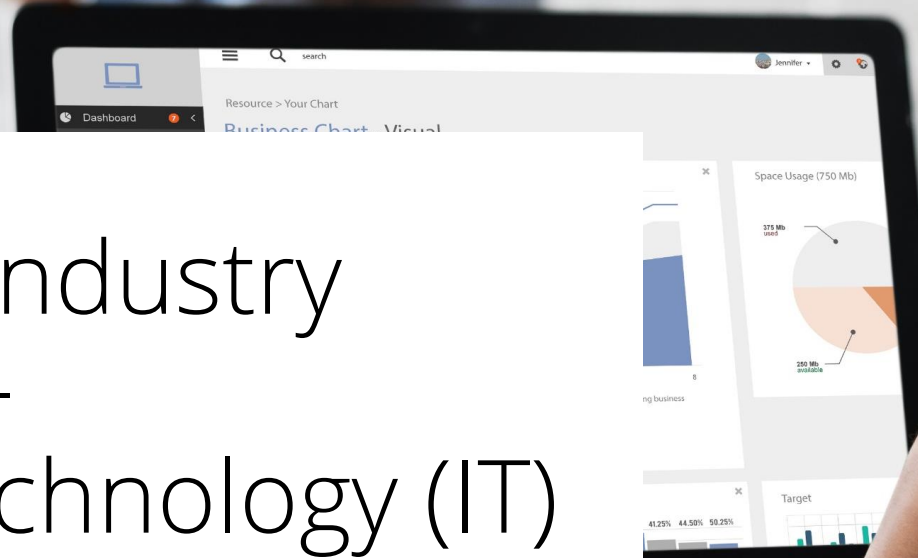


2024 Training Industry Skills Outlook – Information Technology (IT)

Workforce Skills Division

April 2024



Navigating the Looming IT Skills Crisis

2024 Training Industry Skills Outlook - IT

According to a report by the [International Data Corporation \(IDC\)](#), the global shortage of IT skills is expected to soar to 85.2 million workers by 2030. This alarming statistic emphasizes the urgent need for proactive measures to bridge the gap between industry demand and the current talent pool. Training providers and professional associations must seize this opportunity, aligning with evolving trends and integrating essential skills required for IT professionals.



Navigating the Looming IT Skills Crisis

By 2025, [90% of global organizations will face a severe IT skills crisis](#). From security to artificial intelligence (AI) and cloud computing, tech talent is in high demand. Ensuring the right people with the right skills fill these roles is crucial.

“Skills are difficult to find and take a long time to replace. 53% of organizations in AP (Asian Pacific) are taking 3-4 months longer compared to a year ago to fill technology roles...”

Dr. Lily Phan, Research Director
Future of Work at IDC

Basic digital skills are now essential for most jobs. In the UK, [90% of all jobs will require digital skills within the next two decades](#). [Similar demands are seen globally](#), with one-third of workers in the US lacking the digital skills necessary for success in the contemporary economy. The Asia-Pacific region is anticipating a fivefold surge in demand for digital skills by 2025.

Moreover, there is a growing demand for advanced digital skills like software development and engineering. For example, job vacancies seeking [Microsoft C# expertise in the legal sector have surged by 320%](#) since 2014, while Python proficiency in accounting roles has witnessed an astonishing 1,000% increase.

Despite the escalating demand for digital skills, the supply of skilled professionals falls short. [60% to 80% of organizations in the Asia-Pacific region](#) struggle to fill critical IT positions like those in security, development, and data management. [A study by Microsoft](#) also found that 65% of hiring managers worldwide report difficulty finding qualified digital talent.

Training providers and associations need to offer updated programs aligned with emerging skills to address this shortage and equip individuals and organizations with the necessary expertise. This report will look at some key learning trends in 2024 and reveal the **top ten most in-demand skills in IT roles**. The findings, supported by exclusive data from Faethm by Pearson, offer credible insights for training providers and associations to tailor their offerings effectively.

