The Creative Edge

How Digital Credentials Unlock Emerging Skills in the Age of AI

Edelman DXI **X** Adobe

Contents

Introduction

The modern professional landscape is undergoing a seismic shift driven by AI, rapid digitalization, and new modes of collaboration and creativity.

The pandemic kickstarted this transformation – **some 35% of people who can work from home now do so permanently, five times as many as pre-Covid.**[1] Now, the advent of generative AI is rapidly reimagining all aspects of work, from individual tasks and skills, to entire jobs and industries.

In this rapidly evolving landscape, skills like creativity, creative problem-solving, critical thinking, and AI creation have taken center stage. The study found that these versatile skills are highly resilient and will empower workers in every industry to thrive in our changing economy.

Recognizing the value of these skills, **career seekers and students** are looking for the most effective ways to develop and showcase them. **Educators** – from faculty and leaders in higher education to continual learning organizations – want to equip their learners with the skills they need to succeed on their career journeys. Likewise, **employers** are looking for new methods and signals to find candidates who possess these skills that they so desperately need in their workforce.

Yet demonstrating and evaluating these skills can be challenging. To address this, in the past decade a vast and complex ecosystem of non-degree credentialing has developed, including certifications, microcredentials, badges, and more, all aimed to help early-career professionals and mid-career re-skillers and up-skillers stand out and succeed. But with over one million formal credentials available in the U.S. alone,[2] it's challenging for all stakeholders to understand which ones offer the most value for both career seekers and employers.

There are common categories of credentials that require varying levels of commitment from career seekers:

Digital Badge: Visual representation that can be shared online to showcase expertise and verify accomplishment. Badges can be granted for online courses, microcredentials, or professional certifications. They may come with metadata or links to further details on the skills learned.

Digital Certificate: Like badges, a visual representation similar in style to a printed certificate to showcase expertise and verify accomplishment. Digital certificates may be shared as a PDF with limited information or, like badges, may include links to further details on the skills learned.

Microcredential: A compact, specialized certification that validates a specific skill or competency within a broader field and is typically earned through a short online course or assessment. For instance, a student interested in pursuing a job in marketing or communications may seek to pursue a microcredential focused on social media content creation or analytics. Microcredentials may be presented via badge or digital certificate.

Professional Certification: Formal recognition granted by an industry organization or governing body to demonstrate expertise, knowledge, or skill in a profession or field. Often involves more rigorous training and a formal, validated assessment. Like microcredentials, professional certifications may be presented via a badge or digital certificate.

To shed light on this complex landscape, Adobe commissioned a global survey to gain insights from students and career seekers, higher education institutions, and employers. The findings reveal that credentials can meaningfully signal proficiency in the skills demanded by today's digital jobs market and help candidates stand out. However, stakeholders are not always aligned on what skills are most essential, what types of credentials effectively communicate knowledge and ability, and how best to display them.

By better understanding the credential landscape, students and career seekers can effectively demonstrate creative, digital, and AI skills to stand out. And higher education institutions and hiring managers can better prepare job-seekers as they acquire and demonstrate the skills essential for the 21st century.

Top 10 industries represented in the research

Industry	Total Hiring Mangers	Total Career Seekers
Technology and IT	16%	20%
Manufacturing	16%	6%
Financial services	9%	11%
Healthcare or pharmaceuticals	9%	6%
Professional services	7%	3%
Education (Teacher or Faculty)	4%	6%
Business, consulting and/or management	4%	3%
Engineering	4%	5%
Education (Staff, Administration, or Other)	3%	3%

Survey and in-depth interview methodology

A 25-minute online quantitative survey was conducted between April 25 to May 19, 2023, in the United States, United Kingdom and India. This survey targeted two audiences: Employers/Hiring Managers and Career Seekers. Hiring Managers (n=1,500, 500 per market) are defined as: professionals aged 25+ who have significant influence on hiring decisions for roles that require creative problem solving or visual communication skills. Career Seekers (n=2,250, 750 per market) are defined as: Students or early career professionals (<10 years' experience, aged 18-35) who are seeking a job requiring creative problem solving or visual communication skillsets within the next or past 12 months.

In addition, 30-minute in-depth interviews were conducted between May 4 to August 17, 2023, in the U.S., U.K. and India. These interviews targeted two audiences: Employers/ Hiring Managers and Educators/Credentialing Stakeholders. Hiring Managers (n=10, 3-4 per market), same definition as the survey audience. Educators/Credentialing Stakeholders (n=20, U.S.) are defined as higher education leaders or those working in student services or campus leadership roles with a vested interest in credentialing.

