

2018



# EXPANDING THE BOUNDARIES OF EDUCATION

TWO CITIES' EFFORTS TO  
CREDENTIAL REAL-WORLD SKILLS  
THROUGH DIGITAL BADGES



**W**hen the bell rings at 2:35pm at the Juanita Sanchez Educational Complex in Providence, Rhode Island, Kiana\* boards a public bus headed towards Youth in Action (YIA), a youth leadership organization where she spends her afternoons. Though the school day is over, her learning is not. In her after-school program, she learns to share her experiences, practice leadership, and enact community change. She leads intense discussions about the structural problems that plague her neighborhood, including community violence and food insecurity. She practices strategies that will allow her to serve as a change agent as she progresses through her education and career.

At YIA, Kiana is a passionate learner with a deep devotion to social justice. Her experience

in the program led to her decision to apply to college, which she had not considered an option before. Though Kiana is a standout in the program, she struggles at school. She regularly arrives at YIA after a challenging school day. Disheartened by years of perceived academic failure, she occasionally falls asleep in the classroom.

In Kiana, YIA staff see the kind of engaged learner that any college would be fortunate to enroll. Kiana, however, is concerned that college applications provide little opportunity to showcase the strengths she has developed outside the classroom. For educators, instructors, and program leads in Providence, Kiana's story, and others like hers, illustrate the need for a more holistic means of documenting students' skills.

\*Names in this report have been changed to maintain confidentiality

## A Promising Credential

Across the nation, colleges and employers seek to identify and recruit students with the real-world skills that Kiana has developed through her participation in Youth in Action. The challenge is that there is no mechanism in college or job application processes that allows students to showcase rich evidence of their non-academic competencies, including teamwork, communication, and perseverance.

Digital badges, a credentialing mechanism gaining traction in both workforce development and education, offer a potential solution to this challenge. A digital badge is an indicator of a skill that students can earn across a variety of settings. Organizations across sectors issue digital badges, and each badge bears the name of the organization through which it was credentialed. Badge earners can post badges on their LinkedIn profile, resume, or social media. By clicking on a badge, others can see the rubric that was used to validate the skill, along with one or more samples of student work that demonstrates the skill.

In after-school and summer learning programs in both Providence and Boston, organizations are piloting the use of digital badges. Typically, community-based organizations with after-school offerings will develop a program or course—aptly named an expanded learning opportunity (ELO)—that focuses on specific skills. The focus can range from a single content area, like coding, to more comprehensive student leadership options, like the YIA course described above. Digital badges provide a linchpin to this after-school programming landscape, offering a mechanism to credential a range of non-academic competencies in out-of-school-time settings.

Program leads in both cities hope that the badging process will make students and staff more intentional about the skills that students need to be successful in college and career. In digital badges, program leads see an opportunity for students like Kiana to showcase all of their learning, not only the components that show up in a grade point average or a standardized test score.

## THE DIGITAL BADGING PROCESS

*Boston After School & Beyond and the Providence After School Alliance*

1. Student registers for an out-of-school-time program
2. Instructor introduces competencies associated with the program:

<i>Teamwork</i>	<i>Communication</i>
<i>Engagement</i>	<i>Critical Thinking</i>
<i>Perseverance</i>	
3. Instructor introduces the rubric used to measure each competency
4. Instructor measures skill attainment and growth throughout the program (beginning, middle, and end) and documents scores in an online badging platform
5. If students reach the highest level of the rubric, the platform automatically triggers the award of a digital badge
6. After a badge is awarded, students and instructors can upload additional evidence of skill attainment to be stored in the badge
7. Students login to the badging system to access the badge, which they can post on LinkedIn, social media, or other sites

## BostonBeyond and PASA: Innovators in Anytime, Anywhere Learning

Boston After School & Beyond (BostonBeyond) and the Providence After School Alliance (PASA) are national leaders in out-of-school-time learning, and they lead this digital badging work in their respective cities. Both groups have a longstanding commitment to expanding access to high-quality after-school and summer learning for all students, particularly low-income youth and youth of color who have traditionally faced barriers in accessing these programs. BostonBeyond and PASA recognize that many of their students who struggle with both performance and engagement in core academic classes excel in learning experiences focused on transferable, real-world skills such as engagement and critical thinking. They recognize that these skills are critical in students' ability to persist through the postsecondary education and/or training opportunities that will lead to a high-wage career in a field of interest, and to students' success once they are in the workplace.

