



University Senate Instruction, Curricula, and Advising

Complementary Credentialing and Digital Badges for Rutgers University

A. Charge and Rationale

S-1805: *Consider the feasibility of, and approach to, developing a complementary digital badging credentialing system at Rutgers University. Examine the complementary credentialing programs already in place at Rutgers. Make appropriate recommendations, including guidelines for departments and programs. Respond to the Senate Executive Committee by March 2020.*

The School of Environmental and Biological Sciences, in addition to other units at Rutgers, is exploring the feasibility and possible implementation of competency-based complementary credentialing, including the use of digital badging. Before moving forward, however, a University-wide conversation is needed on: the philosophy of complementary credentialing; the use of credentialing elsewhere at the University; and the feasibility and development of guidelines for departments and programs (academic, co-curricular, and non-academic) who wish to offer these types of credentials, specifically digital badging.

Digital badges are online, verified certificates of achievement that learners earn based on specific goals, activities, and assessments. Digital badges document transferrable skills, learning, and other co-curricular experiences not apparent on the standard transcript that can be shared with employers and others. These activities may include, among others, soft skills (e.g., communication, leadership, team work, and problem-solving), library and research skills, and laboratory and field work.

Credentialing implies a communication conduit between Rutgers and potential employers that anticipates employer needs in hiring while providing incentives and benefits (such as expanded career opportunities and advancement) for the learner (students, employees, alumni, adult learners). Credentialing at Rutgers should be flexible, “resume-worthy,” and allow for innovation and experimentation. However guidelines for departments and programs on the badging process must be robust in order to ensure quality and useful assessment of any badge verified and issued by this institution.

Currently, Credly (Credly.com) is an online platform compatible with Canvas that supports the digital badging process. This platform can also stand alone and issue badges outside of Canvas. Credly’s platform is quickly becoming the industry standard and has been adopted by other institutions of higher learning. At Rutgers, the Office of Information Technology (OIT) and Teaching and Learning Technology (TLT) are currently working with Credly as part of a digital badging pilot program¹ for adult learning and other activities, making the Credly platform a prime candidate for more general use at Rutgers.

¹ Current badging activity at Rutgers consists of a digital badging pilot program in development by an ad hoc committee that includes participants from OIT, TLT, the School of Environmental and Biological Sciences (SEBS), Rutgers-Newark, and the Continuing Education Coordinating Council (CECC). The pilot explores the offer of *non-academic* (out of classroom, soft skill, or professional) digital badges to participants in continuing education programs. OIT and TLT are working with Credly to create badges using the Acclaim platform.

B. Background

Nationally, institutions of higher education as well as many other groups² are exploring or are implementing “alternative” credentialing. These “complementary” credentials typically include digital badges, issued by the institution and verified by the instructor. In the case of higher education, this means that students can create a record of accomplishments and skills that goes well beyond the traditional academic transcript and potentially reflects a paradigm change. Indeed, traditional transcripts do not necessarily “connect verified competencies to jobs.”³ Digital badges (herein called badges) are part of a movement toward competency-based learning⁴ where “doing” is as valuable as “knowing.”

The concept of badging in education dates to ~2011 from a collaboration of Mozilla and the MacArthur foundation⁵, where the perceived “need to recognize learning on a smaller scale than traditional higher education courses”⁶ grew into various forms of programing, most notably by recognizing student competencies through participation in online courses and verified through assessment. Examples include the use of badging in massive open online courses (MOOCs) to encourage student completion rates⁷, or the use of “micro-credentials” (stackable modules in online instruction that can be offered as a single unit or aggregated into a product that represents more than a class but less than a degree). Gamification, the use of gaming elements to encourage engagement with other material or complete educational tasks in a non-game context, is also used as the basis for complementary credentialing.⁸ These different ways to earn badges offer students many options, but delivery options are not standardized.⁹

Regardless of the type of alternative credential or its content, the institution or issuing group has ownership of the credential and will issue badges only they can verify completion and/or mastery of a clear set of criteria. It is reasonable to think of digital badges as a type of digital currency that is defined by the issuer and is housed at a unique URL that can be exchanged between the student and other groups interested in their learning (e.g., a potential employer). The unique URL allows anyone, including an employer, to view the achievements of the student at a more granular level. These details help to document student experiences and background, and may allow others to determine if they are suited for jobs or other activities. In higher education, digital badging may also serve as a tool to assess mastery of program learning goals.

