Electronic badges, Heraldry, E-Certificates and the Balkanization of Credentials

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Abstract: *The expansion of alternative credentials which started in the information technology sector and is currently expanding to other fields, has resulted in a wide array of symbols to represent the achievement of skills or the completion of a certain length of training. With the cost of formal post-secondary education increasing and the global economy slowing down due to the COVID-19 Pandemic, a wide array of alternative credentials have been created to fill the gap. Altenative credentials range from electronic badges to extremely short free online courses with completion certificates. The present paper compares and contrasts alternative credentials with traditional ones. It also explores the similarities between e-badges and heraldry.*

1. Introduction

A highly competitive job market and an increasingly complex society has resulted in a proliferation of alternative credentials. There are many reasons for seeking credentials, yet the most prevalent one is increasing one's competitiveness in the job market (Guinier, Fine, Balin, Bartow, & Stachel, 1994; Mangu-Ward, 2008; Scholz, 2013). Traditional credentials include professional licenses, academic degrees, and standardized exams. Nevertheless the increased cost of post secondary education and the transition of developed countries to knowledge societies have resulted in a vast array of intermediate credentials mostly focused on soft skills (Scholz, 2013).

Alternative credentials have existed for a long time in vocational fields but their spread to the white collar world is relatively new (Hanson, 2013). The initial push for alternative credentials came about because of a very tight job market in the United States in certain fields (Mangu-Ward, 2008). At one point in early 2020 the unemployment rate dipped below three percent. The previously mentioned unemployment rate refers to the general population and the actual unemployment rate for holders of bachelor's degree was much lower. This situation resulted in a problem of scarcity in many fields and opened job opportunity for semi-skilled people to enter the service sector in clerical and para-professional positions (Iloh & Toldson, 2013). The influx of semi-skilled workers into sectors usually reserved for professionals created a serious problem for human resources professionals who were traditionally focused on traditional credentials to screen applicants. Labor scarcity combined with the criticism of traditional education by pundits in the Information Technology sector led to the proliferation of a wave of electronic badges and alternative credentials mostly in the field of business administration and information technology (Ewest & Klieg, 2012; Scholz, 2013).

Early examples of alternative credentials developed by the private sector include, Six Sigma in the business administration sector developed by Motorola and General Electric, Google Certificates, and Microsoft Certificates ("Grow with Google: Google Career Certificates," 2020; "Lean Six Sigma Training Certification," 2020; "Microsoft Learn: Microsoft Certifications," 2020). One interesting characteristic about the newly created credentials is that they developed outside of the university system and therefore focused on practical skills rather than theory. The training period is much shorter than for traditional degrees and the attainment of the certificate includes an electronic badge, which is a pictorial depiction of the achievement which can be included in e-mail signatures and online profiles.

Alternative credentials are part of a much deeper debate between vocational education and the liberal arts and thus some of the arguments about the advantage of one or the other have been repeated by proponents of both sides *ad nauseam* (Foster, 2013; Grant, 2013; Lytle, 2013; Roche, 2013; Scholz, 2013). Nevertheless electronic badges open a new front in this battle over the heart and soul of continuous education. More importantly, electronic badge re-open the debate about the proper way to display credentials in the public sphere. With the growing balkanization of credentialing there is a need to bring some order and standardization to the public display of credentials.

A section of this study compares and contrasts e-badges to traditional heraldry. It is very interesting to note that heraldry has faced many similar challenges in terms of public awareness and standardization as those presently faced by proponents of e-badges (Heraldry; Thomas Innes of Learney, 1956). There is a discussion about the role of private and public institutions in the standardization of public credentials. Two case studies are discussed, the United Kingdom and Spain.

A final section focuses on e-certificates as increasingly important alternative credentials. E-certificates range from highly demanding programs such as graduate certificates from Ivy League Universities to virtually meaningless ones requiring only a few hours of work. The main challenge with e-certificates is nomenclature and standardization. Thus, some of the same challenges faced with e-badges and heraldry are present in the world of e-certificates.

