialing systems. A world-wide community of users continues to drive the development of Open Badges. Since 2017, the IMS Global Learning Consortium continues to drive the development of Open Badges specifications and standards.¹⁶

With this whole process, EdX meets the qualifications of the Mozilla Foundation’s Open Badges. Specifically, there is an issuer profile describing the organization or individual issuing the badge; a Bridge Class or formal recognition of the achievement the issuer is recognizing; and an assertion or record of the individual’s achievement of the badge. Open Badges are typically stored in recipients’ accounts at Open Badges backpack services, where recipients may share them with employers or organizations whenever the verifiable badges are relevant.¹⁷



K-12 Badging Systems

Probably the seminal work on Open Badges for K-12 was published in 2013 by the Alliance for Excellent Education and Mozilla, again with help from the MacArthur Foundation. *Expanding Education and Workforce Opportunities Through Digital Badges*¹⁸ stressed the following:

*The K–12 education system is facing significant challenges in graduating students who are ready for college and careers. In recognition of the changing economy and the demand for high-skilled, well-rounded workers, states have begun to change how their education systems do business... As districts and schools face these challenges, they must build internal capacity and consider new learning students have attained them, in or out of school. Badges can help accomplish this goal. For example, badges can help educators understand the wide range of skills, knowledge, and interests beyond those that are measured by traditional assessments. Badges can help improve the effectiveness of school-community partnerships and make more and better information about student learning available to both formal and informal education providers.*¹⁹

The document concluded with a vision for the future in which badges could have an “enormous impact” on workforce training and education – a future for K-12 in which teachers and students both could gain a variety of badges that would open “multiple pathways for college and career”. In fact, the Alliance and Mozilla concluded that *“For policymakers committed to innovation, badges could be the next crucial step in education reform and economic empowerment.”*²⁰

While not explicitly stated, *Expanding Education and Workforce Opportunities* implies that badges might be a way to circumvent the one-size-fits-all monopoly on the standards and standardized testing currently exercised on learning. Richard E. Ferdig and his associates writing in the 2017 March/April issue of *Principal* certainly see digital

badges as a way of rethinking assessment and learning.²¹ They write:

Unlike a standardized test, digital and traditional badges reward a specific set of competencies. Imagine, for instance, two students who receive an A in algebra. Although they might share the same conceptual metric, their skillsets and understandings might be completely different based on their teacher, school, and curriculum.

Further they note that students are already engaged in opportunities through gaming apps to earn badges in their lives. The same holds true for adults, as any owner of a Fitbit²² knows. Yet, there are vast differences between recreational and educational badges.

Under the tagline of “Recognizing Assets, Opening Doors” one of the most developed K-12 badging systems in the country is that of the Aurora Public Schools (APS) in Aurora, Colorado.²³ APS is a high poverty, high minority district of 40,000 students with a 39% ESL rate. At the core of the program is the recognition that traditional metrics, such as GPA, only offer limited evidence of the micro skills that many employers consider to be of vital importance in the 21st Century. The district has partnered with several national corporations, such as Home Depot and local organizations such as the Colorado Opera, to endorse their badging system. Further APS offers an enhanced badge, known as a “Summit Badge” that creates an opportunity to connect with a badge endorser for a career experience. To date, APS has 51 companies and organizations as endorsers.²⁴

Under the tagline “Our students are more than a grade...a statistic...a test score” the International Society for Technology in Education (ISTE) promotes the use of K-12 digital badging. Their recommendation is that:

We recommend using a badging system built on Mozilla's Open Badge Infrastructure (OBI). The OBI is a framework for organizing badge data that allows your students to easily move their earned badges from your system into others, particularly into Mozilla's free individual "backpacks." Badges' interoperability reduces the historic disconnect between institutions because badging credentials from multiple sites can appear in students' backpacks as long as they are issued by an OBI-compliant badging system.²⁵

