Whom Will Digital Badges Empower? Sociological Perspectives on Digital Badges

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ABSTRACT

Advocates laud digital badges for empowering learners in new and valuable ways. Badges can, they claim, recognize and credential learning acquired outside the confines of formal schooling, are widely available and affordable, will appeal to employers for their granular measurement of what individuals know and, more importantly, can do, are modular and stackable, and offer individualized and personalized learning. Sociological theory and research, however, offer grounds for caution in expecting digital badges to empower learners in the ways badge "evangelists" envision. In this presentation I will sketch constraints with which badge advocates may have to contend. These constraints include how credentials operate in labor markets and in the organization of work, the enduring power of conventional education forms, the contradictory position of profit-making firms in the education field, the exclusion of "powerful knowledge" from the learning outcomes afforded by badges, and the congruence between badges and neo-liberalism. To accomplish their vision of truly empowering learners, badge advocates will have to find ways to overcome the constraints I identify.

Categories and Subject Descriptors

K.3.3.1 [Computers and Education]: Computer Uses in Education – *Collaborative learning*

General Terms

Measurement, Documentation, Performance, Design, Human Factors, Standardization, Theory.

Keywords

Open digital badges, empowerment and disempowerment, constraints, credentials.

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1. INTRODUCTION

"We choose a style of knowing and a kind of society jointly." Ernest Gellner, *Legitimation of Belief*, 1974.

In some ways, badges are truly phenomenal. From a glimmer of an idea at the Mozilla Drumbeat Festival in 2010, until now, the badge project has grown rapidly into an increasingly visible and important actor in the fields of education and credentials. A Google search on " 'Digital Badges' AND 'Credentials'" for 2009 yields only 38 links. For 2010, the same search yields 128 links. For 2012, it yields 1,010 links, and for 2014, it yields 2,370 links. For the first two months of this year, 743 links come up, compared to 351 for the same period last year. The Badge Summit in February, 2014 was heavily attended (http://www.reconnectlearning.org/summit/); a cursory look at the Badge Alliance 2014 time line reveals an enormous amount of activity around badges (http://www.tiki-toki.com/timeline/entry/388116/ Open-Badges-in-2014/). While digital badges and micro-credentials are not universally familiar to the general public, they are a growing and accelerating reality.

Despite this unarguable success in a very short period, for reasons arising beyond the badge project itself, badges may very well prove less empowering than the early badge "evangelists" anticipated. Here, I offer four arguments that put into question the aspiration that badges will prove empowering. A connecting theme across these arguments is my contention that the features of badges that would enable them to enhance meaningful learning and the features of badges that would enable them to serve well as credentials are in conflict. In short, there is a contradiction between badges as facilitating and cultivating learning, and badges as widely circulated credentials.

My four arguments are:

1. Badges emerging from strong, connected learning communities will not be scalable, yet to be valuable, credentials must be widely recognized, interpretable, comparable, and convertible.
2. The learning recognized by badges which become widely utilized credentials is unlikely to be "powerful knowledge."

3. Badges promote dis-empowering features of a neo-liberal economy and society.
4. How credentials operate in labor markets is in tension with the ideal of badges being widely available.

2. BADGES EMERGING FROM STRONG, CONNECTED LEARNING COMMUNITIES WILL NOT BE SCALABLE

In the prospectus for a paper entitled "Transcending Existing Motivation Paradigms to Unlock the Full Potential of Open Digital Badges," Daniel Hickey and his co-authors acknowledge that "digital badges have been eagerly embraced by proponents of 'competency-based' education that focus narrowly on readily-measurable individual competencies..." [1]. "But," they go on to say, "equating open digital badges with competency-based education ignores a key finding in the [Design Principles Documentation] project: most of the badge development efforts were as concerned with disciplinary social *practices* as they were with specific individual competencies" [2].

The likely constraints on the effects of badges arise, in part, because of the affinity and association between badges and competency-based education. I anticipate that badges associated with programs using, for example, Pearson's Acclaim platform,[1] and the like, will more accurately foretell what kinds of badges will succeed as credentials than will the badge models studied by the DPD project. The DPD models were the winners of the MacArthur Foundation funded 2012 DML competition, and were selected to embody principles the visionaries valued, as well as for their diversity, and they were incubated without the need to reach and succeed in markets.

