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EDUCAUSE
Industry and Campus: The New World of Work and Implications for Higher Education
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>> Jamie Farrell: Hello, welcome to today's industry and campus webinar: "The New World of Work and Implications for Higher Education". This is Jamie Farrell, Online Event Production Manager at EDUCAUSE and I'll be your moderator today. EDUCAUSE is pleased to welcome today's speakers, Liz Dietz and Sean Gallagher. Our virtual room or learning space is subdivided into several windows, our presenter's slides are now showing in the presentation window, which is the largest on the screen. The tall window on the left serves as a public chat space for all of us. You can use the chat to make comments, share resources or to post questions for our presenters, we will hold Q & A until the end of the presentation, but we encourage you to type your questions into the chat throughout the webinar. If you have any audio issues, click on the link in the lower left hand corner and at any time you can direct a private message to technical help, by clicking in the top right corner of the chat window. A dropdown menu will appear. The session recording and slides are be archived later on the EDUCAUSE website. Now, let's turn to today's presentation. The new world of work is disrupting higher education business model. Jobs of the future will rely on lifelong learning, faster and cheaper learning opportunities become a competitive advantage for employers and a new opportunity for institutions. Learn how institutions are rethinking current higher education business models, and how Workday is uniquely positioned to meet the demands of the new world of work. We are delighted to be joined by Liz Dietz, vice president of strategy of Workday. Establishing the higher education Workday practice. Ms. Dietz has over 25 years of experience in designing, building, marketing, and supporting innovative software solutions for the higher education, K-12 and learning markets, we are also joined by Dr. Sean Gallagher. His research has focused on higher education market trends and the intersection of education in the workplace. He's the author of the book "the future of university credentials, published in 2016 by Harvard education press. Let's begin today's industry and campus webinar: "The New World of Work and Implications for Higher Education". Liz and Sean, over to you.

>>LIZ DIETZ: Thanks, Jamie, let's move this slide over, already, so we've already introduced ourselves, so I think Sean, unless you want to play something else, I'll get into it.

>>SEAN GALLAGHER: Sounds great.

>>LIZ DIETZ: First of all, as you may or may not know, Workday is a publicly traded company,
so safe harbor, I need to let you know, don't make investment decisions based on anything you may hear today. So let's jump in for shaping the new world of work, so we're going to start with the Workday perspective. And the thing to know about Workday -- get to this slide -- is that Workday is a provider of talent manager and all about PT products as well as -- talent products -- we have supported over 2800 global organizations. Gained visibility into the work source, streamlined and improved their people practices, and become the best places to work. So as our customers embark on their next frontier, they're seeing a marked change in the natures of work, how, where, and when people work. We are in a unique position to help them. I'm going to share information that we have gathered from our global customers around the world, given that we're here to talk about the new world of work and how it may impact higher education. So Workday partners with some of the largest and most complex organizations in the world. They look to us to support their rapidly evolving talent and management needs. Today, we manage over 40 million global workers in the Workday tenant. With those 40 million global workers, there are over 20 million job requisitions at any given time in Workday. And we're able to mine data on behalf of our customers and pay particular attention to real-time trends related to skills and demands and skills deficits. One important trend we're seeing across all industries and in fact, globally, is that finding and developing people's skills needed to pursue our customers business strategies is a huge challenge. And it's only getting more difficult. As they tell us. So let's talk a little bit about the forces shaping the new world of work. There are three forces driving this profound shift. First of all, technology is reshaping every job. The availability of data and the application of new technologies is redefining work as we know it. While less than 5% of occupations in the future will be entirely automated, by 2030, 60% of the jobs will be transformed to the automation of a significant component of job-related tasks. We'll see machine learning, block chain, artificial intelligence, bots, robotic process automation, they are all changing how we work. And also helping us do our best work. Now, technology is also changing user expectations as I think we're all aware. Employees and students want everything to be mobile, they want chat box to serve information as we need it, and everything is personalized. We're also seeing a growth of alternative work arrangements. Alternative workers are the fastest growing segments in the market, gig workers, freelancers, consultants, contractors and flexible work arrangements are a central part of many, many workforces. Concept of work is also increasingly disconnected from the traditional idea of a job. And jobs are not the linear path that they used to be. Sorry for the delay. Clicking twice, I guess, to make it to move forward. So now, we see skills are emerging as this new common language. And so in this new world of fluid jobs and teams, they need a way to form and communicate. So live the common language of skilled, we're able to connect job seekers and job providers. Now, the modern career landscape looks very different from the one before it. Certainly, the career landscape that I started in 30 years ago. And this path is not linear today. So that's why the skills as a language is important, how you develop and represent your verifiable profile of capabilities, skills, and your education. And along this modern career pathway, the development of skills is becoming increasingly just in time. This is where higher education is going to need to pay attention. So let's look at some of the forces shaping this new world of work from an employer research perspective. And I'm going to
turn it over to our expert, Sean Gallagher.

