

Digital Badges and the Analysis of Learning and Educational Activity



Daniel Hickey

LEARNING SCIENCES
INDIANA UNIVERSITY SCHOOL OF EDUCATION

 **CRLT**
Center for Research on Learning & Technology
Indiana University | School of Education

Building the Field of
Digital Media and Learning |

MACARTHUR
The John D. and Catherine T. MacArthur Foundation

Google™



National Science Foundation
Directorate for Education and Human Resources (EHR)

OFFICE OF THE VICE PRESIDENT FOR INFORMATION TECHNOLOGY

- Web-enabled tokens of accomplishments
 - Eight fields of information and an image
 - Mozilla foundation established the Open Badges Infrastructure (OBI)
- Can be accumulated internally or externally
 - Mozilla’s digital “backpack”
- Can be shared over email and social networks (not LinkedIn!)
- Contain specific claims about learning
- Contain evidence of learning
 - Links to more evidence
 - Digital artifacts
 - Rubrics, peer comments, feedback, etc.



what are
OPEN BADGES?

Learning today happens everywhere. But it's often difficult to get recognition for skills and achievements that happen online or out of school. Mozilla Open Badges helps solve that problem, making it easy for any organization to issue, manage and display digital badges across the web.

Take the **Badges 101** quiz—and earn your first badge

Learn more about the DML Badge Competition!

Example DML Badge System

Supporter to Reporter at digitalme



- digitalme is a collective of UK educational innovators

Badge the UK

Badge the UK is a new project which will enable learners to demonstrate all their achievements using digital badges.

[Sign up](#) [More about Open Badges](#)

Badge the UK S2R Safe YCIF

A promotional banner for "Badge the UK" with a pink background. It features a young person in a dark jacket looking at a laptop. The text describes the project as a way for learners to demonstrate achievements using digital badges. There are buttons for "Sign up" and "More about Open Badges". At the bottom, there are four circular icons: "Badge the UK" (pink), "S2R" (blue), "Safe" (yellow), and "YCIF" (purple).

- Badge the UK is a big push to coordinate informal learning

Supporter to Reporter

Supporter to Reporter is a programme run by DigitalMe which gives young people skills and confidence through sports reporting.

[Sign up](#)

Badge the UK S2R Safe YCIF

A promotional banner for "Supporter to Reporter" with a blue background. It features a young person wearing a headset and holding a microphone. The text describes the programme as giving young people skills and confidence through sports reporting. There is a "Sign up" button. At the bottom, there are four circular icons: "Badge the UK" (pink), "S2R" (black), "Safe" (yellow), and "YCIF" (purple).

- Makewaves/S2R medals was a DML 2012 Awardee



S2R Network

Member Of S2R Medals

JOIN NOW!

S2R Channels
Resources & Reports

Channels

- Top Tips 26
- Live Sports Events 946
- S2R Medals - Sports ... 830
- Olympic and Paralymp... 795
- Sports Interviews 217
- Football 826
- Cycling 218
- Athletics 247
- Charity Sporting Eve... 44
- Racket Games 107
- Swimming 95
- Cricket 163
- Rugby 200
- Other Sports 381
- S2R Teachers 2

Reports from the Sainsbury's 2013 School Games



Athlete focus
'The Creators' video for the final day...



The Big Guns Report of Judo
This report focuses on the pressure, commitment and determination it takes to be a young athlete



Sainsbury's School Games 2013 Volunteers
This report captures all of the great work the volunteers do to help make the School Games a success



Award S2R Medals

Top Tips

Already on Makewaves?
Sign up to S2R here...

Free Resources

FAQs

Top Sports Reports



School Games Organiser's Summit 2013
Catmose Media Team visited Kettering for the SGO Summit and met a VERY special Olympian



Fencing
By Rowan Tierney



Successful 'Tiger' cubs
Students get trials at Leicester Tigers

TEACHERS
Find out more about S2R Medals

S2R Medal Achievements

- 75 awarded**
- 1720 awarded**

Teacher HQ

Help to make it happen



Channels

Help 15

Case Studies 11

Teacher Talk



Resources and Activities - Get Involved!



Safe

Safe is a programme of practical activities to develop primary children's skills, self-confidence and safety awareness when using social networking

What Will You Make?



This Term on Makewaves

Find out what's happening this term that you and your students can get involved with...



The Essential Makewaves Knowledge

Hints & tips to make running your site easy!

Makewaves Badges



How to Make Badges

All you need to know about making Badges to award on Makewaves



Makewaves Badges

All you need to know about awarding and making badges on Makewaves



Make things your way with the Makebadges site

Design your own free badges, banners & avatars - perfect for Makewaves!

The Makewaves App!



The New Makewaves App

Created via the App



Using the Makewaves App in Schools

Beth Smith and Alan Crist discuss using the Makewaves App in schools



Available on the
App Store



makewaves

makewaves Join Community Help HQ

S2R Medals

Earn your S2R Bronze Journalist Medal

Create 3 sport reports and earn your S2R medal

Like 2 Likes 0 comments 754 views 21st January 2013

Introducing the S2R Bronze Journalist Medal

SHARE 1/5

S2R Journalist is all about digital literacy and speaking and listening skills as you learn how to plan, create and publish sports reports across a range of media types. You submit your media stories to the 'S2R Medals Channel' on Makewaves to receive your Medals.

To earn the **S2R Bronze Journalist Medal** you must create three sports reports of acceptable quality which are accepted into the S2R Medals channel. They need to be about sport, use appropriate language and contain text and images/videos.

Search Login

Made By

- S2RManager
- S2RMedals

Makewaves Badges

Share

Earn your first S2R Medal now!

More Like This...

- New Album... Jack The SaXmas
- Scratch competition
- Whole Education 2013

makewaves Join Community Help HQ

Search Login

GlennWheeler Senior

Part of digitalme

My Friends
Find more friends here

55 Friend(s) 1 2 3 4 5

My Stats

80 Stories 6 Blogs
13 Badges
4 Profile Comments
55 Friends 194 Profile Views

My Stories

1 2 3 4 5 Next

- The Creators Media Team**
A fun presentation of the team members
- The Creators complete their brief**
Day three of the Sainbury's 2013 School Games
- Athlete focus**
'The Creators' video for the final day...
- Volleyball A Courtside View**
Today, 'The Creators' discovered what it was like to film and be involved in Volleyball...
- Interview With Hannah Cockroft MBE**
Yesterday on Thursday 12th September, we spoke to Hannah Cockroft MBE
- The Creators get creative on day two**
Day two of the youth media team

My Makewaves Badges

Show All

Other badges

Visit your Backpack!

Share

Youth Sport Trust 2013 Media Team

Awarded for reporting at Sainsbury's 2013 School Games with the youth media team.

What someone needs to do to earn this badge

▼ Evidence

www.makewav.es//story/569437... 2013-09-18

Issuer

Name schoolgames

Site <https://www.makewav.es/schoolgames>

makewaves Join Community Help HQ

Catmose College

Interview With Hannah Cockroft MBE

Yesterday on Thursday 12th September, we spoke to Hannah Cockroft MBE

Like 8 Likes 0 comments 516 views 13th September 2013

Our Interview...

At the VIP opening evening, we managed to get an inspirational interview with Hannah Cockroft MBE and she officially opened The Sainbury's School Games 2013.

<https://www.makewav.es//story/569437/title/InterviewWithHannahCockroftMBE>

Digital Youth Network Chicago Summer of Learning



BADGES FOR LEARNING: A DESIGN FRAMEWORK

Design badges that enhance learning and empower your participants

Why badges?




Badges have the potential to radically shift how learning experiences are achieved, shared, and recognized. The Chicago-based Digital Youth Network (DYN) has developed a framework that connects badges to a set of learning experiences, with an end goal of better supporting interest-driven learning in a social community to create richer and more concrete paths to discovery.

Badges can:

- allow individuals to receive recognition for skills and achievements gained
- signal mastery of specific skills or roles
- provide bridges between informal learning opportunities and formal environments
- increase the visibility of potential pathways for learning and exploring new skills and interests
- provide the motivation to explore with a new degree of interest and confidence
- become more engaging over time, as learners combine badges to build a portfolio that represent who they are and what they can do

Badge Types

All badges are not created equal - the DYN framework builds on 3 types of badges

 <p>COMMUNITY Community badges recognize behaviors and attributes that are valued by the community and reinforce social norms and practices.</p> <ul style="list-style-type: none"> Recognize specific attributes or behaviors that are valued by the community Reinforce social norms and practices Reflect or respond to growing norms in developing community over time Support mentor to learner as well as learner to learner recognition of specific attributes or behaviors 	 <p>SKILL Skill badges provide the learners with indicators of developing competencies and broaden their understanding of their capabilities and accomplishments.</p> <ul style="list-style-type: none"> Relate directly to key skills aligned with identified outcomes Should have clear connections to "doing" Require "evidence" in the form of artifacts Have predetermined expectations of levels of quality Are awarded by teacher or mentor May combine active creation and reflective components 	 <p>SHOWCASE Showcase badges highlight a learner's efforts to share their progress and skills to valued audiences, promoting a sense of pride, ownership and identity.</p> <ul style="list-style-type: none"> Based in situations or experiences where concrete skills are demonstrated to an audience that is valued to the learner May include components of performance, exhibition or publication May have elements of competition May also reinforce social norms and practices
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Badge Types

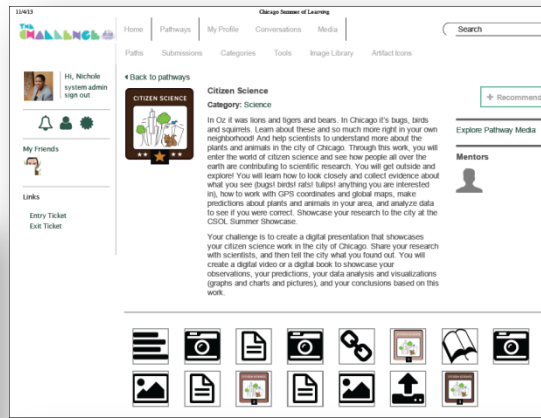
All badges are not created equal - DYN framework builds on 3 types of badges.

 <p>COMMUNITY Community badges recognize behaviors and attributes that are valued by the community and reinforce social norms and practices.</p>	 <p>SKILL Skill badges provide the learners with indicators of developing competencies and broaden their understanding of their capabilities and accomplishments.</p>	 <p>SHOWCASE Showcase badges highlight a learner's efforts to share their progress and skills to valued audiences, promoting a sense of pride, ownership and identity.</p>
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Examples:

Badges that would fall under the 3 respective types.

