Credly

Bridging the Skills Gap and Building a Talent Pipeline

Autodesk Case Study

AUTODESK.

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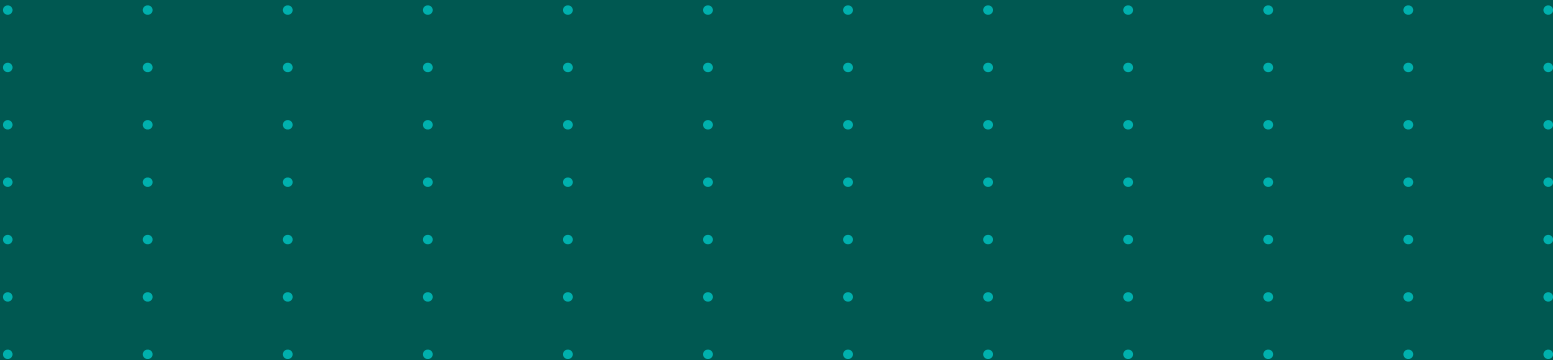
INTRODUCTION

Skills Gaps Preparedness: A Proactive Paradigm

Kristin Sharp co-founded the Shift Commission and launched the Work, Workers, and Technology project at New America. She is now a Partner at Entangled Solutions.

In 1999, a super cyclone hit India, leaving tens of thousands stranded and relief workers unable to reach them. Fourteen years later, a cyclone of similar strength hit the same area—but, due to improvements in weather prediction and investments in extreme weather preparation, one million people were safely evacuated, saving thousands of lives.

We've gotten much better at predicting weather and knowing what to do when a storm is on the way. The results speak for themselves. Natural disasters require a two-pronged approach, balancing prediction and preparation with response and recovery. It's time to take the same approach with skills gaps.

We often talk about skills gaps like they're a mysterious, uncontrollable force of nature—an unavoidable side effect of the emergence of new technologies and the rise of automation. This type of thinking treats skills gaps like an unexpected and unpredictable event that we can't really prepare for or predict, similar to how previous generations "got hit" by cyclones.

We're constantly playing catch-up—employers identify skills gaps, then, if we're lucky, communicate them to education providers; the education providers, over the next few years, develop aligned curricula and then enroll individuals in those programs to obtain the skills in question—all while business cycles are lost in the interim.

Economic resilience to a changing world of work will require both proactive steps—looking at trends to predict the future, for example—as well as the ability to quickly find and scale responses when skills gaps emerge.

The good news is that we can be much more proactive in identifying future gaps.

For example, the world population is growing, driving demand for housing and consumer goods. The team behind Autodesk software—the design tool used in the creation of the majority of the tangible products we interact with each day, from buildings to packaging to circuit boards— identified an emerging challenge within manufacturing and construction: there simply aren't enough people with the technology skills to meet this increasing demand for new buildings and goods. As a result, Autodesk is investing in empowering workers to use the technologies, stay current on new trends, and gain certifications that validate these skills.

There are really two parts to this skills gap—first, a true lack of people with the requisite skills, and second, a lack of visibility into how gaining these skills will benefit workers. For decades, people have been earning professional certifications to demonstrate their skills in a way that employers recognize as valid and meaningful. These certifications are now being digitized to make them faster and more useful for recruitment, hiring, and talent management. Creating this talent transparency allows both individuals and companies to effectively invest in new skills.

In aggregate across an organization, talent transparency can help managers identify unexpected skill resources, more accurately predict likely gaps, or even find people with skills that are related to an emerging in-demand skill set and upskill them.

Becoming more predictive and proactive in addressing skills gaps will certainly start at the company or industry level, but so far, we lack a solution for scaling and sharing these insights. Do we need a national registry to collect data on expected skills gaps? A searchable database of new kinds of jobs — and what to call them? Industry-led coalitions that run public awareness campaigns to help build pipelines of talent ("Only you can prevent skills gaps")? Entrepreneurship training institutes or apprenticeships that give unlikely candidates the ability to start a business?