Criteria for Creating and Issuing a Badge

The criteria (accomplishments, skills, mastery, etc.) assigned to a badge vary by the type of programming and the group issuing the credentialing. For example, some badges recognize the mastery of skills and/or knowledge, while others might be issued for attendance at events or acceptance into programs. All of these criteria must be resume-worthy (i.e., employers will find value in these complementary credentials).

² <https://openbadges.org/about/participating-issuers/>

³ Page 13 in: ICDE Working Group (2019) The Present and Future of Alternative Digital Credentials (ADCs). <https://icde.memberclicks.net/assets/ICDE-ADC%20report-January%202019%20%28002%29.pdf>

⁴ “Competency-based learning [CBL] is an approach to education that focuses on the student’s demonstration of desired learning outcomes as central to the learning process,” differing from “mastery-based learning” by emphasizing observable skills, whereas “mastery learning may be academic – as likely to focus on concepts as skills.” Although CBL is “traditionally thought of in terms of skills and vocation, it can be entirely “academic” as well. From: TeachThought Staff. 2017. What is Competency-Based Learning? TeachThought, Aug. 18. <https://www.teachthought.com/learning/what-is-competency-based-learning>

⁵ https://wiki.mozilla.org/images/5/59/OpenBadges-Working-Paper_012312.pdf

⁶ <https://www.obviouschoice.com.au/what-are-micro-credentials>

⁷ <https://er.educause.edu/articles/2016/11/digital-badging-in-the-mooc-space>

⁸ <https://www.sciencedirect.com/science/article/pii/S0747563218302541>

⁹ <https://www.classcentral.com/report/moocs-microcredentials-analysis-2018/>

Digital badges may also contain examples of student work. Thus a badge might be considered a mini-portfolio, where content is verified by the issuer and the student controls its distribution (for example, on social media, LinkedIn accounts, and resumes).

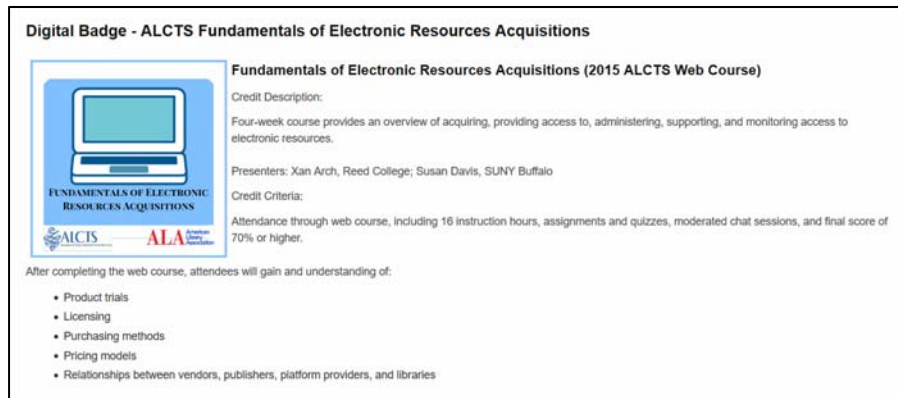


Figure 1. Example of ALA badging¹³

Library Association (ALA) has piloted a badging program to support an ALA focus on professional leadership development (Figure 1).^{12,13} The IBM Skills Gateway offers a series of badges to its business partners: an earner of the MDM Physical Module Architecture badge (Figure 2),¹⁴ for example, can explain the “technical architecture of the MDM Physical Module and how services and key features are handled by InfoSphere MDM.” The University of California Irvine developed alternative digital credentials for professional development and lifelong learners.¹⁵

In higher education, where student learning happens both inside and outside the classroom, credentialing creates a mechanism for validating and recognizing student effort for both academic (in classroom) and co-curricular activity or other “soft skills” not recognized in the traditional academic transcript. For instance, badges might be associated with building technical, research, leadership, or information skills (through the libraries) or participation in student groups. Badges might be offered in the Maker Spaces, through Recreation, and through Residence Life training. Badging might serve to motivate students, although a recent study that examined the motivations and perceptions of students in 90 institutions (using gamification as the basis of digital badging) concluded that “although students found the badges motivating, learning the course content and the overall course grade were more important to them than the tangible reward.”¹⁶ More research is needed to