In January 2017, the IMS Global Learning Consortium,²⁶ a non-profit, with an impressive list of foundation and education members²⁷, committed to promoting the use of technology, committed to managing and expanding open badges specifications. A new version (Open Badges 2.0) focuses on features such as endorsements, internationalization and multi-lingual capabilities, versioning, improvements for accessibility, and full adoption of JSON-LD (lightweight linked data format). The IMS site contains a rich variety of materials accessible to the public including presentation from a recent (February 2018) *Summit on Digital Badges and Credentials*.²⁸ Additionally, IMS now manages the Open Badges website, originated by Mozilla.²⁹

One contributing member of the IMS Global Learning Consortium is the Michigan Department of Education (MDE). Admitting that "Unlike traditional grading systems which deliver a letter grade intended to represent proficiency, a badge system would provide a comprehensive picture and demonstrated evidence of gained competencies" the department is not suggesting that proficiency tests be eliminated. However, MDE has published a resource guide, *Digital Badges: Principles and Standards of Quality for Recognizing Learning*³⁰ and other supporting materials on the use of badges in afterschool programs.

Several K-12 districts are also members or affiliates of IMS. One such example is the Corona-Norco Unified School District in California and its *Passport to Success* e-badge website. The district offers badges at the elementary, middle and high school levels. Badges are not just academic. The Outstanding Behavior Badge at the elementary level is awarded to students who receive only O's (Outstanding) and S's (Satisfactory) for citizenship on end of trimester report cards.³¹ At the high school level academic badges are tied to individual learning plans.



A Parallel Effort in Ohio

While not an open badging system, per se, students in the Class of 2018 may earn the *Ohio Means Jobs Readiness Seal*, which also serves as one of the qualifiers under Option One of the 2018 Ohio Graduation Requirements.³²

Unlike a badging system that might award separate badges for specific competencies, the Ohio Means Jobs Readiness Seal is an all or nothing enterprise. Yet, because of the increasing focus on "soft

skills" in both education and business circles, these skills deserve a closer look.

There are 15 essential professional skills in which students must demonstrate proficiency in order to earn the seal. These are defined by the Ohio Department of Education, Governor's Office of Workforce Transformation and Ohio Department of Higher Education who identified a list of professional skills based on reports by the

National Association of Colleges and Employers, in partnership with The Conference Board, Partnership for 21st Century Skills, Society for Human Resource Management and Corporate Voices for Working Families. These skills are:

- **Drug Free** - *The student commits to being drug free.*³³
- **Reliability** - *The student has integrity and responsibility in professional settings.*
- **Work Ethic** - *The student has effective work habits, personal accountability and a determination to succeed.*
- **Punctuality** - *The student arrives to commitments on time and ready to contribute.*
- **Discipline** - *The student abides by guidelines, demonstrates self-control and stays on task.*
- **Teamwork/Collaboration** - *The student builds collaborative relationships with others and can work as part of a team.*
- **Professionalism** - *The student demonstrates honesty. He or she dresses and acts appropriately and responsibly. He or she learns from mistakes.*
- **Learning Agility** - *The student desires to continuously learn new information and skills.*
- **Critical Thinking/Problem-Solving** - *The student exercises strong decision-making skills, analyzes issues effectively and thinks creatively to overcome problems.*
- **Leadership** - *The student leverages the strengths of others to achieve common goals. He or she coaches and motivates peers and can prioritize and delegate work.*

- **Creativity/Innovation** - *The student is original and inventive. He or she communicates new ideas to others, drawing on knowledge from different fields to find solutions.*
- **Oral and Written Communications** - *The student articulates thoughts and ideas clearly and effectively in written and oral forms.*
- **Digital Technology** - *The student has an in-depth understanding of emerging technology and leverages technology to solve problems, complete tasks and accomplish goals.*
- **Global/Intercultural Fluency** - *The student values, respects and learns from diverse groups of people.*
- **Career Management** - *The student is a self-advocate. He or she articulates strengths, knowledge and experiences relevant to success in a job or postsecondary education.*³⁴

The seal can be printed on transcripts or diplomas. There is no information at this stage as to whether it will be available electronically.