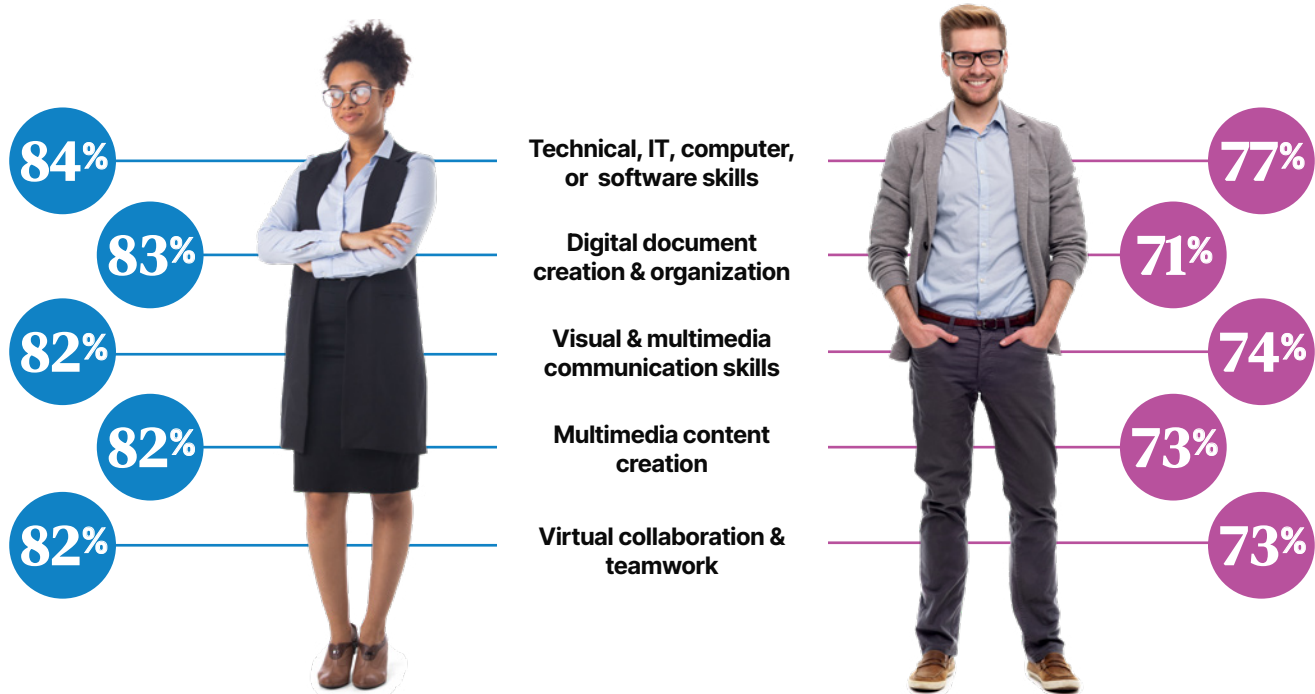# The Rise of Creative Problem Solving and Visual Communication Skills

Content creation, visual communication, virtual collaboration, and creative problem solving skills have become more important in recent years, ranking among the top skills sought by hiring managers in the study. This is largely aligned with the views of career seekers, who want to showcase those exact skills to potential hiring managers. Overall, hiring managers, particularly in the U.S. and U.K., largely pointed to the explosive growth of visual media (59%) or social media (55%) as the key drivers of these skills, with about half (51%) also citing the move to remote or hybrid work. In India, 58% of hiring managers pointed to the rising complexity of problems that require new solutions, compared to 55% in the U.S. and just 39% in the U.K.

