

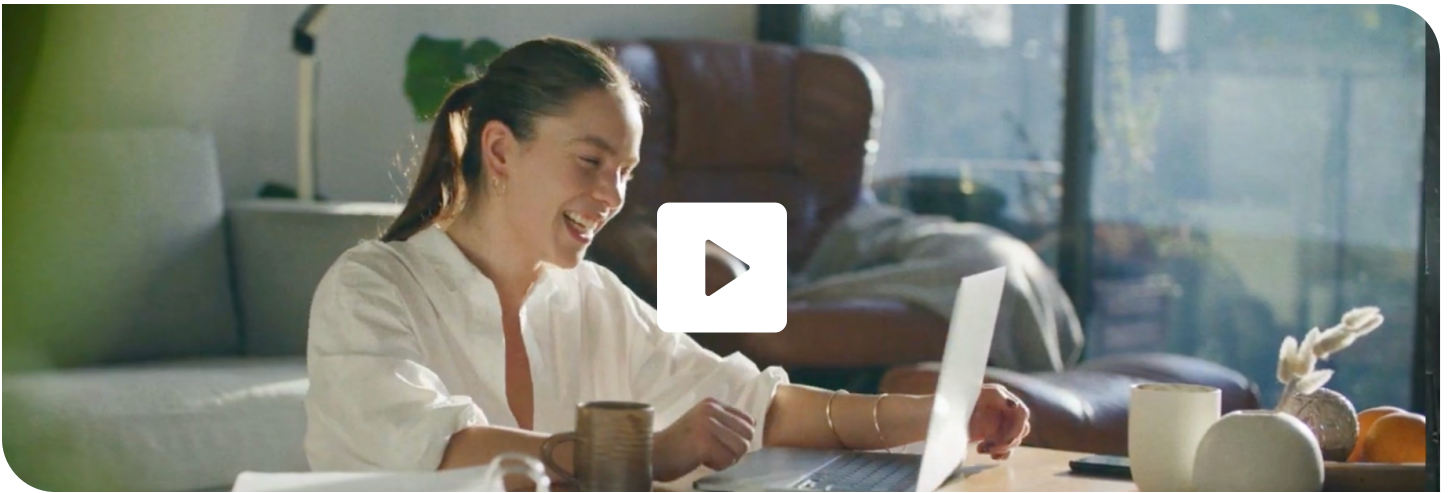


White paper

Skill building

for the future





How Andela changes lives

It's skill shortage, not tech shortage

According to a **recent study** by Manpower Group, 77% of employers worldwide are struggling to fill job vacancies, marking the highest talent shortage in 17 years. The technology sector is facing the most significant talent squeeze, **with 78% of employers in the industry encountering hiring challenges**. This shortage isn't going away anytime soon.

A lack of skilled tech talent was fueled in part by the pandemic, which accelerated businesses' adoption of digital technologies. Organizations were forced to adapt new, creative solutions so they could function remotely and keep pace with the consumer shift to digital channels, and collectively embarked on mass rollouts of hardware and digital tools to ensure that they remained competitive. A **global survey by McKinsey** showed that enterprises accelerated digitization, on average, by three to four years.

The efforts of this digital transformation have lasted long beyond the pandemic. Organizations now enjoy an abundance of technologies and recognize these tools as a critical component of their business, not just key components to successfully navigating the pandemic.

Data shows that there are still **far more technology job openings** than there are people to fill them. In the technology sector alone, the **U.S. could lose** out on \$162 billion of revenue annually unless it addresses this growing problem.

These numbers stand in stark contrast with the number of layoffs in the technology sector and other industries. In 2023 alone, layoffs across the sector have cost more than 200,000 tech workers their jobs, according to industry tracker **Layoffs.fyi**.

While technology and digital transformation is shifting the work environment, it is also compounding the skills shortage that businesses are currently battling. Globally, **three-in-four workers** lack the necessary digital skills to collaborate virtually, automate workflows, and leverage artificial intelligence and data.

78%

of employers in the industry encountering hiring challenges



Top tech skills needed now:

Data storytelling

Cloud Computing

Artificial Intelligence (AI)

Cybersecurity

Machine Learning (ML)

User Experience (UX)

The developer of the future

As software developers remain in high-demand — the number of job postings for software engineers **rose by nearly 17%** across all industries in 2022 — it's critical they possess the skills that are needed for now, but also for the future.

