By Matthew Pittinsky

Credentialing in Higher Education
Current Challenges and Innovative Trends

If we think about what colleges and universities do, there are very few things that technology has not fundamentally either transformed or begun to transform. Yet for all of the ways in which technology is changing teaching and learning, research, and services, there is one area that has not been affected much at all: the transcript.
One could argue that the transcript—that is, credentialing—is the only non-negotiable service of a higher education institution. At the end of the day, we credential. Indeed, America today is a credential society. The U.S. Census Bureau reports that one in two U.S. adults has some form of postsecondary credential; one in four has some form of certification or license independent of his/her postsecondary credential. But higher education does not hold a monopoly on credentialing. It is happening in the labor market as well, with certifications and licenses that make a significant difference for workers. For example, the BMO Education and Training Report 2012 highlights that someone with an associate’s degree plus a certification or license experiences a 15 percent earnings premium when compared with someone holding only an associate’s degree. And that premium changes depending on the certification and license and depending on the degree (e.g., a two-year degree or a four-year degree).

For many students, the credential is the coin of the realm. After completing a two-year or four-year program or a continuing/executive education program—whether brick-and-mortar, online, or hybrid—students leave with a credential. It’s their currency for accessing opportunities as a function of the educational investment that they’ve made.

Students then take their credentials—transcripts, diplomas, certificates, assessments—and move into a world where they continue to get more certifications and licenses. Their academic credentials may be stacked into those certifications and licenses, often as a prerequisite. Indeed, certifications are part of many higher education programs. If I were to go through a teacher education program, for example, my certification or license isn’t going to happen later. The program is specifically designed so that I will graduate not just with a diploma but with that certification as well.

Colleges and universities are the beneficiaries of this growing credential society because they are the gatekeepers of many of those credentials. But that is a curse as well as a blessing. The curse is the expectation that higher education must find ways to credential better—with more information and in more accessible ways—using the transformative technology we now have available.

What’s driving this demand for more credentialing from higher education? Academics will likely disagree. An economist might argue that credentials are measures. Since we can’t put an instrument into people’s brains to figure out what they know and how well they know it, we trust higher education and other institutions to measure learning. Can a graduating student write well? Speak well? Think analytically? Is the student comfortable with and skilled in using numbers? As jobs have become more technically complex, we need more information about and higher standards around how we measure productive human capital or the use value of the credentials. The transcript communicates this information.

A sociologist, however, might argue that something else is going on. The workforce hasn’t become that much more complex. Does the coursework completed for a bachelor’s degree correspond with the requirements of many of the jobs in the labor market? Does someone really need a bachelor’s degree to be a firefighter, for example? What is probably happening, according to this view, is credential inflation. When very few people had a high school degree, that degree was the currency used to “purchase” a job. Now that everyone has a high school degree, the bachelor’s degree is the ticket. As more and more people get bachelor’s degrees, a graduate degree will become the employment differentiator.

Then, somewhere in the middle of these two arguments is the notion that credentials are signals. With the competition over scarce opportunities in the labor market, credentials become a way of filtering people. True, credentials may not fully communicate needed information. The fact that I have a bachelor’s degree in sociology says very little about what I know and how well I know it. Nevertheless, one can make certain assumptions about my knowledge and skills from the fact that I went through that degree program and graduated from the institution I attended.
Whether measure, currency, or signal, credentials are at the center of a new debate in higher education, with rising expectations from both students and employers for more comprehensive credentialing that documents knowledge and skills throughout a lifetime of learning. I would argue that unfortunately, most colleges and universities have not begun to come close to meeting those expectations. The truth is, we don’t communicate a fraction of the educational experience that happens at our institutions: the leadership experiences and competency achievements that are a result of those programs. For employers, these are some of the most valuable skills and represent the type of information that they are looking for regarding potential first-time hires.

The way higher education institutions communicate the information of student achievement is still very much in paper-based ledger form, for example. We’re still printing and mailing. To receive a transcript from many institutions today, a student must fax in the request, mail a check, and wait in a line to receive an envelope inside an envelope inside an envelope.

