



Presentation:

Overcoming Obstacles in Online Learning: Best Practices for Digital Badges in Higher Ed
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Poster:

Digital Badges in Higher Ed: Certifying Research Skills That Impress Professors & Future Employers
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Example Project Plan

Digital Learning Badges: Project Plan/Proposal Summer and Fall 2013

Trends at Arizona State University (ASU) and in higher education necessitate a new approach to helping students build the information and research skills required for success in academia and the workplace. The Digital Learning Badges project, proposed by Arizona State University Libraries, offers an innovative approach to fostering student success in the rapidly evolving higher education learning environment. This cross-unit project includes experts from multiple units and will result in a scalable program that can be adapted and used by schools and colleges throughout ASU.

Background and Trends

- ASU Libraries' commitment to promoting student retention and success
- Rapid growth of ASU's online only degree programs (ASU Online);
- Proliferation of online and hybrid classes offered by colleges and schools across the university (e.g. the online Psychology degree offered by New College has the largest enrollment of any online degree);
- Decreased opportunities for ASU Librarians to offer in-person instruction to classes;
- Concomitantly, ASU students still need research instruction from librarians to

- assist with their learning and success;
- Large percentage of transfer students to ASU who do not get the same opportunities for library and research instruction as students who enter ASU as freshmen;
 - Reduced numbers of Librarians coping with increasing numbers of students and classes (online and in-person);
 - Recognition by employers on a global scale that critical thinking and information literacy are needed for lifelong learning and adaptability within changing work environments;
 - Increased accountability standards that are driving outcomes assessment of student learning;
 - A nascent movement towards competency based learning and credentialing (e.g. the Lumina Foundation).

The challenge is keeping up with the growth in online offerings and students in addition to a growing “on ground” student body to maintain and increase the ASU Libraries’ contribution to students’ academic success that is sustainable and applicable across all disciplines and academic programs.

Addressing the Challenge

The concept of Learning Badges (also known as Open Badges or Digital Badges) is an innovative and sustainable solution to the ASU Libraries’ instruction needs now and into the near future. Learning Badges are a new development in open access online learning and advocates promote them as an option to formal course and degree-based learning.

“A ‘badge’ is a symbol or indicator of an accomplishment, skill, quality or interest.” (Mozilla Foundation, 2012). Learning Badges are awarded to students when they complete a module of instruction and an assessment of learning or accomplishment. A Learning Badge is a concrete symbol of mastery, usually for well-defined and discrete skills or other learning goals. The badges are issued by groups or organizations that define the skills or knowledge to be learned and who certify completion. A student can collect Learning Badges and display them to others in online portfolios to illustrate his or her skill sets and accomplishments.

The concept of awarding Digital Learning Badges is well-suited to learning library and research skills, from the basic to the most advanced. Students may be motivated to earn the badges independently if they can earn them on their own time and receive a concrete symbol of mastery that they can provide to prospective employers, peers-or other relevant parties. Badges can also be incorporated into a larger course of study

such as a class or academic program. In this case completing the Learning Badges may be required, but the outcome is the same: a demonstrated certification of completion and mastery.

The Digital Learning Badges Workgroup envisions a series of online modules, each one focusing on a discrete skill or accomplishment that could build a student's Information Competencies in a demonstrable way. The instruction would be all online, thus allowing for flexibility, wide distribution, and scalability. Online delivery would also make it sustainable if designed correctly. It would not need day-to-day staff involvement. Completing a module would earn a student a badge, and completing a defined series of badges could constitute demonstrated proficiency of a larger set of defined skills and knowledge.

Flexibility in how badges can be earned and delivered is key. Each module will be constructed using a variety of multimedia delivery strategies, (e.g. audio powerpoint, video demonstrations, screen captures, interactive games etc.) depending on what strategy works best for the individual content. The assessments may also be different from one module to the next. For example, basic skills can be measured with simple multiple choice questions while more advanced skills or concepts might require a student to solve a problem or produce a product.

