Chapter 5

Collaborations and Partnerships

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Collaborations and partnerships are critical to the success of many library instruction efforts. This is true at Penn State, where we do not have any sort of credit requirement for information literacy instruction. These collaborations create the potential for students to gain fluency in information and research literacy. These fluencies will help students be successful on their assignments.

To become information-literate, students need multiple opportunities to learn content through repeated and varied exposure.[1] Any information literacy integration that occurs should connect in meaningful ways to other learning the student is experiencing.[2] Such connections provide an opportunity for impactful information literacy instruction.

One of the large advantages of digital badges when it comes to partnerships in curriculum implementation is that they are micro-learning moments with chunked content. Each individual learning segment is on a small and easily defined scale, and the learning within that scale is chunked into digestible pieces of information for the learners. This learning design leads to flexibility in digital badge integration. A class can choose simply to use one or two badges; a program can use many badges; or badges can be used in both formal and informal learning environments. In this chapter, we'll look at the possible options for digital badge implementation.

Learning Environments

The growth of information and technology means that now, more than ever, students have the capability to learn virtually anything at any time. Universities are trying to capture this learning through the growth of student engagement.[3] Learning happens in both formal and informal learning environments, inside and outside of the classroom. Traditional records of learning, such as the transcript, are not adequately capturing and representing all of the knowledge that students are gaining. The currency of knowledge is changing in response to the evolving workforce and technological advances. Digital badges hold the potential to capture learning in all sorts of learning environments and settings. They give students the power to control visual representations of their learning, including privacy and sharing features. Digital badges, as part of the experiential learning record, is one way that learners can collect and curate learning from multiple learning environments.

Formal Learning Environments

Formal learning environments are those in which the content to be learned is in the control of the instructor or facilitator rather than the student. Common formal learning environments include classrooms or continuing education courses. The most frequently used currency in formal learning environments is a grade. However, a certificate or other measure may also be used, such as with CPR training or teacher workshops.

Some possible use cases of digital badges in formal learning environments include

- collaborating with an instructor of record
- serving as the instructor of record
- staff professional development
- conferences and other workshops

When digital badges are used in formal learning environments, there are some necessary considerations. The badges should be tied to other learning experiences within that formal learning environment. This makes them authentic and connected to the overall flow of learning. They also need to be at a level of value that makes sense in relation to the other work completed in that formal learning environment. If being used in the classroom, they could count for a grade or be combined into an overall participation grade. The points awarded to the badge should be consistent with other activities in the class. Very clear instructions should be provided to students so that they know exactly what they need to do to earn the digital badge.

It is easy for the instructor of record to decide when badges should be earned and for what point value. If library digital badges are being used in a collaborative partnership with another instructor, then conversations need to be had between the instructor and the librarian to determine when the digital badges will be offered to students, how long students will be given to earn a badge, and how the instructor will be provided with reports or evidence that a student has earned the badge.

Semiformal Learning Environments

Semiformal learning environments have aspects of both formal and informal learning. Learners self-elect to participate in such environments, and this learning environment is not connected to the student's official transcript. At the same time, a facilitator, leader, or instructor is associated with the learning environment.

Some possible use cases of digital badges in semiformal learning environments include

- a student group or organization
- student employees who participate voluntarily
- an independent study or internship

When digital badges are used in semiformal learning environments, it is important to offer flexibility in earning the badges and to connect them to the overall learning environment. There should be more autonomy from students in a semiformal learning environment because they are electing to participate in the activities. The badges should be designed with students' voluntary participation in mind. The activities and the assignments in the badges need to be relevant to whatever the student is applying in the semiformal learning environment. The due dates and rigid structure that guides the integration of badges in the formal learning environment will be more relaxed in this space.

For a successful badge implementation in the semiformal learning environment, it is essential that students clearly understand why they should earn the badge and the potential benefits of having this record of learning. Students are busy and try to participate in activities and complete things that offer them a rich experience. Without a clear purpose, badges risk becoming busy work or a piece of the learning that is not well integrated.