Today, students live much of their lives online. That is where they are establishing professional identities and getting jobs. When they graduate, they are given beautiful paper diplomas, framed to put on a wall for perhaps ten people to see. What are also needed are digital diplomas to be placed into online profiles for everyone to see.

In addition to the lack of digital formats, higher education credentials are very fragmented, with dual-enrollments, study-abroad programs, badges, and various certifications. Often these certifications or additional programs are simply listed at the bottom of the transcript instead of being treated as a full-market-value credential.

Institutions also need to find ways to transfer this information not just to and for students and employers but also among themselves. With the current trends in terms of institutional pathways, this need for collaboration is becoming more pronounced.

In my home state of Arizona, for example, Arizona State University (ASU) is working with a number of community colleges so that two-year students, while they’re still at their home base of the two-year institution, can have their transcript data sent to ASU and put through a degree-audit program, MAPP (https://transfer.asu.edu/agreement2/maricopa-county-community-college-district/mapp), to make sure that the courses they’re taking are going to maximize their transfer and completion on time to that four-year degree.

This requires an institution-to-institution exchange of data around courses, grades, and similar information. To print and mail that information and then open, scan, and index it would be absolutely unscalable. However, even though ASU has had a long relationship with Maricopa Community College, for example, and many colleges and universities probably have a similar point-to-point relationship, for the most part that doesn’t generalize across multiple institutions.

In Colorado, a statewide reverse transfer program, Degree Within Reach (http://degreewithinreach.org/), is the direct opposite: students have the ability to leave the two-year program without getting an associate’s degree. In their four-year program, on the way to a bachelor’s degree, if they earn enough credits to get that two-year degree, they will earn an “associate’s in passing,” which means that even if they don’t ultimately complete the four-year program, they will still have that foundation of a two-year credential. This requires institution-to-institution collaboration and exchange of student records and student performance data.

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Thus the rising expectations of the credential society, the fact that our paper-based approach is not meeting those expectations, and policy drivers about how colleges and universities are expected to move student record data within and among institutions are all creating significant challenges. The good news is that several innovative trends—including co-curricular experiential transcripts, micro-credentialing, and the electronic transcript—have the potential to satisfy these expectations.

Perhaps not surprisingly, I feel that the digital credential is key to addressing many of these challenges. It can break down the barriers of communicating fifteen to twenty pages of information that doesn’t scale well. If the information is electronic, and if it’s available as machine-readable data, we can begin to communicate more information, and we can count on the information systems at the other end to be able to take out
exactly what they’re looking for.

Yet these trends do pose a risk. One thing that we may not fully appreciate until it’s gone is how well-established the academic transcript is as a standard. We know it is two or three columns. We know it shows courses and grades. We know that it contains letter grade assessments and/or numeric grade assessments. And we know what to do with that information. As colleges and universities begin to issue more experiential and/or co-curricular transcripts, if each institution does so in its own way, we could create a Tower-of-Babel problem that will make the exchange of credentials even more challenging.

Perhaps the best example of this is Western Governors University, an innovator that completely rethought its program, resulting in a completely different transcript. The number-one complaint that the university received was from other institutional registrars saying: “I don’t know how to articulate this transcript. I don’t know how to give students credits, because I can’t find the basic information that I need to make sense of the transcript.” As a result, Western Governors University now provides a traditional-format academic transcript as well as a competency-based transcript that reframes the traditional information.

Likewise, as institutions start to use transcripts with machine-readable data rather than paper with the look-and-feel that we take for granted, we will need technical standards for that electronic credentialing.

Outside of the United States, there are some interesting models from institutions that have begun to tackle the problem of electronic standards for extending their transcripts in a very protective way. Not surprisingly, many of these are in countries that have ministries of education, which can help lead innovation across an entire country.

For example, the trend in the United Kingdom has been to move away from the degree classification system toward a GPA system and to begin communicating more information—not just courses and grades but also information about students’ learner experiences. So the question has become: what does this new document look like? The Higher Education Achievement Report (HEAR, http://www.hear.ac.uk/) is trying to get ahead of the problem.