Hiring Managers view certain critical skills as more important than **Career Seekers** do

Hiring Managers

Career Seekers

	Hiring Managers	Career Seekers
Technical, IT, computer, or software skills	84%	77%
Digital document creation & organization	83%	71%
Visual & multimedia communication skills	82%	74%
Multimedia content creation	82%	73%
Virtual collaboration & teamwork	82%	73%

> *"Creative problem solving is the ability to think differently about a problem and generate new solutions. Visual design skills mean that the creator can put written language and pictures together in a way that is clear and focused for the audience."*
>
> **– Hiring Manager, U.S., Financial Services**

Many of these skills are rooted in human-centric traits such as communication, emotional intelligence, teamwork, critical thinking, and leadership. Traditionally dubbed "soft skills," they are increasingly understood to be core skills, and are now often referred to as power skills, essential skills, or creative competencies. Whatever the nomenclature, they are highly valued by employers seeking to build cohesive, innovative, and adaptable teams because they complement technical skills and improve performance and results. For instance, you're a better engineer if you're also able to effectively communicate ideas visually to teams, leadership, or customers. **Companies seek employees with these skills, especially creative problem solving, as they face unprecedented challenges** such as industry disruption driven by AI, climate risk, geopolitical tensions, and the rapid digitalization of workflows and the workplace itself.

Top 5 creative problem solving skills

	Finding solutions for new or complex problems	Innovation	Creation of new product ideas	Social media content creation	Leadership
Hiring Managers	43%	40%	33%	36%	31%
Career Seekers	37%	38%	30%	39%	35%

> " *[I look for] people who are more strategic and understand how insights come together to see the bigger picture.*"
>
> **– Hiring Manager, U.S., Professional Services**

The Challenge of Demonstrating and Validating Skills

Across the U.S., U.K., and India, the rising complexity of business challenges and changing roles within organizations are forcing employers to rethink what they need from their workforce. **However, two-thirds (66%) of hiring managers say they struggle to articulate what creative problem solving and visual design skills they need, and nearly as many (60%) say it is hard to assess candidate strength in those areas based on resumes and interviews.** Many (56%) also find it hard to know if candidates have the necessary experience.

Similarly, just over half (51%) of job candidates say it is hard to understand what creative and design skills employers are looking for, and **half (50%) don't know how to best showcase those skills.** That has made employers eager to explore new ways to identify candidates who possess these skills and new ways to help career seekers cultivate them, leading them to digital credentials.

How are Hiring Managers thinking about how to evaluate and recruit for creative problem solving and visual design skills in job candidates?

76% are looking to adapt their recruitment process

76% are exploring new ways to identify qualified candidates

75% are using new ways to validate candidates' skills

54% have yet to find an effective method for identifying qualified candidates

Higher education is evolving how it can support non-degree credentials

According to 20 interviews with education leaders in the U.S., most (80%) report having a desire to incorporate creative problem solving and visual design skills in some way, but few (15%) report having dedicated courses or programs that focus exclusively on developing these skillsets.

However, educators recognize a heightened demand for creative and digital design skills in recent years. Higher-level stakeholders like deans or provosts are well-versed in digital certifications, but faculty and department heads often lack awareness or incentives to adopt them in their curricula, especially when it comes to microcredentials and digital badges.

Community colleges and smaller regional universities value professional certifications for boosting student career opportunities. In our research, leading companies like Microsoft, Google, and Adobe were most highly associated with the most reputable certifications in digital skills.

Faculty often access support from institutions and industry partners to integrate credentialing programs into their curricula, even in a supplemental way. Staff and departments, such as career service centers, need to better partner with industry credential providers to help their students succeed with career-ready certifications and credentials. As employers hire based on these certifications, it further boosts their credibility, leading to a virtuous cycle.
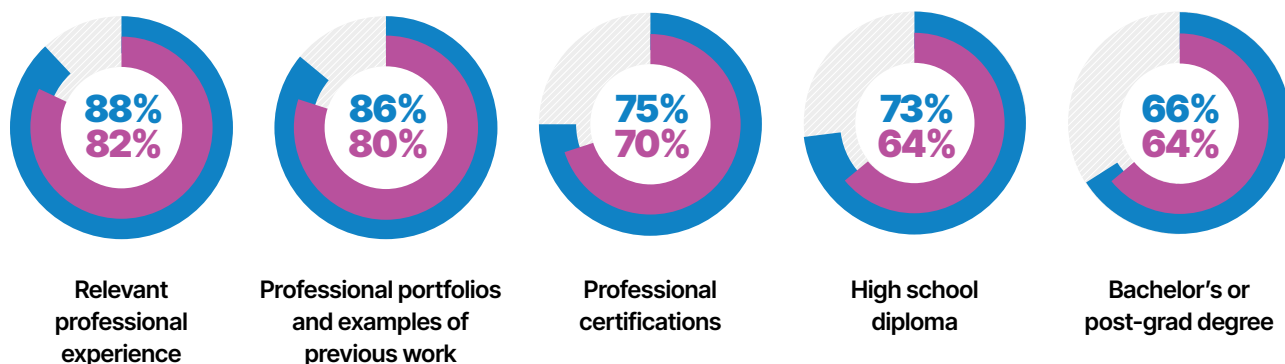
Credentials are Changing the Game

