Scaling Skilling

A new model to scale skilling nationally in the age of AI.

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00 Executive Summary

In an era marked by rapid technological advancement and the indomitable rise of Artificial Intelligence (AI) and automation, the nature of work is undergoing a transformation unparalleled in history. It is with deep conviction in the resilience and potential of our global workforce that I present this white paper, “Scaling Skilling: A new model to scale skilling nationally in the age of AI.”

As delineated in the pages that follow, the advent of AI and automation heralds not only a surge in productivity but also the inception of myriad new roles and opportunities. However, these opportunities beckon for a workforce armed with a new arsenal of skills, a demand that is both urgent and expansive. The World Economic Forum Job Report for 2023 illuminates the path ahead, predicting the creation of 69 million new jobs, while also forecasting the displacement of 83 million roles, underscoring a net loss of 14 million jobs.

In the face of such daunting numbers, despair may seem a natural recourse, but I urge you to see through a lens colored with hope and pragmatism. The challenge is monumental, yet within it lies an opportunity for nations to not only bridge the skills gap but to also foster a workforce that is versatile, competitive, and aligned with the demands of the future.

Micro-credentials emerge as a beacon in this scenario, offering a pathway that is nimble, focused, and deeply attuned to the dynamic needs of the contemporary job market. With over 2,900 micro-credentials already available in the US*, spanning technical and non-technical skills, the foundation for a robust skilling ecosystem is already laid out.

However, with a ***connected skilling ecosystem***, nations will not only navigate the challenges posed by rapid technological advancements but also harness them as catalysts for unprecedented growth and development.

Nosa Oghafua,
Founder,
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Chapter Summary

01. Changes in Work & Skills Demand

- Technological advancements and AI have forever changed the nature of work, increasing human productivity but also leading to job losses.
- There's a growing demand for skilled workers to fill new roles created by AI and automation, but there's a shortage of such talent.
- The time to close a skills gap has increased significantly, highlighting the need for efficient skilling and upskilling strategies.

02. Skills-Based Hiring

- Organizations are moving from degree-based to skills-based hiring.
- Skills-based hiring is more indicative of job performance.
- Platforms like Coursera and Udacity are growing, with companies like Google accepting their certificates for entry-level roles.

03. The Urgent Need for Micro-Credentials

- Micro-credentials are essential for providing the necessary skills for future job markets.
- Governments should focus on building a connected skilling ecosystem, facilitating access, fostering work experience opportunities, and creating incentives for learning at scale.

04. Understanding Micro-Credentials

- Micro-credentials verify a learner's knowledge and skills, awarded by a trusted provider, and can be stand-alone or contribute to other credentials.
- They offer enhanced pathways and remove barriers within the education system.

05. Scaling Skilling Nationally

- The complexity of the micro-credential ecosystem poses challenges for upskilling efforts.
- A deep understanding of the existing ecosystem is necessary, avoiding the misconception that creating new e-learning platforms is the sole solution.

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- The current model is fragmented, with learners often not translating their micro-credentials to job opportunities.
- There are different scenarios, including no system integrator and provider as integrator, each with its own challenges and limitations.
- Collaboration among all stakeholders is crucial for national upskilling at scale.
- A point-based mechanism is introduced, emphasizing specific technical and soft skills over traditional factors like degrees and work experience.

Conclusion

The paper emphasizes the need for a ***connected skilling ecosystem*** to address the challenges posed by technological advancements and the changing nature of work. It advocates not just for a shift towards skills-based hiring and the importance of micro-credentials in providing access to education and opportunities for all - but for a connected skilling ecosystem.

01 Work has changed, forever

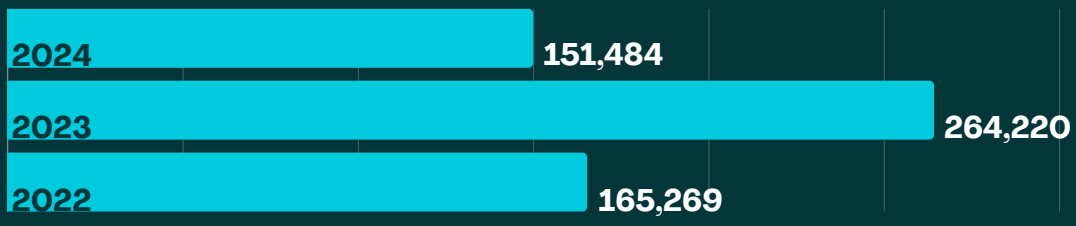
Throughout economic history, technological development and business model innovation have shaped different phases of human existence. (1) Skilled individuals with exceptional talent have always been at the forefront of these innovations, driving nations to maintain their competitive edge.

With the rise of artificial intelligence (AI) and automation, human productivity is expected to experience significant growth. (2) By integrating generative AI with other technologies, human productivity could increase by 0.5 to 3.4 percentage points annually. (3) This boost in productivity promises economic improvements, but it also presents a challenge: millions of workers worldwide will lose their jobs as a result.(4)

In the third quarter of 2022, a notable number of US employers issued layoff notices to their workers, a trend that has persisted. The primary cause of these job cuts is largely attributed to the prevailing global economic headwinds, which have affected the US in various ways.

In 2023, U.S. employees faced the highest number of job cuts since 2022, driven by the increasing adoption of AI.