2. E-Badges

The use of badges as marks of distinction is as old as social stratification itself (Mines, 2002). There are two main types of marks of distinction, ascribed and achieved (Ritzer, 2008). The importance of one type over the other has fluctuated in different

historical periods but there is no doubt that achieved status is more important in the 21st century, in particular in terms of human resource management (Ritzer, 1983). Ascribed status is determined by birth while achieved status is earned through a wide range of methods. Historically, a small portion of the population was literate and thus it was necessary to have visual ways of presenting status to the general public. Military uniforms are clear examples of this, with the use of symbols to denote both rank and training. Another widely known example is Boy Scout badges. Each badge shows a pictorial representation of the skill achieved.

With greater use of electronic mails the complexity and sophistication of e-electronic signatures has increased. Parts of the electronic signature were carried over from traditional signatures such as post-nominal letters and pre-nominal titles. In English speaking countries post-nominal letters are more prevalent than pre-nominal titles. The British system is considered to be gold-standard in terms of the display of credentials through the use of post-nominal letters (Thomas Innes of Learney, 1956). Nevertheless a high number of postnominal letters can lead to confusion, and letters are not as visually attractive as images. Therefore, the idea of displaying credentials in e-mail signatures has taken hold and it is becoming more prevalent in a wide array of disciplines (hallinger & Lu, 2013).

Information technology recognized the need for immediately recognizable credentials and took the lead in this exciting new niche market. Microsoft and Google both developed competing e-badges for different levels of mastery in their suites ("Grow with Google: Google Career Certificates," 2020; "Microsoft Learn: Microsoft Certifications," 2020). Thus, it is possible to earn several badges for learning how to use different features of google apps ("Grow with Google: Google Career Certificates," 2020). This type of corporate training and certification for use of a particular proprietary system is not new but the bestowal of e-badges is an innovation. The badges are visually attractive and instantly recognizable.

The use of e-badges has spread to other sectors such as education and business. There are more than forty different badges that can be earned from the Six Sigma group, originally developed by Motorola and later adopted by General Electric ("Lean Six Sigma Training Certification," 2020). This family of certifications enjoys widespread recognition in the business world and it is highly structured. Another well known e-badge is the one reserved for National Board Certified Teachers ("National Board for Professional Teaching Standards," 2020). This badge is based on prestigious national certification and it is only available to those who earn this designation. A third well known badge is the one for Mensa members. MENSA is the oldest and most well known association for high intelligence individuals ("MENSA International," 2020). In order to join a person needs to take a standardized proctored exam and score in the top two percent in term of intelligence quotient. This means that members have scored approximately above 135 to 140. MENSA conducts research dealing with gifted education and intelligence in addition to providing scholarships for gifted students. The badge bestowed by MENSA is unique because it is certifying aptitude and in a way it is sixty percent ascribed. Most scholars agree that intelligence is partly inherited and partly developed through nurture (hallinger & Lu, 2013).

Other than the previously described well known badges, there are thousands of e-badges bestowed by private organizations. Many of them are managed by Acclaim which is a private platform that was created to manage and register e-badges ("Credly: About US," 2020). It should be noted that not all e-badges are managed by Acclaim and that it is possible for private organizations to create their own e-badges and have them managed by Acclaim. The platform provides information about the issuing organization and about the requirements for the attainment of a particular badge. Thus, it is a very good attempt to bring some order and standardization to the brave new world of e-badges. Nevertheless the open nature of the platform in terms of the creation of new

badges has resulted in their proliferation. Recipients of badges need to register with Acclaim and request their badges through the platform. Acclaim provides a direct link to the registration of a particular badge so that any third party can confirm its legitimacy. Therefore it provides a public register of the attainments of thousands of people ("Credly: About US," 2020).

The idea of a registry such as Acclaim is not new in the world of credentials; most professional licensing bodies have openly accessible registries for the general public to confirm the status of individual members. In Spain, all holders of a doctoral degree (terminal degrees not first professional degrees such as law and medicine) are entered in an official public registry available to the public ("Tesis doctorales: TESEO," 2020). Nevertheless the main challenge faced by Acclaim is the proliferation of new badges rather than the legitimacy of existing ones. Thus, any private organization can create a wide array of badges which makes it difficult to evaluate the relative significance of the badge.