Informal Learning Environments

Informal learning environments should be primarily student-led. There might be a facilitator or mentor, but the decision-making power rests solely with the students. No longer are the students being told what they must learn, how they are going to learn, and why they need to learn. The students are choosing how to engage in learning. Informal learning environments could be group- or individual-based.

Some possible use cases of digital badges in informal learning environments include:

- student groups
- volunteer opportunities
- motivated individual student

For a successful badge implementation in informal learning environments, it is important to remember that it is entirely the student's choice whether to complete the badge. Sometimes, students might complete badges offered in classes on their own time because they see the intrinsic and extrinsic benefit. In the informal environment, it is quite challenging to force students to earn the badge.

Completion Rate

The MOOC phenomenon revealed a great deal about why people sign up for learning opportunities and why people drop out of learning activities.[4] This completion rate matters when it comes time to assess the success of your digital badge program. When evaluating the potential success of your digital badging program, consider the conditions associated with earning a badge. A class assignment where every student has to earn the badge would have a very high completion rate. If your badges are used in an optional setting, completion rates might not be the best metric on which to judge the success of your badge program. In all cases, the completion rate is only one data point in a pool of evidence and assessment data.

Personal Learning Spaces

Regardless of the type of learning environment in which students are earning badges, they need a place

to store them as well as to document their other learning experiences. Students could potentially earn badges from many different locations or organizations. A centralized place to store all of these learning moments is critical. Students can create a holistic or experiential learning record that allows for documentation of the many activities they want to record and remember. The aggregation of different credentials means that there needs to be a central place in which to pull everything together. A record of an internship, service learning, and a badge are all records of learning not easily captured by the transcript.

IMS Global is an organization committed to creating a technical ecosystem that makes it possible for students to share their digital badges and other records of learning with relevant people, including possible employers or schools.

IMS Global
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Residential Instruction

Despite the growth of online learning, many students are choosing to take residential courses and attend class in person. However, many of those classes have some aspect of their learning done online. They might have a syllabus in the learning management system, or maybe one class session has been replaced with an online activity.

When digital badges are used in the traditional classroom, they can be worked on during the class session. This creates an environment in which the instructor or librarian can scaffold and guide student work. The badge becomes one activity that students work on, and the class could be interrupted for a discussion or question. The badges could also be earned prior to the class by completing a traditional library one-shot. This would be considered a flipped classroom where the students are expected to participate in some academic activity prior to coming to the class session. This blended learning option tends to be popular with subject librarians who deeply value the opportunity to teach students face-to-face.

Online Instruction

Over 33 percent of students will have taken at least one online class in the 2016-2017 academic year. Many of these students are full-time online learners, as 15.4 percent have chosen to pursue their degree exclusively online. [5] Some are residential students who choose to take just a couple of online classes during their study. People choose online learning for a variety of reasons, but one of the most common is that their life schedule makes it very difficult for them to physically come to a campus for prescheduled class times. Online environments could be synchronous or asynchronous. Synchronous online classes have regularly scheduled seminar times with real-time communication. Asynchronous online classes never require students to meet at a specific time with the instructor. They use other methods for communication. Digital badges can be used in any online course.

When digital badges are used in the online classroom, students will be completing them from a distance, in their own time, and likely without the assistance of their classmates, their instructor, or a librarian. In this environment, the instructions for the digital badges must be as clear as possible because students will not have the opportunity to ask questions of their peers or instructor. Online students frequently work full-time jobs. For this reason, the due dates of activities and assignments should be on the weekend or later in the week so that all students have an opportunity to complete their classwork.

Formal Learning Badging Integrations

At Penn State, we have had the greatest success in integrating our badges within formal learning environments. We have utilized our existing partnerships with traditional curriculum partners, including English and communications programs, when starting these integrations. Our digital badges have been used in more than ten different courses and multiple sections of some of those courses. Implementation of digital badges in formal learning environments can happen within courses, within programs, or as standalone projects.