The scope of software engineering has widened in the past few years as new technologies have emerged, and it will likely only continue to do so as organizations digitize. This means developers must be able to pivot and adapt quickly in order to stay relevant.

According to a survey from Stack Overflow, **96% of respondents indicated that it was important for them to continue learning new programming tools and languages.** This flexibility is critical for coders who wish to remain competitive and pursue new opportunities in their field.

For example, developers will need to have skills in cloud computing as more and more companies look to eliminate the complexities of managing data and continue to embrace remote and hybrid working.

Augmented reality (AR) and virtual reality (VR) are showing signs of revolutionizing almost every industry and will have the biggest impact on software developers. As the popularity of AR and VR gains momentum in the enterprise world, organizations will be looking to create AR and VR software for their business, which software engineers will create. Knowledge of AR and VR will be essential for future developers, as will knowledge of the next-gen programming languages that will enable these futuristic experiences.

Cybersecurity, too, is expected to become more and more critical to the role of software developers. As cybersecurity threats continue to rise and become more advanced, enterprises can't ignore the threat, so they are being forced to deviate from the traditional cyber protection measures and rethink new ways of protection.

By continually upskilling and learning whatever language may come their way, coders will stay competitive in their field and have the confidence they need when tackling any project or problem they encounter.

17%

increase in job postings
for software engineers

Is Artificial Intelligence (AI) replacing talent?

Of course, the emerging technology that looks set to have the biggest impact on the role of the developer is **artificial intelligence** (AI).


Due to the rise in now-commonplace AI technologies such as ChatGPT and GitHub Copilot, developers are understandably worried that their development efforts will be replaced by artificial intelligence. A **recent survey** found that almost a third of software developers believed that they could be replaced by AI, making it the number one concern among employees in the industry.

However, while AI will undoubtedly have a profound effect on software development, it's expected that the technology will become intertwined with coding jobs, rather than replacing them.

For example, AI-assisted engineering workflows are quickly emerging with new generative AI coding tools, such as Github Copilot, that offer code suggestions and entire functions in response to natural language prompts and existing code, helping developers to tackle new problems and get creative. A 2022 study found that developers were using Copilot to find creative solutions when they were unsure of how to move forward, and relied on the generative AI coding tool to assist with unfamiliar syntax, look up the right API, or discover the correct algorithm.

These tools are also helping developers to build better test coverage via natural language prompts. Some tools offer security vulnerability filtering, so a developer will be alerted if they unknowingly introduce a vulnerability in their code.

Beyond coding itself, AI also has the potential to optimize and accelerate training programs and help organizations identify employees with desirable skills — such as software developers — in non-traditional places.



33%

of software developers believe
that they could be replaced by AI

Most in-demand soft skills:

Communication

Autonomy

Project Management

Problem Solving

Relationship Management

70%

of remote developers could get more meaningful work done at home

64%

reported a better work-life balance

Distributed work as a skill

Employers will continue to lean on technology in order to help them overcome the skills shortage and hire globally.

Not only does this benefit companies by allowing them to hire diverse teams with the exact skills they need, it also allows them to have an impact on communities and give skilled talent opportunities they may not otherwise have because of their location.

Plus, a **recent study** found almost **70% of remote developers could get more meaningful work done when not subjected to the distractions of the office environment, while 64% reported a better work-life balance and almost half said they felt less stressed.**

However, there are certain skills that make remote work effective and productive.

The first is communication.