Another interesting issue related to badges is how to display multiple ones. Other than for Google certifications there are no clear guidelines as to how to display several badges or what order to follow. Taking into consideration that many badges are relatively easy to obtain because they tend to be based on short certificate courses it is highly likely that over the years people will accumulate several. Thus, an important challenge will be to establish a proper "order of wear" to display a vast array of badges in a visually appealing way and also in a way that the relative important of the individual badges is easily understandable to the average reader. There are many examples of physical and pictorial systems of displaying achievements and one of the oldest one is heraldry (Thomas Innes of Learney, 1956). The following section deals with the "heroic science" and how its rise and decline can provide some clues as to the challenges that will be faced by proponents of e-badges.

3. Heraldry: The Heroic Science

Heraldry developed as a way to differentiate knights from a distance (Thomas Innes of Learney, 1956). There are many theories as to the early origins of the practice of displaying different color and banners and how it slowly developed into a highly complex art. In the early days of heraldry, people simply adopted symbols and colors which were incorporated into a coat of arms. Families tended to use the same designs as the heads of their families eventually governments established offices to standardize the practice and to provide some order and rules for the system. Moreover governments started to keep registries of all the coat of arms and augmentations. Some of those offices survive until our days. Probably the most highly regulated system left is the British system (Thomas Innes of Learney, 1956).

One problem, from a contemporary perspective, of Heraldry is that it emphasizes ascribed status. Descent from great heroes or, at least from powerful people, is noted in the coat of arms. Thus, the direct descendant of a great general who received the title of earl would be entitled to the coronet of that particular rank (Thomas Innes of Learney, 1956). It is hard to see how this type of information would help an employer or government institution. While the ancestor might have been a great general, the direct descendant might not have any of the skills or aptitude of his or her ancestor. Nevertheless let us focus on the ideal scenario of when the coat of arms was granted on the actual general who earned the accolade.

British heraldry has a system to add medals and military ranks which are officially recognized by the government. There are also some civilian accolades, in particular in the field of diplomacy, which can be displayed in a British coat of arms (Thomas Innes of Learney, 1956). One of the problems with traditional British heraldry is that it has not adapted to changing conditions. The emphasis on inherited status and high offices of state ignore other

types of achievements. It is also very expensive to petition for a new coat of arms, approximately ten thousand pounds, and thus its usefulness for the majority of the population is doubtful. British heraldry is highly regulated and foreign awards and honors cannot be included in coat of arms.

Spanish heraldry is more flexible yet less standardized than British heraldry (Berrendero, 2017; "Spanish Coat of Arms," 2014). Holders of officially recognized doctorates are permitted to add a doctoral cap (birrete) with the color of their discipline. There is also a vast array of military coronets for military ranks. One of the main challenges with Spanish heraldry is that the Ministry of Justice no longer regulates its use and therefore it is very difficult to ascertain the legitimacy of coat of arms. There are regional heraldic officers in Spain but there is no national coordination of heraldry. Interestingly there are laws on the book regarding particular augmentations (heraldic privileges) such as coronets, heraldic mantles, and orders of knighthood. One such example is the Ministry of Foreign Affairs which regulates the orders of Isabella the Catholic and of Civil Merit (Gila, 2015; Gila & Garcia-Loygorri, 2003). The Ministry's website explains the privileges of each order in terms of insignia, uniform, and heraldic privileges. There are also multiple publications by the government gazette providing guidance regarding heraldic issues (Gila, 2015, 2016; Gila & Garcia-Loygorri, 2003). Nevertheless the lack of regulation from the Ministry of Foreign Affairs results in much abuse of heraldic augmentations. One such point of contention is the use of foreign honors in Spanish coats of arms. In theory it is necessary to request permission to wear foreign orders and honors to the Ministry of Foreign Affairs and other than the Sacred and Military Constantinian Order of St. George of the Royal House of the Two Sicilies, no other honors or orders of former royal houses may be worn in Spain. In practice many Spaniards and foreigners include foreign honors bestowed by a wide array of former royal houses and pretenders to defunct thrones. This lack of regulation lowers the trustworthiness/legitimacy of heraldry as a valid and useful social