>>SEAN GALLAGHER: Great. Thank you, Liz. Yeah, so what I'd like to emphasize our work here at the northeastern center for the future of higher education and talent strategy, focuses in particular what's happening with the employers and how that intersects with the world of learning in higher education. And in picking up on some of Liz's themes, what's interesting today is that talent strategy, recruiting, talent acquisition, learning and development, but especially the hiring piece I'll emphasize here has really moved to the top of the corporate agenda, given the job market. As you might be well aware, we have job openings at all-time highs, in the United States, the economy is still pretty solid worldwide. But 7.5 million open jobs, the unemployment rate as of this month for individuals that have a bachelor's degree or above is down to 2.1%. As we know, there's a very tight job market and it's really a job market in which the talent has a lot of value. Now, when you look at CEO concerns, and corporate strategy priorities, and even at the board level, attracting and retaining talent is something that has come up as the top internal concern amongst CEOs in a conference board survey this year, also, when you look beyond the U.S. globally, PWC does a survey called the global CEO survey. You find that attracting and retaining talent is a very top corporate priority. And that's new. That's new in the last five-plus years. In terms of the strategic emphasis on it. What does this mean? Many companies are developing and entertaining alternative talent pipelines, so coding book camps, for example. -- boot camps for XAFRP PL. In areas touched by technology T existing pool of individuals might be tapped out. Their self also shifting and getting more savvy on how they do college recruiting. And in addition, we see changes in investments in up scaling and retention. So this is where we are the examples of employers who are making strategic investments in tuition assistance, corporate partnerships, in order to education their workforce. Now, there's been a lot of debate about the value of educational credentials and hiring. Especially given this job market, given the costs of higher Ed, I think we're all aware that there are challenges to the business model. But we did a survey last year of 750 hiring meters, at a representative cross-section of employers of all sizes, and all industries, this was a national survey. In the U.S. And one of the things we asked them was how is the value of educational credential changed if at all, in terms of the emphasis and value in your hiring process? And what we found as illustrated by this graphic is that on balance it is increasing, it's staying the STAM for 29% of employers, the value of -- has climbed at 23% and an increase. When you dig into why that is, and yes, there is a little bit of credential inflation out there, you can debate that, and employers say that it's due to the escalation and the skills demands in the knowledge that's required or preferred to do certain jobs. And on that, if we pan back and look at the whole job market, and this is data from burning glass technologies, this is for the full year 2018. Which I think is 23 million Plus job openings, that came up over the year, so massive data set. What you find is that where the hiring and the job posting is happening, is continuing to favor post-secondary education. In some form. More than half of the job openings at least preferred a bachelor's degree and almost 20% preferred or saw a graduate or professional degree. Consider that only 12% of American adults have an advanced degree, and a smaller percentage certainly have a bachelor's degree compared to that 54%. Note the totals here
add up to over 100% because you might have a role where a graduate degree might be preferred, a bachelor's degree is required. And as we'll dig into it a little bit in the coming moments, how employers look at educational credentials is beginning to shift, this does not necessarily mean that everyone needs an advanced degree or even a bachelor's degree, but it's to say that post-secondary education continues to be valued, it's just often being delivered in new forms and at new price points. And what we have worldwide is this new imperative for lifelong learning. The longevity of skills is in fact declining. There's some interesting data emerging on that, I think many of us will be familiar with the example of software developers, where it's been measured that every 12-18 months, software developers need to refresh their skills based on the tools and approaches and programming languages and the fast-pace of development there. What's also happening is other occupations, especially because of technology, and when they're touched by technology, in software, sort of eating the world, like marketing, which is becoming more quantified and digital, or finance, is another area, the shelf life of skills is in decline. And that means more continuous education both formal and informal. Much of this is happening on the job. Or at some form of microlearning is continuing to happen and as needed. Our survey, another question we asked is if employers hiring meters agreed with the statement that the need for continuous learning -- lifelong learning will demand higher levels of education and work credentials. Indeed, an environment where there's debate about the value of degrees and as employers should rely on degrees, they see a landscape where even if it's not a degree or something formal, that more learning is required and preferred. And connected to that, we have many employers beginning to look beyond degrees to what's called skilled-based or competency-based hiring. Often this is enabled by a technology, this can include the use of direct assessments or simulation-based interviewing and other means. But this was one of the more interesting surprises in our survey. What this question got at was we wanted to understand what share of employers are making a formal effort to move in a direction of prioritizing skills and competencies over degrees and hiring. That was 23%. And then another almost 40% said that they're exploring or considering that direction. So even if you discount these percentages substantially, what we see is that many employers now have very intentional efforts underway to dig under the surface, to rethink how they think about talent and job requirements, and to unpack the educational credential like the degree that we've long relied on. And that, I think this is my last slide, in this section here, and I'll hand it back over to Liz, is connected to the development of talent analytics or people analytics within employers. That's beginning to reshape how employers hire and how they set educational quality KAGSs for jobs. -- qualifications for jobs. In higher education, we might think that, you know, mayor employers, many of them for profit, global corporations, have the setting of educational qualification down to a science. They really don't necessarily. When you ask them about how rigorous and data-driven their process of is doing that. 17 percent of the companies, that's up, that's about doubled from a few years ago that are engaging in some form of talent or people analytics, they're looking at the colleges they recruited and hired from, educational credentials that people hold, who has been most promotable or shows up on succession plans, WHO is performing the best and how does that connect to the channel that they came through in the educational credential that they hold. And
41% of companies say that they're in the beginning stages of employing more data and more analysis and making these decisions. So all of this adds up to a changing world, where it's still quite early, but these new practices are beginning to reshape the hiring landscape and then of course will have implications for higher education as well. Back to you, Liz.