Grant funding from the Nellie Mae Education Foundation, a philanthropic organization committed to preparing students for life after high school, allowed both BostonBeyond and PASA to move beyond a commitment to high-quality programming to focus on

skill development in out-of-school-time (OST) settings. In launching the pilot, both organizations partnered with their networks of program providers to identify the college and career readiness skills that students develop through experiential programs. Working collaboratively with program leads and instructors, they created high school-level rubrics that allow staff to document and measure teamwork, engagement, perseverance, communication, and critical thinking.<sup>1</sup>



Implicit in this development process is the notion that measuring non-academic skills matters. Most measures utilized within the traditional education system do not validate these skills. Higher-income students can showcase them on resumes through volunteer experience, music lessons, or similar activities, further disadvantaging students who have not traditionally had access to these types of enrichment activities or experiential learning. By strengthening the quality of out-of-school learning and equipping students with tangible, portable documentation of their non-academic accomplishments, BostonBeyond and PASA aim to address the barriers that often prevent marginalized students from accessing higher education and job opportunities.

<sup>1</sup> This work built upon a middle school initiative in both cities, which was funded by the Wallace Foundation through a grant from Every Hour Counts as well as another grant from the Noyce Foundation.



## METHODOLOGY

Working in collaboration with the Nellie Mae Education Foundation and local partners BostonBeyond, Boston Public Schools (BPS), and PASA, the Rennie Center for Education Research & Policy sought to document the strategies that organizations used when experimenting with the implementation of digital badges. The Rennie Center selected a developmental evaluation approach, wherein evaluators assume an internal team function, analyzing pilot data and surfacing learning that can be applied in programs. This type of evaluation design focuses on generating useful findings that program leads can use to make modifications and fine-tune program development. The evaluation activities focused on answering a few central questions, including:

- How can the use of digital badges enhance students' learning and skill development?
- To what extent can the different approaches in the pilot inform the potential for scale and capacity for future digital badging efforts?

To provide real-time data on these questions, the Rennie Center convened organizations involved in the pilot as a learning community.

At quarterly meetings, the researchers used meeting facilitation techniques designed to surface common problems of practice and real-time learnings from the field. Many of the findings in this brief are centered on the issues raised in these settings. Findings also reflect focus groups and interviews with program leads, program instructors, and students participating in digital badging offerings in both Boston and Providence. The Rennie Center team interviewed policymakers in the two communities to understand the extent to which the digital badging pilot has influenced conversations on college and career readiness strategies, as well as opportunities to document students' non-academic skill acquisition. In addition, the team examined relevant policy and conducted a comprehensive data and document review to inform this research.

The brief explores the goals of the pilot through an examination of the key milestones and strategies that both cities worked toward in the first year. Next, it explores each city's unique accomplishments, before concluding with commentary on the larger goals of digital badging as a strategy to advance educational equity.



## Pilot Activities

In the first of a two-year digital badging pilot, BostonBeyond and PASA focused on building capacity in program partners to communicate, measure, and award badges. They also began external communications to share the digital badging strategy with stakeholders. Year one activities included the following:

- Recruited OST providers to provide high-quality ELOs;
- Helped partners develop a curriculum that aligns with the identified skills (engagement, teamwork, communication, perseverance, and critical thinking) and plan for skill delivery in the OST context;
- Developed rubrics to document student skill development;
- Trained providers on rubrics;
- Implemented a digital badging platform that makes the badge accessible to students and allows instructors to upload artifacts; and
- Conducted stakeholder outreach to inform the community about the badging strategy.

Based on lessons learned in year one, the organizations will continue to conduct each of these activities in year two. They will also focus on strengthening digital badge currency in an attempt to make badges a valued indicator of transferable skills among colleges and employers.

## Key Strategies

Across BostonBeyond, Boston Public Schools, and PASA, several key strategies have emerged to advance the development, and use, of digital badges as a credential for real-world skills like teamwork and engagement. These strategies, including some “early wins”, are described below.

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### RECRUIT & SUPPORT HIGH-QUALITY ELOs

Project leads’ first milestone in launching the pilot was to recruit high-quality ELO providers who would provide students with multiple opportunities to build the identified skills. In selecting programs, they focused on those committed to access for all youth, especially youth of color and low-income youth. They recruited programs whose offerings, including coding, design, and college preparation, appeal to a variety of student interests.

According to instructors, most programs already offered a range of opportunities for students to develop perseverance and critical thinking skills, but they had not explicitly communicated this goal to staff, students, and families. The digital badging pilot put real-world skill building at the center of programs’ work. Program leads collaborated with BostonBeyond and PASA to align activities with larger skill-building goals. They developed plans to communicate the importance of the identified skills with students and staff. They trained instructors on

integrating regular conversations about skill-building into their daily activities with students.

Across communities, students appreciated a program-wide focus on skill-building. In focus group conversations, students articulated the many ways in which strong communication and critical thinking skills will influence their success in high school, college, career, and everyday life decisions. In many programs, students had an opportunity to showcase their skills publicly. For example, students in the Upward Bound Math Science program at Boston University harnessed their critical thinking skills in mock negotiations based on the Paris Climate Accord. Working collaboratively in teams representing countries or regions, youth advocated for policies to address climate change. Months later, students reflected on the transferability of these skills, noting the role that critical thinking and perseverance will play in their transition to college.