marker. There is no doubt that the coat of arms of the Marques of Llosa, bestowed on Mario Vargas Llosa, Nobel Prize winner and prominent Latin American author, displaying the coronet of a marquis and the chord and medal of a numbered academician of the Royal Academy of Language is legitimate and socially pertinent. However the coat of arms of many Spaniards of ancient lineage belonging to the hidalgo class (lower nobility) who have not achieved any contemporary credentials or hold any rank in private of public corporations is legitimate yet arguably superfluous in the 21st century. Moreover the coat of arms of a Spaniard with multiple honors from defunct royal houses is not only misleading but it is irrelevant from a contemporary social perspective. Regrettably heraldry in contemporary Spain has lost its pride of place as a social marker and the remaining stalwarts tend to fall under two major categories: members of ancient lineages who wish to protect their social prerogatives and upstarts who wish to compensate their lack of earned credentials with obscure dynastic orders and badges. The previous critical overview of Spanish heraldry does not deny the incredible wealth of experience and accumulated history of the heroic science but rather provides a glimpse at some of its weaknesses from the perspectives of 21st century sociology.

To conclude our discussion on heraldry as a system of showing achievement and acquired skills we will provide a cursory glimpse at the sorry state of American heraldry. The United States does not have an official government heraldic authority. While several presidents had coat of arms, they were bestowed to their families in Europe. Rather than coat of arms, it is more common to see badges of office in the United States. As a result of lacking an official heraldic authority many Americans resort to the heraldic authorities of their ancestral countries or in some cases to private organizations. There are also many cases of Americans petitioning European heraldic authorities for coat of arms even when they have absolutely no connection to the particular countries. This is a problem particularly with the case of Spain. British heraldic authorities are

very strict, as explained in previous paragraphs, and the cost of a coat of arms is over $10,000.

One interesting case is the boom in registrations of American coat of arms in Spain. There are many reasons for this, the most important one is that it is very affordable and a second one is that it is much more flexible about augmentations than other heraldic authories. Many Americans with German or British ancestry choose to register their coat of arms in Spain with a very British style and with a wide range of augmentations, including African tribal honors, dynastic honors of Royal Houses with no government recognition, and American hereditary organizations. The result is a very interesting yet eclectic mix which is only intelligible for a small community of heraldry fans but which has absolutely no social legitimacy in mainstream American culture. One anecdotal example is a Southern gentleman of British ancestry who has a coat of arms registered in Spain, with the help of an American heraldic artist who does not have any ancestral connection with Spain and does not even speak the language, the coat of arms was designed with a British style and all the augmentations are dynastic honors bestowed by non-reigning Royal Houses. Therefore the supposed marks of rank or "accomplishment" are not recognized by any government. Moreover, the honors are not even connected to the ancestral cultural background of the individual.

Another trend in the United States goes to the opposite extreme and forbids the use of any augmentations. The American College of Heraldry is the main exponent of this school of thought. It is a private organization and it claims to promote an American version of heraldry focusing on the private adoption of coat of arms (Heraldry). Due to the relatively recent creation of the United States and the ability to adopt any last-name, there is very little genealogical value to this approach. From a social perspective the prohibition of augmentations and any marks of rank make the coat of arms registered by the American College of Heraldry little more than personal logos.

4. E-Certificates

More closely related to e-badges and certainly with more mainstream recognition than heraldry is the relatively new world of e-certificates. Many private and public organizations offer short courses and even entire programs leading to the achievement of a certificate. One of the problems is that the meaning of certificate is very ambiguous. Starting from the most formal and rigorous end of the spectrum one finds graduate certificates. Graduate certificates are the equivalent of half a master's degree. It is a higher qualification than a bachelor's degree but lower than a master's degree (Thelin, 2011). In terms of credits, in the United States, a graduate degree tends to require at least 12 to 18 graduate credits or about four to five graduate level courses. Graduate certificates are known in other countries as a specialization and imply a high level of expertise in a particular field. Graduate certificates are included in official university transcripts and they are listed next to degrees in a formal resumes.