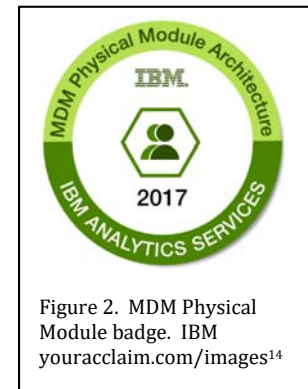


Figure 2. MDM Physical Module Architecture badge. IBM youracclaim.com/images¹⁴

¹⁰ For a list of universities experimenting with alternative credentialing, visit: Pages 46-47 in: ICDE Working Group (2019) The Present and Future of Alternative Digital Credentials (ADCs). <https://icde.memberclicks.net/assets/ICDE-ADC%20report-January%202019%20%28002%29.pdf>

¹¹ Page 9 in: <https://upcea.edu/wp-content/uploads/2017/05/Demographic-Shifts-in-Educational-Demand-and-the-Rise-of-Alternative-Credentials.pdf>

¹² <http://www.ala.org/tools/future/digitalbadges>

¹³ <http://www.ala.org/tools/librarianstransform/future/digitalbadges/ALCTSFundamentalsofElectronicResourcesAcquisitions>

¹⁴ <https://images.youracclaim.com/images/96e9b1b2-050a-492d-aa4f-d611d62a98cb/MDM%2BPhy%2BModule%2BArch%2B-%2BKnowledge.png>

¹⁵ <https://ce.uci.edu/resources/academic/badges/>

¹⁶ DeLello, Julie & Hawley, Harmonie & McWhorter, Rochell & Gipson, Christine & Deal, Belinda. (2018). Gamifying Education: Motivation and the Implementation of Digital Badges for Use in Higher Education. *International Journal of Web-Based Learning*

fully understand the value that students might find in earning these badges. For employers, some have argued that badges provide another tool for determining employee skills and can be useful ways to screen potential hires, but this has still to be definitively demonstrated.¹⁷

Third party vendors

With the entrance of third-party virtual digital badge vendors such as Credly,^{18,19} Pearson's Acclaim (now owned by Credly),²⁰ Badgr,²¹ and others who offer open source software platforms²², the technology now exists for anyone to create an online account and to develop and issue their own digital badge(s). Several of these vendors have partnered with the LMS Canvas to provide a digital badging platform that can be integrated with course content; until recently, Canvas also offered its own badging system (Canvabades; badges issued here have been migrated to the Badgr platform). These vendors allow for the creation of enterprise systems for institutions such as Rutgers. The Credly online platform can also issue badges without a learning management system. There are few limits to the kinds of badges that can be created and earned by learners, including traditional students (undergraduate or graduate) or non-matriculated students such as lifelong learners or those who seek professional development. As other institutions of higher education explore and offer complementary credentialing, there may soon be opportunities to recognize and share badges among institutions. Some examples of digital badging currently in pilot form within the Big 10 are listed below.

Examples of digital badging in higher education

Penn State University

Penn State²³ participates in several different badging pilot projects: internally, in collaboration with various units in the university; and externally, in collaboration with Texas State and NASA to provide professional development opportunities for educators in STEM. The Penn State Digital Badges Initiative²⁴ is a pilot program for student badging in the areas of Liberal Arts – Digital Citizenship (leadership, community engagement, and global perspective); Penn State Libraries – Information Literacy (to enhance basic literacy research skills²⁵) (Figure 3); Institute for Emerging Leadership in Online Learning (a blended program sponsored by Penn State and the Online Learning Consortium); and Media Commons (focuses on multimedia and media literacy skills for Penn State students, faculty, and staff; participants build a portfolio of completed work and acquired media creation skills). The platform facilitates collaboration among earners and includes a “badges marketplace” where students can explore offerings. Badges are mobile friendly, can be shared (Facebook, Twitter, Tumblr, Mozilla Backpack), or can be linked to resumes or embedded into blogs.

and Teaching Technologies. 13. 10.4018/IJWLTT.2018100102.

¹⁷ <https://www.chronicle.com/article/With-Employers-in-the-Mix-Can/244322>

¹⁸ <https://info.credly.com/about-us>

¹⁹ Technical specifications for Credly are found here: <https://credly.com/solutions/opencreditapi>

²⁰ <https://www.accredible.com/Note>: Credly acquired the Acclaim badging business in 2018; the result is that this new partnership will have global reach in education, corporations, and professional societies.