#### EARLY WIN: IMPROVED PROGRAM QUALITY

According to interviews with ELO partners, most providers joined the pilot because of their interest in recognizing student skill acquisition. They did not realize that the deep work involved in aligning programmatic activities with the pilot’s skill-building goals would strengthen the quality of their own programs.

The pilot offered instructors a means of talking with students about key skills that were an implicit goal in program activities but were rarely explicitly discussed. It also led to greater connections among staff across programs, who shared strategies for communicating about skill acquisition and growth with students, and how badges could serve as a key documentation mechanism. Instructors also learned about the range of programs available in their city and used this knowledge to connect students to opportunities aligned with their interests. According to program leaders, students were motivated by the fact that they were working collaboratively with their instructors towards the goal of earning badges.

Across programs, students expressed a need for greater recognition of real-world skills. According to several student focus group participants, the success of the digital badging initiative hinges on badges' ability to unlock further opportunity for those who have earned them. In order for colleges and employers to "accept badges," they need to view them as a valid indicator of the skills they represent. From the outset of the pilot, stakeholders recognized that building currency for digital badges among colleges and employers would be a challenging process. Leaders quickly realized that rigorous measurement was critical to badge currency. BostonBeyond and PASA provided technical assistance to programs throughout the first year, supporting instructors as they aligned program activities with skill acquisition. In addition to ensuring that programs provide students with multiple opportunities to build skills, the organizations developed rubrics to document student growth and skill attainment.

Students and staff recognize that there is considerable demand for the skills that badges represent. Research shows that employers

and colleges seek students with strong critical thinking, perseverance, teamwork, and collaborative skills.<sup>2</sup> In focus groups and interviews, employers and higher education representatives expressed interest in the badging process, which is intended to help students strengthen these skills during high school. They seek evidence that badges are a valid measure of the skills they represent.

Understanding that valid, reliable measurement is critical to strengthening badge currency, leads in both communities continue to refine rubrics with a focus on rigorous assessment and improving inter-rater reliability (the notion that different OST program staff rate the same student skills the same way). They are beginning to use functionality that allows instructors to upload student work to each badge, providing details on the work the student completed to earn the badge. By clicking on the badge via the online platform, employers and others can learn more about how and why a student earned a badge. Several stakeholders noted that greater use of this functionality is a promising method to strengthen badge currency.



## EARLY WIN: PROVIDENCE SUMMER JOBS

In early 2018, the City of Providence endorsed digital badging as a workforce credentialing strategy. The City expressed confidence in the skills students demonstrated in ELOs by guaranteeing summer jobs to every student who earned a digital badge. Leaders in the City's Office of Economic Opportunity, which seeks to provide market-driven employment and training services for residents and employers, recognize that strengthening students' workplace skills is critical to the Providence economy. By offering jobs to students who earn badges, the office hopes to encourage more students to participate in programs where they will gain work readiness skills. They also hope that badges will help match students to summer jobs based on the specific skills that employers identify as key to success. As students participate in the summer jobs program, PASA leads will use employer feedback to identify areas for continued improvement.

<sup>2</sup> Robles, M. M. (2012). Executive perceptions of the top 10 soft skills needed in today's workplace. *Business Communication Quarterly*, 75(4), 453-465.

# Articulation of Student Skills

## PROVIDENCE

In partnership with a network of program providers, PASA developed a universal rubric to assess skill acquisition and shared it across organizations. The rubric ensures that students can develop the same key skills regardless of the setting in which their learning takes place. The team also implemented ForAllRubrics, a platform that allows instructors to award badges and analyze badging data. They shared both the rubric and the platform with the Boston team, strengthening both initiatives.

PASA continues to work extensively with stakeholders across the education system, including the Rhode Island Department of Education (RIDE), the City of Providence, and the Providence Public School District (PPSD). PASA awards digital badges to students participating in RIDE's Advanced Course Network (ACN), a program through which community-based organizations award credit for out-of-school learning towards local school district graduation requirements. PPSD participates in the ACN, granting students access to courses taught by several of PASA's program partners. Students enrolled in PASA's ACN courses can earn both course credit and a badge for their achievements. PASA staff and program leads highlighted ACN courses as a major milestone in their efforts to strengthen connections between learning in and out of school. As the digital badging pilot progresses, they plan to expand their reach across the city, providing more students with rigorous opportunities to strengthen their real-world skills.