The HEAR asked: How can we develop a standard that doesn’t stifle the innovation of individual institutions to communicate the information that they want, in the way that they want it, but will still allow a reader to know what to expect in each section? Perhaps section one describes the institution: the types of degrees it issues, where it is located, how it is accredited. Maybe section two gives more information about courses and grades in a conventional format. Section three could be the place to put other types of experiential learning. And section four may be a summary of courses and grades and experiential learning from a competency perspective. How do we think about that kind of a structure for a document and the types of information that are associated with it?

The HEAR is still early in its adoption in the United Kingdom, and I wouldn’t describe it as an unbridled success. Some institutions aren’t sure how much information they want to communicate in their credentials. But the nice thing about the HEAR is that it’s backward-compatible. If all an institution wants to do is issue a conventional academic transcript as a HEAR, then it sends only sections one and two, for example. But if it wants to begin to communicate competency, experiential, and other types of information, it can extend the transcript using an extensible machine-readable data format. There’s also a template that gives readers of the credential an expectation of where that information can go over time.

In the United States, early work also is happening along these lines. One example is a call for a Postsecondary Achievement Report (PAR). Included in a PAR, we might have, for example, a cover page that talks about the college/university, the student for whom the credential
has been prepared, how awards are issued (graduating magna cum laude, for example), and some information about accreditation. This might be followed by the actual transcript, since there are still expectations surrounding credit hours and how we break education up into discrete chunks.

The report would allow an institution to present this information in a conventional format but would also offer the opportunity to go deeper. For example, Stanford University offers an interactive digital transcript. Receiving the transcript in electronic format, the reader can click on any course listed and go right into the catalog description of the course. Clicking further leads to the syllabus. From the student perspective, clicking even further leads to an e-portfolio and, depending on the program and what the student has done, shows actual evidence of the learning inside that classroom.

At this point the report might bring in competency information, as Northern Arizona University is doing. For example, what are the major competency expectations for a degree in the liberal arts? Did the student work well in a team structure, communicate with diverse populations, and analyze complicated materials? Did the student achieve full or only partial mastery of those competencies?

This offers the opportunity to present experiential information. Elon University has developed an experiential transcript that follows the traditional look-and-feel of a conventional transcript but presents additional information that includes whether a student was a leader in a group and how many hours he/she put into it, for example.

Finally, the PAR could present not just ledger information but also information systems set up to be able to capture that information in a scalable way, and what level of attestation or verification or certification are institutions providing in terms of those rules and activities? The notion of the PAR is very much about setting the horizons for presenting a broader superset of data and information. How can we create an overall document framework, as well as an extensible machine-readable data format, that will allow us to communicate that information differently across institutions but in a way that can scale over time?

Then, how do we enable learners and graduates to use that framework to integrate their certificates and diplomas into their online identities? Students should be able to claim an electronic credential, with the associated security that makes it official, and put it into their LinkedIn or Facebook profile or into an online professional community profile (e.g., Care.com). They need the ability to collect multiple credentials from their home institution and also other institutions—licenses, badges, MOOC certificates, and experiential, academic, or competency transcripts—so they can share and deliver those credentials securely online.

Not surprisingly, the alumni office has become one of the biggest promoters of sharing credentials. Offering students the ability to take their higher education credentials and combine them with other credentials over their lifetime is a way to both promote the institution and enable students to make the most of the education that they’ve earned there. Sharing their diploma or certificate online is amazing social validation for the college/university and raises awareness among social networks, driving more interest back to the home institution.

Lastly, the learning process for students should be a key consideration of electronic credentialing. How can we take the machine-readable data embedded in these credentials and open up new types of analytics to help learners understand different types of pathways? How can expanded forms of electronic credentialing help students to determine which courses, which experiences, and which activities might have the biggest impact on their learning and their education as a whole?

Credentials matter in a knowledge economy as a key indicator of critical life outcomes, and the first step is modernizing the credential infrastructure for a digital world. Colleges and universities need to capture the entire educational experience to create a common understanding of both course and campus-based achievements. And higher education needs to do so electronically via a consistent document structure and data standard that institutions can use as a way to extend their traditional academic transcript or as a next-generation successor. Finally, higher education needs to do all this in a way that protects, preserves, and limits access to that data but that makes the data portable, available, and actionable for learners, graduates, other institutions, and employers.

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