>>LIZ DIETZ: (Inaudible).

>>Hello, everyone, we're getting Liz back on the line, Sean, would you like to add anything?

>>LIZ DIETZ: Oh, so sorry, here I am back. Sorry, the mute button. Forgot about that. What a great chat we have going on in the chat box over there on the need to be as nimble as possible, and as responsive as possible and to watch these signals coming from the employment world. So let's talk about how Workday looks at our role in supporting this sort of feature of work ecosystem, we are bringing the notion of the nonlinear career trajectory on the workers side, together with the enterprise demand for talent, connecting that. So in the future, we see the need for bringing a supply of verified credentials, certifications, institutional degrees, work experience, together with the enterprise demand for a variety of workers. We also see an emerging -- an emergence of skills in private and public marketplaces as companies flex and figure out where to build by and borrow talent and that's really critical. It doesn't make sense for an employer to always go outside to find their talent. Sometimes they have great talent inside, but they just need to develop that talent. But it doesn't -- it also doesn't make sense for the employers to always develop that talent internally. And this is where I think higher education can play a role by having some of these more -- nano degrees, mini credentials, stackable credentials, etcetera. So we see the need for technology solutions to help address this plurality of the workforce and help them manage their work in an easy, frictionless way. And to be able to connect that education to occupation connection for our Workday customers. So let's talk a little bit about why skills are so important. So I mentioned earlier, that skills are becoming the unifying language. Talking about work and workers. And for connecting job seekers with organizations seeking talent. They're the medium of exchange in the supply and demand of talent. Using machine learning -- let me see if I can get this animation to go. -- using machine learning, we've narrowed down 200 million professional skills across industries. Narrowed down to 55,000 skills. That can now be widely understood and used. So we have sort of streamlined the skills and found 55 million unique skills instead of the 200 million. So as skills become this common language, we've got a new tool in our arsenal. It's the skills. So Workday, we're investing in a skills infrastructure that will pave the way for a very personalized talent journey. For myself, when I use the internal Workday application, I'm an employee, we use our own software. I can go to a talent wheel and look at jobs available. What jobs I might be a fit for within my organization. What skills might be missing. And what is the easiest fit for me. So that's what we're talking about when we say, you know, we're using our skills to help internally help companies find where they should be investing in their talent. So now I'm going to give it back to Sean. Oops, here we go. I forgot to click my animation; I'm going to give it back to Sean.
to talk about how higher education is responding.