Tech companies layoffs over three years in the US



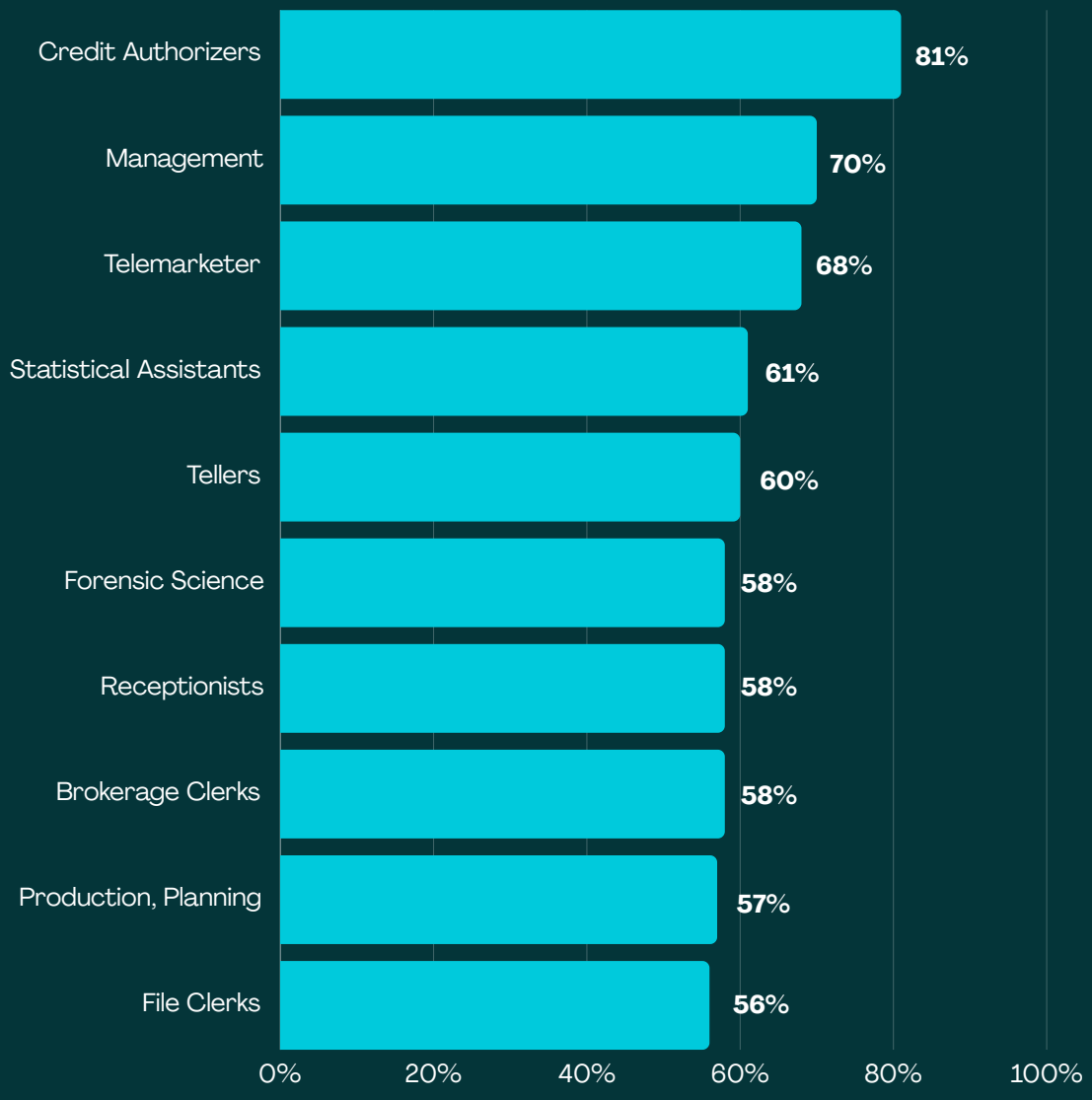
Source: Layoffs.fyi, May 2024

However, upon closer examination of available data, it becomes evident that companies opting for employee layoffs are primarily targeting roles in positions that can be easily automated.(5)

As a case in point, IBM announced its intention to replace 30%, equivalent to 7,800 of its non-customer-facing positions, with AI technologies over a five-year period.(6) Also, a report by Goldman Sachs, has it that an equivalent of 300 million full-time jobs in both the US and Europe could be exposed to AI automation. (7) These job cuts are now beginning to affect technical skilled workers such as software engineers. (8)

Jobs requiring the most work hours that could potentially be automated

Top 10 jobs with highest potential for automation



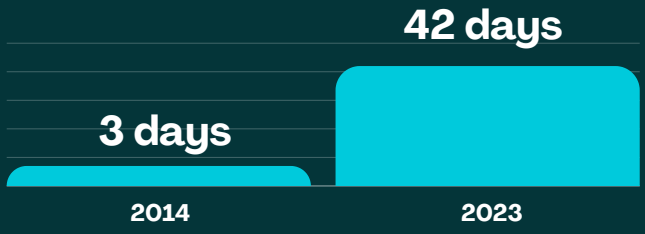
Source: Jobs of Tomorrow whitepaper, September 2023

With these cuts comes the challenge of finding skilled workers to take up millions of new roles AI and automation are expected to create. However, the shortage of skilled talent required to drive the current technological innovations continues to pose a huge threat both to organizations and nations (9).

Hiring and training alone are no longer sufficient. It **currently takes about 42 days more to close a skills gap, a huge leap from 3 days** - this is over 14 times more than we had four years ago. (10). While the challenge of upskilling talents to match the pace of need within an organization is evident, the more urgent concern is the lack of a ***connected skilling ecosystem*** to scale a national strategy.

Time taken to close a skills gap has increased by fourteen times.

Closing a skills gap, 2014 compared to 2023



Source: Jobs of Tomorrow whitepaper, September 2023

What is a connected skilling ecosystem?

A *connected skilling ecosystem* aligns learners, educators, employers, and governments to bridge skills gaps. The system uses a *System Integrator* as a central point of contact to connect all stakeholders and ensure each member's interest is achieved and ultimately, the national strategy.

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