The visionaries who introduced badges are committed to the idea of communities of engaged learners who participate in crafting both their own learning and the badges that represent their learning. Theirs is a pluralistic vision of empowered "teachers" and "learners," where those terms are both broader than usually understood, and not altogether distinct. But the badges crafted by such learning communities are unlikely to enjoy currency much beyond their communities of origin. Even if badges from such communities are displayed in badge earners' "digital backpacks," they will be difficult for those outside the learning communities in which the badges originated to interpret without substantial effort, and they will be difficult to compare with badges issued by other, equally unique and relatively insular, learning communities.

While badges associated with competency-based learning programs will also face problems of interpretability and comparability, the badges and the learning they signify will be relatively simple to standardize. By being standardized, badges awarded by these programs will be easier for audiences, in particular, for employers, to interpret and compare. Moreover, standardization will make it convenient to bring these kinds of badge programs to scale. By virtue of ease of interpretability, comparability, and scalability, badges from competence-based programs will be more likely than badges from other kinds of programs to succeed as credentials.

Moreover, there is a strong likelihood that because of scalability, and, thus, marketability, standardized badge programs, *and* the standardized content, instructional materials, and assessment materials with which they are associated, will be the province of private firms acting as "education providers." These firms are unlikely to offer badges and learning programs which require close familiarity with the specific interests and goals of unique learning communities, or which require engaged reflection, experimentation, and creativity. To further gauge the shortcomings of competency-based models of learning and knowing, consider the attributes of what the curriculum theorist and sociologist of education, Michael F. D. Young, calls "powerful knowledge" [3].

3. CONSTRAINTS IMPOSED BY LIKELY EXCLUSION OF "POWERFUL KNOWLEDGE" FROM THE LEARNING OUTCOMES RECOGNIZED BY BADGES THAT BECOME WIDELY UTILIZED CREDENTIALS

"Powerful knowledge," Young writes is knowledge which "provides reliable and in a broad sense 'testable' explanations of ways of thinking; it is the basis for suggesting realistic alternatives; it enables those who acquire it to see beyond their everyday experience; it is conceptual as well as based on evidence and experience; it is always open to challenge; it is acquired in specialist educational institutions, staffed by specialists; it is organized into domains with boundaries that are not arbitrary and these domains are associated with specialist communities such as subject and professional associations" [4]. Finally, powerful knowledge "is often but not always discipline-based" [5]. Discipline-based knowledge is, however, especially well-suited for cultivating powerful knowledge.

This is because disciplinary knowledge provides the intellectual tools for learners to reflect upon, discern, and analyze the structuring principles underlying the surface knowledge they are acquiring. Its pedagogy requires immersion and practice under the guidance of experts. Powerful knowledge is not "delivered"; it is acquired by engaged social learning. In today's political climate in the United States academic knowledge is publicly dismissed as overly theoretical and abstract, too far removed from application to be useful and worth the cost. Yet it is academic knowledge that has, as Leesa Wheelahan of the

[1] http://home.pearsonvue.com/About-Pearson-VUE/Discover-Pearson-VUE/ Pearson-VUE-businesses/Acclaim.aspx

University of Toronto argues, "the potential to challenge the social distribution of power because of its (not always realised [*sic*]) capacity to transform knowledge and how that knowledge is used" [6]. Students, Wheelahan writes, "need to acquire the capacity to integrate knowledge (and underpinning principles) through systems of meaning bounded by the discipline in ways that transcend the *particular* application of *specific* 'products' of disciplinary knowledge in specific contexts"[7]. Only in this fashion will students actually gain command of knowledge. Only in this way will they be authentically empowered by what they have learned. It is not accidental that "powerful knowledge," in this sense, has been, and continues to be, the "knowledge of the powerful," while mundane knowledge is what is made available to others [8].[2]

In contrast, Wheelahan writes, competence—based "packages" exemplify "a very fragmented, atomistic and instrumental view of knowledge" [9]. By skills being broken down into discrete components, and then being added together on the assumption that the total equals the sum of the parts, learners do not come to understand relationships between elements, or how elements are transformed when they are recontextualized in this form. They do not engage complexity, and therefore to do not develop the capacities cultivated by engagement with "powerful knowledge." Rather, competence-based pedagogy is, in the view of the Cambridge education scholar, John Beck, likely to be "cognitively restricting."

Wheelahan and Beck may well neglect the possibilities for competence-based to be implemented in ways which encourage the kind of engaged and deep learning favored by visionary badge enthusiasts. Nonetheless, Wheelahan and Beck are likely to prove prescient in their characterization of competence-based education programs which thrive in broad markets.