Our research extends to examining the emerging, popular, and trending skills in white-collar jobs. This distinction allows us to shed light on the dynamic nature of skills required in the contemporary workforce. Additionally, we provide top tips to showcase the crucial role of digital credentials in skills validation in white-collar roles.

Shaping the Future of Training

Explore the latest trends in learning and development that are shaping the IT landscape in 2024.

"We will need people who can apply knowledge and use their judgement... Anyone can Google, but decision-making, critical thinking and problem-solving are vital skills, especially as we have more data available."

Philippe Schneider
Independent researcher at Nesta

Soft Skills Training

Pearson's Skills Outlook shows that [human skills](#) are the most in-demand power skills, and [88% of business leaders](#) agreed with the statement that soft skills are directly related to business growth. Yet, [3 in 4 employers said they have a hard time finding graduates with the soft skills their companies need](#).

AI Learning

Predictions indicate that AI could influence [nearly 300 million jobs globally](#), with the IT sector being no exception. [Employers are now prioritizing candidates with familiarity in AI and automation tools](#), such as predictive advertising and chatbots. Hands-on experience with niche tools and basic digital coding knowledge are also highly sought-after. Proficiency in AI tools across roles is increasingly seen as a vital digital skill for the coming year.

Personalized and Inclusive Learning

Various examples have demonstrated that personalized learning [improves student outcomes](#) and [boosts learners' engagement](#) in different industries. Leveraging technologies such as artificial intelligence enables tailored content delivery based on individual interests, strengths, and weaknesses, creating unique learning experiences efficiently and cost-effectively.

Immersive learning

Experiential and immersive learning environments are catalysts for authentic educational experiences, seamlessly embedding learners within real-world scenarios. Research indicates that [Virtual Reality \(VR\) can positively influence student learning](#), enabling swift adaptation to the tech industry's evolving challenges. Indeed, [numerous training providers](#) are leveraging experimental learning to enrich their offerings.



In-Demand Skills in IT

Essential Skills for Today's Ever-Changing IT Landscape

The world of IT is constantly evolving and marked by emerging trends. Some of the most significant trends currently shaping the industry include AI, blockchain, cybersecurity, and cloud computing. These technologies are transforming the skills that IT professionals need to succeed in this dynamic field.

Although [coding is still a fundamental skill in tech, AI is quickly becoming an integral part of software development processes.](#)

According to IBM, [approximately 30% of IT professionals](#) are using AI and automation tools to streamline their workflows, and [92% of software developers use AI for low-level coding tasks](#). IT professionals must integrate AI technologies into their skillset to keep up with the latest advancements in the industry.

In today's business world, [data insights](#) are crucial for driving operational efficiency. [Cloud-based big data solutions are gaining popularity](#) as they offer scalability, flexibility, and cost-effectiveness. This requires individuals with skills in data management, analytics, and decision-making.

Blockchain is also a popular technology that has seen a remarkable [500% increase in demand for blockchain skills](#) in recent years. As a distributed and decentralized ledger technology that securely records transactions, more expertise is required in the field.

With the exponential growth of data, [cybersecurity and compliance skills](#) become more important for protecting digital assets and sensitive data. [The Bureau of Labor Statistics](#) predicts a 35% surge in demand for cybersecurity professionals from 2021 to 2031, highlighting the importance of this field.

Despite technological advancements, [human qualities](#) such as empathy, creativity, critical thinking, leadership, and adaptability remain essential in the IT industry. [IT professionals can improve their soft skills](#) by continuously learning and self-improvement activities.

The ever-changing nature of IT skills highlights the necessity for continuous adaptation. While specific advanced skills may vary by role, the overarching trend underscores the importance of upskilling and reskilling for IT professionals.

Our Findings: Top 10 Most Demanded Skills in IT Roles

As previously discussed, the field of IT is vast and complex. According to CompTIA, IT comprises [four foundational pillars](#): infrastructure, data, development, and security. Each requires a distinct set of skills.