<https://credly.com/releases/180412/Credly-Acclaim>

²¹ <https://badgr.com/>

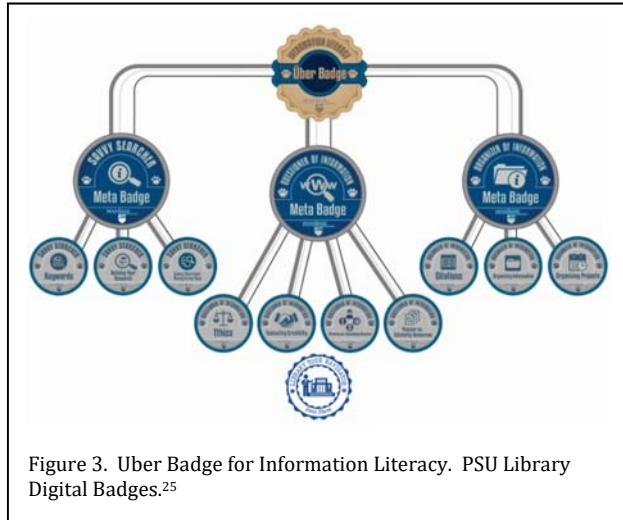
²² Pages 50-51 in: ICDE Working Group (2019) The Present and Future of Alternative Digital Credentials (ADCs).

<https://icde.memberclicks.net/assets/ICDE-ADC%20report-January%202019%20%28002%29.pdf>

²³ <https://badges.psu.edu/what-are-digital-badges/>

²⁴ <http://badges.psu.edu/badge-initiatives/>

²⁵ Information literacy badges are organized into three sets: The Savvy Searcher, Questioner of Information, and Time Management; each with a series of subset badging. Students who earn all badges within a series are eligible for the “Uber-Badge in Information Literacy.” Image above source: <https://news.psu.edu/sites/default/files/styles/threshold-992/public/Library%20Digital%20Badges.png?itok=j7qlxE53>



The program provides guidelines²⁶ for badge design, with clear emphasis on focus (i.e., goals and objectives are clearly stated; activities are defined and measurable; badges are focused on specific outcomes; tasks are divided into attainable steps; time allocation for completion is reasonable), pitfalls (avoid linking to too many external websites and unrealistic steps), and a 3-step design approach with worksheet (badging basics, criteria, graphics).

University of Maryland System

The University System of Maryland's William E. Kirwan Center for Academic Innovation has developed the Badging Essential Skills for

Transitions (B.E.S.T.) program^{27,28} to better link skills to specific competencies sought by employers: to "help bridge the gap between students' accomplishments in college and their workplace readiness."²⁹ Documentation for the 2017-2018 pilot identifies challenges that impede student success, employer-desired skills, and how the B.E.S.T. approach can help to address the disconnect. The program seeks to help students "1) see where the opportunities are, 2) navigate their way through those experiences, and 3) demonstrate and articulate their development of those skills, supported by evidence."³⁰ Partners for the program include Bowie State, Frostburg State, Towson University, University of Baltimore, UM Baltimore County, and the Universities at Shady Grove. The program offers eight badges that align with most of the career readiness competencies developed by the National Association of Colleges and Employers (NACE)³¹ (Table 1, Figure 4). These badges are offered through an enterprise system on the Credly online platform and follow the open badging system.³²

Table 1: Competencies for B.E.S.T. badging, based on NACE criteria

NACE Career Readiness Competency	Corresponding USM Badge ^{33,34}
Teamwork/Collaboration	The Collaborator: Advances the work of a team by being a successful and contributing member
Oral/Written Communications	The Communicator: Articulates thoughts and ideas clearly and effectively in written and/or oral forms
Critical Thinking/Problem Solving	The Critical Thinker: Analyzes evidence and perspectives in relation to a situation and evaluates one's own reasoning over time The Problem-Solver: Resolves complex problems through exercising sound reasoning to analyze issues and make decisions

²⁶ <http://sites.psu.edu/badges/wp-content/uploads/sites/4454/2015/04/BadgeDesignGuidelines.pdf>

²⁷ https://www.usmd.edu/cai/sites/default/files/B.E.S.T._initiative_summary_rev.10.1.18.pdf

²⁸ <https://www.usmd.edu/cai/alternative-credentials>

²⁹ <https://www.usmd.edu/cai/usm-digital-badging-initiative>

³⁰ https://www.usmd.edu/cai/sites/default/files/B.E.S.T._initiative_summary_rev.10.1.18.pdf

³¹ <https://www.naceweb.org/career-readiness/competencies/career-readiness-defined/>

³² <https://usm.credly.com/enterprise>

³³ <https://www.usmd.edu/cai/usm-digital-badging-initiative>.