Traditional college degrees have long been the gold standard for signaling subject-matter proficiency and helping evaluate talent. They continue to be an important consideration in any hiring decision, but other factors beyond transcripts are rising in importance. The whirlwind pace of digital transformation and proliferation of social media mean that **new factors such as relevant job experience, portfolios of previous work, and other types of digital credentials are all playing into hiring decisions for a wide array of professions**.

Indeed, the vast majority of hiring managers in the U.S. (86%), U.K. (74%), and India (60%) say they are willing to hire candidates without a university degree. Non-degree credentials are valuable not only for those who didn't graduate from a college; they also help give degree holders a competitive edge by indicating essential skills not explicit in a transcript or portfolio. In short, digital credentials can act as a powerful signal booster, breaking through the background noise to match the best people for specific jobs.
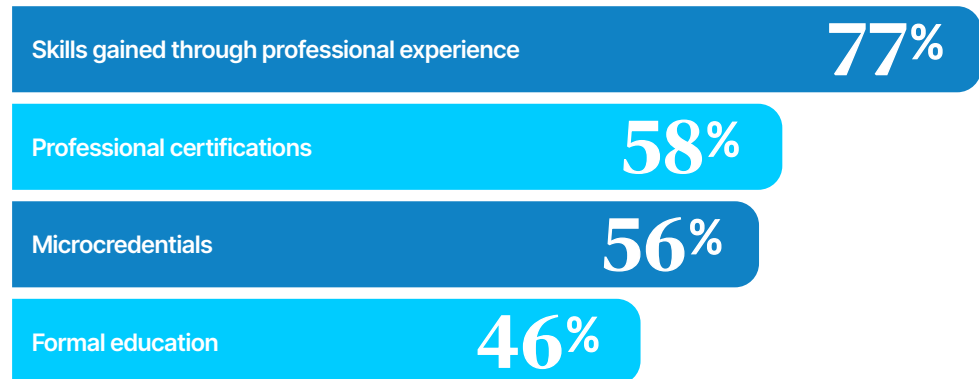
Hiring Managers and **Career Seekers** agree non-degree certifications are an important factor in demonstrating creative and visual design skills

% Report the following are important in demonstrating creative problem solving and visual design skills

● Hiring Managers   ● Career Seekers

88% 82%	86% 80%	75% 70%	73% 64%	66% 64%
Relevant professional experience	Professional portfolios and examples of previous work	Professional certifications	High school diploma	Bachelor's or post-grad degree

% of Hiring Managers agreeing that this factor is becoming more influential in hiring decisions

| Skills gained through professional experience	77%
Professional certifications	58%
Microcredentials	56%
Formal education	46%

Employers place the highest weight on professional experience and portfolios. But they also see professional credentials as strong validation of a candidate's creative problem solving and visual design skills, often moreso than a college degree. This is particularly acute in India, where limited opportunities in a hyper-competitive education marketplace, combined with a vast pool of world-class talent, mean that more people are building their skills through other channels. 44% of hiring managers in India ranked **professional certifications as the most important factor in demonstrating essential skills**, compared to 35% in the U.S. and 31% in the U.K.

While career seekers across markets were generally aligned with the views of hiring managers, their ranking of the importance professional certifications was notably lower, particularly in the U.S. and U.K. As such, organizations that offer professional certifications and digital credentials need to increase student and career-seeker awareness of the power they have to differentiate themselves, and support educational institutions as they incorporate those into their programs.

