Digital badging: Capturing evidence of learning

By Kristin Fontichiaro

How do we show what students know and can do?

Were you a Scout or a Girl Guide as a child? Did you enjoy learning through challenges and showing off your accomplishments with merit badges and pins? Did the merit badge system encourage you to try things you might otherwise not have? How did the possibility of badges shape those scouting experiences and broaden your understandings and horizons?

Now think about the students in your school. How do they show what they have learned throughout their school day, year, or career? While students receive a lot of grades from tests, quizzes, projects, or homework, what is ultimately recorded in their transcript is generally a single letter grade or percentage. What does it mean to get a B in History? Does that represent A+ work averaged with a lot of point penalties for tardy submission or B-level understanding across the board?

How about the non-quantifiable learning in school? How are citizenship, intellectual flexibility, and perseverance noted as part of a child's skillset? And what about the kid who is a whiz at Minecraft mods or creates iPad apps on the weekend? Or the teen who is average academically but an outstanding child care provider at church? How are those activities, skills, and mindset documented?

Consider your library and the rich learning that happens there both in formal instructional periods and in informal, serendipitous moments. How are we acknowledging a student's fluency with keywords, synthesis, or digital tools?

Learning everywhere means documentation everywhere

All of these scenarios are indicators that growth and learning happen *everywhere*, in classrooms and workshops, church basements and makerspaces, libraries and city parks, face-to-face and online. The current systems we have for capturing that learning may not be adequate or nimble enough to pinpoint specific skills, or expansive enough to capture the anytime-anywhere world of our students.

The digital badging movement is an attempt to gather, connect, and document in the 'learning everywhere' era. **Mozilla's Open Badges group** is spearheading the creation of a common technology and metadata infrastructure to create digital icons that represent learning. Rather than developing many infrastructures, organisations are encouraged to develop platforms that are compatible with the Open Badge framework, which is open-source and free. Several platforms exist that fit this definition. The common framework allows badges to transcend any particular learning management system, tutorial tool, or badging platform, and to be transferred effortlessly into a central repository hosted by Mozilla.

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Sharing everywhere

Unlike a scouting badge, permanently affixed to a sash or vest, a digital badge can be hosted in a central repository and, from there, embedded in social media profiles, on blogs, and as part of electronic portfolios. This central repository, known as a badging backpack, serves as a new kind of resume or portfolio. Individuals can shuffle, sort, hide, or display badges as needed to appeal to a variety of audiences and for a variety of

purposes. Future employers, university admissions officers, community organisations, and bosses could view this backpack to get a deeper and more granular understanding of who the individual is, as well as the 'hard' and 'soft' skills and dispositions he has demonstrated.

What goes into a badge?

Digital badges take their cue from the cloth merit badges of the past, using a graphic (either a photograph or original art) as a visual cue (see Figure 1). Baked into that badge, however, is metadata that travels with the badge. When revealed, this metadata can give a viewer important details about the accomplishment, including:

- **Badge Issuer:** who offered the badge? Was it a world-renowned university? A local scout troop? A celebrity? A friend?
- **Challenge:** what task or activity was required to earn it and, potentially, intermediate steps required in order to achieve it. This description provides clarity about the task and, by doing so, can signal anything from the level of difficulty to the quantity of work or effort put forth.
- **Evidence:** what evidence of mastery would be needed (e.g., a photograph, video, or observation). Ideally, the badge will link to the evidence, turning a badge backpack into a clickable digital portfolio.

Because of this metadata, a digital badge automatically transmits more descriptive information than a simple letter grade can.

Figure 1: Sample badge awarded by Michigan Makers group and created with the Badg.us platform.

How does this work in real life?

Imagine that you are issuing badges as a librarian at Echidna School Library. You go to an online badging system. (We use Badg.us <**http://badg.us**> because it's both open-source and made in our home state of Michigan, USA.) You create an account for the library. Echidna School Library is now the **badge issuer.**

Now consider the challenge. What is it that you want badging to motivate students to do and to document? Just as in the Backward Design approach of Wiggins and McTighe (2005), begin with the end in mind. What is it

that you want students to know or be able to demonstrate? In this case, let's say it is the ability to effectively annotate five sources. You pull up the 'Create Badge' screen in **http://badg.us**. After uploading a Creative Commons or original photo or artwork to serve as the badge image, you then describe the **challenge** with words like this:

> To earn this badge, the badge recipient demonstrated fluency and accuracy in annotating five scholarly sources using the Cornell University Library format (**http://olinuris.library.cornell.edu/ref/research/skill28.htm**). Evidence was posted to the recipient's blog.