Meanwhile, there is a growing recognition of the significance of soft skills. [Laurel Schneider](#), an adjunct IT instructor at Southern New Hampshire University, believes that soft skills are more important than technical skills. This viewpoint is echoed by [Matt Brosseau](#), Director of a recruitment firm, who emphasizes the criticality of soft skills, particularly in managerial and executive roles.

Our research shows that the top 10 most demanded skills in IT roles are all soft skills.

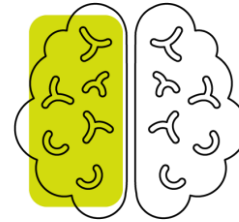
The Top 10 skills for IT Roles are...



Our Findings: Top 10 Most Demanded Skills in IT Roles

Our research findings are consistent with a [recent study by Pearson](#), which emphasizes that although technical proficiency is still highly valued, human-centric skills will be more crucial in the present and near future.

Our research suggests that soft skills play a significant role in enhancing effectiveness in the industry, particularly when technology is rapidly evolving with new software, hardware, and systems. IT professionals require strong problem-solving skills to diagnose, communicate, and effectively resolve these technical changes.



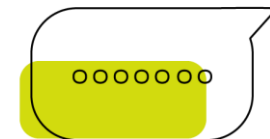
**Problem
Solving**



Communication



**Trouble
Shooting**



**Verbal
Communication**



Navigating Skill Trends:

A Closer Look at Emerging Skills vs. Popular Skills vs. Trending Skills



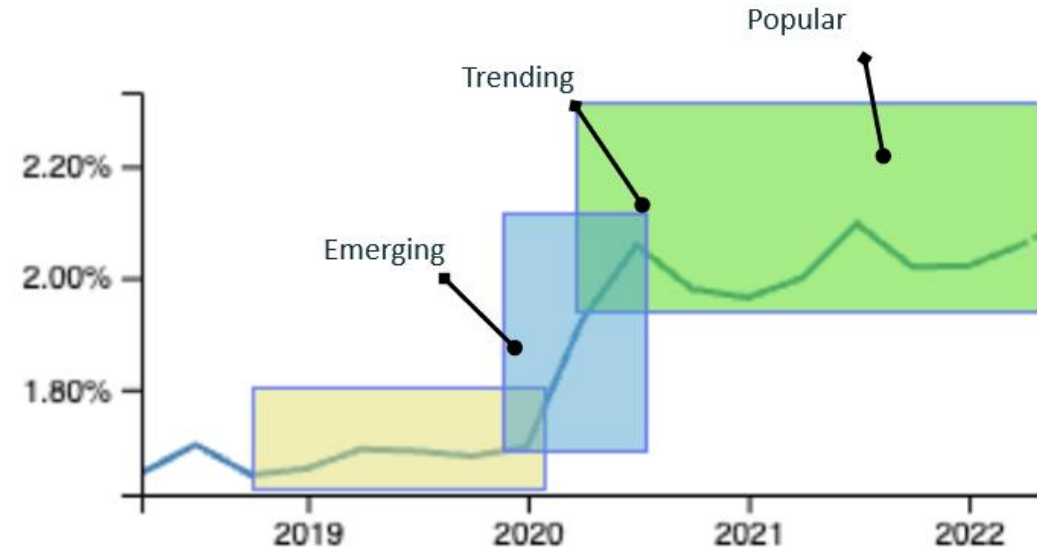
Methodology

For this study, we categorize IT as a white-collar workforce.

Identifying skills in white-collar jobs that are transferable or adaptable to the IT industry can provide you with a competitive edge to enhance the versatility of training programs.

This part of the report examines job market data collected in the US, UK, and Australia since 2019. We extracted and analyzed the skills listed in job ads over time, categorizing them into three groups:

- **Emerging skills:** Skills that were previously in low demand but are now beginning to show signs of increased interest in the job market.
- **Trending skills:** Skills that have seen a significant rise in demand over the past six months and are among the top 5% of sought-after skills.
- **Popular skills:** Skills that are most often mentioned in job ads.



