

## Microcredentials on the Open Web

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### Abstract

Microcredentials, alternative credentials that are both highly granular and easily shared online, should be collected and observed online to see what they tell us about credibility, experience, and social boundaries.

### Keywords

identity; reputation; badges; microcredentials; learning; recruiting

### Beyond Canine Online Identity

The online world provides a new context for the presentation of self, and a number of technologies of the social web are built around the process of introducing oneself to others. In fact, the history of the social web might be summarized as a progression of systems of self-presentation: the “home page,” the MySpace page, the Second Life avatar, the Twitter blurb, and many stops in-between. These indications may be tacit—a head shot or friends list, for example—or more rarely, explicit, as in the case of Klout.

Particularly for those seeking employment or admission into more formal organizations, there is a need for certifications not just of identity, but of expertise and achievement. The classic example of this is the university diploma or transcript. But while other markers of ability and identity move easily through the social web, the process of obtaining proof of completing a university degree usually involves a mailed, signed, physical document.

Understanding the shift from implicit trust online to more explicit markers of trust requires a mechanism for monitoring the growth and use of microcredentials.

### Elements of a Credential

The term “microcredential” is relatively new, and has been mentioned mainly in passing in the literature. Khan (2013) provides an indication of how the microcredential might work, as an indication of expertise within a narrow area most closely related to a single course, rather than a full curriculum. Others see it as a way of indicating professional certification or licensure, or a more formal version of the less formal “badge” (Crotty, 2013). Olneck (2012) suggests that with new, less restrictive forms of certification, we might be seeing the first “insurgent credentials,” that are capable of in some sense breaking the traditional institutional hold on knowledge production and recognition.

To reach a better understanding of the term, we can examine its constituent pieces, beginning with what constitutes a “credential.” Elkordy (2012) suggests that at its most basic, a microcredential provides an indication that someone has met “established performance criteria.” These criteria may be as simple as showing up to a meeting of a local knitting circle, or voicing your undying love of a particular fictional vampire, or they may be as involved as demonstrating the requisite training and experience to effectively perform brain surgery.

A credential demonstrates the performance of some normalized task. There may be questions about whether those criteria represent a good demonstration of the stated certificate (consider the controversy over conditions under which the Purple Heart is awarded to members of the US military), but there is some understanding that the certification is consistent across earners, and that it represents

a certain standard. Every graduate of Stanford University may not have identical skills or knowledge, but they have managed to pass through a set of filters that determine their ability.

It is also inherently an assignment of credibility. When Stanford University endorses your abilities by granting a degree and diploma, it suggests that they are something of an authority in the area, and that their rubric for granting degrees is held in some esteem. Traditionally, this authority has been via institutional credibility, and although there is mixed evidence, certified doctors and teachers tend to perform better in their work. Just as other processes have been crowdsourced, there are some experiments with creating processes based on peer- or community-endorsement.

### **Credential as a Microformat**

The “micro” of microcredentials attempts to address the issues of traditional credentials in two ways. First, by providing a more granular credential, more clearly indicating what the credential indicates. Second, by placing the credential in a digital microformat, making it potentially much more easily shared, compared, aggregated, and investigated.

At present a university degree conflates a range of potential skills and abilities. It’s difficult—aside from an indication (usually) that a certain number of hours have been spent attending to studies—to know what graduates of a given university have in common. As noted above, the digital badge is often proffered as a way of bypassing more traditional degrees with a portable certification that demonstrates more discrete knowledge and ability. Not only does this provide the person with a higher fidelity record of their expertise, it frees them to pursue a collection of experiences and learning opportunities that has not been sanctioned by an existing institution. Microcertifications represent smaller “chunks” of learning and experience, and therefore may provide more clarity of criteria, and be easier to both construct and to earn.

In many cases (though there are certainly exceptions) traditional certifications or licenses are difficult to share digitally. They might be something that can be verified via mail, or posted as a state-issued license, but it is often not easy to share or find certifications online. The second application of “micro” is related to a collection of “microformats,” perhaps exemplified by the web syndication standard RSS. Right now, there is little consistency in the way that certifications are created, shared, or verified, resulting in an unnecessarily idiosyncratic and convoluted process.

Mozilla’s Open Badge Infrastructure represents a framework for making badges (microcredentials with icons) machine-readable, portable, and verifiable in distributed digital networks. As an added benefit, OBI-compliant badges provide pointers to the original work that demonstrates competence. No longer is the institutional endorsement the only source of certification; interested parties can assess the work directly.

The use of the term “badges” is used more widely right now, but “microcertification” is more descriptive, and provides a clearer break between this form of certification and a long history of “badges” (Halavais, 2011). Of course, most microcertifications will include an iconographic indication of completion, as this represents an easily-grokked representation of the certification. But this graphic representation is a useful feature, and not a core element of the microcertification.

### **Detecting Public Use Contexts**

Although most microcertifications are likely to be more granular than the traditional university or high school degree, the more important element for identifying the microcertification is the ease of sharing and verifying. By definition, badges that are compliant with the OBI are microcertifications. Other digital badges, including those offered by FourSquare, FitBit, and others also meet this definition, as they can easily be shared outside the platforms on which they were earned, and link back to those platforms for verification.

Given that the presence of these microcertifications on social networking platforms, one way to develop a taxonomy of badges currently in use is to scan major spaces for sharing, looking for public presentation of badges that meet the above criteria. At present, the number of microcertifications is quite small, but by establishing a scanning process, we do not need to rely on issuers of the certifications to determine their use. This also provides us with a structure for tracing the development and dissemination of microcredentials over time.

### **Credible Users, Credible Badges**

By accumulating a history of public use of microcredentials we can begin to untangle the difficult question of what makes a badge credible. Traditionally, credentials gain credibility only through institutional endorsement. New forms are beginning to experiment with community endorsement. The degree to which these efforts are successful rests on the success of these microcredentials in allowing individuals to demonstrate experience in one epistemic community can be effectively translated into new contexts. Moreover, we are able to begin to map the flow of credibility in an explicit form.

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### **References**

- Crotty, J. M. (2013, Feb. 25). Badges lend gravitas to free education revolution. *Forbes*. Retrieved from <http://www.forbes.com/sites/jamesmarshallcrotty/2013/02/25/new-improved-badges-give-credential-meat-to-mooc-revolution/>
- Elkordy, A. (2012). The future is now: Unpacking digital badging and micro-credentialing for K-20 educators. HASTAC. <http://hastac.org/blogs/elkorda/2012/10/24/future-now-unpacking-digital-badging-and-micro-credentialing-k-20-educators>
- Halavais, A. M. (2012). A genealogy of badges. *Information, Communication & Society*, 15(3), 354-373.
- Khan, S. (2013). What college could be like. *Communications of the ACM* 56(1), 41-43. doi: 10.1145/2398356.2398370.
- Olneck, M. (2012). Insurgent credentials: A challenge to established institutions of higher education. Presented at Education in a New Society: The Growing Interpenetration of Education in Modern Life, Radcliffe Institute for Advanced Study, Harvard University, Cambridge, Massachusetts, April 26-27, 2012. Retrieved from: <http://hastac.org/documents/insurgent-credentials-challenge-established-institutions-higher-education>

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