 <p>CRITICAL FRIEND A "critical friend" badge might recognize the practice of providing ongoing feedback and encouragement to peers in your class or workshop. It highlights the community values around feedback and support between learners. i.e. Make at least 10 comments a week on the work of peers for 4 weeks in a row.</p> <p>Other Examples of Community Badges:</p> <ul style="list-style-type: none"> Workshop Participation Project Collaborator Resource Provider 	 <p>DIGITAL MUSIC An intro level digital music badge might be achieved by a learner completing multiple music production & critique activities that demonstrate knowledge of digital production software & basic understanding of song structure i.e. Write a blog critiquing the tone & tempo of a select song + Create a 3min instrumental with an intro and chorus that uses at least 3 types of sounds.</p> <p>Other Examples of Skill Badges:</p> <ul style="list-style-type: none"> Digital Photography Scratch Game Design Fashion Design 	 <p>DIGITAL AUTHOR A digital magazine badge might recognize people who have created media selected by editors to appear in an online digital magazine featuring the best work from a program's participants. i.e. Create & submit an article, video, podcast or info graphic + Submission selected for quality & alignment with magazine theme.</p> <p>Other Examples of Showcase Badges:</p> <ul style="list-style-type: none"> Digital Magazine Contributor Youth Film Festival Presenter
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Chicago Summer of Learning

Home Pathways My Profile Conversations Media

Paths Submissions Categories Tools Image Library Affiliations

« Back to pathways

Citizen Science

Category: Science

Recommended

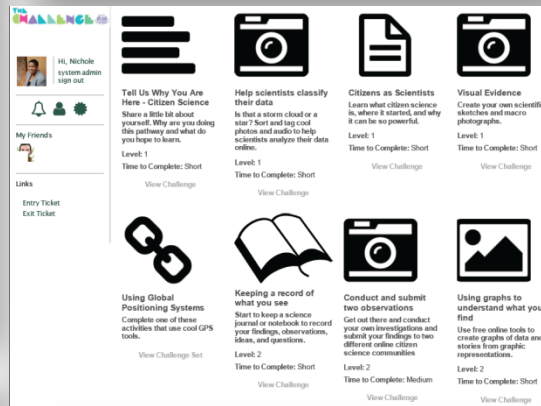
Explore Pathway Media

Mentors

Entry Ticket Exit Ticket

In Oz it was lions and tigers and bears. In Chicago it's bugs, birds and squirrels. Learn about these and so much more right in your own neighborhood! And help scientists to understand more about the plants and animals in the city of Chicago. Through this work, you will enter the world of citizen science and see how people all over the earth are contributing to scientific research. You will get outside and explore! You will learn how to look closely and collect evidence about what you see (bug! bird! rabbit! fup! anything you are interested in). How to work with GPS coordinates and digital maps, make predictions about plants and animals in your area, and analyze data to see if you were correct. Showcase your research to the city at the CSOL Summer Showcase.

Your challenge is to create a digital presentation that showcases your citizen science work in the city of Chicago. Share your research with scientists, and then tell the city what you found out. You will create a digital video or a digital book to showcase your observations, your predictions, your data analysis and visualizations (graphs and charts and pictures), and your conclusions based on this work.



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Tell Us Why You Are Here - Citizen Science

Category: Science

Recommended

Explore Pathway Media

Mentors

Entry Ticket Exit Ticket

Help scientists classify their data

Help scientists classify their data

That a storm cloud or a star? Sort and tag cool photos and audio to help scientists analyze their data online.

Level: 1
Time to Complete: Short
View Challenge

Citizens as Scientists

Learn what citizen science is, where it started, and why it can be so powerful.

Level: 1
Time to Complete: Short
View Challenge

Visual Evidence

Create your own scientific sketches and macro photographs.

Level: 1
Time to Complete: Short
View Challenge

Using Global Positioning Systems

Complete one of these activities that use cool GPS tools.

View Challenge Set

Keeping a record of what you see

Start to keep a science journal or notebook to record your findings, observations, ideas, and questions.

Level: 2
Time to Complete: Short
View Challenge

Conduct and submit two observations

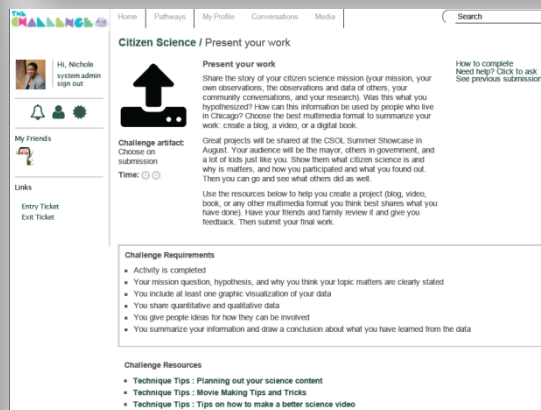
Get out there and conduct your own investigations and submit your findings to two different online citizen science communities.

Level: 2
Time to Complete: Medium
View Challenge

Using graphs to understand what you find

Use free online tools to create graphs of data and to stories from graphic representations.

Level: 2
Time to Complete: Short
View Challenge



Chicago Summer of Learning

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Paths Submissions Categories Tools Image Library Affiliations

« Back to pathways

Citizen Science / Present your work

Category: Science

Recommended

Explore Pathway Media

Mentors

Entry Ticket Exit Ticket

Present your work

Share the story of your citizen science mission (your mission, your own observations, the observations and data of others, your community conversations, and your research). View two what you hypothesized? How can this information be spent by people who live in Chicago? Choose the best multimedia format to summarize your work: create a blog, a video, or a digital book.

Great projects will be shared at the CSOL Summer Showcase in August! Your audience will be the mayor, others in government, and a lot of kids just like you. Show them what citizen science is and why it matters, and how you participated and what you found out. Then you can go and see what others did as well.

Use the resources below to help you create a project (blog, video, book, or any other multimedia format you think best shares what you have done). Have your friends and family review it and give you feedback. Then submit your final work.

Challenge artist: Choose on submission
Time: 00

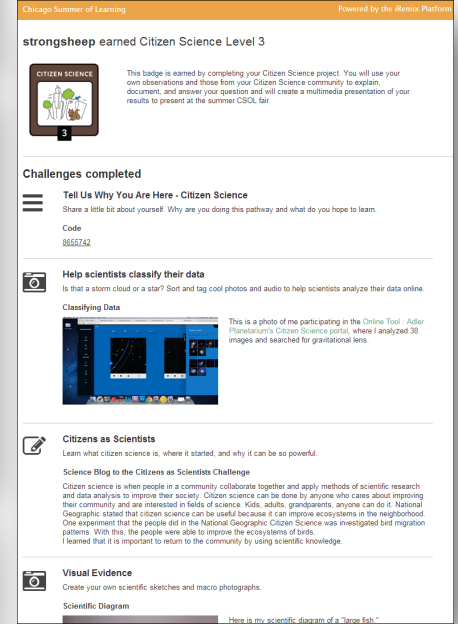
How to complete
Need help? Click to ask
See previous submissions

Challenge Requirements

- Activity is completed
- Your mission question, hypothesis, and why you think your topic matters are clearly stated
- You include at least one graphic visualization of your data
- You share quantitative and qualitative data
- You give people ideas for how they can be involved
- You summarize your information and draw a conclusion about what you have learned from the data

Challenge Resources

- Technique Tips: Planning out your science content
- Technique Tips: Movie Making Tips and Tricks
- Technique Tips: Tips on how to make a better science video



Chicago Summer of Learning

Powered by the Remix Platform

strongsheep earned Citizen Science Level 3

This badge is earned by completing your Citizen Science project. You will use your own observations and those from your Citizen Science community to explain, document, and answer your question and will create a multimedia presentation of your results to present at the summer CSOL fair.

Challenges completed

Tell Us Why You Are Here - Citizen Science

Share a little bit about yourself. Why are you doing this pathway and what do you hope to learn.

Code
8855752

Help scientists classify their data

That a storm cloud or a star? Sort and tag cool photos and audio to help scientists analyze their data online.

Classifying Data

This is a photo of me participating in the Online Tool - Adler Planetarium's Citizen Science portal, where I analyzed 38 images and searched for gravitational lens.

Citizens as Scientists

Learn what citizen science is, where it started, and why it can be so powerful.

Science Blog to the Citizens as Scientists Challenge

Citizen science is when people in a community collaborate together and apply methods of scientific research and data analysis to improve their society. Citizen science can be done by anyone who cares about improving their community and are interested in fields of science. Kids, adults, grandparents, anyone can do it. National Geographic stated that citizen science can be useful because it can improve ecosystems in the neighborhood. One experiment that the people did in the National Geographic Citizen Science was investigated bird migration patterns. With this, the people were able to improve the ecosystems of birds. I learned that it is important to return to the community by using scientific knowledge.

Visual Evidence

Create your own scientific sketches and macro photographs.

Scientific Diagram

Here is my scientific diagram of a "Tree Frog."



3D GameLab - Earn Badges!



Digital Badges: Unlocking Two Million Better Futures - CGI America...



Jason Explains Digital Badges

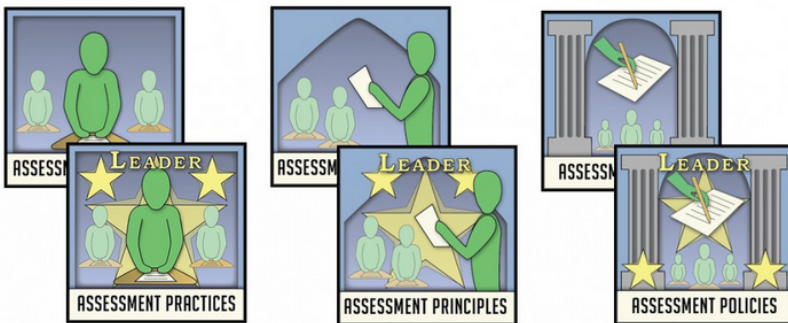


What Is A Badge?