As a result of the need to send academic and professional credentials through digital means, many universities are now issuing digital certificates for people who complete graduate certificates. Institutions doing this include several Ivy League universities and several State universities in the United States, as well as Oxford University in the United Kingdom. Graduate certificates are well known by recruiters and human resources professionals as valid and legitimate academic qualifications. Thus, the digital certificate complements the more formal credentials provided in the form of a traditional university transcript.

In addition to formal graduate certificates there are also many private industry certifications which also provide e-certificates as a complement to the traditional print credentials they provide. The quality and length of industry certificates vary but most of them are well known by human resource managers and play an important role in vocational fields. In this case the addition of an e-certificate as a

digital way to display an industry certification is not a major challenge because it is mostly pertinent for people in that particular industry.

The main challenge is the proliferation of massive online courses such as the ones offered by Coursera and HarvardX (Scholz, 2013). This type of platform offers online courses for continuing education. The courses are designed by actual professors but they are designed to be graded automatically. No official credit is usually earned by taking these courses; nevertheless students are given the option of requesting a digital certificate of participation. Some of those free courses require a symbolic fee of less than $50 to receive the online certificate (Scholz, 2013). The idea of providing open courses is a great opportunity for people all over the world to continue learning and to be exposed to new ideas. Nevertheless the quality of those open courses is not on par with actual credit courses. To be fair, the courses themselves do not claim that the students have achieved mastery in any of those subjects and simply issue an online certificate of participation. The main problem is brand dilution and the unethical use of those certificates by the students.

Social media has become one of the most common ways to share credentials with the world. LinkedIn is probably the best known platform for professionals but many people also use Facebook and other platforms to share their academic accomplishments (Scholz, 2013). One of the great advantages of social media is that one is able to share professional and academic credentials with a wide range of actors. Rather than hanging a physical diploma in an office with few visitors, social media allows potentially thousands of people to view those same credentials. Establishing authority is particularly important in certain professions such as teaching, consulting, and other service jobs. Rather than focus on the utility of a particular credential to apply for a job, there is another type of utility, which refers to establishing the credibility of a professional in the eyes of the lay client/patient/pupil.

A student taking a graduate business course with a professor may want to know more about the accomplishments of his or her professor beyond the minimum requirements for teaching (Ewest & Klieg, 2012; hallinger & Lu, 2013). The same is true for physicians; a patient may want to know about the continuing education of the practitioner in terms of learning new methods and treatments. In many cases it is the other way around. The professional may want to establish his or her authority before or even during the provision of the service. Examples of this would include a professional displaying his or her degrees and academic achievements prominently in their office. Another interesting example is the inclusion of pictures of graduation ceremonies placed prominently in Asian offices. In many cases the photograph of the graduation ceremony is more important in Asia than the actual diploma, because a picture is much easier to understand for the average person than the complex wording of the actual diploma. This type of power play to establish authority has now migrated online. Professionals in all fields share their credentials with the world and focus on the general public rather than on the specialist. Thus, the most common technique is not to post detailed academic transcripts but rather the most colorful certificates possible with brief commentary. This is where e-certificates are making a big difference. The proliferation of short courses with little to no accountability providing participants with visually appealing and "official looking" digital certificates has grown exponentially (Scholz, 2013). Short open courses do not have any admission requirements and require very little actual work. The digital certificates tend to prominently display the name and logo of the university that originally designed the course and the in very small print the disclaimer that it is simply a non-credit participation certificate. Course platforms clearly understand that this is a great incentive in that they include the digital certificate and how it is compatible with social media platforms as one of the main benefits of enrolling in the course ("Coursera," 2020; Scholz, 2013).