The Learning Badges Workgroup reached out to the New College of Interdisciplinary Arts and Sciences (New College) to partner in this endeavor. New College enthusiastically agreed and will facilitate the development of learning badges to meet New College needs and content. The badges created for research instruction skills will function as the pilot or "proof of concept" for the project. What the ASU Libraries and New College creates can then be used as a model for other academic and academic support units across the university.

The partnership will also reduce upfront costs to the ASU Libraries, in terms of librarian time and contracting fees, and increase creative synergies among all involved.

Project Goal and Parameters

Define and develop an online learning program for all students that builds information and research skills and promotes student success. The program must include:

- interactive learning components and multimedia presentations;
- modular, individually identified skill and activity based components;
- multiple learning options when possible;
- self-generating recognition for satisfactory completion of modules and packages;
- an authentic, self-sustaining model of learning outcomes assessment

Resources Needed

1. Dedicated team of librarians to develop content, create the individual learning modules and the complete program (curriculum) of sequenced modules
2. Dedicated or contracted instructional technology staff to construct the platform and web-based modules, assessment interface and digital badge design.
3. Dedicated IT staff to keep interface operational and to update as needed.
4. Technologies

Deliverables

Summer 2013:

- Creation of at least three Learning Badge modules (“lessons”) as basis for fall semester pilot:
 - ASU Libraries’ Learning Badges Team: content
 - New College OLEg Team: technical advice
 - Contracted developer and programmer: online development and programming

Fall 2013:

- Pilot test of Learning Badge modules in selected New College classes (currently identified); “proof of concept”
 - Planning the pilot
- Revise modules, sections, interface, etc. as pilot results require
- Focus on section and module assessments to ensure authentic student learning
- Continued development of delivery platform and badge structures
- Master Plan for module/section menu and start developing new modules
- Start discussions with NC FYC for expanding badges into FYC curriculum
- Planning for broadening participation in project to Subject Librarians
- Fleshing out documentation

Spring 2014 and beyond:

- Development of whole suite of learning modules based on learning outcomes
- Creation of scalable assessment tools and processes
- Increased involvement from other ASU Librarians and staff
- Increased involvement and development from New College
- Scalable badge structure and system

Example Timeline

SPRING 2013	
Background Research	<p>See “Tools & Resources” box on presentation Library Guide http://libguides.asu.edu/educauseportland2014</p>
Identify Work Group	<p>Work group members:</p> <ul style="list-style-type: none"> ● Librarian, ASU Libraries ● Librarian, ASU Libraries ● Librarian, ASU Libraries ● Librarian, ASU Libraries ● Librarian, ASU Libraries ● Librarian, ASU Libraries ● Manager, Instructional Design and Online Learning, New College Technical Support <p>Adjunct working group member, Library Systems Department Head: will manage the outsourcing of technical work</p> <p>Workgroup members who wish disseminate knowledge gained from this project via presentation and/or publication will need to satisfy IRB guidelines. All members complete IRB training online at http://researchintegrity.asu.edu/training/humans. <i>Social & Behavioral Research Investigators and key personnel(Group 2 Basic)</i></p>
Identify Collaborators/Consultants	<p>Associate Professor, School of Social and Behavioral Sciences, New College of Interdisciplinary Arts and Sciences, ASU.</p> <ul style="list-style-type: none"> ● Interested in Learning Badges and Online Learning, particularly authentic assessment. ● Agreed to assist with advising project team on selecting appropriate technology platform, assessment and best practices. <p>Professor, incoming Dean of the New College of Interdisciplinary Arts and Sciences, ASU (effective</p>

	<p>July 1, 2013).</p> <ul style="list-style-type: none"> Committed to collaborating with the ASU Libraries on creating a Learning Badges program for the Libraries and New College. <p>Current Dean of New College, approved Kathy Grimes, New College’s Manager, Instructional Design and Online Learning, to be part of the project team.</p> <ul style="list-style-type: none"> Committed New College funding to share costs of contracting technology design work with the ASU Libraries. <p>New College Manager of Instructional Design and Online Learning</p> <ul style="list-style-type: none"> Will assist with the technology and content;
<p>Institutional Support</p>	<p>Secured support from:</p> <ul style="list-style-type: none"> ASU University Librarian ASU Libraries’ Systems Department New College (see “Collaborators and Endorsements”) New College of Interdisciplinary Arts and Sciences (see “Collaborators and Endorsements)
<p>Personnel and Budget</p>	<p>Consult with Library Systems Department and New College Instructional Design Manager about technology costs</p> <p>Identify any additional costs related to project funding request needed</p> <p>Secure commitment to support contracting out much of the technology infrastructure work</p> <ul style="list-style-type: none"> Project IT consultant and contractor identified, May 7, 2013