Example Non-DML Badges Ecosystem Educational Assessment BOOC

The screenshot shows the course page for 'Educational Assessment: Practices, Principles, and Policies' on the Indiana University Course Builder. The page includes the university logo, course title, a description of the course, the instructor's name (Daniel Hickey, Ph.D.), and a class schedule. The schedule lists four units: Unit 1 - Curricular Aim and Standard Selection (chapter 2), Unit 2 - Selected-Response Formats (ch. 6), Unit 3 - Constructed-Response Formats (ch. 7), and Unit 4 - Performance and Portfolio Assessment (ch. 8, 9).

- Twelve weeks in Google *Course Builder*
 - Personalization via aim & role
 - Work in professional networking groups
 - Textbook and weekly wikifolios
- Three *Expertise* badges
 - *Assessment Practices*
 - *Assessment Principles*
 - *Assessment Policies*
- One *Assessment Expert* badge for earning the three expertise badges
- Most promotions in each group earns *Leader* badges
- Began with 460 registrants
 - Now around 80 active
 - Include 8 enrolled for credit
 - <https://booc-iu.appspot.com/wiki?unit=8&student=46186&action=view>



Reflection (By November 3)

A. Consequential Engagement: This was by far the most interesting and relevant unit to me so far. As a result of what I learned this week, I definitely plan to learn more about, and practice more, the art of learning progressions because I see them as an incredibly powerful tool to structure and direct instruction. I also plan to do more research about specific formative assessment strategies that are effective in the classroom.

B. Critical Engagement: I found my role and curricular aim very well suited to this week's concepts and big ideas. Not only was I able to see how my curricular aim could be reached via a learning progression, but I was also able to reflect on how to use formative assessment to make real time instructional adjustments, which is something I have seen in my consulting work that not a lot of teachers know how to do. Therefore, I can see how becoming somewhat of an expert on this topic could really help me in my work to add value and improve learning outcomes for many students.

C. As usual, [redacted]'s work was insightful because as a classroom teacher, she is able to bring a very practical perspective to all of the concepts surrounding formative assessment. Her learning progression was very clear and really helped me to see that formative assessment does not have to be a complicated or difficult task for a teacher. I also learned a great deal from Patricia Tylka's work, particularly her observations about the importance of the right kind of feedback and her definition of formative assessment that uses a medical analogy. I also appreciated the Illinois resources on formative assessment that Patricia shared.

Endorse and Promote

This page has been endorsed as complete by [redacted] Adjunct college instructor, retired h.s. English teacher, [redacted] Librarian, and [redacted] Elementary Educ

Click here to **endorse** that the author has completed

the required elements, or **the required AND optional elements**

of the assignment.

You can promote this page as exemplary!

This is great because...

★ Exemplary

★ This page has been promoted as exemplary by [redacted] Elementary Educ [redacted] Librarian [redacted] and F [redacted] Adjunct college instructor, retired h.s. English teacher ([redacted])

Show reasons...

Student Profile for danielthickey@gmail.com

Date enrolled	2013-08-02
Email	danielthickey@gmail.com
Name	Dan Hickey
Name for badges and certificates	Dan Hickey
Endorsements	List of all your endorsements and promotions
Comments	List of all your comments

Assessment scores	
Assessment Practices Exam (open October 9 through 19)	85
Assessment Principles Exam (open October 30 through November 6)	0
Assessment Policies Exam (open November 20 through December 4)	0

As of 2013-10-24 at 15:38 UTC:
 Unit 1 - Complete!
 Promotions: 0 - Endorsements: 1 - Comments: 4
 Unit 2 - Complete!
 Promotions: 0 - Endorsements: 1 - Comments: 0
 Unit 3 - Complete!
 Promotions: 0 - Endorsements: 1 - Comments: 0
 Unit 4 - Complete!
 Promotions: 0 - Endorsements: 1 - Comments: 2
 Assessment Practices Exam (open October 9 through 19) - Complete!
 85 out of 100, 80 required to pass



Claim on Mozilla Badge Backpack
 Share via e-mail
 Share on Facebook
 Tweet on Twitter
 Share on Google+
 Badge Settings

See your Evidence page for this badge.

mozilla Backpack

You are about to send 1 badge to your Mozilla Backpack at beta.openbadges.org.

Hoorah!

I am not danielthickey

mozilla Backpack Badges Collections danielthickey@gmail.com

My Collections

Organize badges the way you want

Professional Badges

public

P507

Assessment Practice...

Issuer: BOOC Stage Testing

Learning Expert: Rat...

Issuer: Daniel T. Hickey, Associate...

Collaborative Engag...

Issuer: ForAllBadges (www.forallba...

 Daniel Hickey shared a link.
October 23

Check out our awesome new badges from the Educational Assessment BOOC. Our programmer Thomas Smith built a brilliant interface and Garrett Poortinga created some attention-grabbing graphics. But the coolest thing is the way Thomas was abl... See More



Badge Evidence - Educational Assessment: Practices, Principles, and Policies
 booc-stage.appspot.com

Badge Evidence Settings for Assessment Practices

Show my Wikifolio entries for this badge on the evidence page?

Save

New Display Name
 This is the name that other participants see on the web site.

Change Name

New Name for Badges and Certificates

Change Badge Name

To leave the course permanently, click on Unenroll

Unenroll

Assessment Practices Expertise

Dan Hickey earned this badge by participating in the Educational Assessment BOOC. The earner of this badge has gained and demonstrated expertise with the primary item formats in classroom assessments.


Criteria for issuance

This badge is issued for:

- Completing four personalized Wikifolio assignments (linked below)
- Scoring over 80% on a 20-item examination
- Engaging with peers in discussion (not included in links below, for peer privacy)
- Endorsing and promoting peers' Wikifolios

Evidence

As of 2013-10-24 at 15:38 UTC:
 Unit 1 - Curricular Aim and Standard Selection Complete!
 Promotions: 0 - Endorsements: 1 - Comments: 4
 Unit 2 - Selected-Response Formats Complete!
 Promotions: 0 - Endorsements: 1 - Comments: 0
 Unit 3 - Constructed-Response Formats Complete!
 Promotions: 0 - Endorsements: 1 - Comments: 0
 Unit 4 - Performance and Portfolio Assessment Complete!
 Promotions: 0 - Endorsements: 1 - Comments: 2
 Assessment Practices Exam (open October 9 through 19) - Complete!
 Passed with at least 80 out of 100%



Tweets >

Following >

Followers >

Favorites >


Lists >


Tweet to BigOpenOnlineCourses

@BOOC_IU

Who to follow · Refresh · View all

 **Samsung Mobile US** @Sam...
Follow Promoted

 **Jesse Stommel** @Jessifer
Follow

 **Charlene Volk** @charlenevolk
Followed by Asmalina Saleh and ...

Trends · Change

#ShopSmall Promoted

#VeteransDay

#AddBoobsToTVTitles

#taylorsfault

#MQBManeVota

#BoardGameHour


Sarah Palin

Vets

Christmas

Kanye


© 2013 Twitter About Help Terms Privacy Cookies Blog Status Apps Resources Jobs Ads Advertisers Businesses Media Developers



BigOpenOnlineCourses
@BOOC_IU FOLLOWS YOU


created by Daniel Hickey, BOOC twitter shares news, follows #education and #learning in #technology, and posts updates on the BOOC project


Bloomington, IN · indiana.edu/~booc


102 TWEETS 79 FOLLOWING 63 FOLLOWERS 


Followed by IU School of Ed, IU Learning Sciences, Mozilla Open Badges and 3 others.


Tweets

 **BigOpenOnlineCourses** @BOOC_IU 29 Oct
1st round of #DigitalBadges have been issued, congrats to the participants who've earned them! #BOOC to see their achievement & evidence!
Expand Reply Retweeted Favorite More

 **nancyrubin** @nancyrubin 27 Oct
What Do You Mean by 'Badges?' ow.ly/qdPwE by @dthickey
Retweeted by BigOpenOnlineCourses
Expand Reply Retweet Favorite More

 **Nicole Pagowsky** @pumpedlibrarian 25 Oct
Just earned a #digitalbadge from my classroom assessment #booc booc-iu.appspot.com/badges/evidenc...
Retweeted by BigOpenOnlineCourses
Expand Reply Retweet Favorite More

 **Jason Liptow** @jaybird691 25 Oct
Just earned a #digitalbadge on #booc booc-iu.appspot.com/badges/evidenc...
Retweeted by BigOpenOnlineCourses
Expand Reply Retweet Favorite More

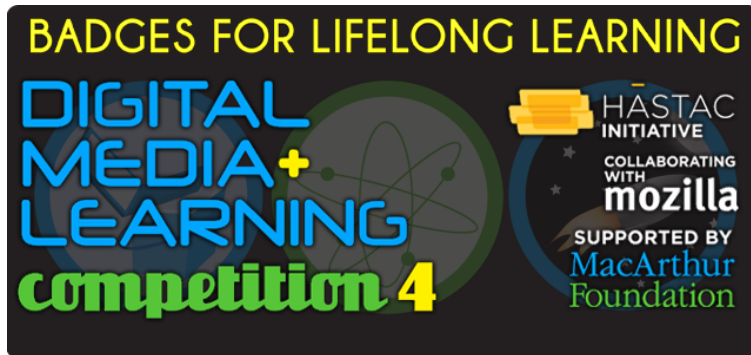
 **David S. Doty** @sawyerdoty 25 Oct

Comment Posted to Remediatingassessment.blogspot.com (emphasis added)

[SharonSOctober 29, 2013 at 1:23 PM](#)

I am currently taking Dr. Hickey's Educational Assessment BOOC, and was surprised at how excited I was when my badge was issued. **I immediately shared it with my family members, and in particular those who are educators.** Two days later, my aunt who is a tech integration specialist at a school district in VT posted her own badge she had earned by participating in a Connected Educators activity; **she claimed she had to do it in order to keep up with me.** I have also used them a handful of times with my own students in the Edmodo software system, and students have indicated that they want to get more badges.

The Design Principles Documentation Project



- 2012 DML Badges Competition
- 600 badge content proposals
- 3 platforms supported
- 30 content developers support



LEARNING SCIENCES
INDIANA UNIVERSITY SCHOOL OF EDUCATION



CRLT

Center for Research on Learning & Technology
Indiana University | School of Education

Collaborators & Partners



Rebecca
Itow



Katerina
Schenke



Cathy
Tran



Nate
Otto



Christine
Chow

**MacArthur
Foundation**

HASTAC
Humanities, Arts, Science, and Technology Advanced Collaboratory



mozilla
FOUNDATION

youtopia™



P2PU

HASTAC
Humanities, Arts, Science, and Technology Advanced Collaboratory

pragmatic
without us, it's just a game™



PROJECT
WHITECARD

gogo
shake-it-up Learning LABS

3D GAME LAB

Social Impact Exchange
Taking successful innovation to scale



SOCIETY FOR
SCIENCE & THE PUBLIC
Inform. Educate. Inspire.

