



FEDERAL RESERVE  
BANK OF BOSTON™

## A New Vision for Workforce Preparation:

# Digital and Open Badges: The Future of Credentials

**Jonathan Finkelstein**

Credly • BadgeOS  
jonathan@credly.com • @credly • @JEFinkelstein

**This is not  
about badges.**



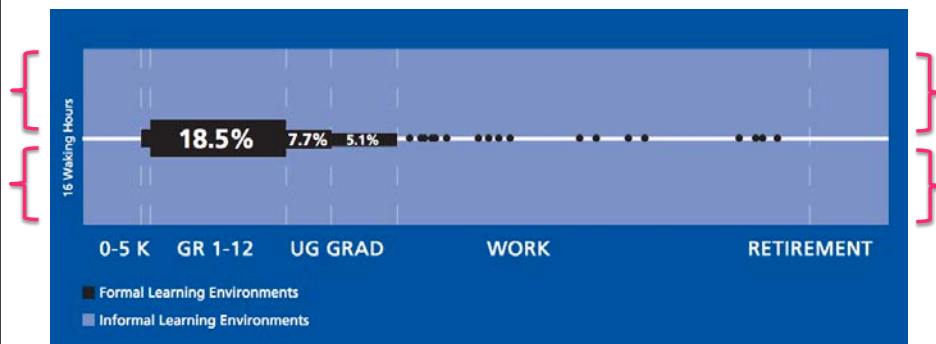
## What it IS about:

- Helping to make achievements – including the development of critical soft skills – more visible and more useful
- Empower people with a form of personal capital that can improve their lives

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Much of our learning happens informally or is out of the reach of traditional assessments.

*How do we give people credit?*



Banks, et al. "[Learning In and Out of School in Diverse Environments](#)", Seattle: NSF. The LIFE Center, University of Washington, Stanford University, and SRI International. 2007.

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Acknowledge or Commemorate	Endorse or Recognize	Honor or Award	Verify or Validate	Credential or Certify	Authorize or License
					
					
					
					
					

## Badges verify & tell the story of:

- Skills people demonstrate
- Choices they make
- Communities in which they engage

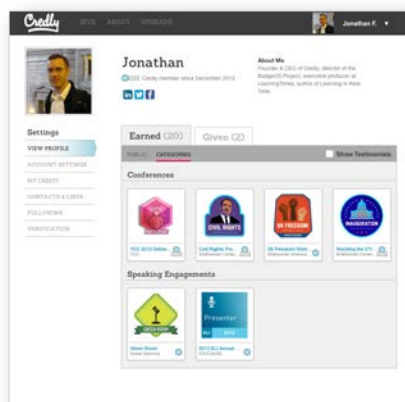


Badges also help **organizations** acknowledge and share what they value in the world.



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## Digital vs. embroidered badges



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## Digital Badges *vs. Embroidered Badges*

- Don't need to fit on a sash
- Can be seen whether *you* are physically present or not
- Pretty image + data
- Evidence travels with them
- Earned from lifelong interactions
- Multiple sources, side-by-side
- Can be awarded dynamically when criteria are met



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## Digital “Open Badges”

- Portable
- Owned by the recipient
- Machine-readable
- Validated by the issuer
- Verifiable by observers
- Standardized technical format



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**A quick word about the  
underlying technology of open  
badges ...**

**... to help us appreciate their  
potential.**



**1. A metadata  
standard**

**2. A “packaging”  
standard**

Badge image



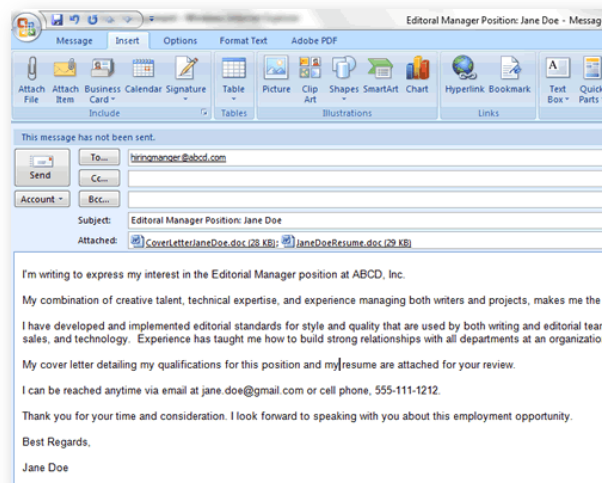
Badge name  
Description  
Criteria  
Issuer  
Evidence  
Date issued  
Standards  
Tags

<http://classhack.com/post/45364649211/open-badge-anatomy->  
updated by Kyle Bowen, Class Hack

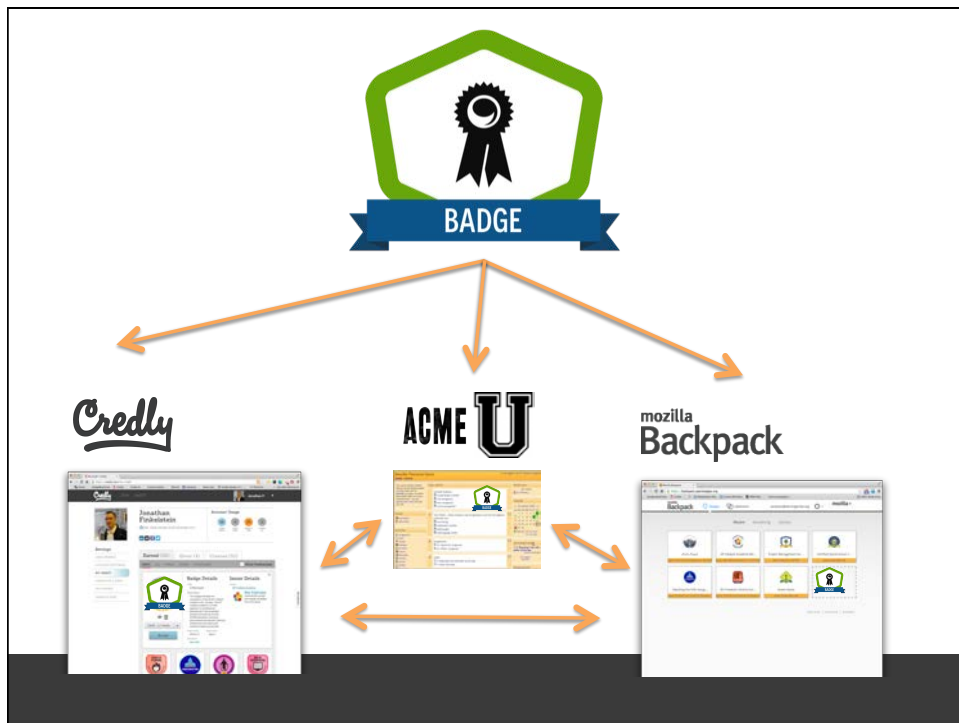
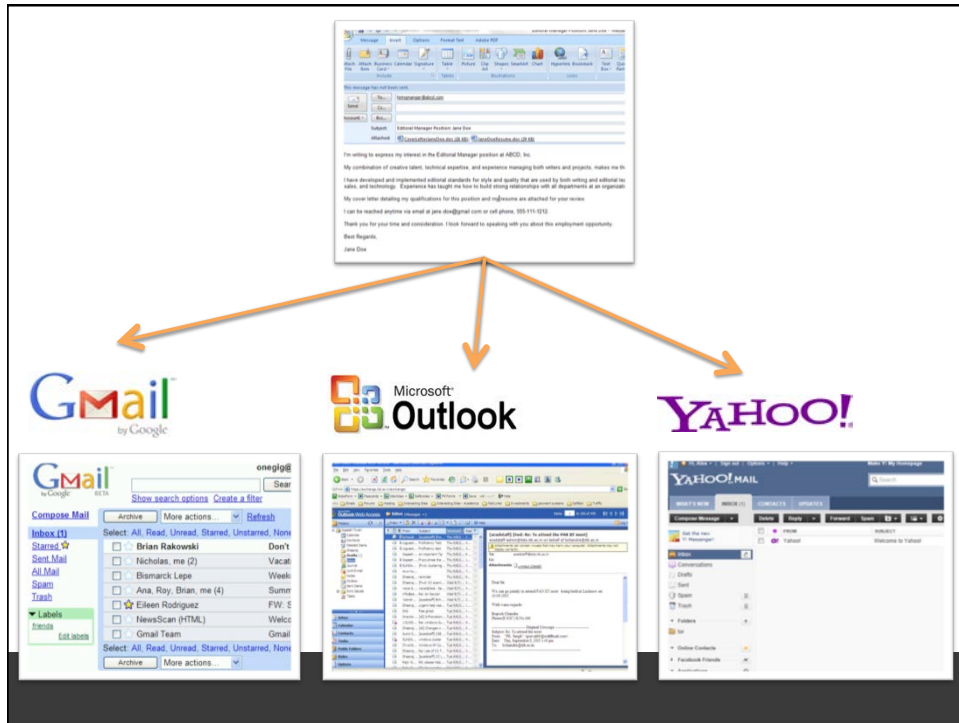
What other systems for sending and receiving digital things work like this?