Moreover, competence-based models used in professional training may prove disempowering by providing means to regulate and de-professionalize those whose professional knowledge in the past endowed them with a measure of authority and autonomy.

Researchers in the UK who have looked, for example, at competence-based training for teachers have found that a key change in teacher training associated with a competency approach is that courses in education foundations, like those in philosophy and sociology, have been jettisoned, "arguably," according to Beck (2013), "cut[ting] students off from forms of understanding that might give them access to *competing* conceptions of the appropriate character of professions and professionalism" [10]. "For this reason," Beck continues, "and because this specific 'project' can be plausibly seen as part of a much wider set of policies designed to disempower relatively autonomous workers' organizations (professions and trade unions) whilst greatly *em*powering managerial cadres, these initiatives arguably amount to *'coercive de-professionalization'* ..." [11]. Under this regime, teachers are subjected to "a technical mode of control over expertise, and... a technician model for the role and status of the practitioner" [12], that goes along with methods for monitoring work and assessing performance in our "audit culture" [13].

These methods of control forge a direct connection between de-professionalization of teachers and the constricted horizons of the knowledge that I anticipate badges associated with competence-based education will represent. The "audit society" requires calculable outcomes on which to evaluate learners and their instructors. It will be these outcomes that both learners and teachers will be constrained to produce, outcomes which will be far from Young's "powerful knowledge" and from the deep learning to which badge visionaries like Connie Yowell at the MacArthur Foundation, Joanna Normoyle, formerly at the UC Davis Sustaining Agriculture & Food Systems program, or Daniel Hickey, at Indiana University, are committed.

4. BADGES ARE ALIGNED WITH DIS-EMPOWERING FEATURES OF A NEO-LIBERAL ECONOMY AND SOCIETY

In neo-liberal societies, social practices well outside traditional economic realms are organized on market principles, and people's consciousness, values, and dispositions are shaped substantially by market relations. Such societies tend to be disempowering in ways which badges may exacerbate. These tendencies include the cultivation of competitive individualism aligned with consumerist dispositions, the commodification of education, and atomization of collectivities and erosion of the bases of social solidarity.

4.1 Individualism / Consumerism

The vocabulary of empowerment among badge advocates emphatically places the individual badge earner at the symbolic center. Badges are said to empower individuals to "*guide their own learning*," "*craft their own pathways*," and "*self-direct their lifelong learning...*" Badges are said to empower individuals to "*take ownership of their learning...*," "*take credit for and manage their achievements digitally*," and "*take charge of their online identities and reputations*." Badges empower learners to be the ultimate consumer because "*you do not have to be a*

[2] There are those, however, who regard disciplinary knowledge and thinking as constricting. Among them is the Director of the MIT Media Laboratory, Joi Ito (see Bull, 2014). The sociologist, Jerry Jacobs, defends the value of the disciplines for enabling rigorous thinking and cross-paradigmatic dialogue in *In Defense of Disciplines: Interdisciplinarity and Specialization in the Research University* (University of Chicago Press, 2013).

degree seeker, you can purchase one module and earn a badge..."

In a number of respects, then, badges are well-suited to constructing the ideal neo-liberal subject. Badges fit well with processes of individuation, customization, and competition, as well as with an orientation toward consumption. Badges will extend market logic in that they are "client-friendly," and are not a one-time acquisition, but can, and should, be "updated" as part of "life-long learning." Insofar as the links between education, training regimes, and labor markets in neo-liberal societies are based in individual choice, the availability of badges in a postsecondary education market of proliferating options, will prove a good fit.

Badges will advance the neo-liberal discourse of "employability" [14]. Within this discourse, individuals are responsible for continuously developing, maintaining, and communicating their "employability" in the context of highly competitive job markets. As one Pearson report observed "[t]he economic disruptions of the last two decades have made workers responsible for managing their own career development through learning that starts in secondary school and college but continues throughout their careers" [15]. In this context, workers "actively *sell themselves* to potential employers" [16]. Badges are ideally suited to the requirement that individuals "sell" themselves on the market. This is, in part, because they are, literally, for "display."

Superficially, the discourse from which I quoted above bespeaks empowerment, but it is a constricted kind of empowerment limited to fending for oneself in a world of intensified risk and vulnerability, and hoping that one's digital presentation of self can lead to safe harbor.