MANUFACTURING
Institute

makewaves

Girl Scouts®

StoryCorps®
The conversation of a lifetime

ROADTRIP
NATION
Define your own road in life.



Microsoft®
Partners in Learning

PASA
PROVIDENCE AFTER SCHOOL ALLIANCE

buzz Math



EARTHWORKS

HIVE
Digital Media
Learning Fund
in The New York Community Trust

BADGES FOR
VETS
yalsa
Young Adult Library
Services Association
www.yalsa.org



ASI
asi.ucdavis.edu

SWEET WATER
FOUNDATION
There grows the neighborhood

ASHP•CML

EffectiveSC

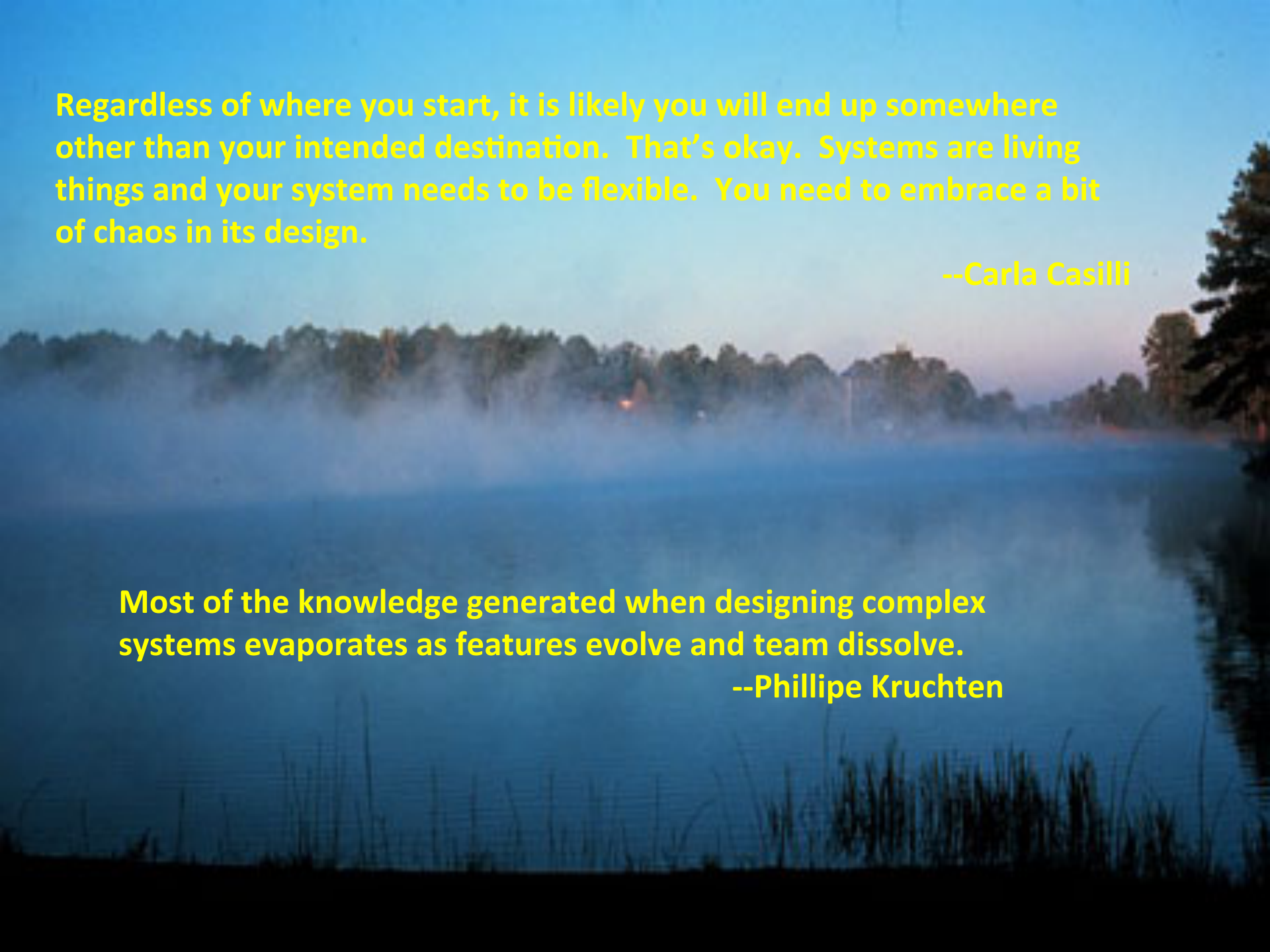
CS2N
computer science student network

DF
★
A
DESIGN for AMERICA

COOPER-HEWITT
NATIONAL
DESIGN
WEEK

CENTER FOR
EDUCATIONAL TECHNOLOGIES

Smithsonian
National Museum of Natural History



Regardless of where you start, it is likely you will end up somewhere other than your intended destination. That's okay. Systems are living things and your system needs to be flexible. You need to embrace a bit of chaos in its design.

--Carla Casilli

Most of the knowledge generated when designing complex systems evaporates as features evolve and team dissolve.

--Phillipe Kruchten

Overview of Methods

- **Reviewed 30 proposals for intended practice**
- **2013 interviews identified enacted practices.**
 - **Sorted practices into design principles.**
- **Now linking principles to relevant research**
 - **Drafting detailed report.**
- **2014 interviews to identify formal practices**
 - **Practices that endure after funding expires**
- **Creating working examples and website to share and discuss**
- **Will write and publish reports and review papers.**

Categories of Badge *Functions*



- Recognizing Learning
 - *Skills, achievements, experiences, & practices*
 - *Individual, peer, social*



- Assessing Learning
 - *Summative, formative, transformative, & transcendent*



- Motivating Learning
 - *Intrinsic, extrinsic, & participatory*



- Studying Learning
 - *Research of, for, & with digital badges*

Evolution of Badge Design *Practices*



Intended Practices

- Ideas outlined in original proposal



Enacted Practices

- Intentions unfolding in world



Formal Practices

- Practices endure after funding ends

Emergence of Badge Design *Principles*



Draft Initial Principles

- Similar practices across different projects
- Aiming for 4-6 principles for each function



Formalize **General Principles**

- Exemplified by specific projects
- Highlights intersection of principle with context



Bookmark **Research**

- Find *relevant* research for each principle
- Encourages spread systematic inquiry

Principles for *Recognizing Learning* (Ordered by Prevalence)

1. Use badges to map learning

trajectories. Most used badges to organize learning by determining levels of badges or offering meta-badges.

2. Align badges to standards. Many used national or international standards to increase external value.

3. Have experts issue badges. Experts increase credibility; influences the usefulness beyond the issuing community.

4. Seek external backing. Increases usefulness as name recognition is important to schools and employers.

5. Recognize diverse learning. Broad recognition helps legitimize what would otherwise only be implicitly noticed.

6. Use badges to externally

communicate accomplishment Take advantage of unprecedented opportunity to present evidence and links to evidence of learning.

7. Make badges permanent. Provide permanent evidence that will be accessible forever.

8. Recognize educator learning. Badges have unique potential in this regard, often along side issuing them to learners.

9. Award formal academic credit for badges. While rare, a very consequential function of digital badges.

Principles for *Assessing* Learning (Ordered by Prevalence)

1. Use leveled badge systems. Most used sequences or structures to convey a progression or stages of learning.

2. Enhance validity with expert judgment. Many used human experts from the field or teachers, or use computer scoring.

3. Align assessment activities to standards: Create measurable learning objectives. Many state, national, or internal standards.

4. Use performance assessment. Many used open-ended and performance-based assessment methods.

5. Use e-portfolios. Some projects used e-portfolios that ranged in sophistication.

6. Use formative functions of assessment. Some made explicit efforts to provide formative feedback to directly advance learning following assessment.

7. Use mastery learning. Some projects' goals for learners involve mastering specific skills.

8. Use rubrics. Some projects create their own rubrics while others use rubrics created by schools, districts, states, or organizations.

9. Promote "hard" and "soft" skill sets. Some projects distinguished between more specific individual skills and more social practices.

10. Involve students at a granular level. A few projects have decided to involve their community in the design and assessment processes.

Sub-Principles for ASSESSING Learning

- Use Leveled Badge Systems
 - Competency levels (10)
 - Meta-badges (8)
 - Hierarchy of badges (3)
- Enhance Validity with Expert Judgment
 - Use AI Tutors (1)
 - Use computer scoring systems (2)
 - Use experts (9)
 - Use computers and experts (11)
 - Give experts badges (3)
- Use Performance Assessments (4)
- Involve Students in Learning Pathway Design (3)
- Use Mastery Learning
 - Judged by computers
 - Judged by Humans and computers
- Align to Standards
 - Internal (7)
 - National/State (6)
 - Common Core (8)
- Use e-Portfolios
 - Open to public ((2)
 - Local to community (5)
 - Foster discussion artifacts (5)
- Provide Formative Feedback
 - Peer feedback (4)
 - Expert feedback (1)
 - Peer & expert feedback (5)
- Recognize Educator Learning (7)
- Use Rubrics
 - Specific to artifact or assessment ((11)
 - Generic rubrics (2)
- Combine Hard/Soft and Collaborative/Individual (11)

Principles for *Motivating* Learning (Ordered Coherently)

Provide privileges. Learners receive privileges upon earning badges.

Recognize identities. Badges are awarded to recognize learners' identities within the program.

Engage with communities. Badges are awarded to learners who engage with their community.

Display badges to the public. Badges are displayed to the public either automatically or by choice.

Give value outside of badges. Badges are recognized by outside agencies as academic credit, or for the skills that the badges themselves represent.

Set goals. Help learners set goals and visualize their accomplishment.

Support collaboration. Some badges are awarded for group accomplishments or to individuals for having a role in group collaboration.

Foster Competition. Scarcity and point systems create competition.

Evolve new requirements for badges. Requirements for earning the same badge change.

Recognize different outcomes. Badges recognize different skill sets.