% of Hiring Managers and Career Seekers who ranked professional certifications as being most important in demonstrating skills

● Hiring Managers   ● Career Seekers

🇺🇸 U.S.   🇬🇧 U.K.   🇮🇳 India
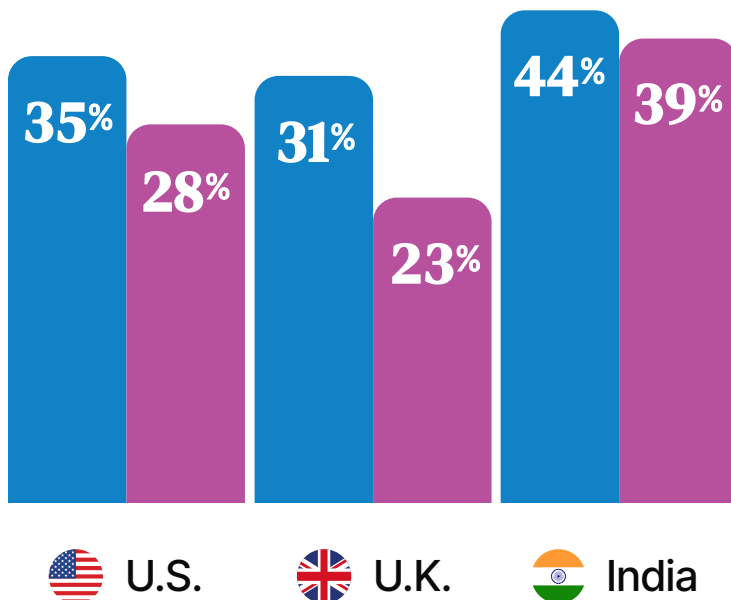
Some key differences between regions

This study found intriguing distinctions between how hiring managers in the U.S., U.K., and India view of skills and credentials. The U.S. and U.K. attribute the growing demand for creative problem solving and visual design skills primarily to the surge in visual media. India, with its thriving IT consulting industry, identifies the digital customer experience and the rising complexity of problems as key drivers. India also places the highest trust in credentialing institutions, including online education providers. In terms of evaluating candidates, relevant experience ranks highest in all three countries. However, **India elevates the importance of professional certifications almost on par with portfolios and well ahead of college degrees**.

Top reasons creative problem solving and visual design skills are becoming more desirable

🇺🇸	U.S.	Surge in visual media	**65%**
🇮🇳	India	Digital customer experience / rising complexity of problems	**58%**(tie)
🇬🇧	U.K.	Surge in visual media	**64%**

Hiring managers in India trust online-only education companies more than in other countries

India	U.S.	U.K.
🇮🇳 79%	🇺🇸 64%	🇬🇧 62%

What credentials hiring managers think best demonstrate needed skills
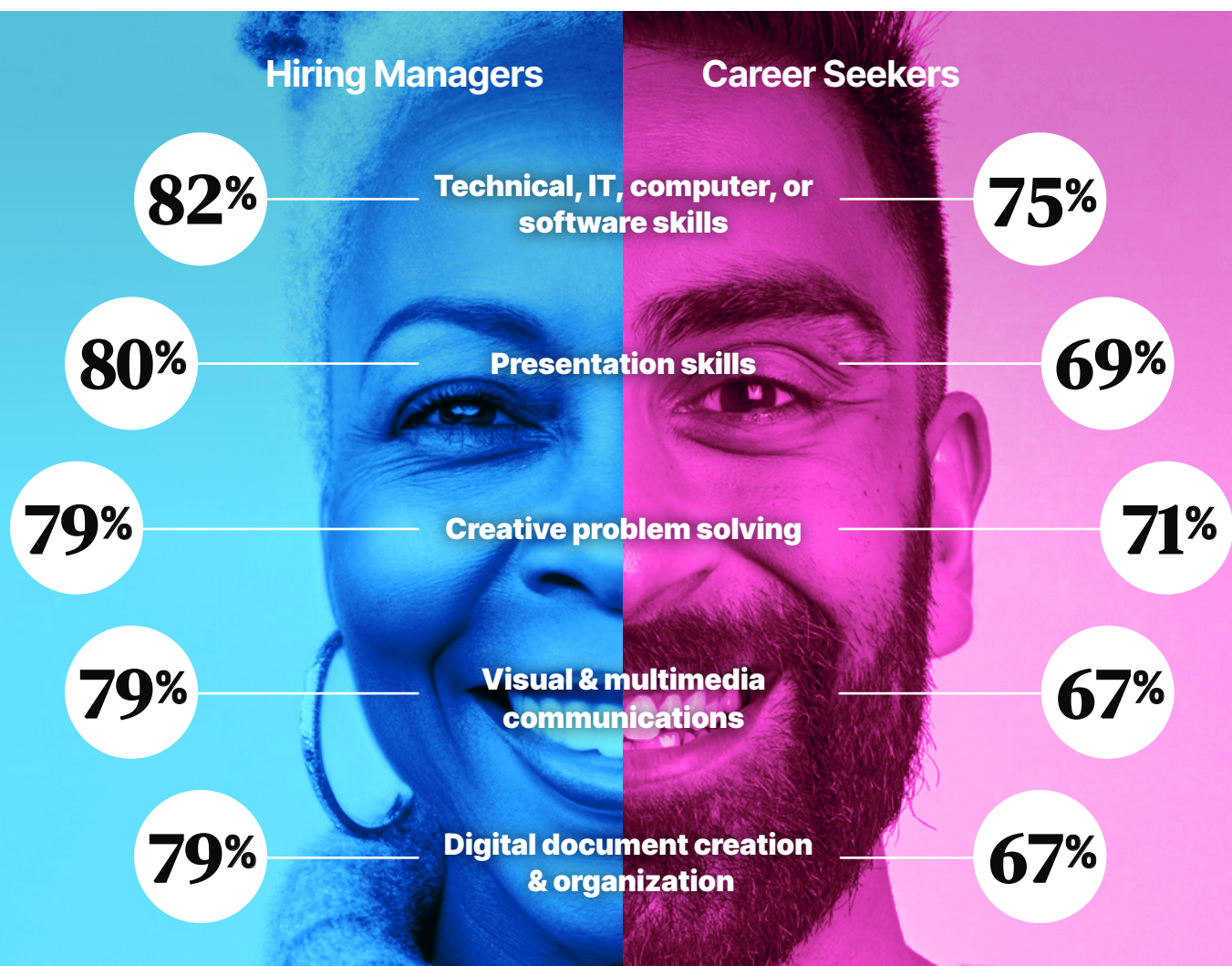
Top credentials (% ranked 1-3, by market and audience)