³⁴ <https://usm.credly.com/view-credit/114970>

NACE Career Readiness Competency	Corresponding USM Badge ^{33,34}
Global/Intercultural Fluency	The Globalist: Demonstrates ethical, social and environmental awareness of global systems and takes actions with personal and civic responsibility
Professionalism/Work Ethic	The Interculturalist: Navigates cultural boundaries by valuing, respecting, and learning from diverse people and perspectives.
Leadership	The Leader: Leverages the strengths of others to achieve common goals and uses interpersonal skills to coach and develop colleagues
Career Management	The Professional: Exhibits personal accountability, effective work habits, integrity, and commitment



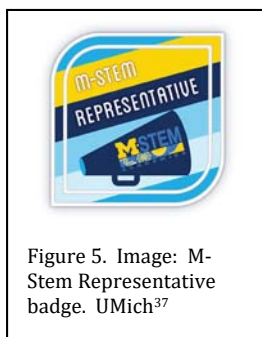
Critical Thinker

Issuer:
University System of Maryland

Description:
The CRITICAL THINKER BADGE validates that the earner has demonstrated the ability to analyze and evaluate thinking and commit to constant improvement.

Criteria:
The Critical Thinker excels in the art of analyzing and evaluating thinking with a view to improving it by effectively:

- Raising vital questions and problems, formulating them clearly and precisely.
- Gathering and assessing relevant information, using abstract ideas to interpret it effectively.
- Coming to well-reasoned conclusions and solutions, testing them against relevant criteria and standards.
- Thinking open-mindedly within alternative systems of thought.
- Recognizing and assessing, as need be, one's own assumptions, implications, and practical consequences.
- Communicating effectively with others in figuring out solutions to complex problems.

Figure 4. Critical Thinker badge. UMD Credly App³⁴

University of Michigan

Through March 2019, digital badging at the University of Michigan was offered through the “Mblem” (“*emblematic* of the unique learning opportunities available at a premier residential research institution”) platform.^{35,36} Programs supported through Mblem were offered to students and staff who earned digital badges that could be directly export to the Open Badges Backpack (supported by Mozilla) for sharing. For example, the Engineering Program at the University of Michigan developed a series of digital badges to “provide a mechanism to integrate curricular and co-curricular learning opportunities”³⁷ (Figure 5). These badges are placed in

³⁵ <http://www.mblem.umich.edu/>

³⁶ <http://www.mblem.umich.edu/v/overview>

³⁷ <http://www.mblem.umich.edu/v/badges>. Image: http://www.mblem.umich.edu/assets/mblem/stackedMblems_M-STEMRepresentative-d7a85ac97bc50b8b2ffa0761afd366c2.png

broad categories (Community Service, Cross-Cultural Experiences, Entrepreneurial Mindset, Ethics, Intellectual Curiosity, Leadership, Professional Development, and Science and Engineering Research); depth of expertise is measured progressively as beginner, intermediate, and advanced. Two additional badges are awarded to students who contribute substantially to the learning community.

Mblem as a platform was retired in March 2019; data indicated that few badge-earners exported their Mblem badges to the open badges platform, but not for a lack of institutional support (D. Perpich, D. Jenkins, *personal communication*). The reasons for this failure are not yet understood. Regardless, the learning community plans to continue to offer these same digital badges through Canvas via the Badgr LTI. In addition, digital badges are one of a menu of offerings through Michigan Online,³⁸ the distance learning platform at the University of Michigan.

C. Opportunities and Issues

Digital badging has the potential to improve the match between learner skills and employer-sought competencies and possibly drive higher education to reconsider some of the skills it needs to teach its students. A 2016 report claims that higher education has over-estimated its ability to prepare students for the workforce: “96% of provosts feel universities are doing a good job of preparing graduates for success in the workforce, while only 14% of Americans and 11% of business leaders strongly agreed that graduates have the necessary skills and competencies to succeed in the workplace.”³⁹ Badging is one method to evaluate instruction through the lens of future employers or graduate or professional schools. Despite the perception of business leaders and the public about employer readiness of graduates, Rutgers Career Services (2016) reports that 86% of graduates were placed in work or advanced study within six months of graduation⁴⁰ (includes employment, continued education, military service, and volunteer or service programs).