Principles for *Studying* Learning (Proposed Tentatively)

Using Conventional Evidence

Research OF badges: Summatively study impact of badges.

Research FOR badges: Formatively improve learning with badges.

Research FOR ecosystems: Systemically improve learning systems with badges.

Using Evidence from Badges

Research WITH & OF badges: Use evidence summatively to study impact of badges.

Research WITH & FOR badges: Use evidence formatively to improve learning.

Research WITH badges & FOR ecosystems: Use evidence systemically to improve ecosystem

Badge Research Design Examples

- Research OF badges
 - Katie Davis's PASA study
 - Jan Plass' study of gameplay with and without badges
 - Sam Abramovich's study of robotics
- Research FOR badges
 - James Diamond's WBA study
- Research FOR Ecosystems
 - Barry Joseph's Global Kids Summer Badge Pilot
- Research WITH & OF badges
 - Mapping NOAA to CCSS @ GoGoLabs by Lisa Dawley
- Research WITH & FOR badges
 - Mapping learning trajectories in Global Kids Summer Badge Pilot
- Research WITH & FOR ecosystems
 - Mapping pathways for different programs through DYN's trajectories in CSOL

The image shows a screenshot of a blog post on the HASTAC website. The header includes navigation links: Home, About, Members, Organizations, Subscribe, Help. The main navigation bar lists: GROUPS, TOPICS, SCHOLARS, BLOGS, OPPORTUNITIES, NEWS. Below the navigation is a banner for 'DIGITAL MEDIA+ LEARNING competition 4' with the subtitle 'BADGES FOR LIFELONG LEARNING'. The banner features logos for HASTAC, MacArthur Foundation, mozilla, and BILL & MELINDA GATES foundation. The article title is 'Research Design Principles for Studying Learning with Digital Badges'. The author is Daniel Hickey, posted on 7/7/2013 at 11:48am. The article includes a summary, tags, and a related content section.

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GROUPS | TOPICS | SCHOLARS | BLOGS | OPPORTUNITIES | NEWS

DIGITAL MEDIA+ LEARNING competition 4 | BADGES FOR LIFELONG LEARNING

HASTAC | MacArthur Foundation | mozilla | BILL & MELINDA GATES foundation

Home > Competitions > Digital Media & Learning Competition 4 > Blog posts

Research Design Principles for Studying Learning with Digital Badges

View | Comments

Author: Daniel Hickey
Posted: 7/7/2013 - 11:48am

Topics: Connected Learning, K-12 Learning, Research & Methodologies

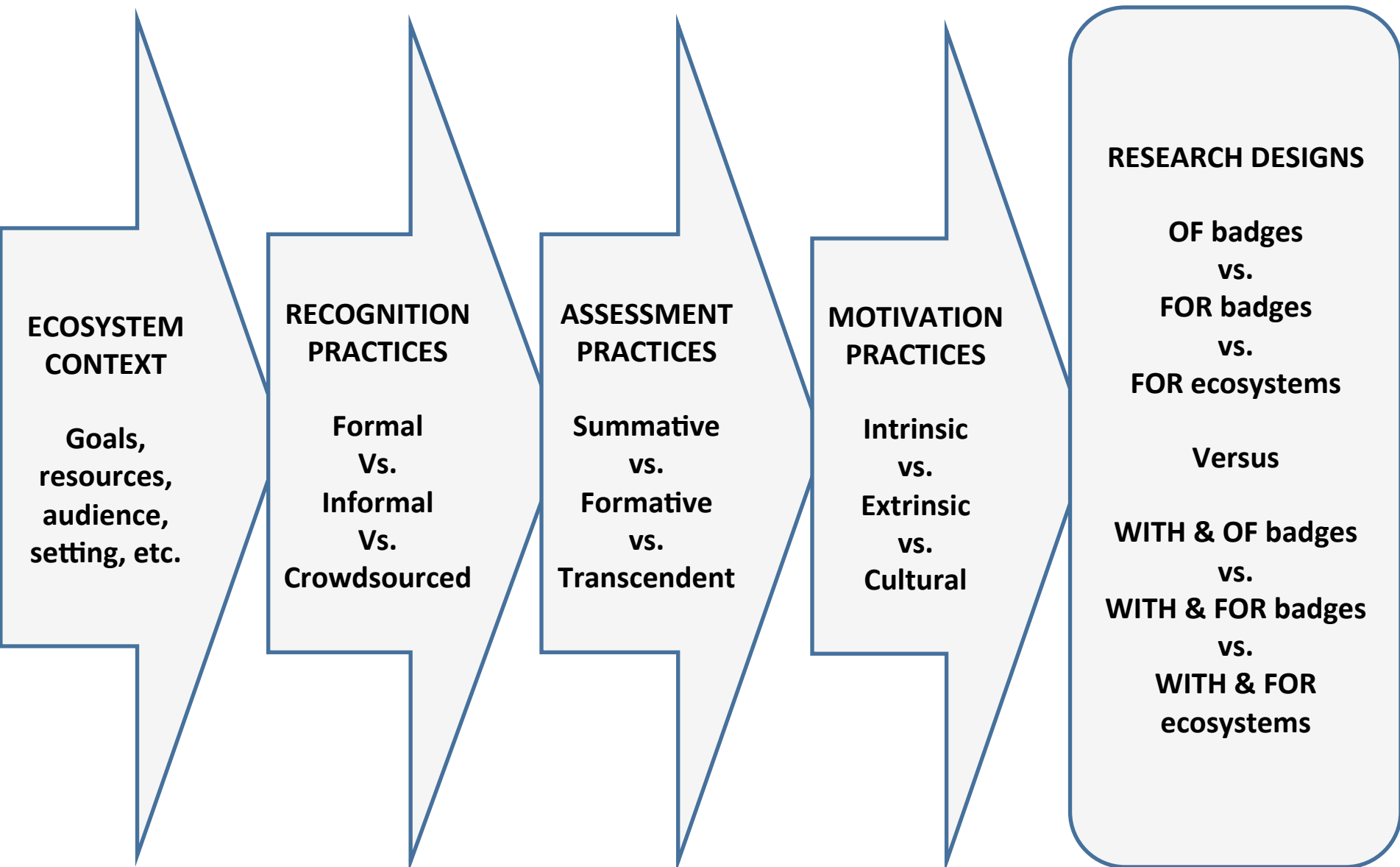
Tags: academic research, badges, design based research, digital badges, DMLbadges more...

In: Digital Media & Learning Competition 4, Badges for Lifelong Learning

Related Content

- Design Principles for Motivating Learning with Digital Badges
- Design Principles for Assessing

Badge Design & Research Challenges



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Digital Badges

MacArthur Foundation UCHR Duke mozila BILL & MELINDA GATES Foundation dml

What is a digital badge?

A digital badge is a validated indicator of accomplishment, skill, quality, or interest that can be earned in many learning environments. Open badging makes it easy for anyone to issue, earn, and display badges across the web—through a shared infrastructure that's free and open to all.

The world is changing fast, and today more than ever, traditional modes of assessment fail to capture the learning that happens everywhere and at every age. Digital badges are a powerful new tool for identifying and validating the rich array of people's skills, knowledge, accomplishments, and competencies. Digital badges inspire new pathways to learning and connect learners to opportunities, resources, and one another.

Badges for Lifelong Learning: An Open Conversation

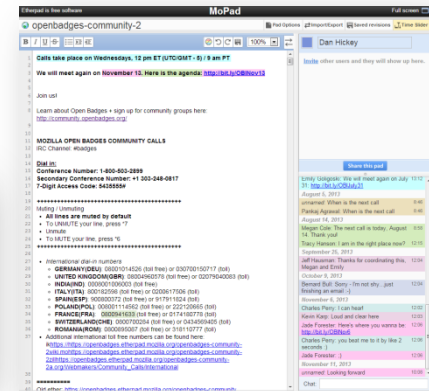
What is a Badge?



Learn

Curious about recognition of skills & interests? You're in the right place. Welcome.

- Learn more about Open Badges
- Share the badges one sheet
- Join a weekly community call
- Join the #OpenBadges chat



Assessment Principles

The Design Principles Documentation Project followed the DML Badges for Lifelong Learning awarded as they proposed and implemented their badging systems. The DPD team categorized badging projects/practices in terms of how they recognized, assessed, motivated, and studied learning.

The Seed Phase presents the assessment principles we found and links to the more specific projects that enacted those principles. The Sprout Phase presents external resources linked to the principles. The Bloom Phase presents the big ideas we learned about assessment and badges.

FOLLOW SHARE

Comments (0) SHOW COMMENTS

Updates Phases Workspace

SEED SPROUT BLOOM

Team (4)

Groups (1)
Badge Design Principles Project

Organizations (5)
DML HASTAC

Inspired By (2)
Badges for Learning at S2R (Supporter To Reporter)

Supporter To Reporter

Supporter to Reporter (S2R) provides learning opportunities for young people to take on the role of sports journalists, media producers, and mentors. S2R Medals will recognize and reward the skills and achievements gained by young reporters who learn and demonstrate a rich array of competencies acquired through their participation in the program.

This Example tracks how Supporters to Reporter integrated digital badges consistent with

Examples GROUPS PEOPLE BLOG

Tags: learning by teaching, digital media literacy, childhood learning, youth learning, smt badges, badge design case study

Team (7)

Groups (1)
Badge Design Principles Project

Inspiration For (5)
Assessment Principles

2. Align badges to standards

NOAA Sciences	Oceans & Coasts	Climate	Weather & Atmosphere	Marine Life	Freshwater
HS-LS-SP1	Structure, Function, and Information Processing	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-LS-ME02	Structure and Function of Organisms and Ecosystems	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-LS-IRE	Interdependent Relationships in Ecosystems	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-LS-NSE	Natural Selection and Evolution	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-LS-AT7	Influences and Variation of Traits	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-ESS-SS	Systems Systems	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-ESS-HE	History of Earth	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-ESS-ES	Earth's Systems	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-ESS-CC	Climate Change	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-ESS-HS	Human Sustainability	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-PS-SPM	Structure and Properties of Matter	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-PS-CR	Chemical Reactions	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-PS-E	Energy	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-PS-FM	Forces and Motion	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-PS-FE	Forces and Energy	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-PS-IF	Interactions of Forces	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-PS-W	Waves	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-PS-ER	Electromagnetic Radiation	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-PS-NP	Nuclear Processes	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-ETS-DE	Engineering Design	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science
HS-ETS-ETSS	Linking Engineering, Technology, Science, and Society	Climate System Science	Weather and Climate	Marine and Estuarine Science	Freshwater Science

The Transcendent Potential of Badges

By Dan Hickey

In previous posts at [HASTAC](#) and [Remediating Assessment](#) I argued that we need to look beyond the intended *purposes* of digital badges and consider the actual *functions* of badges. This builds on what Jim Greeno has convinced me what happens when [situative views of knowing and learning are applied to assessment](#). A later [post](#) elaborated on the summative, formative, and transformative functions of digital badges. That later post also promised a subsequent post on what we might call *transcendent* functions. I had written some about it in the original version but it was too long and I really could not wrap my head around it at the time. The upshot was something like this:

Digital badges promise to allow some and force others to transcend existing paradigms of recognizing, assessing, motivating, and studying learning.