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## Email



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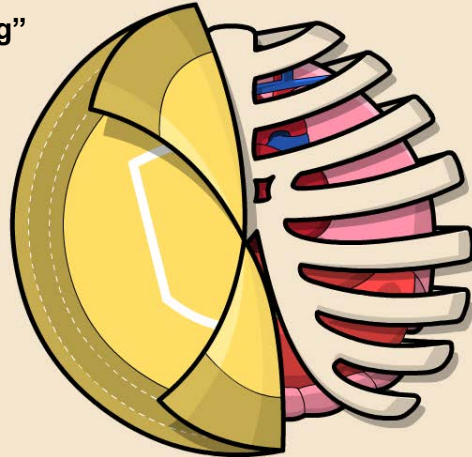




1. A metadata standard

2. A “packaging” standard

3. Verification standard



Badge name

Description

Criteria

Issuer

Evidence

Date issued

Standards

Tags

## OPEN BADGES ANATOMY

<http://classhack.com/post/45364649211/open-badge-anatomy->  
updated by Kyle Bowen, Class Hack

## “Assertion” Verifies Badge’s Validity



The badge issuer or a trusted party maintains the “assertion” in perpetuity, acting as proof that the data in the badge matches the issuer’s original data.



The earner’s badge is “baked” with the data about your achievement, including a link back to a “receipt” or “assertion” from the issuer or a trusted party.

*Credly*

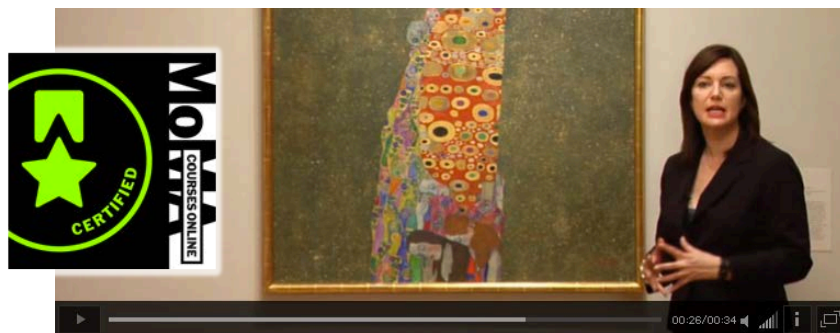
Instructors or peers witness evidence of discrete, marketable skills within a class.



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A learner participates in a course led by experts at a museum like MoMA.

*Where's the credit?*



**MoMA**  
The Museum of Modern Art

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## U.S. Secretary of State Introduces the “Diplomacy in Action” Digital Badge for Educators and Students

by Credly on February 12, 2014 in In the News, News

[f](#) [t](#) [in](#) [s](#) [+](#) Share/Bookmark



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A learner completes a MOOC or a student leadership program, or is recognized by peers.



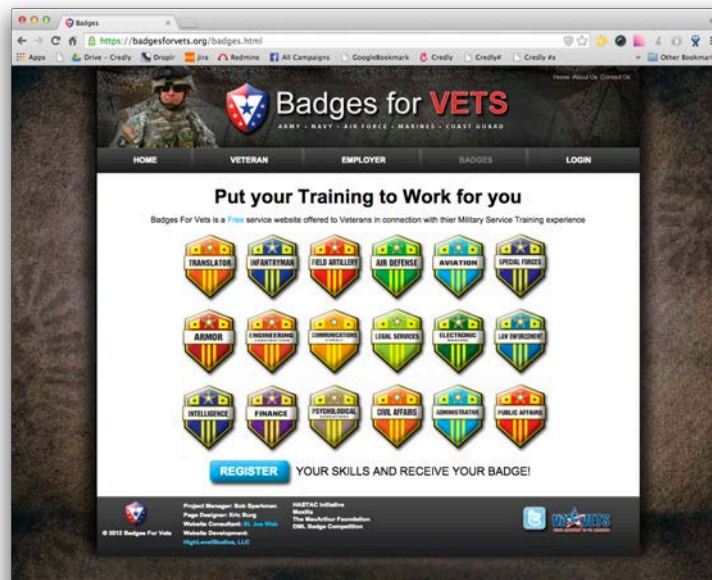
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A professional takes part in a workforce development program or other training.

*Where's the credit?*



A job-seeking veteran wants to present her or his military training as skills employers need.



## Motivation



- \* Badges should serve as a “**stamp of approval**” for behaviors and progress towards goals that are intrinsically motivating

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- Most learners are not motivated by the badge.
- They are motivated by what comes **BEFORE** or **AFTER** the badge.

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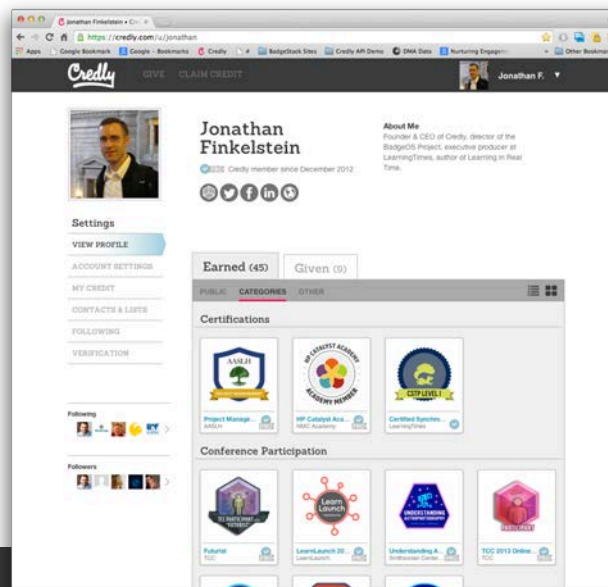


## Digital Credential Lifecycle Management



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## Earners of badges own their achievements.



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Each person decides what they want to share.