>>SEAN GALLAGHER: Right, thanks, and I'd emphasized in this section, speak from the perspective of someone who researches and looks out at what's happening across the whole higher education field. As well as from the perspective of the practitioner. And some of the things we're doing here at Northeastern University. I think I have six categories here, just trying to sort of capture and bucket some of the interesting and innovative ways that many higher education institutions are responding to these demands out in the market. The first category is what we might call the market validation of curriculum. Various forms of employer engagement that go -- hopefully well beyond advisory boards. And reaching out to employers, getting their input, perhaps, they're also contributing data sets or projects or job roles to a program so it's more of a work-based learning experience and it's much more applied in terms of the courses and programs that we're developing. Certainly, one of the most common developments over the last few years in an area that still takes some resourcing and expertise is integrating job market data and looking to that job market data as you design and refresh programs. And then we also have cases where many colleges, especially community colleges, but even also research universities, with professional graduate programs and so on, are intentionally aligning their programs and courses with industry standards or certifications. So that maybe you don't only complete a course or get the digital badge or certificate from the university, but you also have a PMP certification and project management, or an I.T. certification or something of that type. Another major category, which probably comes of no surprise, but I would emphasize continues to be an important zone of growth, is online education. And serving that lifelong learning market in adult learners as well as of course the fact that much of education for the traditional student is becoming hybrid or blended. This remains one of the major growth segments of higher education, growing at about a 4-5% rate when we talk about online degree programs. Of course that's significantly greater than the market as a whole. And I think that the key new development here is the new approaches and technologies, that are emerging in terms of the degrees, artificial intelligence and machine learning, being applied to grading assessments or helping programs scale. I think 20 years after the launch of the first online degrees, we are now entering a new chapter in this market. The other development, of course, has been some of the most prestigious universities in the world -- interested in new credentials, which is the next category. New types of credentials and modularized disaggregated degrees. Break up the degree, to make it more modular, more professionally specific. Lower costs, and we've seen things like certificates, various microcredentials, some of them are trademark terms, but nano degrees, micromasters, master track certificates, digital badges and the like, alongside things like boot camps, and what do all of these things have in common? They're alternatives to the degree. And in many cases, they can be complimentary to the traditional degree. But it requires more of a professional focus, often we're talking about online delivery. It's still a relatively small market. None of these new offerings have necessarily displaced the degree. But certainly, many universities are investing in these things. And we see continued demand from learners and employers for them. All of this relates, also, to greater transparency in competencies and credentials, when you think about to
that discussion earlier of tele analytics and what employers are looking for when they hire, skills as a new currency and so on. Whether it's via digital badging or E-portfolios or competence-based education, in its broadest form, this is an area where we're seeing more transparency and granularity in terms of what you can access or see. How a learner, how a professional, a graduate, whatever term we want to use, can present and document what do they know and what can they do? And that requires new source of software tools, and new standards. We don't have to get into the questions about how do we transcript credit or work with your registrar, necessarily, but this is really an important area where we're still just at the beginning and it's clearly here. Ryan Craig of the University of in-- competency marketplaces, you think of LinkedIn as a form of competency marketplace, where we put data and information in, it's verified in some form and there's some currency around it that can help people document what they've learned and what they can do and also connect them with jobs. And another major category, Northeastern University is a leader here, we have 3,000 employer partnerships, we've been doing for well over a century, various forms of experiential learning, including our signature education program. But the point I would make here, this is a market wide trend and it's a spectrum of work integrated or experiential learning options that extend well beyond internships and co-ops. And when we think about the new types of apprenticeships and digital apprenticeships that are emerging, capstone projects and online projects that are being integrated into programs. There's a whole explosion in work integrated learning and certainly a greater focus on employability trying to invest more in career services and placement. There's a lot to understand here, and a lot of intentionality that's needed to design the right experiences, and to get employers involved and to link them up to the educational process. The final category is creative corporate partnerships. And each of these, I've included a few examples here, at northeastern, general electric, where we codeveloped a bachelor’s degree program in advanced manufacturing with them. Also some partnerships with Google and IBM, to recognize their digital credentials for degree program credit. And then you have of course many other examples of partnerships, Georgia Tech and AT & T, Arizona state university, and Starbucks. What's new about some of these programs and relationships is that you're having a much-deeper partnership between the company and the university and a blurring of who does what. I personally think from all of the research and the analysis that we're doing, that there's more of an opportunity for colleges and universities here than there is a competitive threat. Many of these technology firms and other organizations are opening up their curriculum and standards and these employers are becoming providers of post-secondary education content and training content in their own right. And it will be interesting to see what the role of the university is alongside some of these employers created offerings. And with that, I will turn it back to you, Liz.