Beyond this prediction I could not really add very much beyond referencing [Cathy Davidson's](#) suggestion that the 2012 competition might be the "tipping point" for the DML community.

But in the last couple of week, [Cathy Davidson](#), [Bill Penuel](#), [Michael Olneck](#) and others have initiated a really great discussion of this issue on one of our project blog posts at [HASTAC](#) on [studying learning with digital badges](#). These exchanges convinced me to return the notion of transcendent functions in light of the work over the subsequent year. [Cathy's](#) closing question on her initial comment really helped move my thinking forward:

Is it possible that the chief importance of badges will be to push wholesale reform of existing credentialing systems? Or is the present system too much rooted in an antiquated view of disciplines, competencies, expertise, authority, credentialing, ability/disability, hierarchy and data to be as useful as badging potentially is for new ways of defining the talents needed in the world we live in now?

- If badges transform credentialing...
 - Will recognition of learning be crowdsourced?
- If badges transform assessment...
 - Will credibility transcend validity?
- If badges transcend intrinsic vs. extrinsic motivation...
 - Will cultural models of motivation (finally) take hold?
- If badges transform research methods...
 - Will DBR transcend RCTs?

Credibility & Validity

- Mozilla's Carla Casilli suggested that that *credibility* might trump *validity*
 - But credibility is an “unsanctioned” aspect of validity
- Carla suggested B. J. Fogg's credibility taxonomy
 - **Presumed** credibility arises from “general assumptions in the mind of the perceiver”
 - **Surface** credibility arises from “simple inspection or initial firsthand experience”
 - **Reputed** credibility arises through “third party endorsements, reports, or referrals”
 - **Earned** credibility arises from “firsthand experience that extends over time”
- Alternative to existing notions of validity?
 - *Content, criteria, and construct*-related evidence in Popham et al.
 - *Content, substantive, structural, generalizability, external, and consequential* in Messick et al.

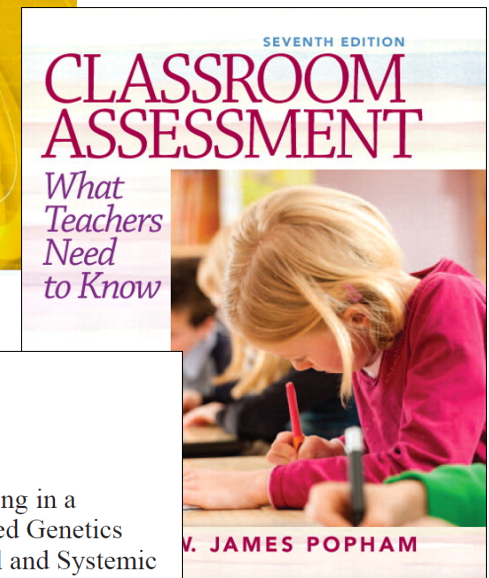
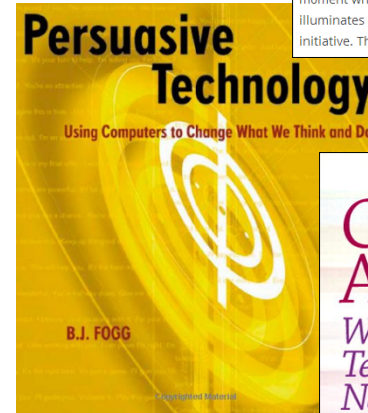
Persona

The hopeless dream of being—not seeming, but being.

HOME ABOUT CARLA CASILLI

Badge System Design: what we talk about when we talk about validity

Every day we conduct conversations with folks new to the idea of [Open Badges](#). Each of these conversations is steeped in inquisitiveness. Questions abound. Curiosity spills out. Thought waves feel palpable. Sometimes we're lucky enough to share the moment when the light goes on. That time feels magical, full of promise. That moment illuminates the room with the thousand-watt possibilities of the Open Badge initiative. The “what if” moment is something that should be experienced by everyone.



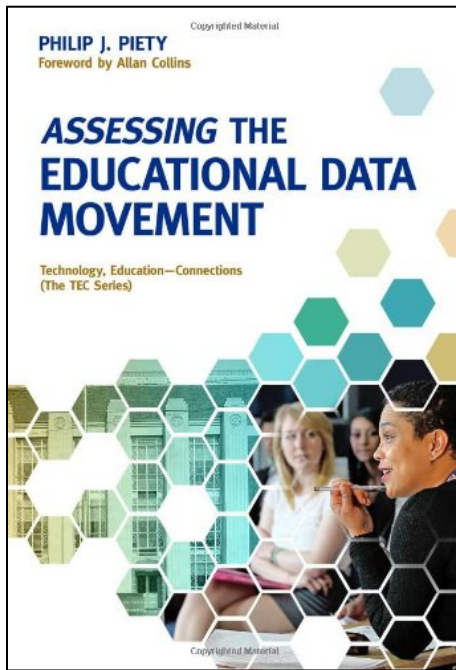
EDUCATIONAL ASSESSMENT, 6(3), 155-196
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Assessing Learning in a
Technology-Supported Genetics
Environment: Evidential and Systemic
Validity Issues

Daniel T. Hickey
Department of Educational Psychology
and Special Education
Georgia State University

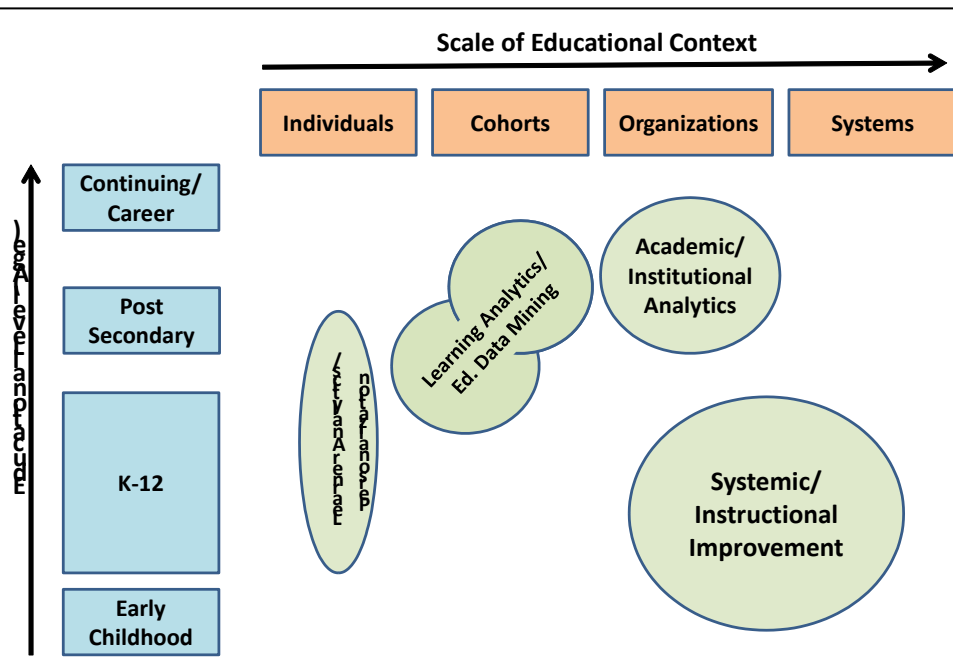
Edward W. Wolfe
Measurement and Quantitative Methods
Michigan State University

Ann C. H. Kindfield
Educational Designs Unlimited
Neshanic Station, NJ

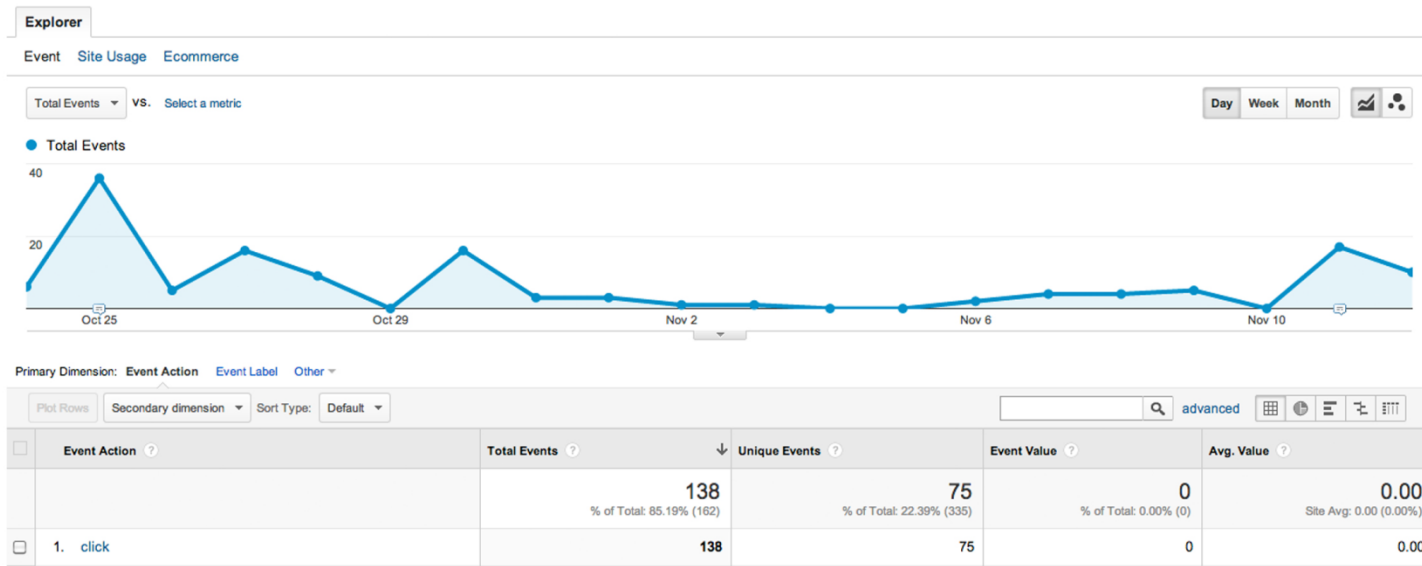


Educational Data Science Practices (Piety, Hickey, & Bishop, proposed 2014)