**Your School Name Here**  
Your School Address

Name: Your Name

ID# : Your Student ID  
DOB: Your Date of Birth

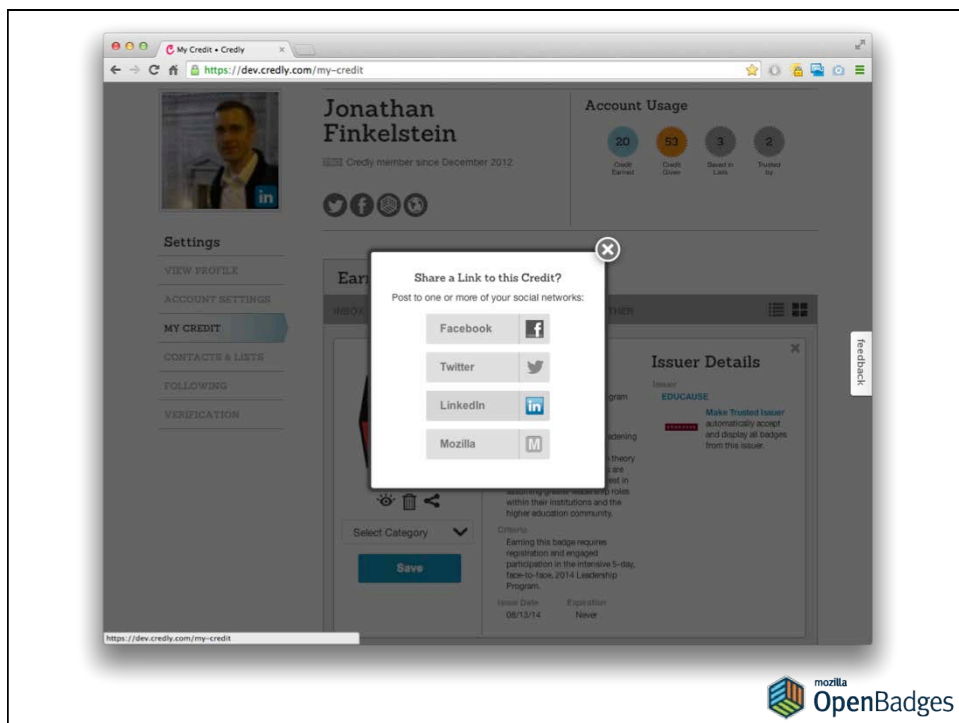
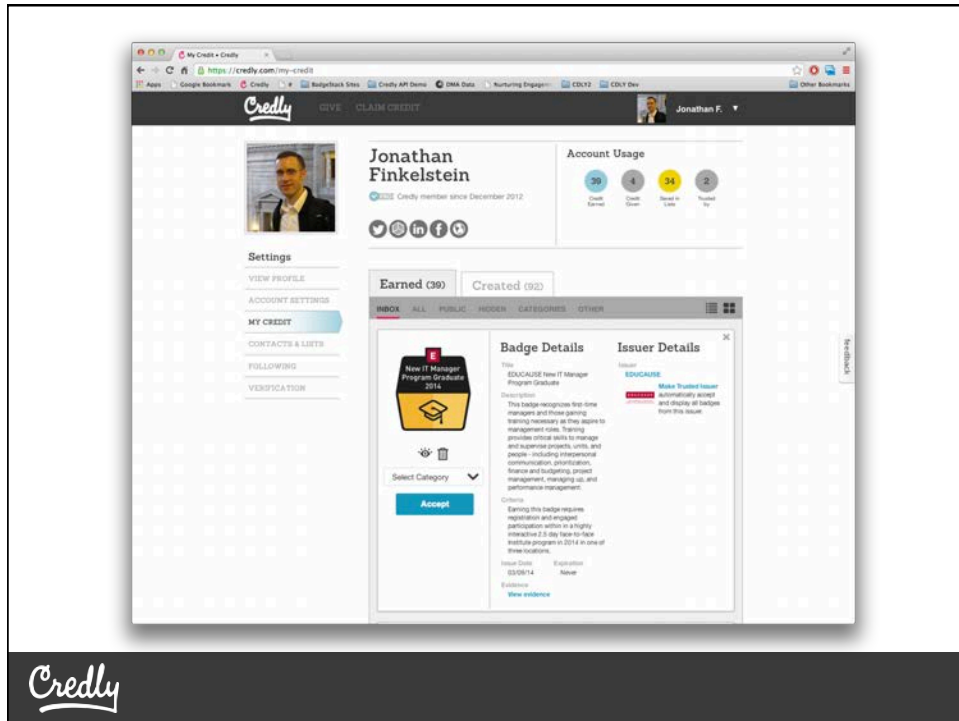
Dept.	Course No.	Title	Units Attempted	Units Earned	GRADE	GRADE POINTS
*** ACADEMIC TRANSCRIPT ***						
FALL	1968					
COM	101	Introduction to Speech Communication	3.0	3.0	A-	12.0
ENG	121	English Composition	3.0	3.0	A	12.0
FRN	101	Beginning French I	3.0	3.0	B	9.0
MTH	111	Analytical Geometry & Calculus I	3.0	3.0	B-	9.0
SEMESTER TOTALS			18.0	18.0	3.50	63.0
SPRING	1969					
ENG	122	Critical Writing and Reading	3.0	3.0	A	12.0
FRN	102	Beginning French II	3.0	3.0	B	9.0
PSY	101	Introduction to Psychology	3.0	3.0	A-	12.0
SEMESTER TOTALS			15.0	15.0	3.60	54.0
CUMULATIVE TOTALS			33.0	33.0	3.55	117.0
FALL	1969					
BIO	121	General Biology I	3.0	3.0	B	9.0
FIN	101	Personal Finance Decision	3.0	3.0	A	12.0
HIS	122	World History 1877 to Present	3.0	3.0	A	12.0
SEMESTER TOTALS			15.0	15.0	3.60	54.0
SPRING	1970					
ACC	201	Moniers Accounting I	3.0	3.0	A	12.0
BIO	127	General Biology II	3.0	3.0	A	12.0
ECO	202	Intro to Macroeconomics	3.0	3.0	A-	12.0

Think of each line on a résumé as **verified** by its source and **independently** sharable.

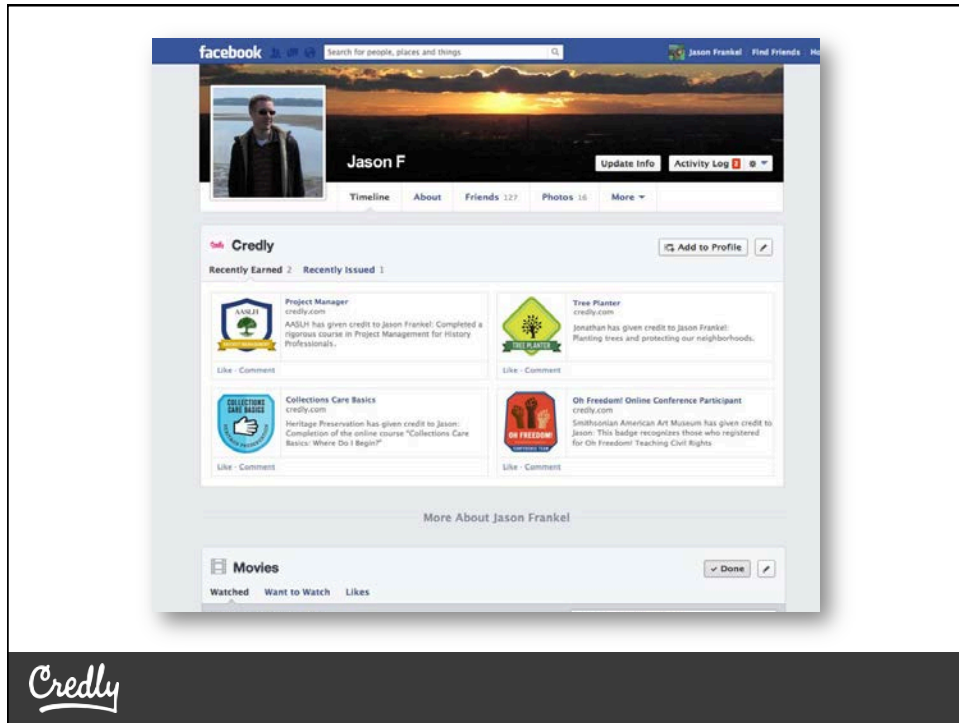
**John Doe**  
111 E. 11<sup>th</sup> St. • New York, NY 10011 • 212.111.1111 • [john.doe@gmail.com](mailto:john.doe@gmail.com)  
[www.johndoe.com/linkedinfo](http://www.johndoe.com/linkedinfo)