In this report, we will focus on analyzing emerging skills, as this forward-looking perspective helps individuals and organizations prepare for upcoming industry shifts.

Additionally, trending skills provide valuable insights into immediate market demands, while popular skills enable training programs to be aligned with current employer expectations. However, it's essential to acknowledge the potential discrepancy between skills in demand and those mentioned in job ads, underscoring the need for agility in skill development to navigate the dynamic landscape effectively.

White-collar jobs

White-collar labor is frequently related to management, professional, or administrative positions in industries like business, law, medicine, technology, etc. These positions frequently involve working in an office or a similar environment and typically call for advanced degrees or specialized training.

White-collar jobs typically involve critical decision-making, complex problem-solving, and specialized expertise. Professionals in these roles also require great interpersonal and communication skills as they work in office settings.

What we found:

As AI technologies, particularly in [data analytics and automation](#), become more advanced, there is a natural shift in the skills that are highly valued and in demand in the job market. This can explain the increasing demand for skills in industry analysis, performance metrics, and market trends.

In addition, although AI may excel in its computational capabilities, [soft skills are key to unlocking AI's true potential](#). Our data indicates a growing need for several soft skills, including collaboration, progress monitoring and incident reporting.

Analysis of Emerging Skills – White-Collar Roles



Analysis of Trending vs. Popular Skills

Trending skills offer insight into current market demands, while popular skills, often featured in job ads, ensure alignment with current employer expectations. In our research, we found:

- The **top trending skills for white-collar roles are all soft skills.** This comes as no surprise, given that many white-collar positions involve routine and technical duties—think scheduling appointments or fielding calls—[tasks that generative AI can efficiently replicate](#). This underscores the indispensable value of human-centric abilities amid the ever-expanding presence of AI.
- **Lifelong learning is one of the top trending skills** for white-collar workers. This can be explained by the fast-changing business environment and evolving workplace landscape. Individuals must continuously update their skills and knowledge of new technologies and industrial trends to stay relevant.
- **Collaboration is increasingly vital globally**, enabling data interpretation, creativity, and idea generation. While AI facilitates information exchanges crucial for white-collar decision-making, human collaboration adds meaning and purpose.