The state of Ohio maintains an extensive and customizable job search website in association with Ohio Means Jobs where a variety of resources can be integrated, including job searches, scholarship information, assessments and job aptitude tests.

Once again, while not an open badging system, the Ohio Means Jobs website (primarily aimed at adults) does award certificates of achievement for practice WorkKeys and other tests. These can, in turn, be uploaded to a document file in a personal backpack that the individual can access to forward materials when applying for a job.³⁵



A Changing, Growing Environment

NEW YORK, NY, April 12, 2018 — Pearson and Credly announced today that Credly will acquire Pearson’s Acclaim badging business in response to global demand for digital credentialing and talent recognition. Pearson will take a minority equity stake in Credly, and Mark Chernis, SVP/Strategic Partnerships & Investments at Pearson, will join Credly’s board of directors. The partnership between Acclaim and Credly brings two leading organizations together and provides the most comprehensive solution suite for skill recognition, credential verification, and talent management.

The combined organization will serve a global customer base, including millions of individuals; and enterprise leaders, education institutions, certification providers, and associations like IBM, Microsoft, the American Council on Education, the Association of International Certified Professional Accountants (AICPA), and Southern New Hampshire University.³⁶

Today, over 12,000 organizations are registered with Credly, a thought leader in the digital credentials movement. While organizations can purchase and pay for premium versions, most significantly, Credly is committed to “access and equity by making the Credly platform universally available to anyone looking to be part of the Digital Credentials movement.”³⁷ While a nominal (and optional) \$150 annual fee is charged for issuer verification, the basic platform is, as Credly puts it “free forever”.

It is also significant that Credly now is supported by the Lumina Foundation whose Goal 2025 seeks to increase the percentage of Americans with degrees, certificates and other high-quality credentials to 60 percent by 2025. Lumina has strongly influenced Ohio’s own Attainment Goal 2025³⁸. Credly was the first program related investment out of the Lumina strategic social investment fund.



Conclusion

Ohio and the United States may be involved in a global education competition that few policy-makers here seem to fully recognize. It is very possible, that our children may one day amass a series of credentials from all over the world. Many of these will be outside of, perhaps even threaten, conventional education. Want to enhance a high school diploma? Try, for instance, a Cambridge AS & A Programme.³⁹The Lisbon Convention, an international agreement signed by 50 countries and international organizations, (including the European Union, USA, Australia, Canada, Israel and New Zealand) already facilitates the recognition of foreign studies among the signatory countries.

Suppose, for instance, that I also want to just strengthen my presentation skills and earn a badge in the process. I sign on to a digital site called *All Aboard*.⁴⁰ Built on the analogy of a “Metro Station,” *All Aboard* can give me many options to plan my journey. The difference here, is that the model is not the Washington D.C. Metro, or even Cleveland’s “Rapid Transit”. *All Aboard* is in Ireland and funded by Ireland’s National Forum for the Enhancement of Teaching & Learning.⁴¹

The world is changing and so is credentialing.