**ENERGETIC & DRIVEN SALES LEADER WITH A RECORD OF EXCEEDING QUOTAS AND CLOSING MAJOR STRATEGIC DEALS**

<b>Media, Inc.</b> Media is revolutionizing PPC with a pioneering cloud-computing optimization solution. Director of Sales & Business Development • Business manager in charge of revenue operations for Media in its start-up phase. • Sales leader responsible for successfully closing major deals resulting in \$4.7MM of daily revenue, an average of \$150,000 a month. • Greatly exceeded growth, recruiting premium to long tail publishers that generate traffic in excess of 100MM daily uniques. • Advise and consult with founder, CEO and clients on best practices for strengthening revenue, optimizing performance, inventory management, and forecasting. • Conceptualized, designed, and built an innovative sales management system from the ground up. Originated and established processes and materials for items including: - Lead generation, marketing collateral, account management, and all operations.	Sept. 2009 - Present
<b>Internet Co., New York, NY</b> Internet Co. is the largest independent Performance Marketing Network in the world. Business Development Manager • Top performing sales manager responsible for signing new publishers into the PPC network. • Took book of business from \$0 to over \$400,000 in monthly revenue generated within 6 months. • Consistently surpassed quota by over 500% through a combination of developing new strategic relationships and up-selling existing partners. • Prospected and cold-called heavily, generating an average of \$20,000 in daily revenue. • Developed verticalized call lists from scratch, focusing on Finance, Education and Auto publishers. • Responsible for enrolling mid tail to premium publishers including Austin, TX Local.com, Revere, etc. • Frequently recognized by managers as a top performer, winning multiple honors. Business Development Analyst • Developed what became known as "The John Doe Project", a unique site-specific advertiser matching project that optimized PPC performance.	Oct. 2007 - Sept. 2009
<b>Education:</b> School University, New Orleans, LA Bachelor of Science in Finance & Marketing, May 2007 Phi Sigma Pi Honor Fraternity, President, Sigma Alpha Mu Fraternity, Member; Urban Land Institute & Future Outback Program	
<b>Skills:</b> Advanced skills in MS Office: Word, Excel, Access, PowerPoint, Outlook Advanced knowledge of SEO, SEM, PPC, CPC, CPM, XML, Basic HTML Ad Trafficking, Optimization, Forecasting, Inventory Management	
<b>Interests:</b> Networking • Web 2.0 • Audi Gutter	

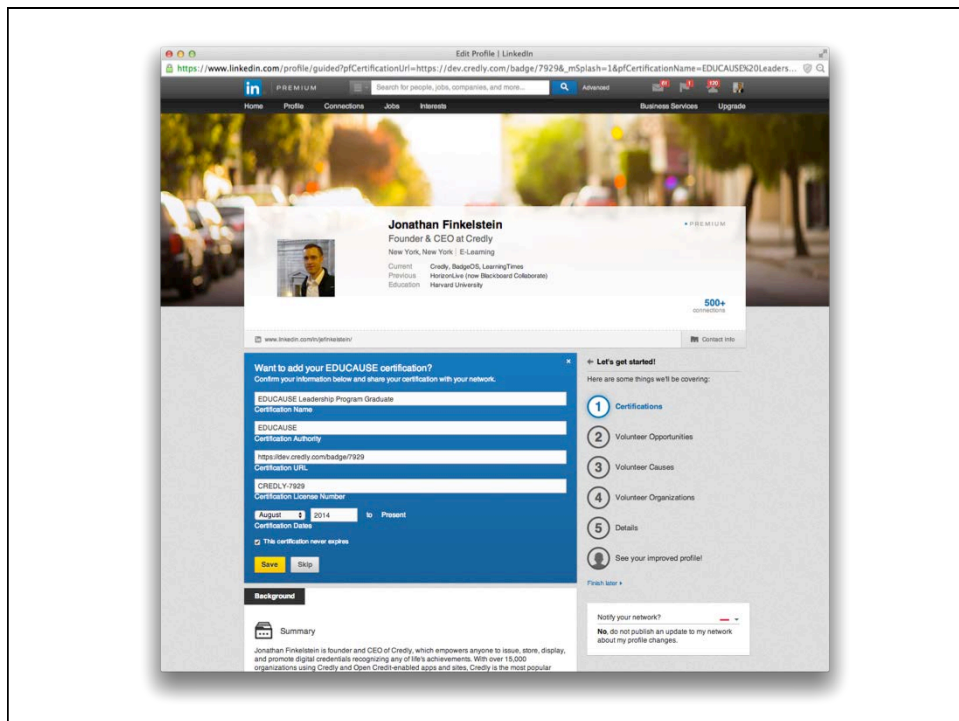
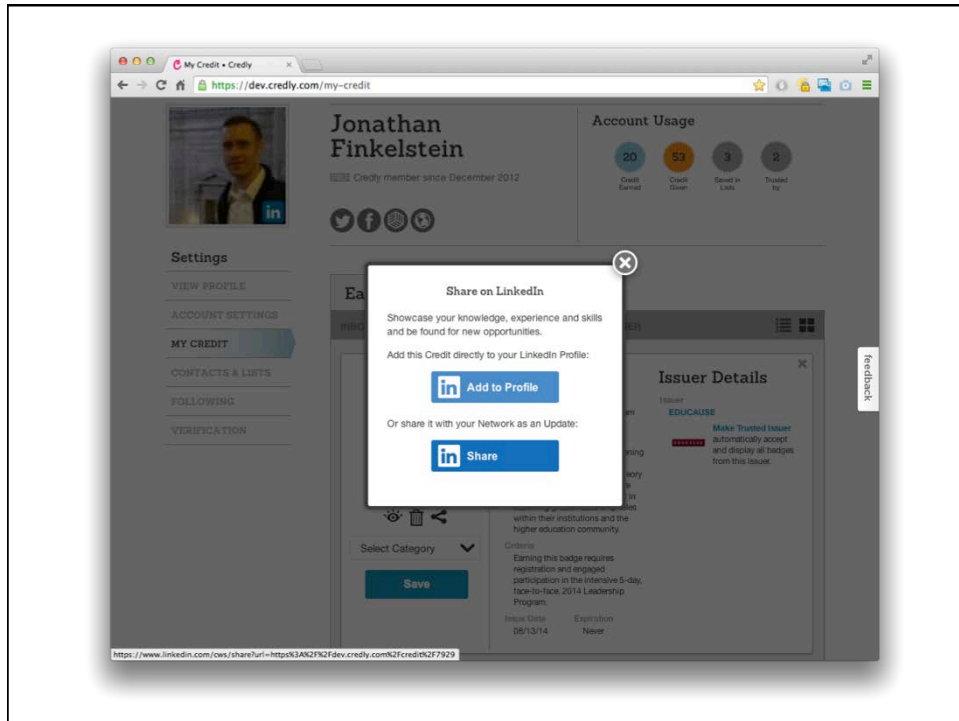