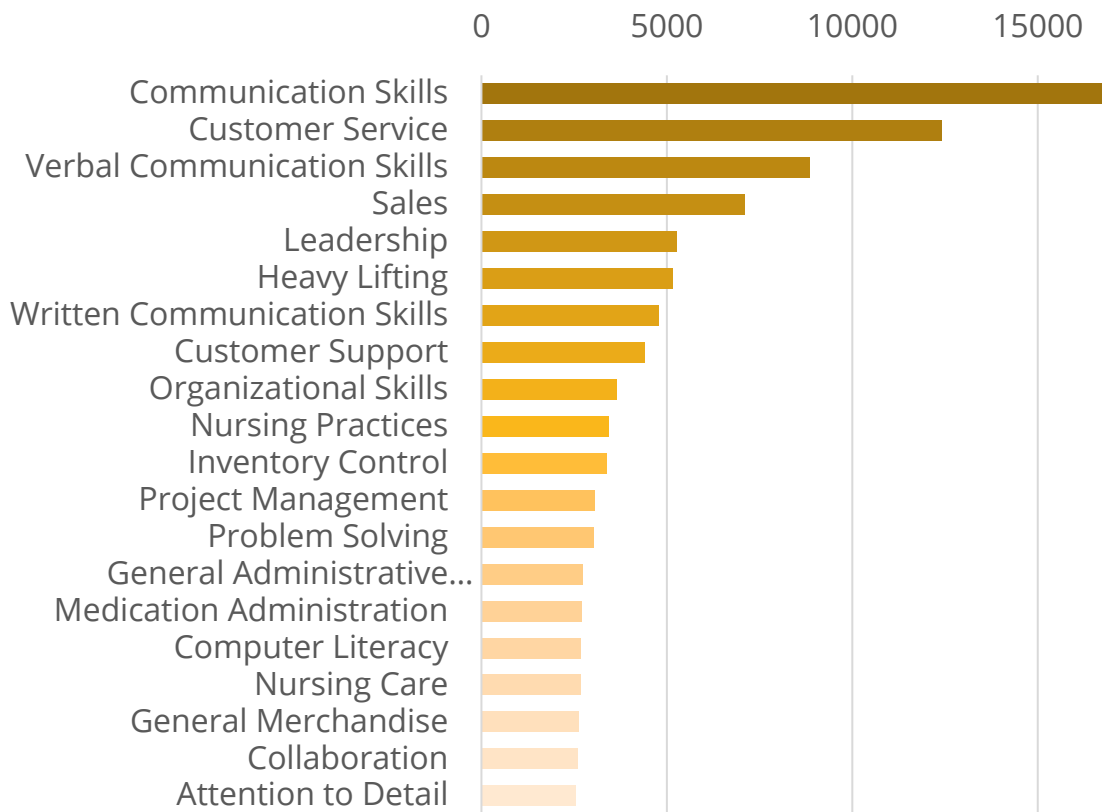


Analysis of Trending vs. Popular Skills

Top Trending Skills for White Collar Roles Across the US, UK and Australia



Most Sought After Skills in White Collar Roles Across the US, UK and Australia



Seizing Opportunities in 2024: How Digital Credentials Can Help

Now that you possess this valuable data to shape the groundwork of your training and membership program, it is equally crucial to explore the use of digital credentials to authenticate these skills for your learners. This will enable you to provide a well-rounded and competitive offering.

A digital badge is a tangible representation of an individual's competencies and skills. They are designed to be easily shareable and verifiable, typically containing verifiable data such as the badge earner's name, the issuing organization, and the criteria met to earn the badge.

Here are some key benefits of including digital credentials by Credly in your program.

- 1. Standardization and Consistency:** Digital credentials provide a standardized format for presenting certifications, ensuring consistency and clarity across industries. This helps avoid misinterpretation of skills and achievements.
- 2. Add Value to Your Training & Membership Programs:** The [metadata](#) offers detailed insights into skills and accomplishments, facilitating easy verification and boosting learners' employability. For corporate clients, this information streamlines verification, enhances clarity and provides valuable insights into their workforce's skills and competencies.
- 3. Drive Demand for Your Programs:** Every time an earner shares their profile or digital credential, there's a measurable, organic impression of your brand, programs, and certifications. This digital credential sharing represents free marketing that engages new and existing customers and attracts individuals who want to upskill.
- 4. Rich Data Analytics:** The [rich analytics](#) within the digital badges provide details and trends on course engagement, program performance, and which badges are most accepted and shared. This helps you identify areas for improvement and make data-driven decisions to enhance your training program and membership.



NEXT STEPS

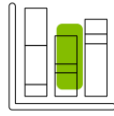
We trust this exclusive data guides you in creating tailored training for today's workforce. Digital credentials offer wide-reaching benefits, showcasing your alignment with sought-after skills and commitment to learner needs. Speak to our sales team now to learn more.

Talk to Sales

A woman with dark hair tied back, wearing a light blue button-down shirt, is seated at a desk and looking down at a laptop. Her hands are on the keyboard. In the foreground, a wooden pencil holder with several colorful pencils is out of focus. To the right, a stack of papers with sticky notes is also blurred. The background shows a modern office environment with a large window and a blurred monitor.

Data Sources

Data Sources



Pearson Labor Market Data

This report leverages Pearson Labor Market Data. Utilizing Natural Language Processing (NLP), Faethm by Pearson gathers data from millions of job advertisements across the UK, US and Australia monthly. This process helps in identifying the skills demanded in the market. The collected data is then scrutinized to uncover trends and patterns.