More empirical research is needed to understand the impact of those e-certificates on professional authority. However, there is no doubt that while legal, they can lead to some very unethical behavior. Two extreme anecdotal examples illustrate the dangers of e-certificates in terms of serving as tools to establish professional authority. Subject A is a former construction contractor with no formal college education. He has obtained several honorary doctorates from non-accredited universities in South America and passes himself as a curator of a non-existent museum. In multiple social media platforms he presents his honorary doctorates as if they were official effective doctorates and to support his claim he posts e-certificates from several Ivy League universities. Several certificates prominently feature "Dr" in front of his name. Even though he knows very well that he will not fool a hiring committee for a university job, his online public persona very effectively establishes him as a highly educated individual in the eyes of his social circle. This is a very extreme case in that the individual is attempting to establish a professional authority to which he is clearly not entitled to. A more subtle example is probably more problematic because it is harder to detect and more ubiquitous. Subject B is an adjunct professor at several lower tier universities. He holds degrees also from lower tier universities and he has a very basic research record. Like many adjunct professors he also teaches graduate students at several universities, many of whom have years of experience in the private sector and some who are his same age or even older. In order to establish his credibility as an authority he has a very active online presence which he uses to post an extensive collection of e-certificates with inspirational commentary about the importance of continuing education. He has a preference for courses designed by Ivy League universities and in particular by famous professors. There is obviously nothing wrong with continuing education and with posting further education but the main problem is the commentary that accompanies most of those posts. In one of the posts he thanks a Nobel Prize winning economist for his mentorship and motivation after posting an e-certificate from an Ivy League university. The post is very ambiguous in that he is not

claiming to have worked on any joint research projects with the famous economist but it clearly gives the impression that he at least took a formal class and interacted with the Nobel laureate. Responses to the post clearly support the assumption that many innocent lay observers would make the assumption that Subject B was not only enrolled in a highly rigorous advanced program at an Ivy League school but that he had the opportunity to interact directly with the famous scholar. The truth of the matter is that the participation certificate cost him $49, he was not formally enrolled in any official academic program, and he most definitely did not interact with the Nobel laureate. If he had wanted to actually take an actual course with that particular scholar for credit it would have cost him at least $3000 and approximately 15 hours of study per week for an entire semester and even then most interaction would be mediated by a teaching assistant. Nevertheless, the effect on his prospective and actual students was the same. Without having to say anything else about this experience he can present himself in class and be perceived as an Ivy League trained scholar with direct mentorship from a Nobel laureate.

Subject A is clearly breaking the law by passing off a fake doctorate and using the title in the United States however the case of Subject B is technically legal but clearly unethical. While Subject B raises some eyebrows among his colleagues because of his indirect claims of authority, his students and prospective students are clearly mesmerized and in awe at his academic accomplishments. Small for profit universities may even promote this type of behavior from their faculty members in order to boost the prestige of the institution itself in the eyes of the students. More research is needed in terms of the actual effect of this type of behavior on student enrollment for small universities and most importantly on student reviews/evaluation for professors.

5. Conclusions

E-certificates are here to stay and the COVID-19 induced digital migration will probably increase their presence. Therefore it is necessary to integrate them into a coherent system of social markers and credentials. Human resource professionals will rise to the challenge and will be able to sort truly valuable credentials from the usual resume padding. The main challenge will be social because of the lack of sophistication of the general public in terms of determining the origin and legitimacy of credentials and also the spread of misinformation through social media. Legislation is clearly not the solution as evidenced by Subject A in our discussion of e-certificates. There is already legislation to prevent the use of official university degrees. Nevertheless these laws are only implemented in clear cases in which the intent of the use of the title was monetary gain or seeking employment. This leaves a broad area of operation in the public sphere that is not actively policed, particularly in the private sector. The same challenge is faced with e-badges in that their effect on important decisions such as job applications and promotions is probably minimal while they might have a more significant effect in the social sphere.

Lessons from the tragic history of heraldry, a once important and respected science, can serve as a warning sign for proponents of e-badges. Focusing on skills and accomplishments which are socially recognized and useful should be an important goal. It is also important for platforms to provide information about how the e-badges were achieved. Most importantly, public awareness raising campaigns about official credentials in each jurisdiction is needed as a way to protect the public from misinformation.

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