- *Learning Analytics*
 - Concerns events
- *Learner Analytics*
 - Concerns learners
- *Educational Data Mining*
 - Concerns groups of learners, courses
 - Associated with AI tutors
- *Institutional Research*
 - Concerns institutions
 - Mostly in higher education
- *Systemic Improvement*
 - Concerns educational systems
 - Associated with K-12 & NCLB



Participant Interactions with Digital Badge Functions



Primary Dimension: Event Label Other

Event Label	Total Events	Unique Events	Event Value	Avg. Value
	138 % of Total: 85.19% (162)	75 % of Total: 22.39% (335)	0 % of Total: 0.00% (0)	0.00 Site Avg: 0.00 (0.00%)
1. obi-issue	41			
2. facebook	29			
3. email	23			
4. view-evidence	18			
5. twitter	13			
6. settings	8			
7. gplus	6			

ASSESSMENT PRACTICES

- [Claim on Mozilla Badge Backpack](#)
- [Share via e-mail](#)
- [Share on Facebook](#)
- [Tweet on Twitter](#)
- [Share on Google+](#)
- [Badge Settings](#)

See your [Evidence page](#) for this badge.

Social Acquisition Landing Pages

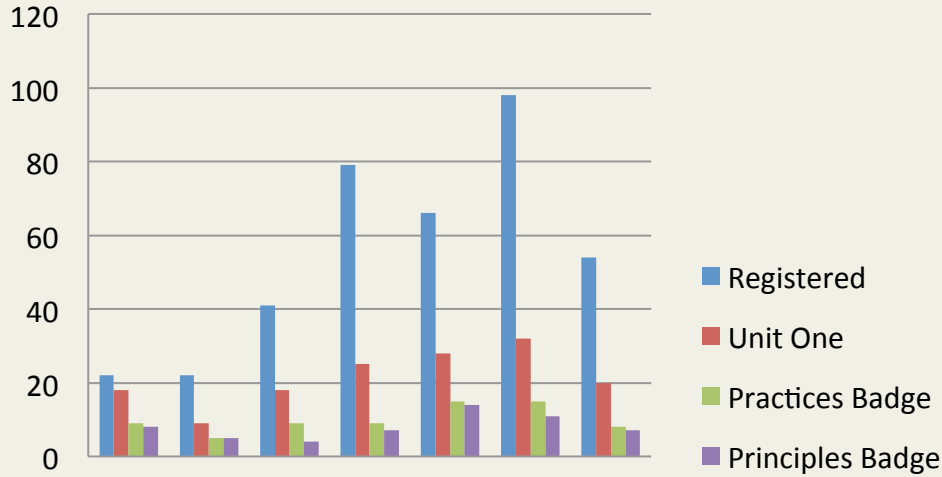


Primary Dimension: Shared URL

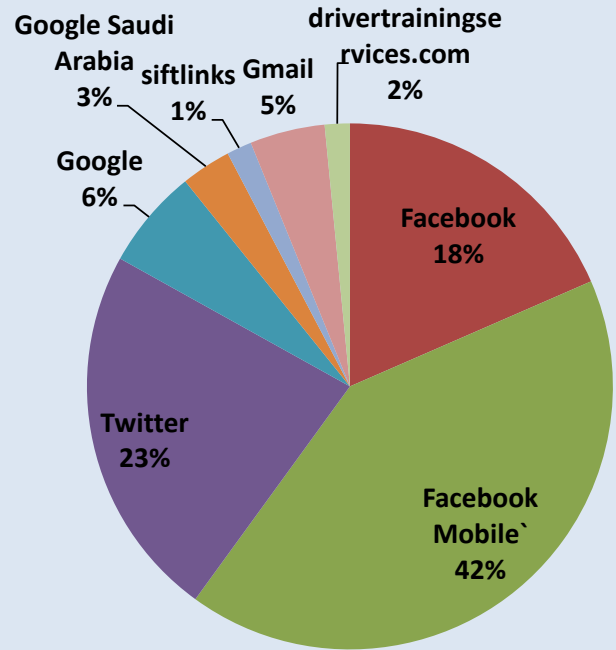
Advanced Filter ON edit

Shared URL	Visits	Pageviews	Avg. Visit Duration	Data Hub Activities	Pages / Visit
1. booc-iu.appspot.com/badges/evidence?id=5302423010672640	15	21	00:01:11	0	1.40
2. booc-iu.appspot.com/badges/evidence?id=5771872868237312	14	33	00:02:24	0	2.36
3. booc-iu.appspot.com/badges/evidence?id=6619395275096064	13	31	00:00:53	0	2.38
4. booc-iu.appspot.com/badges/evidence?id=5443160499027968	11	25	00:02:29	0	2.27
5. booc-iu.appspot.com/badges/evidence?id=5955958119333888	9	16	00:00:14	0	1.78
6. booc-iu.appspot.com/badges/evidence?id=6084567022698496	7	12	00:00:10	0	1.71
7. booc-iu.appspot.com/badges/evidence?id=6308729553158144	7	16	00:02:33	0	2.29
8. booc-iu.appspot.com/badges/evidence?id=4830058212491264	6	9	00:00:27	0	1.50
9. booc-iu.appspot.com/badges/evidence?id=5936463262777344	4	12	00:01:39	0	3.00
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11. booc-iu.appspot.com/badges/evidence?id=5803092045987840	3	3	00:00:00	0	1.00
12. booc-iu.appspot.com/badges/evidence?id=5843245292584960	3	4	00:00:04	0	1.33
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14. booc-iu.appspot.com/badges/evidence?id=5593654274031616	2	4	00:02:25	0	2.00
15. booc-iu.appspot.com/badges/evidence?id=5914464842940416	2	2	00:00:00	0	1.00
16. booc-iu.appspot.com/badges/evidence?id=5951478468444160	1	1	00:00:00	0	1.00
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BOOC Attrition by Networking Group

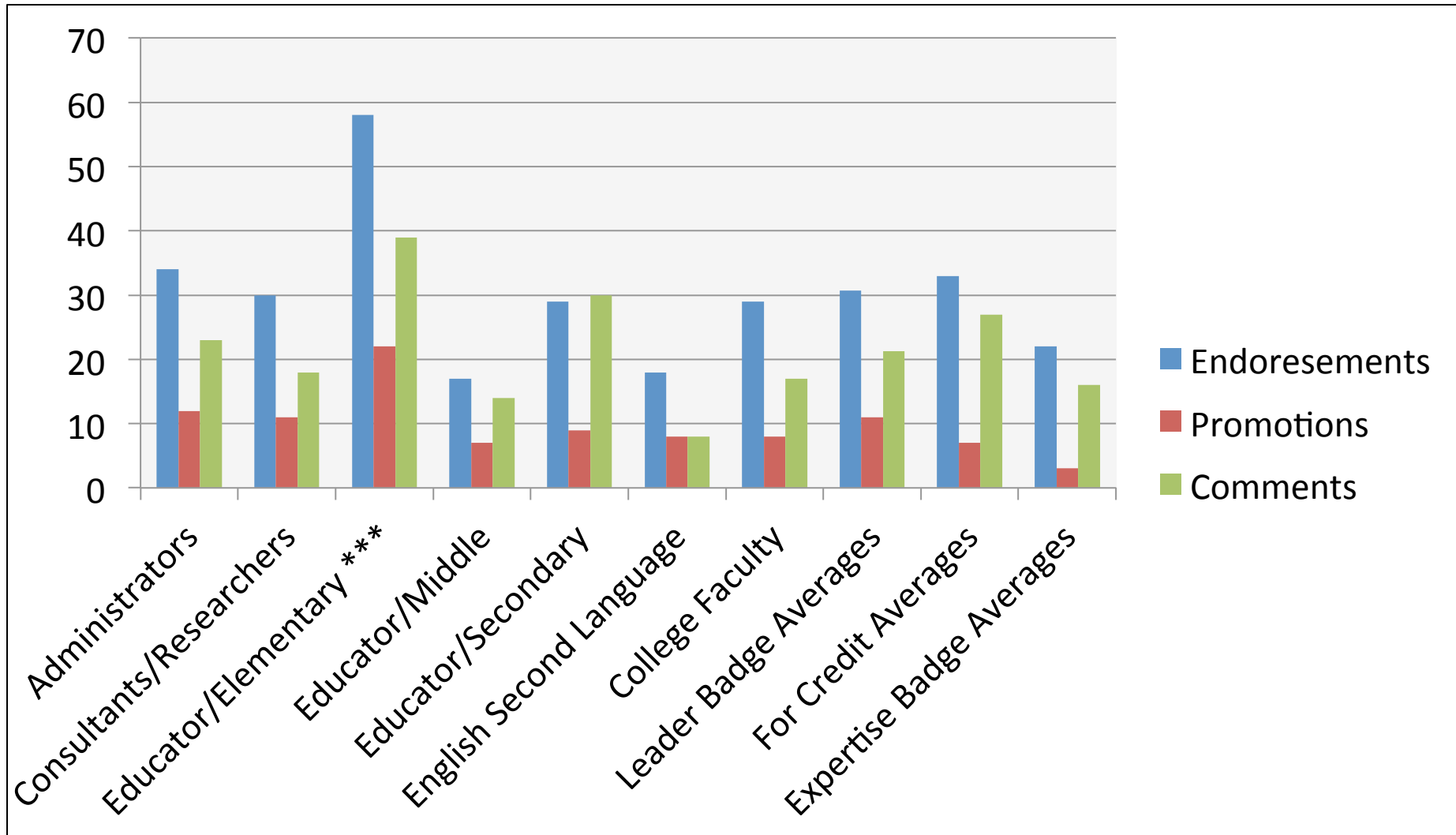


Elementary Educators
 Middle Educators
 Secondary Educators
 English Second Language
 College Faculty
 Administrators
 Consultants/Researchers