The online digital badging platform may be especially appealing to Millennials and Gen Z students who are new to the workforce. A 2018 UPCEA (University and Professional Continuing Education Association) report notes that millennials show strong interest in badging,⁴¹ are more apt than baby boomers to value training in areas such as licensure requirements, communication and teamwork skills, and diversity and inclusion awareness, and are also more likely than baby boomers to consider badging and online learning as demonstrative of significant learning.⁴²

For the student, digital badging brings transparency to the “resume-worthy” skills that may be otherwise missed by the employer, and can help students focus on a pathway of learning that will enhance educational and employment prospects.⁴³ Badges may provide a way for students to more carefully select their learning opportunities from a range of accomplishments associated with courses, research, and activities outside the classroom, thus highlighting to potential employers the specific skills that may get missed on an academic transcript, a one page resume, or in a student profile. Indeed, since affordability

³⁸ <https://online.umich.edu/>

³⁹Fong, J., Janzow, P., and Peck, K. 2016. Page 15 in: Demographic Shifts in Educational Demand and the Rise of Alternative Credentials. Pearson Education and UPCEA. <https://upcea.edu/wp-content/uploads/2017/05/Demographic-Shifts-in-Educational-Demand-and-the-Rise-of-Alternative-Credentials.pdf>

⁴⁰ Article from The Daily Targum citing career services: <http://www.dailytargum.com/article/2018/01/rutgers-graduates-more-likely-to-find-employment-after-graduation-heres-why>

⁴¹ <https://upcea.edu/wp-content/uploads/2017/08/Increasing-Millennial-Interest-in-Alternative-Credentials.whitepaper.june17.pdf>

⁴² Fong, J. (2018) The Millennial Manager. UPCEA report. 5 pages.

⁴³ <https://evollution.com/programming/credentials/how-everyone-benefits-from-badging-a-guide-to-mainstreaming-digital-credentials/>

in higher education is an issue of concern, digital badging may increase the return on investment in higher education.

For employers, the badging process will help them to identify employees with desired competencies and with the assurance that these skills have third-party verification. Institutions of higher education can use badging to drive quality assurance and assessment, encourage lifelong learning, and build partnerships with other institutions and with industry.

This “student-to-employer” digital conduit only works, however, if employers are aware of digital badging and see value in its use. Credly argues that digital badging serves as “currency” that both adds value to learning opportunities and enables employers to quickly and efficiently zero-in on talent with specific competencies, saving money on recruitment^{44,45} Further, an emphasis on professional improvement *within* these organizations represents an opportunity for higher education to augment its offerings for lifelong learners. Unlike traditional academic credentials, digital badges may allow for expiration dates that may be needed as new skills and practices are introduced to the workplace.

Newer uses for digital badges are being driven not only by technology platforms and higher education, but also by NSF-funded research. For example, a recent research study examined a digital badging process (Design League Badge Portfolios) that linked badges endorsed by institutions of higher education to after-school programs for underserved youth.⁴⁶ Early results from the Parsons School of Design at the New School suggest that admissions officers were able to successfully use earned badges to help identify high achieving, under-represented students for admission to their university (X. Morin, *personal communication*). This use of university-endorsed badging for high school students might appeal to units within Rutgers who seek to identify talent and interest in existing programs, and build diversity and inclusion through the admissions pipeline. In other words, Rutgers can also become the receiver of digital badges.

Much of the literature on the subject of digital badging suggests that great care is needed when designing badging initiatives for higher education. Troy Markowitz’s 2018 article in *Forbes*⁴⁷ outlines five key issues that reduce the utility of the platform.

1. *Operational inefficiency*: faculty and administrators who must collect and assess badging evidence manually drop these initiatives because of the time involved; use of badging platforms that streamline the badging process is critical
2. *Issuing badges without authentic evidence*: competencies must be rigorous and certified by the institution or they are meaningless;
3. *No clear pathway-to-employment for students*: institutions must avoid issuing “trivial” or “trophy” badges that do not reflect student progress on their path to learning, further learning (such as graduate school), and eventual employment; build into the approval process an assessment of how the bad reflects student progress
4. *Lack of transparency*: badges must automatically integrate into student documents and be easily reclaimed and inserted into social media profiles, resumes, etc.; of equal importance is visible access to these credentials by employers