While working toward a more proactive paradigm for addressing skills gaps, we can't lose sight of the importance of re-training and upskilling to fill new gaps as they arise. It's a complicated problem that will require multiple solutions. We're still working toward creative options, but given the importance of talent transparency, it's likely that digital credentials will play an important role and, perhaps more crucially, act as a first step toward a new paradigm for managing skills gaps and skill development. Companies like Autodesk have already stepped up to the challenge. Let's encourage them and their peers and get to work on the rest of the solutions.

Overview

By 2020, there will be 10 billion people on the planet. All of those people will consume more manufactured goods than ever before—everything from houses and cars to computers, bikes, and video games. As the demand to manufacture and construct grows, so does the demand for designers, engineers, and architects. Significant technology advancements are rapidly changing the nature of designing and manufacturing goods, and the workforce needs new, specialized skills to keep up. Get ready for an emerging talent and skills gap.

Autodesk sits at the crossroads of manufacturing industries as the global leader in 3D design, engineering, and entertainment software. Autodesk software is used to create core elements of the manufactured environment people interact with every day—from smartphones and movie effects to high-performance cars and skyscrapers. The company launched a training and certification program with digital credentials to meet the demands of the rapidly evolving manufacturing and construction industries and close a crucial skills gap.

This case study details how the Autodesk Certification program uses digital credentials to support the existing workforce and build a talent pipeline for the future. It also presents the results of a survey of the program's digital credential earners conducted by Credly.

Background

Autodesk is a global corporation based in the United States that makes software for people who make things. Professionals in architecture, engineering, construction, manufacturing, media, and entertainment use Autodesk every day to design the world around us. Clients ranging from Walt Disney Company and General Motors, to Tesla and WeWork rely on Autodesk software to design and engineer best-in-class products used around the world.

Training and certification are central to Autodesk, and the company's certification program offers instructor-led, self-paced, and online training of its software to thousands of professionals worldwide. And, in 2015, the company became an early adopter of recognition technology when it launched digital credentials to validate the skills and knowledge of Autodesk software users. The company offers open access of its software to students, educators, and educational organizations globally at no cost.

"Due to the rate of industry changes, lifelong learning is not only a key requirement of the next generation of people who will work in those industries, but a key requirement emerging for our existing customers today. We see learning as being key to the way that workers will be successful in the era of automation."

Jaime Perkins
Director of Learning Strategy and Design
Autodesk Education

Autodesk's focus on training and certification is paying off: 38% of Autodesk Certification digital credential earners surveyed hold more than one certification. And, 44% of earners surveyed have benefited financially from having an Autodesk digital credential.

Industry Challenges

Meeting the Needs of an Existing Client Base

As technology rapidly changes the approach to design, construction, and manufacturing, Autodesk must anticipate the needs of its customers and help them demonstrate that their employees have the skills needed to keep up. For example, there is increased demand for sustainable, environmentally-conscious housing to meet the needs of the growing population. This requires architecture and construction firms to follow a new digital collaboration process

which is a new global BIM standard/policy known as the ISO 19650, which is the organization and digitalization of buildings and civil engineering works, including Building Information Modeling (BIM). This provides a framework to help designers and contractors collaborate more efficiently on all phases of construction projects. With this new process, firms will be able to win new business when they can prove their employees are certified in BIM skills required by these new global BIM policies.

Training the Future Workforce

The next generation of the manufacturing workforce also requires training on emerging technologies and skills. Schools are challenged to teach design, engineering, and construction skills that keep pace with today's liquid technology skills, and struggling to do so. Students are actively seeking training beyond the classroom to learn in-demand skills to future-proof their careers.

Solution: Digital Credentials

With the goal of training and certifying the current and future workforce, Autodesk turned to digital credentials to amplify their learning strategy. Digital credentials incentivize earners to pursue and complete Autodesk training and certification courses, helping the company support their client base and build a talent pipeline for the future workforce. The solution has benefits for Autodesk as an organization, as well as their clients and earners.

Benefits for Autodesk

» Increases the value of an Autodesk Certification.

» Drives a supply of next-generation talent that has a preference for Autodesk tools and keeps pace with the evolution of change happening in the industry.

» Increases brand awareness for Autodesk and its certification program because digital credentials are highly visual and shareable online.

» Incentivizes certification completion and progression.

» Provides data on the impact of the program, and enables Autodesk to be responsive in certifying liquid skills.

How Digital Credentials Benefit Autodesk Clients

» Supports training of employees and migrating competencies to new technology.

» Enables clients to easily display and verify that their employees have the required skills to bid on projects and win new business.

» Helps clients identify current skills—and gaps—in their employee base.

» Motivates employees to acquire new skills.

How Digital Credentials Benefit Autodesk Earners

» Creates learning pathways for career growth.

» Highly visible, shareable way to showcase certifications and discover career opportunities.

» Verified proof of achievement that offers greater security and validity when sharing a certification.

» Future-proofs skills, enabling the next generation to thrive in the design, engineering, and construction industries.

Autodesk and Digital Credentials

Autodesk takes an active role in leading through the changes impacting their industry, and needed a digital credentialing partner with the same momentum and a platform that could perform and pivot with Autodesk. They sought a partner with several key requirements, including:

» Trusted platform with secure, verifiable, and evidence-based digital credentials.