4.2 Commodification

It is now common to describe education as an "industry," and to refer to education "providers" or "vendors" who "market" and "deliver" educational "products" to their "customers." Education increasingly takes the form of "goods for sale." Both in discourse and in practice, education is more and more a commodity, and less an opportunity for intellectual and social flourishing.

Commodified education is especially congruent with learning as skill and competency acquisition, which I earlier argued would fail to cultivate "powerful knowledge." Furthermore, the commodification of education displaces historic academic values of learning, knowing, and knowledge that construe knowledge in more than instrumental terms. This is not a matter exactly of the distinction between "intrinsic" and "extrinsic" motivation about which Hickey, Schenke, and Tran write [17]. It is a matter of what knowledge *is*. When knowledge is commodified, it is, as the late sociologist of the curriculum, Basil Bernstein, writes, "divorced from persons, their commitments, their personal dedication, for these become impediments, restrictions on flow, and introduce deformations in the working of the market..." [18]. The idea of the deep inwardness and otherness of knowledge, what Fred Inglis calls "its pertinence to the deep structure of the self," is, Inglis claims, "being thinned out to the point of fracture" [19].

Commodification in education changes not only the nature of knowledge, but the *ideal* of the pedagogic relationship. Commodified education becomes a commercial transaction, in which all parties invest less of themselves, and in which mutual commitments are diminished. The shift from commitment to contract, more characteristic of lower tier institutions serving less advantaged students, empowers actors in fields beyond education proper and further subordinates and disempowers academic institutions, while strengthening organizations which dominate in the fields of commerce [20]. While conventional education certainly entails elements of commodification, what neo-liberalism does is elevate this to a valued norm.

4.3 Atomization

Responding to a post by Daniel Hickey in his blog, "Re-mediating Assessment," Nora Sabelli, the Director of the Center for Innovative Learning Technologies at SRI International, lamented that "we seem to be moving towards ... fostering the whole onus of education on the individual. Badges, whether well done or not, just add to the fractionalization *(sic)* [of] culture, unfortunately driven by technology" [21]. Similarly, Heather Chaplin, in a blog post at the MacArthur Foundation's "Spotlight," worried that the discussion around badges "replicates the obsession with personalization that is so prevalent in online culture. There's a lot of talk among Open Badges folks," Chaplin wrote, "about 'learners' creating their own 'pathways' of learning... I ... worry that we haven't thought enough about what we're losing by focusing so much on the individual... As we move toward customizing all aspects of our lives, do we risk losing the cohesiveness of being part of a whole?" [22].

Sabelli's and Chaplin's comments revive the "bowling alone" theme popularized by Robert Putnam fifteen years ago [23]. That theme is concerned with alienation and anomie arising from the lack of social support and weakened social identities. While this is a kind of disempowerment, I am more concerned here with the weakening of collectivities, leaving individuals open to exploitation by those with greater power. In this regard, I worry that digital badges as workplace credentials may well contribute to fractures in social organization, and to the development of a more heterogeneous, atomized workforce and labor pool, more susceptible to the control of employers.

First, worker insecurity or "precarious employment" [24] is a feature of neo-liberal economies. Rather than provide long-term employment, firms are increasingly assembling teams of workers according to the needs of temporary projects [25]. Insofar as badges index relatively narrow and specific competencies, they will facilitate flexible, "just in time" assembling - and disassembling - of temporary teams of workers.

Second, while neo-marxists, like Bowles and Gintis [26], have emphasized the role of formal educational credentials in constructing and legitimating workplace hierarchy, at the same time vertically-arranged formal categories of education credentials have served to institutionally link education with career *stages* [27], a model sometimes said to be dying out in the "new economy." Horizontally-differentiated badges will make it easier to erode the idea of career stages, and to diminish employees' expectations of enjoying staged advancement characterized by predictable increases in rewards, authority, and autonomy. Improvements in position, in these circumstances, will be more individualized, customized, and timed solely according to employers' judgements of workers' value.

4.4 How Credentials Operate in Labor Markets

A fundamental value of the open badge movement is that badges will democratize learning by recognizing more diverse kinds of learning than academic credentials recognize, by not costing as much in time and money to acquire as conventional higher education, and by being available in ways that permit learners at various stages and in various circumstances of life to become badge earners-. In short, the amount of recognized learning and the number of badge earners will, in principle, be unlimited.