⁴⁴ <https://info.credly.com/digital-credentials-are-the-future-of-the-workforce>

⁴⁵ <https://credly.com/about/about-our-story>

⁴⁶ https://www.nsf.gov/awardsearch/showAward?AWD_ID=1614727&HistoricalAwards=false

⁴⁷ <https://www.forbes.com/sites/troymarkowitz/2018/09/16/the-seven-deadly-sins-of-digital-badging-in-education-making-badges-student-centered/#4dbdc06370b8>

5. *Issuing badges that have no relationship to skills required by employers:* badges that do not match to the hard and soft skills needed in the workplace or in professional or graduate education are not valuable

Concerns in the digital badging process⁴⁸ include: notions of value (for example, is the badge valuable to the student and to a student's employer?); identification of audience and appropriate content; consistent quality in process (handling: collecting, storing and updating badging evidence; badge creation and design; development of assessment rubrics); validation or verification (of student work); resources or institutional support (staffing and other resources needed to handle badging programs); monitoring for impact (how do we define success or failure of a digital badging program?); and flexibility (ability to adapt to changes in needs or technology). Itow and Hickey⁴⁹ conclude:

Badge system designers face questions from all of their stakeholders: the institutions that would ultimately consume digital badges want to know if, how, and when badges work before investing heavily in them as credentials; learners want to know what the badges “do” once they are earned. The answer is that badges alone do not “do” much, nor do they “work” to inspire much learning. They are markers of achievement that have the potential to point to *evidence of learning*. It is the balanced nature of the learning ecosystem that affords learners an opportunity to forge pathways for exploration and inquiry. It's not about the badges, which can easily lose their value; it is about the ecosystem, the balance of which encourages personal inquiry, fosters community building, and takes advantage of the ways networked technology has shaped learners' engagement with information, each other, and their environment. (p. 418)

The organizers of a micro-credential 2017 workshop at the University of Michigan Ann Arbor, in a guest post from James Devaney in *Inside Higher Ed*,⁵⁰ remarked that “We see micro-credentials – also known as digital badges – as a key component of the larger conversation about how we might re-think what teaching and learning looks like at a public university... these efforts are either explicitly or implicitly oriented towards broadening access, enhancing participation, and supporting student success. We believe that digital badges can play a role in all three of these areas.” Further, “We encourage people to think broadly about their goals for enhancing access to and supporting learning across higher education.”

D. Current badging efforts at Rutgers

Current badging activity at Rutgers consists of the development of a digital badging pilot program by an ad hoc committee (working group) that includes participants from OIT, Rutgers Teaching and Learning with Technology (TLT), the School of Environmental and Biological Sciences (SEBS), Rutgers-Newark, and the Continuing Education Coordinating Council. The pilot explores the offer of *non-academic* (out of classroom, soft skill, or professional) digital badges to participants in continuing education programs. OIT is working with Credly to create badges using the Acclaim platform. To the best of our knowledge, no Rutgers-branded badges are currently available via Canvas or Credly.

⁴⁸ Ellis, L. E., Nunn, S. G., and Avella, J. T. (2016) Digital badges and micro-credentials: Historical overview, motivational aspects, issues, and challenges. Pages 3-21 *in*: Ifenthaler, D., Bellin-Mularski, N., Mah D-K (eds) *Foundations of Digital Badges and Micro-Credentials Demonstrating and Recognizing Knowledge and Competencies*. Springer. <https://doi.org/10.1007/978-3-319-15425-1>

⁴⁹ Itow, R. C., and Hickey D. T. (2016) When digital badges work: it's not about the badges, it's about learning ecosystems. Pages 411-419 *in*: Ifenthaler, D., Bellin-Mularski, N., Mah D-K (eds) *Foundations of Digital Badges and Micro-Credentials Demonstrating and Recognizing Knowledge and Competencies*. Springer. <https://doi.org/10.1007/978-3-319-15425-1>

⁵⁰ <https://www.insidehighered.com/blogs/technology-and-learning/micro-credentials-and-college-admissions-enhancing-access-and>

The working group is developing four badging attributes: Experience, Learning, Validation, and Certification (for licensure only), at foundation, intermediate, and advanced levels. Creator-determined badge criteria include course, application, assessment, time to completion, badge form, payment, credential, and type of participant (e.g., volunteers or those seeking professional experience), among others. Badges will be published with a description, the appropriate criteria, and URL. Only well-established programs that have been vetted by faculty are currently under consideration for inclusion in the pilot.