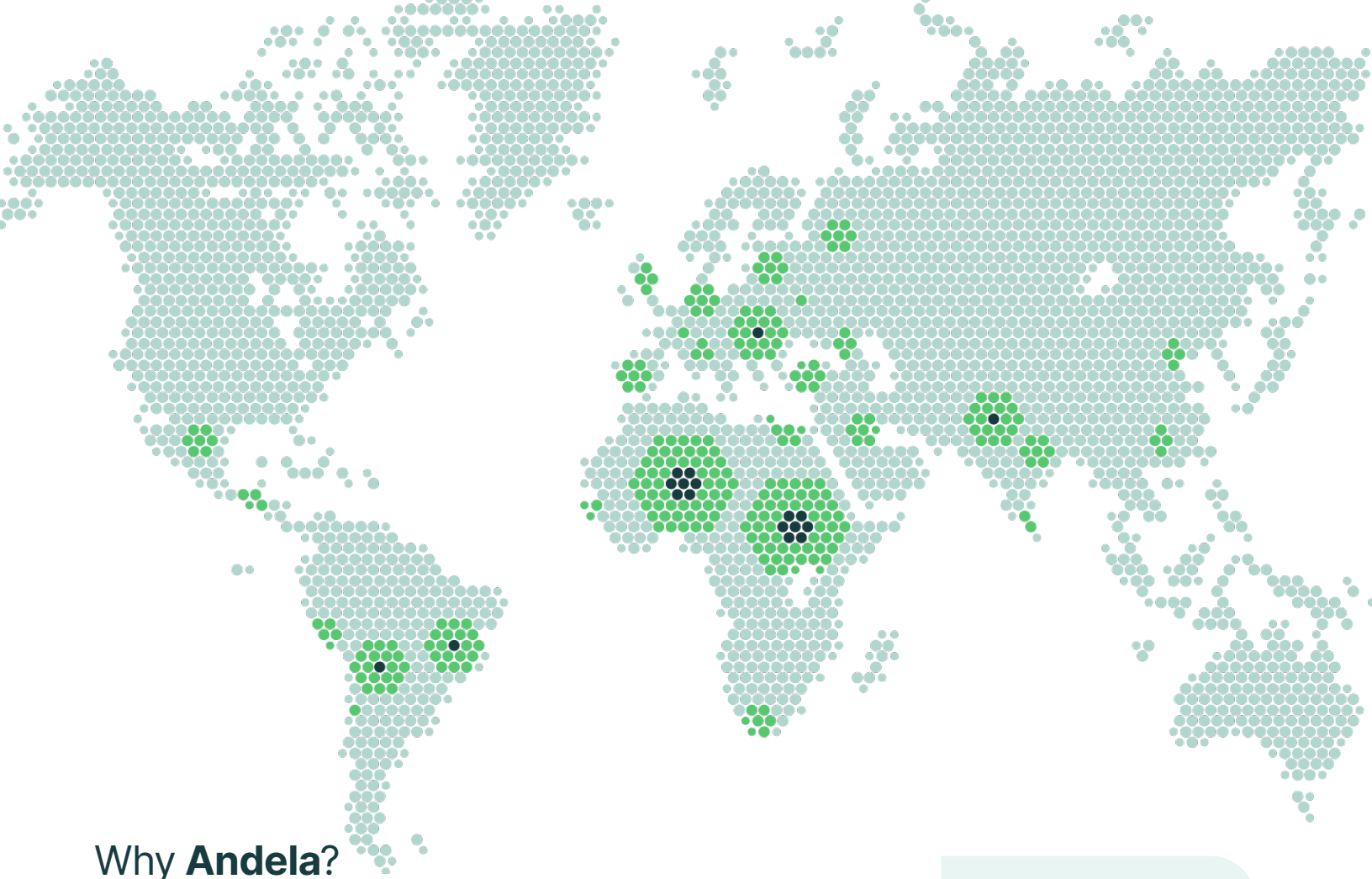
“Being an excellent communicator will always stand the test of time,” says Rosa Langhammer, Director of Talent Experience at Andela. “We hear from our clients a lot that being proactive in communicating the value of your work and also when you have blockers or spot risks is critical to succeeding.”

In addition to communication, working in a fully remote environment requires agency and autonomy. Workers must take accountability for their work, relationships, and growth.

“Being an excellent communicator will always stand the test of time.”



Rosa Langhammer
Director of Talent Experience at Andela



Why **Andela**?

It is abundantly clear to IT executives that there is a growing gap in the availability of technical talent. Yet, as organizations have embraced a pandemic-fueled transformation to digital technologies, many have yet to engage with these tools to help them overcome the problem.

Andela helps companies scale their global tech talent strategy. We provide a unified approach that integrates an intelligent talent cloud, global talent network, and comprehensive services for building remote-fluent teams from emerging geographies, such as Africa and Latin America. It is the industry's first end-to-end platform to manage the entire talent life cycle: source, assess, match, deliver, and pay global technical talent.

While current approaches to hiring talent can be slow and monolithic, Andela's innovative approach delivers our clients greater speed, flexibility, performance, and trust. The company matches the right talent for each job, up to 70% faster than internal recruiting processes at 30-50% less cost, and allows clients to tap a highly elastic resource pool of over 4 million technical engineers.

Build the tech team of the future...now.
[Learn more about the Andela Talent Cloud.](#)

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