Communication Plan	Develop and create a communication plan <ul style="list-style-type: none"> ● Share with subject librarians, committees <ul style="list-style-type: none"> ○ completed early May Communicate with Jennie Duvernay regarding branding and marketing
SUMMER 2013	
Define and Develop Content	<p>Define Learning Outcomes by May 22nd</p> <p>Link outcomes to badges</p> <p>Review existing online tutorials for their utility and currency.</p> <ul style="list-style-type: none"> ● Collaborate with Online Instruction Services, ASU Libraries <p>Group the competencies into modules and units</p> <p>Draft storyboards for individual modules</p>
Badge Structure/Interface	Identify components <ul style="list-style-type: none"> ● Levels ● Number ● Look and Feel (branding) ● Dissemination options
Technology	Identify and define technology needs <p>Determine what platform will be used</p> <ul style="list-style-type: none"> ● Identify software that is <ul style="list-style-type: none"> ○ easily updated ○ compatible with multiple platforms (e.g. Windows, MAC OS) ○ ○ accessible from a variety of devices (e.g. smart phones, ipads. etc.) <p>Identify a contractor</p> <ul style="list-style-type: none"> ● Instructional Designer, ASU Online <ul style="list-style-type: none"> ○ Will work on platforms and graphic

	<p>design</p> <p>QUESTION???</p> <p>Can we use Library Guides to create module pages for each badge?</p> <p>QUESTION???</p> <p>Should we have a template format for all modules? Yes!</p> <p>Blackboard: with 5/17 update will be able to handle non-ASU Rite IDs and MOOC-like venues - While we could use BB, Canvas was suggested as the delivery LMS.</p> <p>Use Learning Studio? Specifically for delivery of online Pearson courses</p> <p>Use an outside system? Canvas?</p> <p>Update - January 2014 *Using WordPress to Host, Badges OS to upload, will still incorporate within LMS - Blackboard Course Sites</p>
Produce two to three model “proof of concept” badge modules for the ASU Libraries	
Test modules	<p>Identify individuals/groups to test modules prior to introduction in fall 2013</p> <ul style="list-style-type: none"> • Late July/early August
Plan future development	ASU Libraries and New College, Nursing, MLFTC
FALL 2013	
Pilot Learning Badges	<p>Identify courses/instructors</p> <p>Deliver badge modules</p>
Evaluation and	Investigate assessment options w/ A. Halavais

Assessment

Determine technology needed to assess learning outcomes and programmatic measures

Identify Measures of Program and Student Success

- Measures of Student success:
 - change in students' information proficiency
 - student use of program
 - badges attained
 - frequency of faculty referral to program
 - changes in student confidence in using ASU Libraries for assignments
 - grade point of students who attain badges
 - retention of students who attain badges
 - student and faculty perceptions of program efficacy

- Measures of Program success
 - degree to which program meets goals/parameters defined in project plan
 - linkage to University, Libraries, Academic Program's strategic plans, goals, outcomes
 - usability of learning badges program
 - supports different learning styles & approaches to teaching and learning
 - Contextualizes information literacy within existing academic programs and courses
 - degree of sustainability (easily modified and/or updated)
 - degree of adoption/integration by academic programs
 - number of other partnerships for learning badges that develop and number of other units that join the structure
 - student and faculty perceptions of program efficacy

	<p>Focus Group - as we move forward to target audience going forward (add to program evaluation) should include asking students about sharing with peers, what would motivate you and your friends to participate?</p>
<p>Dissemination</p>	<p>IRB will be required if data gathered about or by students is used. See Dissemination document for possible outlets</p>