Training and data collection are additional considerations of the digital badging pilot. All participants of the ad hoc working group will be trained by Credly to use their software to create and issue badges. A point person within TLT manages the onboarding of programs interested in participating in the pilot; an online form is used to collect data from participants that includes the kind of badging the program would like to offer. To date, other units at Rutgers who have indicated interest in badging activity (and the list is likely to be longer) are:

- Rutgers Center for Effective School Practices
- Rutgers Center for Organizational Leadership
- Rutgers Edward J. Bloustein School of Planning and Public Policy
- Rutgers–New Brunswick Department of Spanish and Portuguese
- Rutgers–New Brunswick University Career Services
- Rutgers School of Communication and Information
- Rutgers School of Environmental and Biological Sciences
- Rutgers Teaching and Learning with Technology
- Rutgers University Libraries

The pilot has already identified an issue with the visual identity of the badges; how should they look? The Rutgers Visual Identity Manual⁵¹ does not address micro-credentialing; this lack of specific guidance will impact branding and how we are perceived as an institution. Some consideration is needed to create a clean and easily recognizable framework for badge design. In addition to some Rutgers standard (e.g., the use of Rutgers’ name, the Rutgers “R,” or color), flexibility in the design for individual badges offered by various units, schools, or programs should be considered to create a unique visual presence on some part of the badge. In addition, some standardization should also be considered to distinguish among academic, co-curricular, and non-credit badges.

Although there are academic units at Rutgers who see value in digital badging and wish to explore the platform, to date, Rutgers, with the exception of efforts by the ad hoc digital working group, has not developed a uniform policy or set of guidelines with respect to the creation, evaluation, and issuance of verified digital badges or “alternative” credentialing. As it now stands, anyone at the university with the knowledge of this technology could start to issue a badge, albeit, without Rutgers branding. What is needed is to decide if digital badges are worth pursuing, and if so, to provide guidelines and mechanisms to develop, approve, own, verify, and issue any badges developed at Rutgers.

Credentialing implies a communication conduit between Rutgers and potential employers that anticipate employer needs in hiring while providing incentives and benefits (such as expanded career opportunities and advancement) for the learner (students, employees, alumni, adult learners). Further work will need to be done to connect learning outlines to employment outcomes. Credentialing at Rutgers should be flexible, “resume-worthy,” and allow for innovation and experimentation, but guidelines for departments and programs on the badging process must be robust to ensure quality and useful assessment of any badge

⁵¹ https://communications.rutgers.edu/sites/default/files/RU_IDguide_7.0.pdf

verified and issued by this institution. Additionally, mechanisms to recognize verified badges from other institutions, such as our partners in the BIG Academic Alliance, are needed.

E. Recommendations

Be it resolved that the Rutgers University Senate recommends:

1. As part of a pilot initiative in selected areas, Rutgers adopt a digital platform for academic badging, and using the ad hoc working group on digital badging as a resource, provide the resources, guidelines, and mechanisms to develop, approve, own, verify, and issue any badges developed at Rutgers under the Rutgers name. In addition, such policy will:
 1. state clearly which entities can create digital badges under the Rutgers name
 2. specify a review process to ensure that any Rutgers badge maintains Rutgers standards
 3. specify a process to assess the impact of badging on the learning environment at Rutgers
 4. set guidelines for the minimum requirements for a badge
 5. set guidelines for working with third-party software vendor(s) (such as Credly) and Canvas, including training
 6. provide guidance on how best to review badges for expiration dates or updates to keep them relevant
 7. provide guidance for working with outside employers, professional societies, organizations, or accreditation bodies
 8. work with Career Services, and/or other appropriate bodies, to develop a marketing strategy to educate and promote verified digital badging to employers
 9. develop an outcomes assessment plan to review efficacy of the badging system;
2. As part of piloting efforts, work with Creative Services, Department of University Communications and Marketing, to create unique visual identity templates for badges originating from different units at Rutgers;
3. Limit the creation of Rutgers-branded verified digital badges until a university-wide policy and set of guidelines and procedures is put in place. Upon approval, and with evidence, buy-in, and resources, allow it to expand beyond the pilot;
4. Situate the Digital Badging Pilot in the office of the Senior Vice President for Academic Affairs.

Instruction Curricula and Advising Committee (2018-2019)

Senator	Constituency
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Daniel Bubb	CCAS, Faculty
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Advisor:

SEBS Administrative Liaison: Dr. Xenia Morin, Senior Associate Dean for Learning, SEBS