Imagine that Aurora engages in the activity and, when she feels ready to submit her work, posts it to her blog for you to review. If the **evidence** meets the challenge, you award the badge in Badg.us. Aurora can then opt to port your badge into her Mozilla backpack, where it joins other badges created by NASA, 4-H, and several universities. Like pointillism, a single badge tells us just a tiny bit about Aurora; when combined with others, a portrait emerges.

Then what?

But now what? What does that badge actually *do* for Aurora? As an attendee at the DML conference in Chicago, Illinois, USA in March said, 'Right now, we're issuing badges, and people can't do anything with them.' That's okay for now, as badges are still in their pilot stage. But let's imagine what having this badge *could* accomplish for her as badging moves from infancy into adolescence:

- **Exempts student from repeating the task:** The badge gives evidence that Aurora possesses the skill; therefore, she is exempt from future annotation tasks. With the badge transferred to her Mozilla badge backpack (**http://openbadges.org**), where it mingles with any other badges issued by any other organisation or system), she might even be able to skip an annotation class at the university level.
- **Signals readiness for more complex tasks:** The badge signals Aurora can annotate generally; perhaps for the next assignment, she should be asked to sharpen her skills and to annotate according to discipline-specific formulas and formats.
- **Serves as a 'star' in a larger 'constellation' of skills:** Perhaps Aurora's annotation badge gets combined with a note-taking badge, a search badge, and a synthesis badge. They can then be exchanged for a 'research skills' meta-badge.
- **Signals to future admissions officers:** The badge, especially if Echidna School Library is well-regarded, could indicate the caliber of college readiness for a student; combined with other badges, it could help her place out of initial coursework.
- **Signals to future employers:** If Aurora wants a summer job at the local online newspaper; her annotation badge signals that she is skilled in a particular type of writing. Combined with a badge for interviewing skills, another for summarisation, and a third for completing tasks on time, Aurora can now sell herself as a well-rounded intern reporter.

Of course, badging doesn't have to be about quantifiable skills (e.g., 'used five sources'). It should also help us assess qualitative skills. For example, imagine an after-school peer tutoring program. The program organisers might have a handful of badges for which peers can nominate one another, such as 'You helped my grade go up,' 'You had a breakthrough!,' or, 'You cheered me up today.' Whether used to acknowledge discreet skills or positive behaviors, specificity is the key. The more specific the challenge language, the more consistent the interpretation can be as the badge moves from badge creator to recipient to issuer.

Learn more about badging

To learn more about the digital badging movement, consider these resources:

Badges don't just need to be issued by educators. Students can, as part of independent study, choice learning, or capstone projects, issue self-challenges or motivate their peers via peer-initiated challenges. Students challenging themselves or one another can be far more impactful than having adults do it!

- Mozilla Open Badges <http://openbadges.org> to learn more about the open badges movement

- http://bitly.com/bundles/activelearning/1 for links to useful resources

- http://oelmabadges.wordpress.com for an example of badging a conference

- http://fontichiaro.com/activelearning for ongoing thinking about badging and its nuances

'Badging isn't really about badges'

As a friend said to me during a recent discussion about badging, 'Badging isn't really about badges.' As colourful and fun as badges can be, and as much as our inner Templeton the Rat loves to collect shiny things, it is a hollow task if badging just becomes the novel terminology for sticker charts and extrinsic motivation. A conversation about the power and pitfalls of the badging movement is really a conversation about motivation, achievement, and evidence of learning, standards, and expectations. Even if badging doesn't appeal on the surface, consider it as a way to entice people into a conversation about those important issues. The beliefs revealed in the discussion may be powerful indicators of the strengths and weaknesses of your school's learning and assessment culture.

Conclusion

Excitement is brewing in the U.S. about the possibilities of digital badging to create a more holistic look at an individual's accomplishments and skills. **Seed projects**, funded by the John D. and Catherine T. MacArthur Foundation, are underway now. Grant awardees ranging from NASA to the Walt Disney Company, from Microsoft to the Carnegie Mellon Robotics Academy, are currently piloting online learning programs for teachers and students. Keep an eye on these projects as sources of inspiration for your own badging design and as a way to engage your students and faculty in premade badge challenges.

Let's tackle assessment in new and more robust ways -- take badging for a spin!

References

Wiggins, Grant and Jay McTighe (2005) *Understanding by Design*, Expanded 2nd Edition. Alexandria: ASCD.

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