Relevant professional experience		Professional portfolios/ work examples	
🇺🇸 U.S.	63%	🇺🇸 U.S.	59%
🇬🇧 U.K.	52%	🇬🇧 U.K.	52%
🇮🇳 India	52%	🇮🇳 India	48%

Professional certifications		Bachelor's or post-graduate degree	
🇺🇸 U.S.	35%	🇺🇸 U.S.	30%
🇬🇧 U.K.	31	🇬🇧 U.K.	22%
🇮🇳 India	44%	🇮🇳 India	26%

The Rising Importance of Credentials

One of the key insights from this study involves gaps in perception between the stakeholders involved in professional opportunity: educators, students and career seekers, and hiring managers. One of the most prominent discrepancies concerns how much career seekers underestimate how much hiring managers want to see creative problem solving and technical, visual and multimedia skills represented in their applications, especially via digital credentials.

Career seekers underestimate how credentials can demonstrate creative and visual design skills to potential employers

% who say credentials effectively express each skill

Hiring Managers		Career Seekers
82%	Technical, IT, computer, or software skills	75%
80%	Presentation skills	69%
79%	Creative problem solving	71%
79%	Visual & multimedia communications	67%
79%	Digital document creation & organization	67%

Professional credentials can also do much more than convey mastery of a specific skill. **Job candidates holding such credentials are viewed by potential employers as being confident, self-motivated, ambitious, and organized.** They can make a crucial difference in standing out amid a shortlist of qualified candidates. When a resume with a professional credential lands in their inbox, hiring managers view that candidate as someone who is willing to go the extra mile.

Perhaps unsurprisingly, hiring managers view professional certifications as stronger indicators that a candidate is proficient or expert in a given skill or skill cluster. They are also more effective at helping candidates get noticed, validating expertise in those highly sought creative or design skills, and securing higher pay. Moreover, because earning a professional certification is typically a longer and more intense process, it can signal to hiring managers that the applicant is engaged and motivated.

