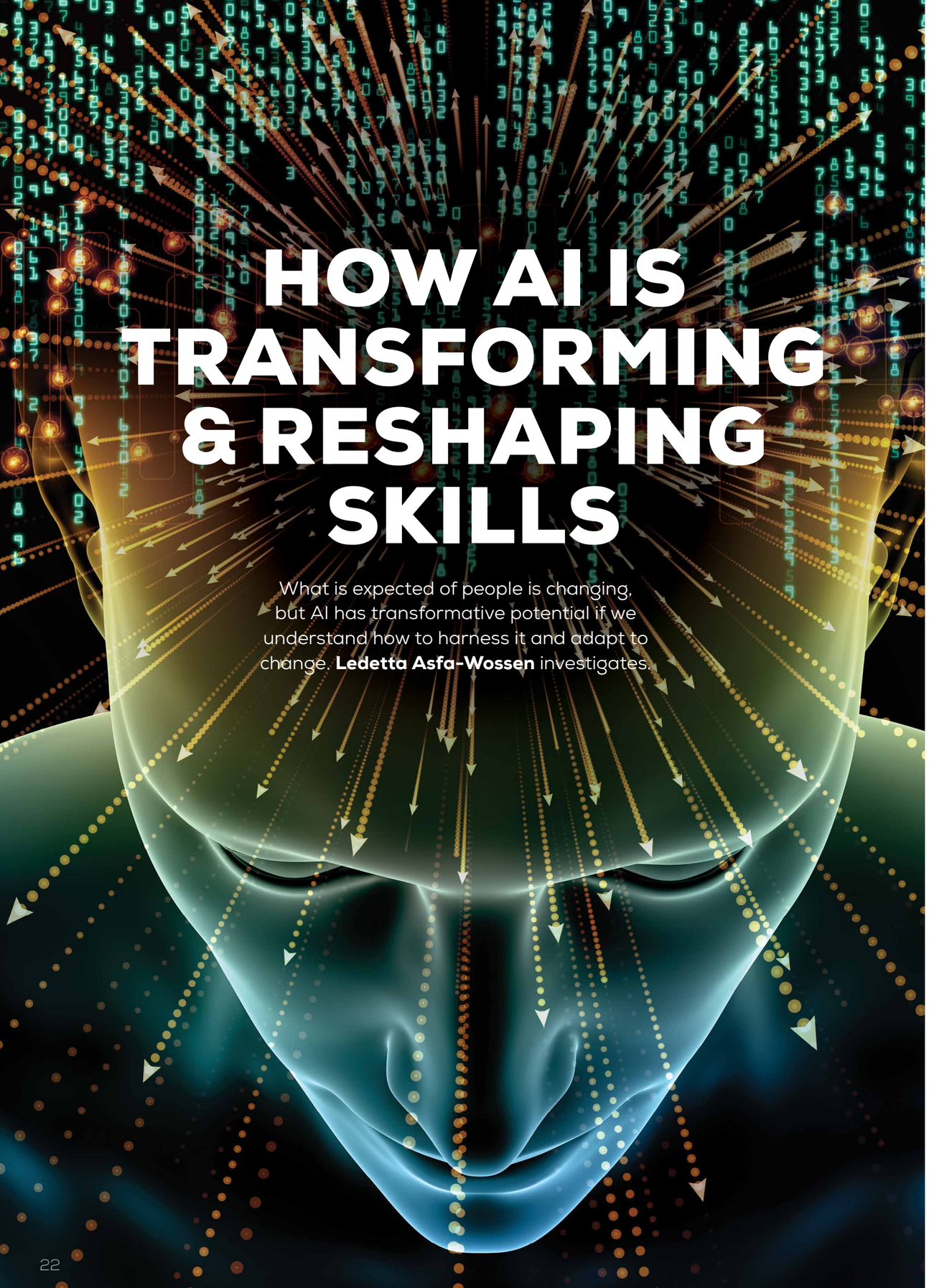

# HOW AI IS TRANSFORMING & RESHAPING SKILLS

What is expected of people is changing, but AI has transformative potential if we understand how to harness it and adapt to change. **Ledetta Asfa-Wossen** investigates.

"We really need to think about what lens we use to view AI and its impact on the modern world," said Ben Nelson, CEO and founder of Minerva. With endless predictions on what might or might not happen, Nelson challenged the audience to focus on what actually changes in the way we interact with technology.

"It's crucial that we understand and centre on what a technological advancement is really all about," added Nelson. "We often think of AI as something that only existed in the past 12 months because Chat GPT became the fastest growing consumer service in history but the reality is that AI, machine learning and the algorithms that underpin much of what Chat GPT does has been around for a very long time. Social media is run by algorithms that are optimised and developed by AI. But our encounters with AI, especially if you think of social media, has not gone very well for humanity."

Yet it's less about the technology already being here, said Nelson. "It should be about how we build the kinds of products, services and offerings to fundamentally change a paradigm. And when it comes to work, that paradigm can be quite profound."

## LEVERAGING AI AT WORK

Nelson gave several examples of how AI could revolutionise industries, from business to engineering and content.

"In theory, AI can enable an entrepreneur to start, build, run and scale a unicorn company without a single employee. This may sound fantastical but remember that 10 years ago, Instagram was sold to Facebook for a billion dollars and at that time Instagram had just 12 employees. It might still be rare but we have the tech that enables that to occur."