End Notes

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- ¹ See: <http://www.pz.harvard.edu/who-we-are/about>
- ² A true story. The nod here, of course, goes to Willis Digman.
- ³ See: <http://education.ohio.gov/Topics/Other-Resources/Family-and-Community-Engagement/Supporting-Ohio-s-Military-Families/Purple-Star-Award>
- ⁴ See: “Why Poor Schools Can’t Win at Testing” in The Atlantic, July 15, 2014 at: <https://www.theatlantic.com/education/archive/2014/07/why-poor-schools-cant-win-at-standardized-testing/374287/>
- ⁵ See: *The five keys to a successful Google team*, published November 17, 2015 on LinkedIn at: <https://www.linkedin.com/pulse/five-keys-successful-google-team-laszlo-bock/>
- ⁶ Ibid
- ⁷ See: Valerie Strauss. *The surprising thing Google learned about its employees — and what it means for today’s students*. The Washington Post, December 20, 2017 at: https://www.washingtonpost.com/news/answer-sheet/wp/2017/12/20/the-surprising-thing-google-learned-about-its-employees-and-what-it-means-for-todays-students/?utm_term=.d1310c1eb826
- ⁸ see <http://www.p21.org>
- ⁹ Positive Youth Development: A View of Issues in The Journal of Early Adolescence, Volume: 25 issue: 1, page(s): 10-16 Issue published: February 1, 2005 <https://doi.org/10.1177/0272431604273211>
- ¹⁰ See: <https://www.edx.org/professional-certificate/ritx-soft-skills>
- ¹¹ See: <https://www.edx.org/course/pyramids-of-giza-ancient-egyptian-art-and-archaeology>
- ¹² See: EdX at: <https://www.edx.org/>
- ¹³ See: <https://www.edx.org/verified-certificate>
- ¹⁴ See: <https://openbadges.org/>
- ¹⁵ See: About Open Badges at: <https://openbadges.org/about/>
- ¹⁶ See: <https://www.imsglobal.org/>
- ¹⁷ These details can be studied in depth in the Mozilla Foundation’s Open Badges Developers Guide at: <https://openbadges.org/developers/#issuing-badges>
- ¹⁸ Available at: <https://all4ed.org/articles/digital-badges-new-report-from-alliance-and-mozilla-examines-how-digital-badges-can-expand-education-and-workforce-opportunities/>
- ¹⁹ Ibid, pp. 5-6.
- ²⁰ Ibid, p. 11.
- ²¹ See: Going Digital with Badges at: <https://www.naesp.org/principal-marchapril-2017-technology-all/going-digital-badges>
- ²² See: <https://www.fitbit.com/home>
- ²³ See: <https://sites.google.com/aurorak12.org/badge/>
- ²⁴ An Overview of the APS Badging System can be found at: <https://sites.google.com/aurorak12.org/badge-endorsers/home>
- ²⁵ See Chart student’s growth with digital badges at: <https://www.iste.org/explore/articleDetail?articleid=320>
- ²⁶ See: <https://www.imsglobal.org/aboutims.html>
- ²⁷ As described by IMS, “Contributing Members are the voting members and strategic partners of IMS who lead and ratify IMS standards. Affiliates are early adopters of IMS work. Alliance Participants partake in conformance activities on a specific IMS standard.”

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- ²⁸ See: <https://www.imsglobal.org/activity/digital-credentials-and-badges>
- ²⁹ See: <https://openbadges.org>
- ³⁰ See: http://www.michigan.gov/mde/0,4615,7-140-28753_65799-349978--,00.html
- ³¹ See: Passport to Success at: <https://www.cnusdp2s.com/sitemap/>
- ³² See: <http://education.ohio.gov/getattachment/Topics/New-Skills-for-Youth/SuccessBound/OhioMeansJobs-Readiness-Seal/OhioMeansJobs-Readiness-Seal-FAQs.pdf.aspx?lang=en-US>
- ³³ The authors note this is not a competency or skill, per se, but rather that it is included because of its importance to employers.
- ³⁴ See: Ohio Department of Education, OhioMeansJobs-Readiness Seal What it Means to Employers and Institutions of Higher Education at: <http://education.ohio.gov/Topics/New-Skills-for-Youth/SuccessBound/OhioMeansJobs-Readiness-Seal>
- ³⁵ <https://jobseeker.ohiomeansjobs.monster.com/Backpack/Home.aspx>
- ³⁶ See: Credly Press Release at: <https://credly.com/releases/180412/Credly-Acclaim>
- ³⁷ See: Credly Pricing Plans at: <https://credly.com/pricing>
- ³⁸ See: <https://www.ohiohighered.org/attainment>
- ³⁹ See: <http://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-advanced/cambridge-international-as-and-a-levels/>
- ⁴⁰ See: Presentation Skills and Tools at: <http://www.allaboardhe.ie/presentation/>
- ⁴¹ See: <https://www.teachingandlearning.ie/>