But credential markets, unlike Christian grace and salvation, are, inherently, limiting. Educational credentials, which include badges, are, in important respects, *positional goods* [28]. This means that they arrange individuals in hierarchical positions relative to one another. Credentials are, in their essence, classifications or categorizations of *persons*. They represent distinctions or symbolic boundaries between those who hold a particular credential and those who do not. The value of a credential inheres in the degree of distinction it confers, the strength of the boundary it draws between those who hold the credential and those who do not. The value of credentials, therefore, lies largely in their relative scarcity.[3] The very characteristics that make badges attractive - wide availability, low cost, relative ease of acquisition - will most likely diminish their value in credentials markets.

5. CONCLUSION

Assuming the validity of the four arguments I have advanced, what implications follow?

As formulated, my first conclusion, that badges emerging from strong, connected learning communities will not be scalable, and so will not be valuable as widely utilized credentials, obscures an important distinction. The distinction is between badges as a *form* of credential, and arrays of *specific* badges. My argument pertains to arrays of specific badges, which may include sets of badges meaningful only within bounded learning communities. However, for badges to become a recognized and accepted *form* of credential does not require that all badges be commensurable, any more than an Associates Degree in Liberal Studies needs to be commensurable with Master of Fine Arts in Studio for "degrees" to be an accepted form of credential.

The same distinction pertains to my fourth conclusion that the value of credentials depends upon their scarcity, which is contradictory to the ideal of badges being widely available. The scarcity to which I am referring is the scarcity of *particular* credentials. The fact that high school diplomas are of little value in substantially advancing the opportunities of large numbers of individuals[4] does not mean that academic credentials in the form of diplomas and degrees are not widely useful as a *form* of credential.

In short, my arguments here are premised on the unstated assumption that badges attain the status of a recognized form of credential. I did not address the likelihood of that being the case, nor the determinants of that likelihood.[5] One might even argue that what I advanced as a criticism, namely that scalable, marketable badge programs will be highly standardized, can be seen as a virtue. Standardized badges, by being more visible, more common, and less "irregular" or "alternative," may well advance the cause of securing badges as a *form* of credential, than may badges crafted by more circumscribed learning communities. In securing a place for badges as a recognized form of credential, standardized badge programs may contribute

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[3] There *are* examples of credentials which are plentiful and provide a valued benefit, e.g., drivers licenses. However, unlike limited employment opportunities, the opportunity to drive a car is, in principle, open to all with the proper qualifications. Thanks to Jeff Gran of Capella University for suggesting this example.

[4] Holding a high school diploma *is* valuable as a "defensive necessity" in a universe in which high school diplomas are plentiful. The *absence* of a high school diploma relegates non-graduates to extremely limited opportunities [33]. Moreover, high school graduation is a prerequisite for entrance into a four-year college.

[5] For an initial look at those questions see Olneck (2014).

to the possibility for "niche" badge programs that more closely adhere to the values of those who look to badges to guide, motivate, and recognize deep learning.

As an institutional field, American education is highly differentiated, both vertically and horizontally, as are the credentials which are awarded within the field [29]. We may expect that the range of badges issuers and the arrays of badges they issue will be similarly differentiated. Initially, because academic organizations and credentials are so deeply entrenched in contemporary society [30], we should expect that the most widely valued badges will be issued by academic organizations as supplements to degrees [31]. If program and credential dynamics obtaining among higher education organizations are paralleled when it comes to issuing badges, we may expect lower status organizations to compensate for the lack of symbolic capital by offering badges that more directly represent specific, occupationally-applicable skills and knowledge [32].

My conclusion that badges that become widely utilized as labor market credentials, in particular badges associated with competence based education, will not be badges that recognize "powerful learning" is, in fact, not a critique of badges *per se*, but of competence based education and, indeed, of the intensified vocationalization of higher education more generally.

Similarly, my critique that badges are aligned with disempowering features of neo-liberal economy and society is, like my critique of competence based education and more general vocationalizing trends in higher education, not unique to badges, and the excessive individualism and consumerism, commodification, and atomization that I associated with badges can no doubt be associated with numerous features of schooling and credentialing in contemporary society.

As those working within the badge project proceed they will necessarily confront constraints and challenges associated with the inherent characteristics of credentials, problems of scalability and marketability, and the broader context of neo-liberal instrumentalism. They will, I hope, bear in mind Gellner's recognition that "[w]e choose a style of knowing and a kind of society jointly."

6. ACKNOWLEDGMENTS

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