>>LIZ DIETZ: Thanks, Sean. You know, my takeaway in observing all of this and -- is that there's a lot of opportunity for higher education. And then more people I talk to, like Sean, and others, they start to see it, and as I talk with folks in higher education, it's more and more I'm hearing about institutions working with folks left with tangled solutions and others, where the opportunities that we're particularly suited to jump in and be as responsive as possible, not only
to our community and, you know, our alumni, but also to sort of capture some of the MU market where we're -- new market where we're uniquely positioned to deliver some of this education. Now, all of this, of course, is going to take, you know, I've been building student systems for 30 years, here at Workday, this is my third one. So I'm kind of a student nerd, but what I can tell you is it takes a lot of flexibility in your architecture where you're running your colleges and universities. Help at your back office. And how students are using your system. And so we -- because we can see into the talent, you know, shifting talent direction, we took the time to think about what would the modern architecture need to be? And so we've created support for things like the flexible academic calendars, stackable credentials, the microcredentials, badges, portable credentials, you know, concurrent academic programs, so we specifically designed the software to be able to do that. And in the beginning, you know, I see people felt like it was -- if you build it, they will come. But just in the space of five years that we've been at this, maybe six, it's really -- we've seen that the need is increasingly in demand. So we're thrilled about that. That we're able to do that. One of the quotes that I love, Arizona state university, is a Workday customer, and, you know, we pay a lot of attention to what they, northeastern, and others are doing, in terms of supporting the changing world of work, and the needs of the community, and one of the quotes I love from Michael Crowe, most people would agree, he's one of the most forward-looking college presidents out there. He says, requests as change accelerates, ASU must be a place where people return again and again to build the skills for multiple, shifting careers." And I think that's really spot on. And very forward-thinking, because if you can't respond to the market in demand, we've had a bit of that in the chat box, students and learners and life-long learners, as they are now, as Arizona state says universal learners, they're going to go somewhere to get the training that they need for this new nonlinear talent journey. One of the things that Arizona state university, just to illustrate, has done a few of their innovations is that they created entirely new schools for delivering academic courses that offer the modern pathways for learning, so they have retained the grounding knowledge, they haven't gotten rid of any of the subjects that they're teaching, but they have retained this grounding knowledge, but reconfigured it with advice and consultation with industry, to make modern, modern schools and degrees. They've also embraced lifelong learning, you know, as Sean mentioned, this notion of a universal learner and referring to this new learner, again, as a universal learner, which I think they've trademarked. But basically, offered a variety of options to support the modern learner with restructured academic courses, more bite sized, maybe just in time, and they offer everything from degree completion and coworking adults and traditional offerings, much as Sean said northeastern has been piloting this for a long time. They have launched, as some of you may know, a for profit network and learning platform of higher educational providers that offer online learning and degree completion programs for employers. Investing in educating their workforce. Now, I think that this notion of having an employee benefit to continuously up scale, rescale, help your -- help your workforce get a degree completion, or add those skills that they're missing to get that next job, the notion of the employer benefit I think is one of the most interesting emerging practices that we've seen. So with that, I think we're going to open it up to questions. And hear from some of the folks that would like to talk to Sean and I.
Yes, thank you so much, Liz and Sean. So please, write your questions in the chat box. We're going to be joined by Shane topping, to help us with Q & A, we do have a few questions that have popped up in the chat throughout the presentation, but please to write anymore that you have there. And Shane, welcome.