Within Courses

When a digital badge is integrated into a course, you need to decide on how many and which badges will be earned in the course. These decisions should be influenced by the overall workload of the course and how much time has been given to earn the digital badges. A well-designed digital badge takes time to earn. Within an individual course, this tends to be a time where less is more. Strategically choosing one or two badges provides a better overall experience than trying to fit all of your digital badges into one semester.

A badge should be earned shortly before starting a research assignment or before the librarian will teach the class in the event of a flipped classroom. This scheduling makes the badge more impactful and allows students to immediately apply the information and research skills that they learned through the digital badge. If badges are being earned in an individual

course, then integrating the badge into the learning environment should be discussed with the instructor, as well as the instructional designer if one is involved in the course design. Important components of the conversation include which badges will be earned, at what point in the semester, the expected time line for returning the student work, and any sort of assessments you will complete after the students finish the digital badges.

Within Programs

Depending on the design of your digital badges, you might find that the ideal integration will be at the program level. This is especially true if you have developed some sort of hierarchical structure around the badges or conducted some mapping of learning objectives around the badges. In this instance, students would earn badges in certain classes over the entire span of the program. Students might earn one or two badges in these classes, and at the end of the program, they would have also completed your digital badge program.

At Penn State, our badges are designed to align with a program. We have lower-level badges that are grouped into larger categories. These categories are questioning information, searching, and organizing information, which are then located under the top badge, known as an über badge. This badge is a summative assessment of skills and requires students to synthesize and integrate all the skills they learned in the individual badges.

Program-level integration should be discussed with the program director, assistant dean, or teaching lead. The program point of contact depends on the organization of the program that you are partnering with. These are more complicated questions that require a higher and more complex level of buy-in, support of multiple faculty members, and a robust curriculum mapping. Badges must be associated with one course or multiple courses, learning pathways need to be built in, and students need to be made aware of these requirements at the beginning of their program so that they know what is expected of them and prepare accordingly.

Stand-Alone

The final way that digital badges could be used is in a stand-alone format without being tied to a course. This would occur when a student self-selects to complete a series of badges on their own time. As you might have guessed, this is the least common way that badges at Penn State are earned, but it does happen. When thinking about the implementation of badges for individual students not tied to a class, it is important to make sure that the student badge submissions are reviewed promptly. Depending on the structure of your badge system, it is possible that individual responses would get prioritized below those submitted by someone in a class or other group.

Semiformal and Informal Learning Badge Integrations

There is a lot of flexibility when considering how badges could be integrated into semiformal and informal environments. They could be offered to student employees of the library, or perhaps students participating in an undergraduate research exhibition could complete badges if they identified a need to improve their independent research skills.

If you decide to offer badges in this way, create a group and provide optional training to the individuals who will be working on the badges. The badges should still be tied to broader learning goals, but need not be tied to any formal curriculum. For example, suppose you are working on a badge for a club that has a goal of producing information to help other students determine the credibility of social media posts. Then your badge on media bias is connected to the broader goals of that student club.

In semiformal or informal learning environments, you should anticipate a lower completion rate as learners are choosing to complete the badges. Some may start and never finish, and others might not start at all. You should prepare for the maximum number of learners to complete the badges so that the initiative is sustainable. The number of potential earners should influence your design and enrollment limit for the badges. It is an individual decision how your badges should be designed and offered. If your badges are multiple-choice or otherwise scored by an automatic assessment, then they could be scaled to many learners or courses. If your badges require manual evaluation by a librarian, then it takes approximately three to five hours to evaluate one badge with an average number of five steps for twenty-five to thirty learners. There are always tradeoffs to be made in instructional design. If you want to see students' thought process, then text responses are ideal. If this articulation of thought is not as important to your goals, then you can use more automatically graded assessments. You can also use a blend of auto-graded and manual evaluations.

Another decision that needs to be made when integrating badges is where they will be located. Learners could be earning the badges either inside or outside the learning management system (LMS).

Badges can be offered directly through an LMS using learning technology interoperability. Some

LMSs might have badges offered as a gamification feature. These badges are not the same as open badges with the metadata and technical standards embedded. Badge systems including Badgr and Credly can be integrated into the LMS.