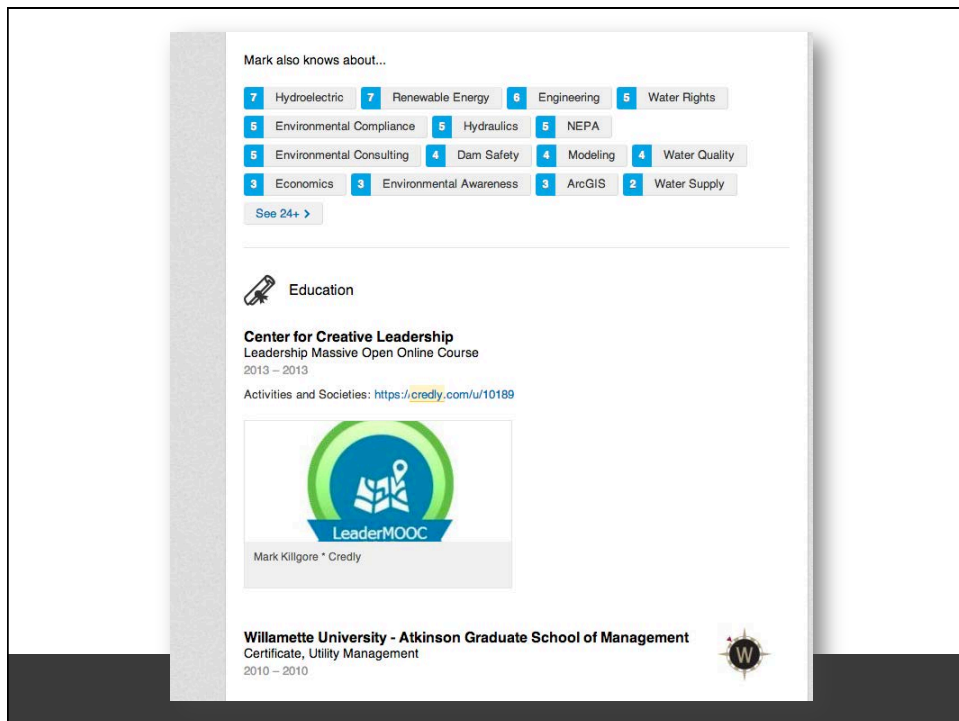
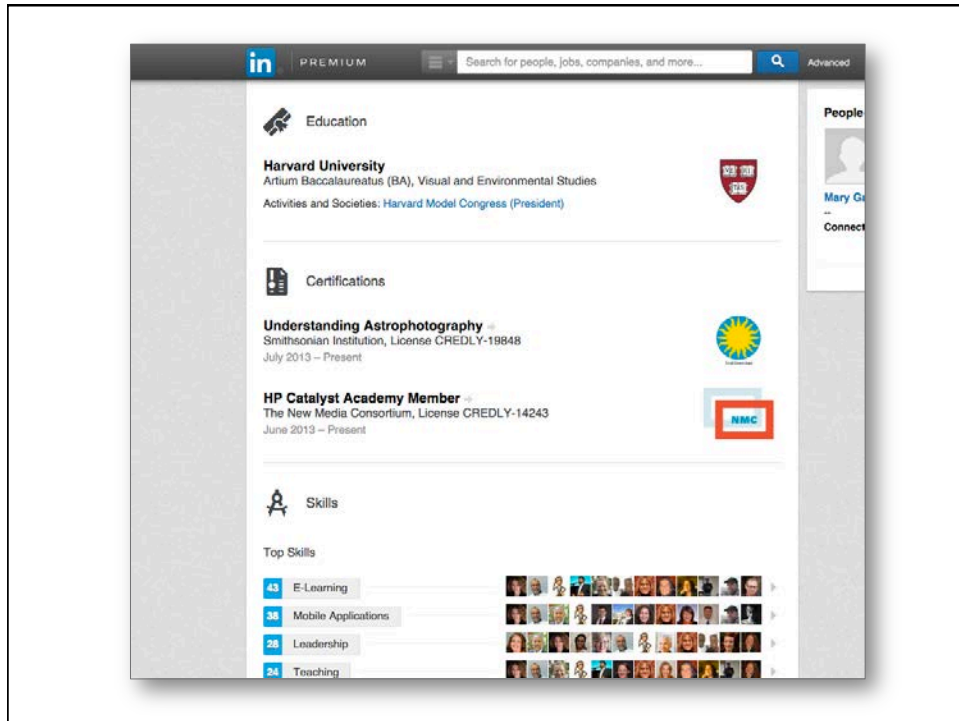