Shane: Thank you, Jamie. So the first question that I caught wind of in the chat came from Jeff from looks like possibly southern New Hampshire university. The question, I'm not sure if this is directed towards EDUCAUSE or Liz and Sean, how do we get past the internal change and transformation management activities within the academy? I'm not sure who the academy is.

LIZ DIETZ: Sounds like a good question for Sean.

SEAN GALLAGHER: I wish I had a -- the perfect answer. On this difficult one. But you know, it's a great -- it's a great point, I mean, I don't know that you can necessarily get past the need for transformation, it's about thoughtfully doing that change management. I know EDUCAUSE has digital transformation overall, it's kind of a major theme, but it is focused on this year, and just in the whole space related to innovation, much LEZ engaging employers, it's really important to build the case internally, to resource initiatives appropriately, and to recognize that, you know, certain policies and infrastructure do need to evolve. And just to tie it to another one of the questions that I saw here, someone had asked the question or made the point about basically the governance cycles and the timelines that universities work on. And this was in response to the idea that, okay, in certain fields, there's an 18-month, a 24-month shelf life of skills, but that's probably at the quickest how long it takes to develop a program. At a university. And to go through all of the steps to get it approved and launched and then you have an application cycle. Many colleges and universities are not continuously refreshing their programs. And I think that's why many colleges are turning to, in part, not that it's the only solution, but they're turning to various enabler companies and intermediaries who are steeped in and operating in the job market. And with employers, to kind of manage that process and manage the program design and the updating of curriculum. The short of it all is that we as colleges and universities need to be much more a tuned to what's happening out there. And adapt as much as we can and as much is as appropriate our processes and protocols so we can be more nimble and so that programs can be developed and launched and refreshed at a quicker pace rather than the idea that everything is going to take two or three years or move on a calendar cycle where, you know, there's one vote in the spring and then we come back after the summer and maybe start something new. So that's a long answer, but those are some thoughts connecting those two questions.

LIZ DIETZ: Yeah, this is Liz, a couple of the things we mentioned and the in the chat. One of the things is we have to become more nimble. Obviously, it does take time to develop new academic programs, tenure will always -- as far as I can see, be around for many institutions.
And so being nimble and responding to these -- the demand is challenging. Some of the folks that I work with in Australia, are much more able to do that and they're more driven by their labor market in terms of producing new programs. One of the other things that Sean mentioned a couple of times in the mentioned, if you have a 12-month application process, to become accepted and get into a program, they're probably going to -- an employee looking to up skill or reskill, is most likely going to find somewhere else they can get into more quickly. So I think evaluating that application process and how quickly you can put up degrees is -- or put up programs as Sean mentioned, but shortening that application process is really required. And then the other thing is, you know, we've talked a little bit about connecting the courses or the education, the skills, you know, we have allowed our customers to define the traditional course, they can also define what the outcomes, competencies and skills are for that course. But yet again, that's more work on the academy to do the hard work of saying, well, if we're teaching this particular course, what are the skills and outcomes and competencies that we can all agree on. Some of the accreditation organizations are going to need to get involved. I know that ACE has been looking at this for a while. And I don't know if they've made any progress of late. If anyone knows on, you know, that's listening in, please let us know. But I know that something that has reared up and is on their radar now. How can they create some sort of standard for equating, you know, the outcomes for sociology 101, what would those outcomes and competencies and skills be? And then how might you articulate those from institution to institution, and course to skill.

>> I have another question coming from Sam Larson, with the factors and trends be the same for say the nonprofit and public sector, you know, the willingness to support the upgrading of skills, would they be considered same or different? Maybe I think this might be planted more towards your research, Sean, any --

>>SEAN GALLAGHER: Yeah, thank you, I wasn't sure initially what that meant, but I think I see precisely what they're asking. Employers changing the practice, how they're looking beyond degrees, you know, what the pace of change is, certainly, the public sector, Government, various regulated industries, the education field, healthcare, not always public sector, some healthcare can be private sector, of course, that's where we see degrees being more codified, because of licensure standards and just, you know, how the job market is set up, so I think that the change is coming a little bit slower there. But if we pick up on education as an example, right, some states have moved away from this, but in many states, to maintain your teacher licensure, you needed to get within five years or something, a master’s degree and that drove the market for master’s degrees in education. R for many years. Professional development hours in the field of teaching are often connecting digital badges. So states like Tennessee and Massachusetts and others, are starting to say that teachers can get those professional development hours in a way that is a digital badge program. And that's formally recognized. And so there's a lot of interesting innovations, you know, in Government and public sector, you know, especially with licensure. Licensure and certification is sometimes moving to the block chain. And so some of it is around the margins but you're getting innovations where I think that the public sector as well is waking
up to the change in the market, and the need to innovate in terms of how some of these things work. Liz, you might be able to speak to that as well based on your experience?