53%

of hiring managers say a professional credential demonstrates that a candidate is committed to professional development
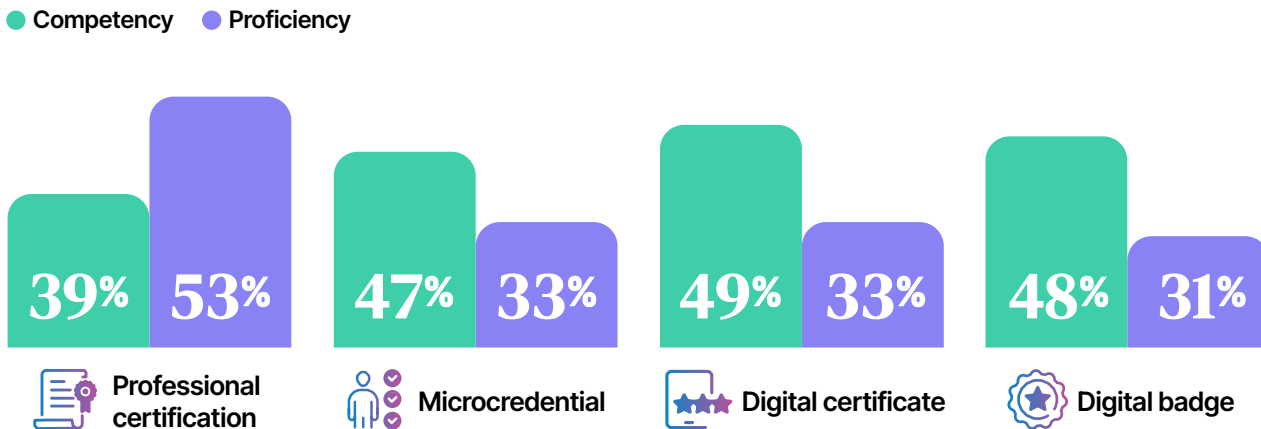
"Certifications [show me] they knew exactly what they wanted to do, maybe didn't have funding for school or were inspired by course work. We value hard work, dedication, and someone who is aspiring for something. That can come across in an interview especially well when they have multiple credentials."

– Hiring Manager, US, Software

Professional certifications are seen as stronger indicators of proficiency in a given skill. However, other kinds of credentials are effective at conveying basic competency.
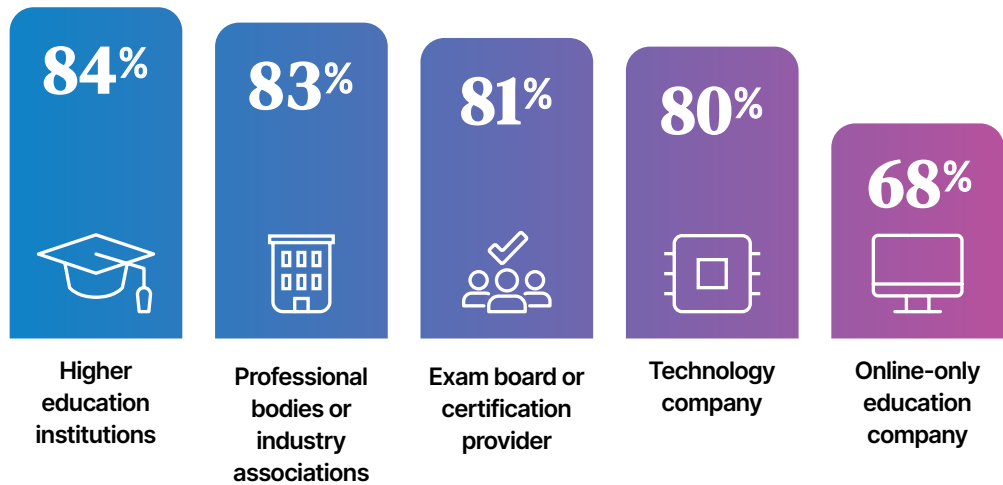
% of hiring managers who agree with the skill level demonstrated by following credentials

● Competency   ● Proficiency

	Competency	Proficiency
Professional certification	39%	53%
Microcredential	47%	33%
Digital certificate	49%	33%
Digital badge	48%	31%

Employers also look carefully at credentials to make sure they are trustworthy. **Employers want to make sure they have been issued by qualified organizations, are aligned with industry standards, and address real-world talent needs.** Interestingly, hiring manages place relatively similar trust (80%-84%) in credentials issued by universities, professional bodies, and technology companies, while viewing online-only education firms with more skepticism (68%). However, employers in India view online-only education with much higher trust than in the U.S. or U.K., perhaps due to its IT-savvy workforce that has extensive experience with online training and in handling remote work for companies around the world.

Trust placed by Hiring Mangers in credentialing institutions

84%	83%	81%	80%	68%
Higher education institutions	Professional bodies or industry associations	Exam board or certification provider	Technology company	Online-only education company

Of course, not all hiring managers are the same, and different industries will have specific needs that may be better served by certain kinds of credentials. For example, an architecture firm will naturally give more weight to credentials backed by a leading organization or technology company within that industry.