When you think about the way that employees contribute to a work environment, AI has caused a dramatic differentiation now in what is possible. It might not be happening everywhere but it is in motion, noted Nelson.

He gave an example of some employees, mainly in Silicon Valley, who are commonly known as 10 X engineers.

"A 10 X engineer is an engineer that is literally able to produce ten times the workable code of a typical engineer and they exist. They're not mythical creatures. I've employed 10 X engineers before and when you find them, it's like finding a gold mine. They have incredible processing of thought and the ability to translate that into workable code."

But, what's particularly fascinating about them is they spend a lot more time thinking than writing code.

"They're not just sitting at a computer or able to type ten times faster than a typical engineer. What they do is really think through how to appropriately architect their code, they review and sketch things out and explore implications. How do I make sure this code has been built to be more resilient? Less buggy? How can I scale this, or build code on top of it? Then they execute it and the code is elegant – that elegance is a really important factor."

AI may be changing the world of work but it's up to humans to leverage it to our advantage and really understand how we can better interact, contribute and operate. And, if we marry distinctively human and artificial intelligence the results can be powerful.

## WHY HUMAN INTELLIGENCE MATTERS

Highlighting the advantages of both human and artificial intelligence, Nelson warned not to only focus on the production gains of AI and that the applications for it are far more profound than accelerated automation which has long existed.

"You have a tool that can not only do 10X but has 100X implications not just in coding, but across all sectors." However, this allows us to fundamentally think in a very different way. "We have the opportunity to ask where do we go as humanity? What do we value?

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**“WE NEED TO VALUE THE KIND OF HUMAN WORK THAT IS UNIQUELY HUMAN AND SHIFT OUR ECONOMY TO LOOK FOR HIGHER QUALITY THINKING AND SOLUTIONS THAT ARE NOT COMMON AND CREATE VALUE ADD TO OUR ROLES.”**

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One option is to just condition ourselves to do what the machines can do and produce work which is of equivalent or even lesser quality than the machine. The second option, he notes, is for humans to create added value and rise above what is broadly known by the population and become experts with unique insights – “tastemakers in the highest degree.”

“AI is based on a large language model that is based on what is out there. It can extrapolate but it can’t think. The general AI that we see in films and science fiction is not the generative AI we currently have. It might get here at some point but what we’re dealing with now is a machine learning-based large language model.”

Humans can spot and analyse broader forces, complex ideas and understand how those ideas or concepts apply to different and diverse contexts. “That is not something generative AI can do. It can fake it. But it wouldn’t be able to understand it.”

“We need to enable our employees to be generative and original in their understanding of what is it they can produce that is different,” he added.

But there are some challenges ahead. For one, the education system needs to change for this future of work and higher thinking.

## CHALLENGES AHEAD

“Our education system in schools and universities is fundamentally not relevant to an AI age where information is not only readily available but useable and where AI will be able to create using that access to an infinite amount of information. We are spending $3 trillion a year globally to equip human beings to be vastly degraded versions of a machine.”

So, how do we adapt for the future of work? “Our unique insight is around taking ideas from one area and being able to originally apply them in another,” he said.

We need to get better at knowing what to do in a context that we’ve never encountered before – focusing on ‘durable cognitive skills’. According to Nelson, an education that is centred around information and how much knowledge we retain only puts us level with machines at best.

“We need to value the kind of human work that is uniquely human and shift our economy to look for higher quality thinking and solutions that are not common and create value add to our roles. Or, we are in danger of degrading the quality of output and accruing value to institutions that will not harness human potential or accelerate what we can do with AI and instead decelerate what it is that’s possible.”

But if the talent pipeline comes from higher education asked a delegate, how do companies get the people they need while the education system catches up? Some delegates also voiced that education entities may be resistant to change and expressed a lack of leadership to help develop future ready people.

Nelson discussed how industry and education can work together to develop AI ready talent. A particular gap that Minerva has been working on closing through its distinct programmes. While other delegates expressed concern on educating people to this higher level of thinking when there may not be many jobs for it yet. How do you balance educating people for the future and right now?

## HALF-LIFE OF SKILLS

Change is coming, but for now there are still many unknowns. What is clear is that skills will need to be reviewed, and fast. In a follow-on panel, Kian Katanforoosh, CEO and founder of Workera spoke of the half-life of skills – citing a World Economic Forum metric that claims every five years a skill is half as useful as it was before.

“The half-life of skills is probably the lowest it’s ever been. Even more so in digital areas where a skill on average is used for about 2-2.5 years. If you look at programming tools used to build AI systems, you’re probably talking yearly. All of this tells us we need to update our skills very frequently, and upskilling has become an economic imperative.”

But that’s not to say there is no value in the skills being taught now – far from it, said Khaled A Harras, a Computer Science professor at Carnegie Mellon University, Qatar.

“The skills that we need to be teaching are not that different from what we have been talking about for years. We just need to get a lot more serious about instilling those skills so it’s happening at the rate we want. Problem solving, creativity, the ability to be lifelong learners. How do you truly teach those? And when we talk about those, what about the other meta skills that come about which are necessary, like persistence and endurance. How do you build the character of somebody who can join a workforce and not give up quickly? There’s a lot of benefits to those skills. In a rush to denounce education now, we could lose some of these meta skills if we’re not careful, or wise, on just how much we pivot.” ◦

*Above: Ben Nelson of Minerva, along with other speakers from Carnegie Mellon Qatar and Workera, all spoke at the WISE Summit in Doha*