Source of External Visits to Practices Evidence Pages

Relative Participation of Awardees, Enrollees, and Others



CSOL: An Ecosystem of Informal Learning

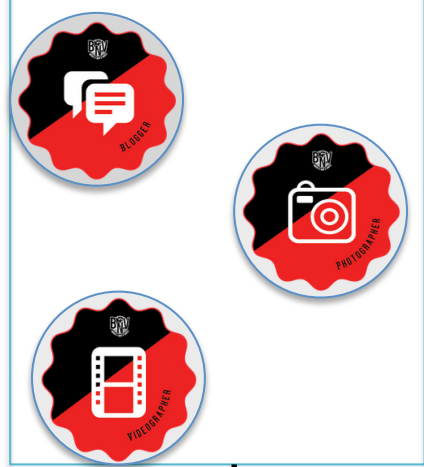
CAF



DYN – STEAM Studio




DYN – Brave New Voices



MIT




DYN



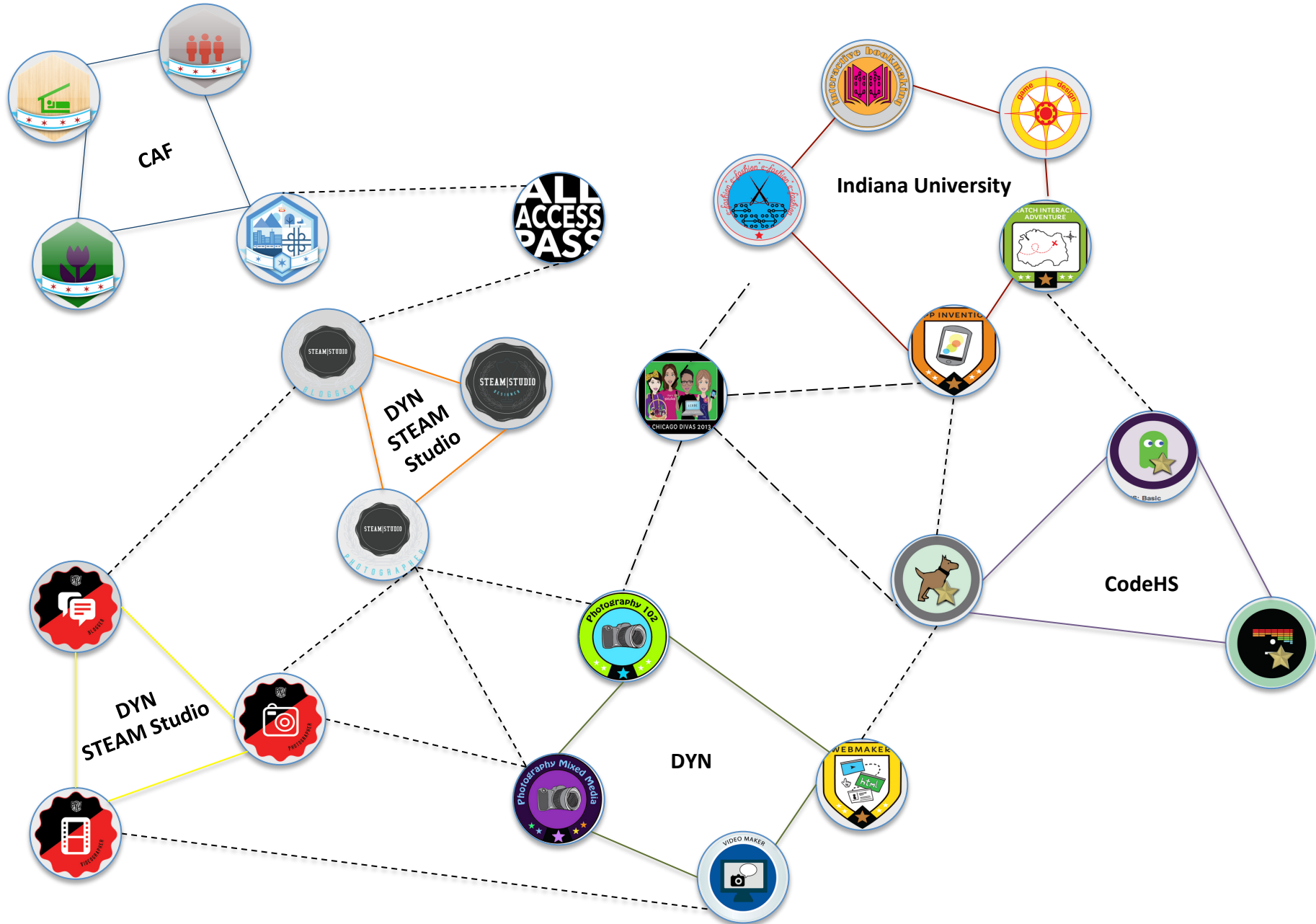
CodeHS



Indiana University



CSOL: An Ecosystem of Informal Learning



Scaling Up Participation

(Hickey, Kelly, & Shen, proposed 2014)

COURSE FEATURE	SMALL & INTUITIVE Closed Course with <i>Sakai and Sites</i>	BIG & SYSTEMATIC Big Open Course with <i>Course Builder</i>	MASSIVE & AUTOMATIC Massive Open Course with <i>Course Builder</i>
Define personalized context	Constructed in first assignment	Selected & constructed in registration & 1 st assignment	Selected and constructed, with a live dashboard
Create and assign networking groups	Assigned manually via wiki homepage	Used a spreadsheet	Groups created algorithmically.
Rank relative relevance	Manually in wikifolio	Drag descriptions and write rationale	Drag descriptions and write rationale
Provide Feedback	Manually by instructor	With spreadsheet , teaching assistant, and notifications	Algorithmically, with tags
Peer Endorsement	Unique comment string	Button	Button with tracking
Peer Promotion	Unique comment string	Button & warrant field	Button & warrant field with tracking
Testing	Timed , open ended and multiple choice	Multiple choice pool	Multiple choice computer adaptive
Awarding Badges	Manually via plugin	Automated	Automatic

Recognizing Learning



Context: Integrate badge system into existing curriculum (integrated build).

- **Gain external recognition** from employers.
- **Gain formal endorsement** of badge system from sports and media partners.
- **Badge hierarchy.**
- **Badges are a permanent record** of achievement.
- Skills learned are **relevant to careers.**
- Some badges will be **peer-awarded.**

Assessing Learning



- **Leveled assessments** for leveled badges.
- **E-portfolios** collect resources for assessment.
- **Badges are validated by experts, a computer scoring system, and peers.**
- **Indirect standards alignment.** Participating teachers integrate S2R into their own curriculum.
- **Rubrics** are used to assess artifacts and portfolios.



- **Role recognition/community engagement.**
Students will be motivated to fill the roles of sports journalists.
- **Provide privileges.** S2R opens reporting opportunities to the most dedicated students.
- **Hierarchical use of badges.** Medals echoing those in the sports world are prestigious markers of achievement.

Like most DML grantees, S2R did not intend to implement a formal program to study their badge system.

The need for data arose when talking to potential partners.

- Implementing 2-year research **OF** badges to see how students and employers interact with badges.
- S2R's platform allows research **WITH & FOR** badges, will lead to improvement of the badge system.

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- Wiki
- File Galleries
- Admin

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[Wiki Home](#)

Initiative Analyses

Contents

- 1 Gates Mastery Projects
- 2 Hive Projects
- 3 DML Projects
- 4 Endnotes

Gates Mastery Projects


Initiative Name	Educational Setting ⁱ	Accreditation ⁱⁱ	Badge issuer	Earners Audience ⁱⁱⁱ	Indicator/Standard Alignment ^{iv}	Consumer Audience
LevelUp	Classroom	Contextually Accredited		K-12	Common Core State Standards	
Pathways to Global Competence: A Badge System for Students	Uncategorized	Non-accredited		K-12	Common Core State Standards	
Youth Digital Filmmaker Badge System	Formal After-school Program	Contextually Accredited	On-site educators	9th and 10th grade students	Common Core State Standards-College Readiness Standards	Career and Secondary ELA teachers
Who Built America?: Badges for Teaching Disciplinary Literacy in History	Teacher Development	Formal			Career	Common Core State Standards

Hive Projects

Initiative Name	Educational Setting ⁱ	Accreditation ⁱⁱ	Badge issuer	Earners Audience ⁱⁱⁱ	Indicator/Standard Alignment ^{iv}	Consumer Audience
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Principle: Use Performance Assessments in Relevant Contexts

Several projects are using performance assessment in their badging systems. Unlike the other principles that have emerged, performance assessment has no subcategories because performance assessment in and of itself is a specific kind of practice. The following resources offer guidelines for implementing performance assessment without compromising learning or the assessment outcomes by "teaching to the test."

Pellegrino, J. W., Chudowsky, N., & Glaser, R. (Eds.). (2001). *Knowing What Students Know: The Science and Design of Educational Assessment*. National Academies Press. http://www.nap.edu/catalog.php?record_id=10019 

[Knowing What Students Know](#) 

- Many of the projects are using performance assessments. This book is one of the most comprehensive reports on assessment and Chapter Three provides much of the justification for performance assessment approaches. The authors assert that "drawing out and working with existing understandings is important for learners of all ages" (p. 84), bringing to light the importance of employing prior knowledge in context to highlight what students know and understand. They go on to state that "social contexts for learning make the thinking of the learner apparent to teachers and other students so it can be examined, questioned, and built upon as part of constructive learning" (p. 89). This point is important in performance assessment because performance assessments attempt to elicit responses that show understanding in relevant but removed contexts from those in which the original content was learned.

Mehrens, W. A., Popham, W. J., & Ryan, J. M. (1998). How to prepare students for performance assessments. *Educational Measurement: Issues and Practice*, 17(1), 18–22.

- Mehrens et al. provide six guidelines for using performance assessment, and suggest that instructors should be careful in how they prepare students for such assessments lest they compromise the assessment. Any project using performance assessment in their badging system should read the guidelines outlined in this short paper to ensure they are assessing what they mean to assess.

Popham, W. J. (2007). *Classroom Assessment: What Teachers Need to Know* (5th ed.). Allyn & Bacon.

- Popham's chapter on performance assessment is quite comprehensive and is a good resource for anyone using performance assessment. It lays out the merits and downsides of performance assessment, and gives very specific guidelines on how to carry it out. I've used this chapter several times as I've written about performance assessment and

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