>>LIZ DIETZ: Well, I definitely see more and more folks talking about this. And looking at ways of tracking all of that. So I would agree completely with everything you said. And only, again, one underscore one more time, how quickly these things seem to be moving. You know? More and more, like for when several years, no one was talking about this, a few people would be talking about all of these topics and suddenly, every day, I turn around, and there's some new announcement or someone is asking well, how will we do this? How will we do that? So the good news is I think there's a lot of dialogue and folks are really looking at this. Because I do believe it's really -- this is only going to accelerate.

>> Very good. I have another question here, that came in from Bruno. And Liz, I think that this is more directed towards you. And our example might be within Indian river, at the present time, is there any system that formally can recognize as a degree as the high level digital credential backed by the university, and which -- an additional microcadet might be stacked on top of, if you will? If not, do you hear of any other promising initiatives that are similar?

>>LIZ DIETZ: Well, I mean, we are -- I'm hearing about this quite a bit. You know, some of the examples might be either in the hard -- the hard sciences, or some adding credentials to a business degree, you know, Indian river state college offers technical -- there are customer Workday in fort pierce, Florida, they offer technical sorts of training like they are -- they provide licensure for a nuclear power plant, for example, training their workers. They also -- someone who wants to maybe become, you know, a registered nurse, and maybe they came out of the military with -- as an EMT, they were trained as an EMT. They had some college. They apply and get into the bachelors of science and nursing program. And along the way, they continue to work as an EMT. To put themselves through college. And then along the way, they might pick up a credential as a phlebotomist and stack that on to their progress towards the bachelors science of nursing, and then they continue a little bit further and maybe they are licensed as a radiologist, but all of these things can be stacked and go towards that bachelors of science and nursing and then you see a lot of nurses, register nursed, with a BSN going on to add even more credentials to become a physician's assistant. And that's one of my favorite examples of how are you stackable and continuing to reconfigure what you've got -- what you've achieved to make yourself employable. And I think that the more that we can do that, the better we're going to be in addressing the needs of the job market. And supporting that lifelong learner.

>>SEAN GALLAGHER: Yeah, and I add that colleges and universities are in a special privileged position in terms of being able to let's use the word certify, certify and assess and endorse skills, competencies, knowledge, learning, I know all of these things have different definitions. But when you think about that value chain of activity, that colleges from their beginning, have been focused on, they develop the knowledge, they teach it, and disseminate it,
they assess it. What's happening today is you know have third-party assessment entities and credentials where you might gain some knowledge based on YouTube, or a lecture or an MOOC or a university course, and it might in essence be assessed and certified somewhere else. But what's also happening, as Liz just spoke to, is people are gaining knowledge and skill in the job market, or in informal settles and then colleges and universities, through prior learning assessments, have the opportunity or competency-based education, to recognize that for credit or for a credential. And I reference these in passing but as an example of that at northeastern, and we're seeing more examples of this type of approach, but it's still just a handful of colleges and universities that are doing it, we have taken Google's I.T. certificate, our faculty has dug into that, if you complete that Google credential, we will recognize that towards our bachelor's degree completion program, and likewise, we assess some of IBM's digital badges and those badges can count for credit for courses in our masters degrees and project management and some other areas. And so while it's very early in that kind of approach, I think that the future will see much more of that kind of articulation, if you will, and fluidity between industry and colleges and universities, and it's up to the colleges and universities in part to determine what sorts of learning platforms and other sources of credentials that are out there could be pipelined through that. And what do they want to weigh in on? Back to our survey data, employees do still very much appreciate and value the fact that a college or university has issued something or endorsed something.

>> I think there's one more, Liz, and it may be directed towards you. I thought I might have answered it correctly, but let's see. Is there a university working group that's trying to define skills, I guess, standardized them, if you will. Isn't the foundation doing something special there?