If learners are earning the badges in the LMS, the badges can be connected to the gradebook with the ability for both students and instructors to see student work without ever leaving the system. The badges still exist outside of the LMS, but they have functionality in the LMS. The advantages of placing the badges in the LMS include

- easy integration for students who are used to working in this environment,
- easy discovery of badges assigned,
- no need to move to an external system, and
- seamless connection with the gradebook.

There are also disadvantages to placing the badges in the LMS; they are the inverse of the advantages of earning the badges outside of the LMS, which are listed below.

Earning badges outside of the LMS means that learners need to go to the badging website and locate the badges they are supposed to be completing. The advantages of presenting the badges outside of the LMS include the following:

- Anyone is able to earn the badges without needing an access account.
- Learners can explore other badges and have access to the full system.
- People who are not familiar with the LMS have to learn only one system when going directly to the badge system.

This decision about working inside or outside the LMS does not have to be wholly one choice or the other. For example, if you are partnering with a formal course for one set of badges, you could use LTI (discussed in chapter 3) to place those in the LMS while at the same time partnering with an informal learning group like an undergraduate research lab where they earn badges outside of the LMS.

Completion Models

The final choice to make when integrating the badges into a learning environment is to decide if the badges will be required, recommended, or optional. This decision depends on the purpose of the badges and the goals of the integration. Remember that optional badges are likely to have the lowest completion rate while required badges will have the highest.

Required

A required badge means that the students are being made to complete the badge in exchange for some sort of credit. This could be a letter grade, participation credit, or as a prerequisite to another activity. These badges will normally require due dates and review of the evidence submitted by students in the badges in designated time lines.

Recommended

Recommended badges are those that learners are strongly encouraged but not required to complete. An example of recommended badges is a badging program at Penn State called The Library Connection. It is a series of four badges that every English composition distance student has the opportunity to complete. There is no requirement to complete them and no penalty for not completing the badges. This option works well when an academic department wants to partner on your badges but does not have a place to add another required activity.

Optional

The option "optional" is self-explanatory. Learners are given the option of whether they want to complete the badges or not. This type of badge will normally have the lowest completion rate. The learner who has the option of completing a badge or not needs to clearly understand its benefits.

Conclusion

Making the decision to partner and implement badges in a variety of learning environments requires a high degree of collaboration and outreach. There are many decisions to make, but the fundamental characteristic of any successful implementation is open and clear communication. This might mean negotiating and compromising so that the implementation is successful for all parties, but as long as you identify the minimum requirements you want out of an implementation, then these conversations can be successful. Even with a single implementation when you are the course instructor, it requires collaboration with other possible badge users, evaluators, and students. A common challenge that you might have in partnerships and collaborations is that some people are turned off by the term *digital badge*. In these situations, the word *micro-credential* can open ears that would otherwise be closed. That being said, the metadata that is unique to digital badges provides an assessment-rich environment that would otherwise not be present.

Notes

1. National Reading Council, *How People Learn: Brain, Mind, Experience, and School*, expanded ed. (Washington, DC: National Academic Press, 2000), https://doi.org/10.17226/9853.
2. Linda Darling-Hammond and Jon Snyder, "Authentic Assessment of Teaching in Context," *Teaching and Teacher Education* 16, no. 5–6 (July 2000): 523–45, https://doi.org/10.1016/S0742-051X(00)00015-9.
3. George D. Kuh, "Assessing What Really Matters to Student Learning inside the National Survey of Student Engagement," *Change: The Magazine of Higher Learning* 33, no. 3 (2001): 10–17.
4. Katy Jordan, "Massive Open Online Course Completion Rates Revisited: Assessment, Length and Attrition," *International Review of Research in Open and Distributed Learning* 16, no. 3 (June 2015): 341–58.
5. Doug Lederman, "Who Is Studying Online (and Where)," *Inside Higher Ed,* November 7, 2018, https://www.insidehighered.com/digital-learning/article/2018/11/07/new-data-online-enrollments-grow-and-share-overall-enrollment.