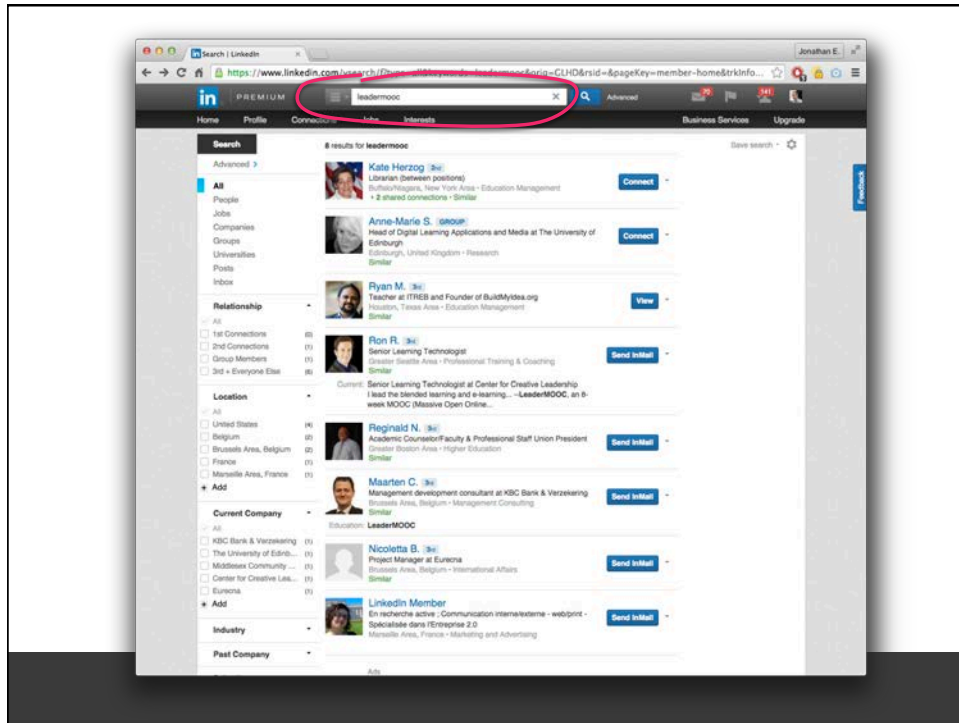


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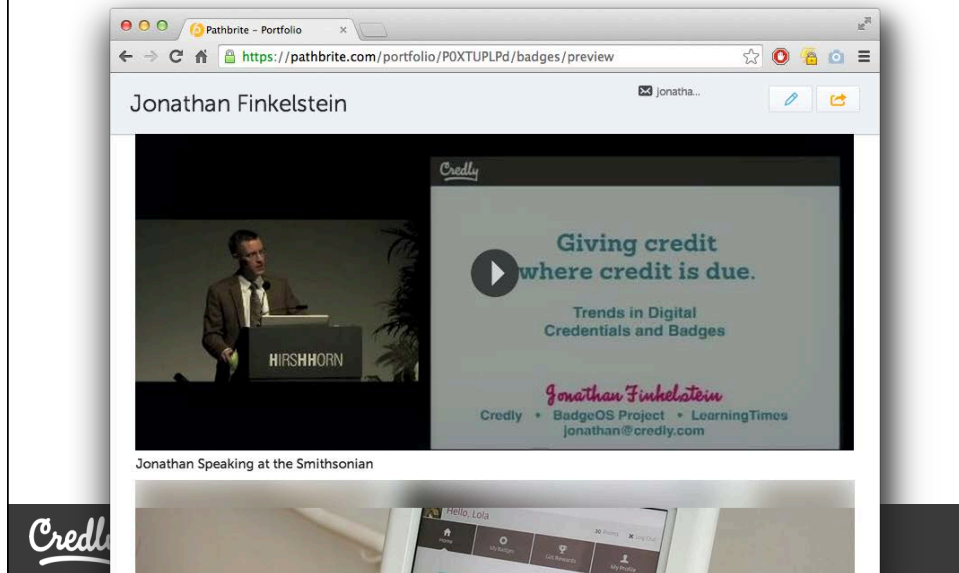




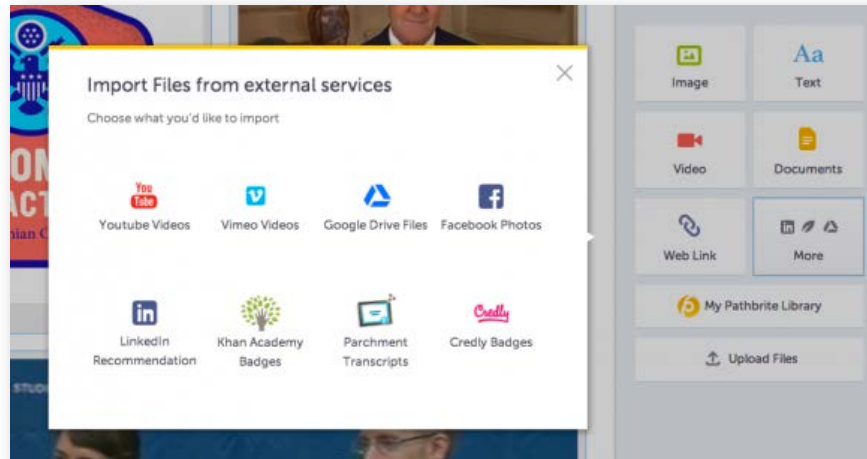




## Using verified achievements to tell our story and be discovered for new opportunities

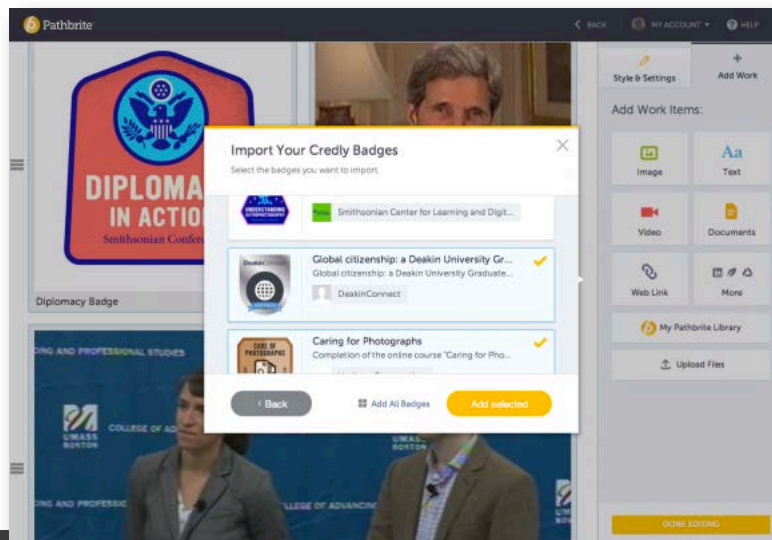


## Adding Verified Badges to Portfolios



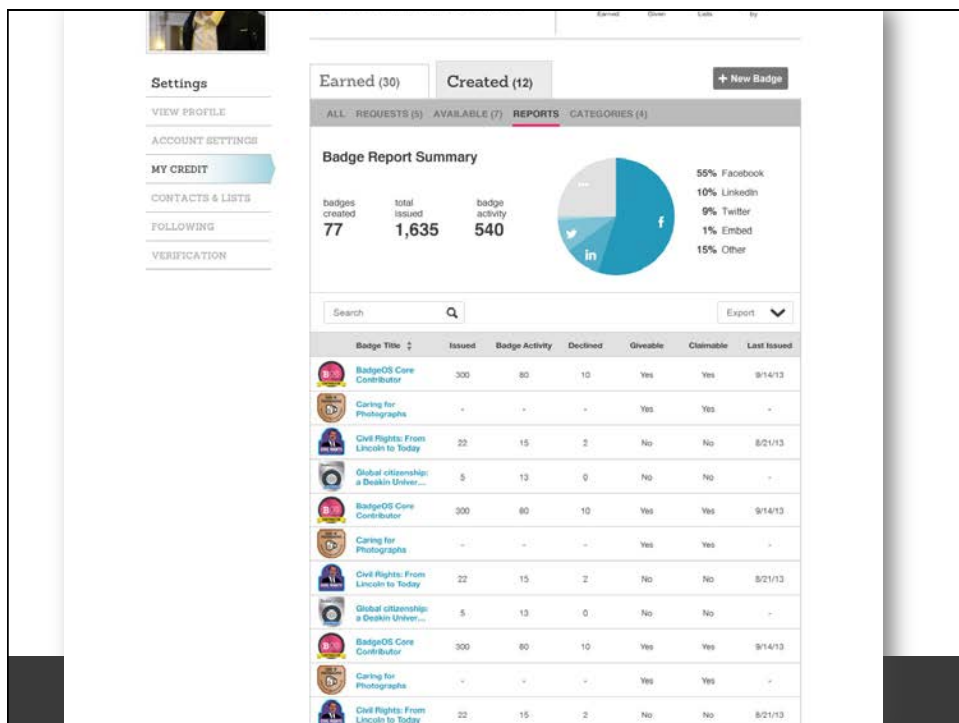
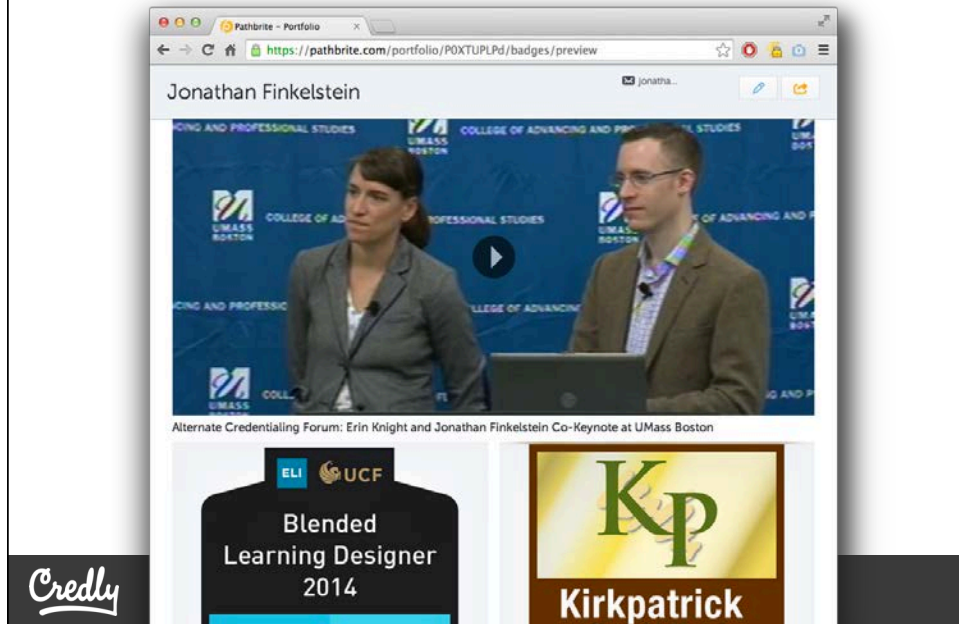
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## Adding Verified Badges to Portfolios