» Real-time verification of certifications.

» Ability to promote learning pathways for earner progression.

» Interoperability and openness of digital credentials that can be easily shared to professional networking sites.

» Powerful data analytics and reporting features that enable Autodesk to help clients demonstrate and verify employee skills.

» Ability to support Autodesk in promoting its digital credential program to build awareness.

» A robust network to help earners discover additional learning and career opportunities as a result of their credentials.

Autodesk selected Credly's Acclaim platform on which to design, launch, and manage its digital credentialing program. "Credly helps us meet our earners where they are and build a digital credentialing pathway up to the higher-level advanced skills required for success as the manufacturing and design industries continue to change," says Perkins.

Outcomes

Perkins' team at Autodesk is dedicated to furthering the organization's learning strategy and design. The team works to identify the roles of the future workforce, and maps out learning paths for the technologies and skills that will be required to prepare the next generation of workers for the future. They launched their digital credential program in 2015, and use digital credentials to recognize earners for being certified in their software programs.

Autodesk offers learning pathways for earners to progress from a certified user to a certified professional,

and more than 20 Autodesk Certifications are available with digital credentials, including AutoCAD Certified User, Revit Architecture Certified Professional, and Revit MEP: Electrical Certified Professional.

Since the program launch in 2015, Autodesk has issued hundreds of thousands of digital credentials to a global community of designers, engineers, and other manufacturing professionals in 134 countries. Digital credential earners represent a range of career levels from associate to independent contractor to C-level executive across industries, predominantly architecture, construction, engineering, and education and training.

In a survey of Autodesk Certification digital credential earners, 91% of respondents consider an Autodesk digital credential to be valuable. Earners experience a range of positive job-related benefits, including getting a new job or earning a raise. Of those that earned a promotion or new job because of their digital credential, 17% report an increase in income of $1,000-$10,000.

Career Benefits Experienced By Autodesk Digital Credential Earners

32% Got a new job

15% Earned a promotion

29% Experienced other job-related benefits

13% Won new business

19% Experienced job security

19% Earned a raise

*According to a 2019 survey of Autodesk digital credential earners

Autodesk Earner Spotlight

Roberto Olea, a project manager at a real estate company in Querétaro, México, uses Autodesk AutoCAD Architecture every day to work on residential, commercial, and urban design projects. Roberto earned a Certified User credential for Autodesk AutoCAD. Sharing the digital credential on his resume and portfolio piques interest from

colleagues and clients for Roberto's work, helping him connect to more opportunities. "*When the clients see my digital credential, they always ask about it. When I explain that I'm an Autodesk Certified User, they feel more sure about my skills, even if they don't know me.*"

Increased Awareness

Digital credentials also elevate awareness of earners and the organizations that issue them because of their highly-visual, highly-shareable nature. More than half of the Autodesk Certifiction digital credential earners surveyed report that digital credentials allow them to share their certification more easily. And, Autodesk Certification digital credential earners share their digital credentials across multiple professional networks online: 68% of those surveyed share their badges on LinkedIn and 90% share their digital credentials on digital resumes, digital portfolios, and email signatures.

When Autodesk Certifications are shared online, they generate millions of views. The program generates supplemental brand impressions via social sharing, increasing awareness of Autodesk Certification organically. Increased Demand from the Future Workforce

Increased Demand from the Future Workforce

Autodesk partners with MOOCs (massive open online courses) including Coursera, Udemy, Skillshare, and other partners for students. Upon completion of the course, students earn a digital credential. Driven by the need to get training beyond the classroom to future-proof their skills, approximately 14,000 students have enrolled in the course. A student from North Carolina, who earned the Autodesk Inventor digital

credential and shared it via competition portfolios and the Autodesk Inventor student community, has already experienced early benefits to his future career: "It's made my high school career much better by giving me more knowledge and credentials, which let me create my own Engineering and Design club and go to various engineering competitions."

Autodesk software is used to create much of the manufactured environment.

Autodesk issues digital credentials in 134 countries.

91% of earners consider an Autodesk digital credential to be valuable.*

90% of earners share digital credentials on digital resumes, digital portfolios, and email signatures.*

*According to a 2019 survey of Autodesk digital credential earners

Conclusions

Autodesk is closing a crucial skills gap in design, manufacturing, and engineering through training and certification. Digital credentials are a key compo- nent to the certification program's success as they provide verified, evidence-backed, visual proof that helps Autodesk's customers win new business and their earners advance professionally. The impact is far-reaching and ensures that the current and future workforce are able to meet the demands of the growing population—and the manufactured world around them.

About Credly

Credly is helping the world speak a common language about people's knowledge, skills, and abilities. Thousands of employers, training organizations, associations, certification programs, and workforce development initiatives use Credly to help individuals translate their learning experiences into professional opportunities using trusted, portable, digital credentials. Credly empowers organizations to attract, engage, develop, and retain talent with enterprise-class tools that generate data-driven insights to address skills gaps and highlight opportunities through an unmatched global network of credential issuers.