

AI trends that nobody mentions

Two artificial intelligence (AI) trends that will become a reality in 2019 is the rapid broadening of AI, and its ability to create thousands of jobs - are not being widely spoken about.

Vian Chinner, Xineoh CEO, explains how these trends can transform the way we do things and help reduce unemployment in South Africa.



Purpose-built algorithms will become obsolete

There is a lot of talk about when AI will be smarter than human beings. The reality is, when it comes to certain singular tasks, AI has been smarter than humans for a long time.

Consider the humble calculator, which delivers flawlessly time after time. The best human brains are only capable of completing large calculations accurately about 80% of the time, and they take considerably longer to do so.

Tasks of increasing complexity, such as banking transactions, can be concluded significantly faster by an automated teller

machine (ATM) than a human teller. The ATM is also more accurate and doesn't become tired.

At a task as complex as chess, AI had already beaten the best human player in 1997.

A master of many tasks

What most people refer to when discussing the prospect of AI becoming smarter than human beings is the broadening of AI. Broadening refers to a broad algorithm that can teach itself to master many tasks, such as Google's one algorithm to rule them all. By the end of 2017, this algorithm started beating purpose-built algorithms in several fields.

Given that AI's strength doubles every six months, broad algorithms are highly likely to outperform a huge number of purpose-built algorithms by the end of 2019.

Why are people not talking about this?

Given that things move linearly in our evolutionary environment, human brains are not wired for exponential equations. For example, if algae doubles every day and takes 40 days to cover an entire lake, how much time did it take to cover 25% of the lake? The answer is: 38 days, the other 75% came in just two days.

AI is a bit like algae. It doubles every six months. By 2016, we had been working on generalised AI for several years and hadn't made much progress. By 2017, we started to get some results and by 2018 it began to beat some of our purpose-built results. This is why it is extremely likely that generalised AI will surpass a plethora of purpose-built algorithms this year and we will have no use for them anymore.

AI will create more jobs than it destroys

The narrative around AI is often pessimistic, with self-proclaimed pundits predicting countless job losses and other equally woeful outcomes. The fact is that AI has the potential to create many more jobs than it destroys. Many multiples more.

With the unemployment rate hovering around the 27% mark, South Africa is desperate to find ways to help the unemployed become more economically active. A poor education system and a large pool of people without qualifications or skills means that even if jobs are available, many of these people cannot be considered for them.



Cutting through the AI hype

Patrick Maphoha 27 Mar 2019



Reducing unemployment would be the single greatest contributor to a better South Africa. Getting everybody into a job would massively reduce crime, increase productivity and change citizens' outlook on voting.

Economically speaking, the only sustainable way to get someone to earn a higher wage is to increase their skills and productivity. Consider a domestic worker, who is expected to complete various cleaning chores. For her to move up the skills value chain where she is managing the household, buying groceries and cooking, would require training and experience.

This is where AI can play a significant role and have a huge impact on society. For someone to be employed, the marginal value they add for the next person needs to be more than the marginal cost of employing that person. AI can dramatically skill people up, making them more valuable. In fact, the lower people are on the labour rung, the larger the effect AI can have on their productivity.



Vian Chinner, Xineoh CEO

So, if the domestic worker, who only has basic cooking skills, harnesses AI to access various programmes or apps that help her create gourmet meals, she instantly moves up the skills value chain. Similarly, a gardener can become an Uber driver and go from making R150 per day to potentially earning R150 per hour.

The reason we don't currently have an app to show someone how to create food, step-by-step, is because creating a bespoke AI algorithm has been prohibitively expensive. The broadening of AI, however, will change this and result in apps that will help increase the marginal value of people and significantly reduce unemployment in South Africa.

Uber is an excellent example of the power of AI to reduce unemployment. Prior to Uber, South Africa had tiny meter taxi industry. The advent of Uber has seen a massive expansion of the pay-for-ride industry, creating thousands of jobs.

The possibilities are endless. Imagine a gardener becoming a landscape expert, a driver gaining motor mechanic skills, a domestic worker becoming a culinary expert or a super nanny. AI can do this. It's already doing it. And, if left to its own devices, it will happen organically.

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