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## Adding Verified Badges to Portfolios







- Settings
- VIEW PROFILE
- ACCOUNT SETTINGS
- MY CREDIT
- CONTACTS & LISTS
- FOLLOWING
- VERIFICATION

Credly member since February 2012

Credit Earned Credit Given Saved in List Trusted by

Earned (30) Created (12) [+ New Badge](#)


ALL REQUESTS (5) AVAILABLE (7) **REPORTS** CATEGORIES (4)

**Badge Earners:**  
Care of Photographs











total issued  
**77**

total accepted  
**63**

badge activity  
**121**



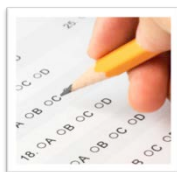
8/1/2013 to 8/31/2013 [Run Report](#)  [Export](#)

Recipient Name	Last Name	Credit Status	Claim Status	Shared	Date Issued	Expires	Total Credit from me	Total Credit Accepted
	Jane Smith	Issued	-	3	9/14/13	1/1/14	20	45
	Acme University	Issued	-	-	9/14/13	1/1/14	1	-
	Loren Agarwal	Declined	-	-	9/14/13	-	2	10
	Derek Kaufman	Claimed	Approved	1	9/14/13	-	80	80
	Yale University	Claimed	Approved	2	9/14/13	-	2	2
	Geroldine Green	Claimed	Declined	2	9/14/13	1/1/14	2	2
	Jane Smith	Issued	-	3	9/14/13	1/1/14	20	45
	Acme University	Issued	-	-	9/14/13	1/1/14	1	-
	Loren Agarwal	Declined	-	-	9/14/13	-	2	10
	Derek Kaufman	Claimed	Approved	1	9/14/13	-	80	80

## Nothing has to change, but ...



While we are re-inventing the form recognition takes ...



... why not think differently about **assessment**, too?

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## Embedded and Authentic Assessments



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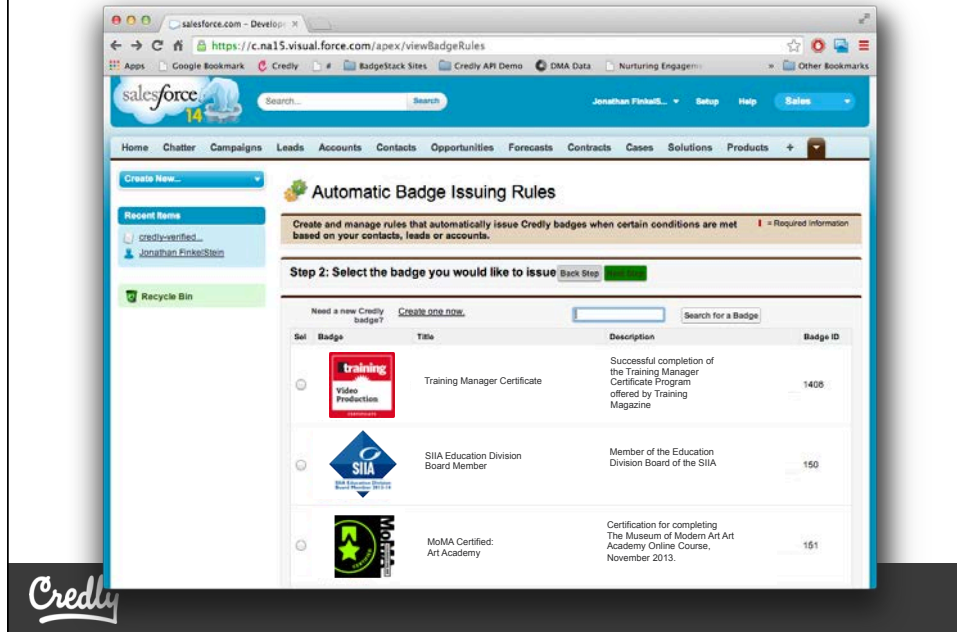
## Embedded and Authentic Assessments

- Participation / presence / check-in
- Membership / interest group
- Geolocation-based
- Role-based
- External data source(s) correlation
- Group Badges through Individual Work
- Organizational Badges
- Given / Discretionary
- Previously assessed / Retroactive badges
- Expert review
- Peer review
- Self review
- Self-Claimed with Evidence
- Evidence submission or confirmation
- Triggers
- Meta-triggers
- Test, quiz or assessment

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## Transforming Achievement Data into Credentials



## Earning Digital Badges based on real time, contextual activities



## Embedded Earning and Display

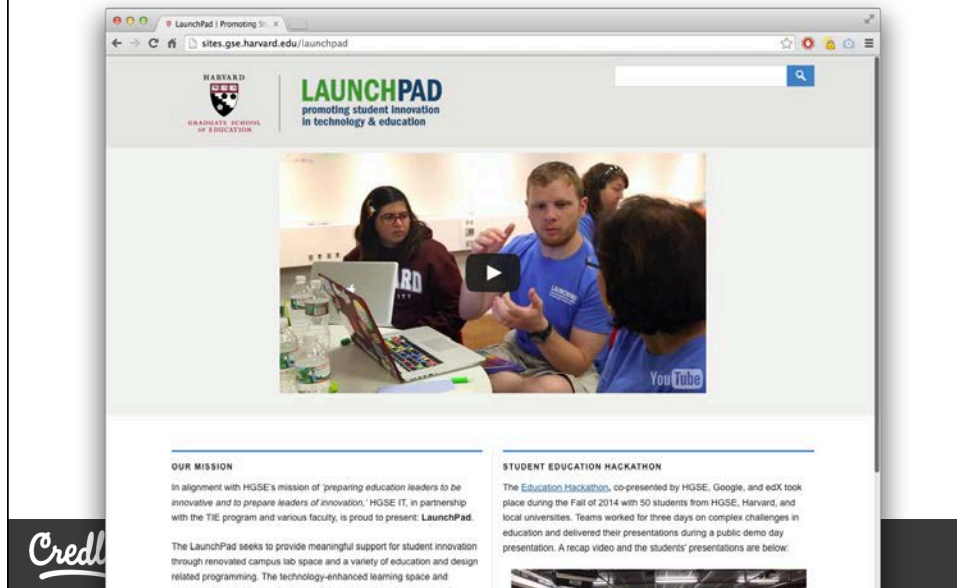



## Acknowledging Soft Skills: A Good Fit for Digital Badges & Credentials

- Contextual and embedded assessments
- Meta skills from across a curriculum or multiple settings
- Achievements that “stack” or add up to credentials
- Alternate pathways



## Students demonstrate entrepreneurial skills at a hackathon.






**LAUNCHPAD**  
promoting student innovation  
in technology & education

The HGSE 2014  
Education Hackathon  
Assessment Metrics

**Innovator Badge:**  
Engage fully with your team throughout the entire weekend to prototype, test and pitch solutions to today's educational challenges.