## EARLY WIN: CROSS-CITY COLLABORATION

Through a connection facilitated by NMEF and the Rennie Center, program leads from PASA, BPS, and BostonBeyond met regularly to share guidance on scaling digital badging at learning community meetings. Collaborative problem-solving and idea generation led both teams to share resources designed to measure key competencies and administer badges. In addition to using similar rubrics, both teams use the same online platform to collect data, measure progress, and award badges. Teams in both communities continue to solicit feedback from students, instructors, and other stakeholders about the badging process. Through quarterly learning community meetings, teams from both cities benefit from stakeholder feedback shared within and outside their community.

## BOSTON

In Boston, requests from student leaders led the district to award credit alongside badges to students participating in the Boston Student Advisory Council (BSAC). BSAC students advise the school committee on policy, inform classmates of their rights, and partner with headmasters on school climate issues. BSAC developed a rubric and awarded badges focused on the leadership skills that students develop through the committee. In the upcoming phase of the pilot, district leaders plan to work with community partners who run programs during the school day to further integrate community learning into the schooling experience. By partnering with programs operating within schools, they expect to gain additional recognition of badges as a viable representation of learning.



## What's next for Boston and Providence?

### PILOT PHASE 2

Project leads designed the digital badging pilot as a strategy to expand access to out-of-school learning opportunities for marginalized youth and to provide youth with an opportunity to showcase skills gained outside of school. Through their efforts, stakeholders in both Boston and Providence hope to progress towards a system wherein employers and colleges consider critical thinking, perseverance, and other real-world skills alongside standardized test scores and grade point averages. The following section highlights priority areas for year 2 of the pilot.

#### Strengthening Career Pathways

PASA, BPS, and BostonBeyond have identified a role for digital badges in city- and state-level initiatives aimed at strengthening career pathways for youth. As local workforce development organizations seek to expand access to work-based learning, project leads recognize an opportunity for digital badges to document and validate students' career-readiness skills. In the coming year, PASA, BPS, and BostonBeyond will seek to align badges with existing career-focused initiatives in their respective cities, contributing to a larger effort aimed at preparing all youth for meaningful careers.

For instance, the Rhode Island Department of Education recently developed Pathway Endorsements, which allow students to earn an endorsement on their diploma signifying that they have completed deep work within an area of their choice such as the arts, business, or public service. PASA has identified this state-led initiative as an opportunity to connect career readiness and academics, using badges as a means of documenting and measuring students' skill attainment.

## Focusing on Equity

In developing program structure, communications mechanisms, and recruitment strategies, both cities designed a pilot that was responsive to the multitude of barriers students face in accessing enriching learning opportunities. Communication about digital badging was available in multiple languages. Project leads selected programs for the pilot based on their commitment to enrolling all students regardless of academic record, language needs, or disabilities. As the pilot progresses, both communities will need to ensure that the initiative's larger equity strategy is a central focus in every phase of the work. Though both communities have made significant progress in the first year, they have substantial work ahead as they progress towards their goals.

In year two, PASA, BPS, and BostonBeyond will focus on those students who continue to be underrepresented in out-of-school learning opportunities. This includes English Learners for whom language acquisition presents a barrier to entry for some programs. In an effort to increase interest in badging programs among students, families, and educators, they will fine-tune messaging and communication. Given that the concept of digital badges is new to most stakeholders, they plan to more clearly explain the promise of digital badges to enhance learning and opportunity for youth. Project leads in both cities will also work to retain high-quality partners, while identifying opportunities to scale the badging strategy outside the initial pilot participants.





## Conclusion: Visualizing a More Equitable Future

Students and program providers piloting digital badges seek to build communities in which every student has rich out-of-school learning experiences that prepare them with the skills they need to succeed in life. By providing a means to document these skills, digital badges hold program providers accountable for designing experiences that lead to skill development. The measurement process included in digital badging also provides programs and students with a means to identify their strengths and areas for improvement.

Providing students with a means to document real-world skills is critical but insufficient. In order for digital badges to open doors to new opportunities, colleges and employers must accept this documentation. Pilot participants continue to work towards a future in which the real-world skills gained in out-of-school learning serve as a key component of college and job application, but they recognize that the future they imagine does not yet exist. Though both teams face significant work ahead, they remain optimistic. As programs across the nation seek opportunities to validate learning that occurs outside school walls, PASA, BostonBeyond, and BPS are confident that their work is a promising component of a nation-wide push for systems change with the potential to enhance educational equity and long-term success for all students.

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### **ABOUT THE RENNIE CENTER**

The Rennie Center's mission is to improve public education through well-informed decision-making based on deep knowledge and evidence of effective policymaking and practice. As Massachusetts' preeminent voice in public education reform, we create open spaces for educators and policymakers to consider evidence, discuss cutting-edge issues, and develop new approaches to advance student learning and achievement. Through our staunch commitment to independent, non-partisan research and constructive conversations, we work to promote an education system that provides every child with the opportunity to be successful in school and in life. For more information, please visit [www.renniecenter.org](http://www.renniecenter.org).

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