> *"I would want someone to have a certification from a school or company that was reputable in that space."*
>
> **– Hiring Manager, U.S., Technology**

While virtually all hiring managers are familiar with professional certifications, relatively fewer – though still an overwhelming majority – are also familiar with digital badges or microcredentials. Career seekers, however, are less familiar with those types of credentials, in some cases dramatically so.

This discrepancy may stem from the sheer number of digital badges and microcredentials available, creating confusion in the marketplace. Regardless, it is another indication that career seekers are underestimating the potential various forms of credentials have to help them stand out.

Familiarity with different types of credentials

| Credential	Hiring Managers	Career Seekers
Professional certification	98%	91%
Digital certificate	94%	85%
Digital badge	92%	72%
Microcredential	87%	63%

Hiring Managers who agree with these statements about the value of credentials for creative problem solving or visual design skills
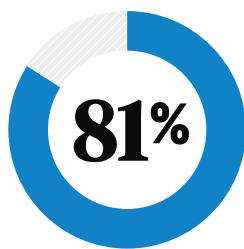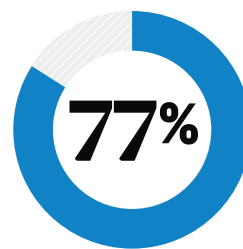
81%
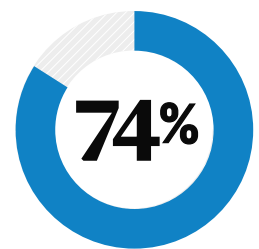Easier to assess if candidates have the necessary skills
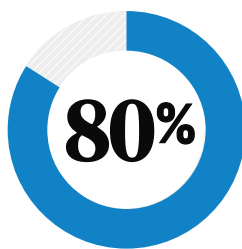
80%
Cost-effective way to help employees increase skills outside of what is provided by their organization
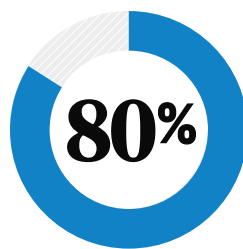
80%
Signal high-quality candidates

77%
My organization seeks candidates with these certifications

74%
Candidates with these skills deserve higher compensation

Conclusion

In a rapidly evolving professional landscape, digital credentials have emerged as powerful tools for showcasing not only tangible skills like creative problem solving and visual communication but also intangible qualities such as self-motivation, confidence, and ambition.

These credentials offer a distinct advantage to career seekers, helping them stand out in a competitive job market, while simultaneously enabling employers to identify individuals who possess the essential skills necessary to drive their organizations forward, both in the face of current challenges and those on the horizon.

Yet, it's common for career seekers to underestimate the profound impact that credentials can have on their professional journeys. With 44% of workers expected to witness significant shifts in their core skills within the next five years, as highlighted by the World Economic Forum's "Future of Jobs Report 2023,"[3] and 60% of businesses acknowledging skills and talent gaps as major obstacles to industry transformation[3], digital credentials are no longer optional but imperative.

These credentials not only enhance employee retention by facilitating up-skilling and re-skilling across diverse industries but also elevate the likelihood of securing employment or advancing in one's career, often leading to increased earning potential.

The path forward is clear—strengthening partnerships among all stakeholders will cultivate greater trust and opportunity in professional credentials. By investing in credentialing programs that deliver practical, in-demand skills, we can empower students, career seekers, and re-skillers and up-skillers. Strategic collaborations with universities, professional organizations, and industry leaders will not only enable career seekers to acquire skills that benefit their personal and professional growth but also equip employers with the talent needed to thrive in an ever-changing world.

References

1 Kim Parker, "About a third of U.S. workers who can work from home now do so all the time," Pew Research Center, March 30, 2023, https://www.pewresearch.org/short-reads/2023/03/30/about-a-third-of-us-workers-who-can-work-from-home-do-so-all-the-time/

2 "Counting U.S. secondary and postsecondary credentials report (2022); Credential Engine; accessed January 10, 2024; https://credentialengine.org/resources/counting-u-s-secondary-and-postsecondary-credentials-report/

3 "The Future of Jobs Report 2023," World Economic Forum, April 30, 2023, https://www.weforum.org/publications/the-future-of-jobs-report-2023/