**Goal 1: Impact**  
Develop a solution with significant potential for impact in the education sector at the global, national, regional and/or local levels.

**Reach**


It extends across sectors, disciplines, or geographic boundaries.

**Potential Value**

It is likely to generate value in terms of social good, intellectual capital and/or financial gain.

**Feasibility**

It takes into account the political, social or economic ramifications of the relevant context.



**Goal 2: Innovation**  
Improve upon an existing solution in a unique way or address an as-yet unmet need in the education space with creativity and ingenuity.

**Creativity**


It is a particularly inventive approach to, or interpretation of, the selected problem.


**Fit**

It addresses a specific target audience and provides an appropriate

**Scalability**

It addresses issues of continued, scalable success beyond its initial impact





**College students learn valuable Info Lit skills outside any single curriculum.**



UNIVERSITY OF CENTRAL FLORIDA

*Credly*

**Developing Standards for Soft Skills & Badges that Address Workforce Needs**

**ACT**<sup>®</sup>

 **BRANDMAN**  
University  
CHAPMAN UNIVERSITY SYSTEM

**COOPER  
HEWITT**

 Smithsonian Design Museum



**PARSONS  
THE NEW  
SCHOOL  
FOR  
DESIGN**



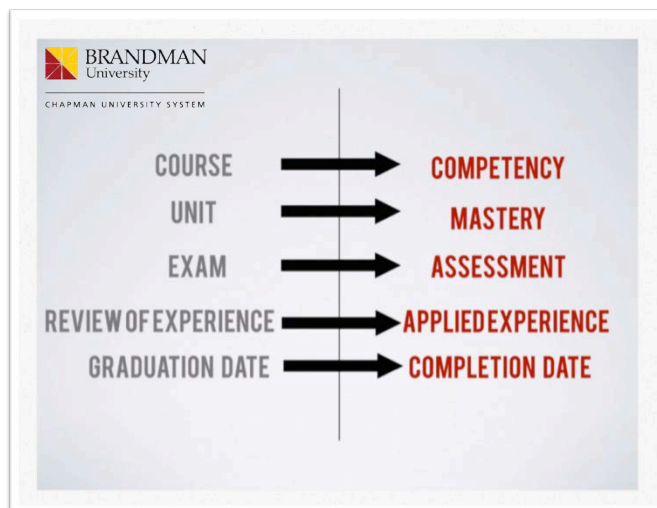
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## Competency-Based Education



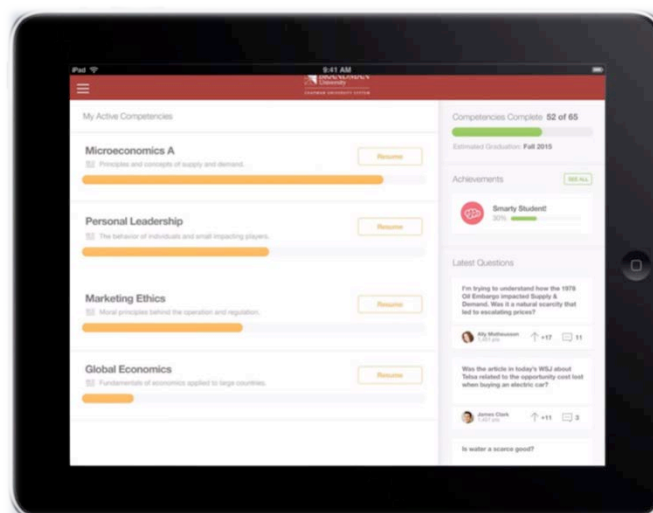
Source: <http://www.ecampusnews.com/top-news/students-digital-badges-632/>

## Competency-Based Education



Source: <https://www.brandman.edu/cbeducation>

B.A. BUSINESS ADMINISTRATION	
GENERAL ED.	13 Competencies
BUSINESS CORE	34
<b>SUB TOTAL</b>	<b>47</b>
+ ONE EMPHASIS AREA	9-12 Competencies
INFO SYSTEMS MANAGEMENT	
MGMT AND ORG. LEADERSHIP	
MARKETING	
SUPPLY CHAIN/LOGISTICS	
<b>GRAND TOTAL</b>	<b>56-59 Competencies</b>





Students participate in volunteer, service learning or other out-of-school programs.

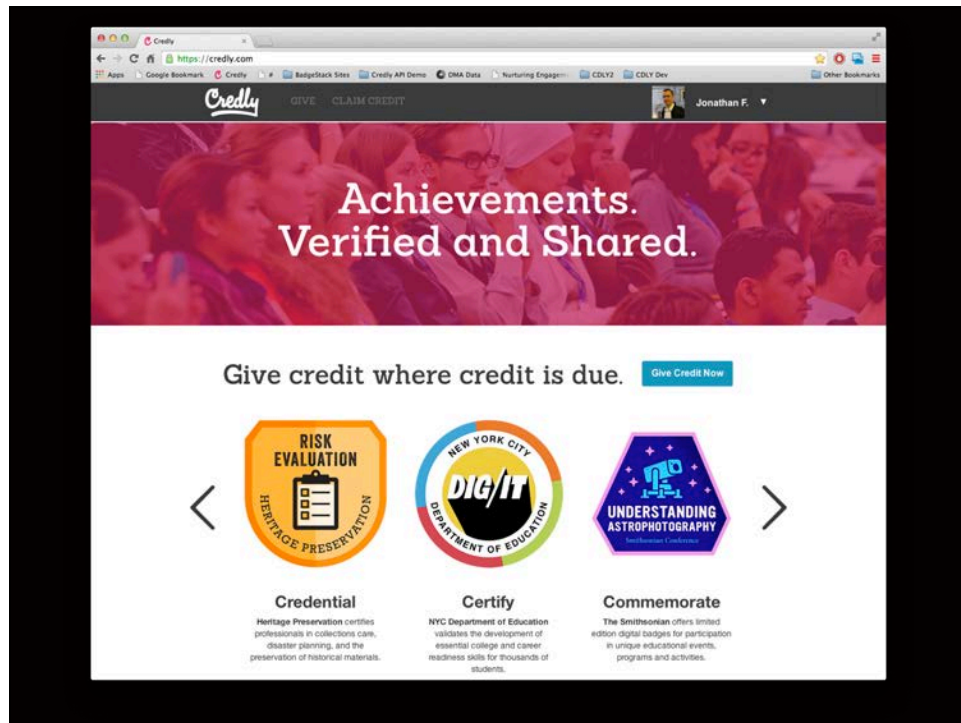


Smithsonian  
Cooper-Hewitt, National Design Museum

**DesignPrep**

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BANK OF BOSTON™**

**A New Vision for Workforce Preparation:**

**Digital and Open Badges:  
The Future of Credentials**

**Jonathan Finkelstein**

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