>> LIZ DIETZ: Well, I have a -- I've seen that question a couple of times and I have plenty to say on it. I believe that it may be the network, the competency based education network, and some folks working on the learner record -- that learner record, unified learner reported, that may be where it's happening, but the problem we're having, and I touched on this in my presentation, but I didn't elaborate much, is that skills are resolving, and we have new -- evolving and we have new occupations that are top leading occupations, jobs that didn't exist ten years ago. And I've heard some people say, you know, we're educating students today, for the jobs that we don't even know what the jobs are educating them for. Because ten years from now, five years from now, there will be new jobs, so that's one of the problems. And the other problem is that what is the common language for the skills, as I said, Workday discovered just within you know the 400 million workers that we have, there were 200 million skills out there. So how do you normalize and standardize those skills? We have it down to machine learning into, you know, what 50 million skills. But these are going to continue to evolve so the challenge I think for any group is to look at what the skills are mapping to. And to be flexible enough to continue to remap them as needed. So it is a challenge. But I do think there are many people working on this and I don't know if there's any one set of nomenclature or standards for skills to define them. Other than skill areas that we can point to right now. But maybe there's someone on listening on the webinar.
that could text us and let us know who they think it is. So I see Sarah is mentioned Lumina, AACARO and NASPA. One of the people on my team, who comes from University of Maryland, university college, she's on my strategy team for the last year, and she's been involved in that as well. So it looks like somebody gave us a link.

>> Yep, and IMS.

>>LIZ DIETZ: Global -- you know, jumping in. It is a very, very, very hot topic. And again, ACE is very interested in tracking that. Because you know, they want to understand how we're going to articulate these skills. And then I do think skills is a good word to think about, because the more that the employers are discussing skills, and it's the skills is the quote unquote currency, well, we have a nomenclature in higher Ed around competency, we talk about outcome, but somewhere at the end of the day, we're going to have a crosswalk from an outcome into a skill. So we have our own sort of translation we need to figure out or all adopt one common nomenclature for talking about this, especially as the connection between education and occupation and this concept of life-long learn, we need to stay even more closely connected to industry.

>> Very good, thanks so much, that was the end of the questions I had seen through the chat. So Jaime, I'll pass it back to you.

>> Thank you so much for your help with that, and thank you, Sean and Liz. Thank you, everyone, for joining us, if there are any last-minute questions, we do have a few minutes left. Sean and Liz, you have any closing remarks you'd like to make?

>>LIZ DIETZ: First of all, I'd love to thank Sean for joining us here. We have such a great perspective, certainly, grounded in academia and a lot of research as well as everything that they have been doing at northeastern. I think that really a leader in this particular topic. And then, just, you know, it's exciting times for us. And we're excited to be sort of right there in the middle of it. Looking to support our higher education customers. It's a fun time to be in higher education.

>>SEAN GALLAGHER: It is, yeah, and I appreciate the opportunity to contribute here. It's great to get questions and a bunch of institutions together. It's still very early in these developments, there's a lot of need for communities of practice around it. And more evidence and more data on much of it. And I would point out if we think about standards from a different perspective, I'd like to sometimes bring up this historical precedent. The bachelor’s degree in the United States was standardized, I think it was in the 1920s. The 1915 or there about, that's how we got regional accreditation that was universities realized, hey, we need to come together and set a common standard in terms of the number of credit hours, and how we'll make sure there's quality control. And then it was very similar with the Ph.D., when that was new in the U.S. and people were coming over from German universities and institutions came together and formed
associations and I think over the next couple of years, there's an opportunity for all of us to work together, whether it's through EDUCAUSE, INS, ACE, and many other forms -- forums to chart the course together. There was a comment and I have a couple of slides on this I sometimes use about how it is the wild west. You know, there's a lot of innovation happening, there's a proliferation of new credentials and the more we can thoughtfully steer that, and have the right infrastructure, for this new world of work and learning the better.

>> Thank you both so much. Well, on behalf of EDUCAUSE, thank you all for joining us today, for an engaging session and conversation. Before you sign off, click on the session evaluation link, in the chat window, your comments are very important to us. The sessions recording and presentations slides will be posted to the website later. Please feel free to share it with your colleagues. On behalf of EDUCAUSE, this is Jamie Farrell, thank you all for joining us today.

End of Webinar