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The world is musing over the potential impact of artificial intelligence (AI). Forrester predicted "A greater than 300% increase in investment in artificial intelligence in 2017," and Sundar Pichai CEO of Google wrote in 2016 that, "The last 10 years have been about building a world that is mobile first. In the next 10 years, we will shift to a world that is AI first."

While computer learning and automation is in its infancy, there are glimpses of how these new technologies will alter work patterns: Amazon Go's cashier-less supermarket where shoppers take what they want and leave, while their Kiva robots move stock around their warehouses. The pairing of AI and "internet of things" sensors are carrying out predictive maintenance on machinery across the world. Meanwhile, Uber invests in driverless car technology in an eerie prediction of the redundancy of its own business model.

But what does AI mean for medium-sized businesses across the world? How might their operations be impacted? Are these developments feeding through the typical SME?

Welcome to the fifth AGN Global Business Voice. In this edition, we asked our global panel of business advisers how they are seeing AI develop amongst medium-sized businesses. The AGN Global Business Voice (GBV) panel is comprised of 44 senior accountancy and business advisory professionals from leading accountancy and consultancy firms across the world.





The nature of work itself will change - goodbye manual labor, hello knowledge-based business.

Our panel was asked to identify the biggest benefits for business that will emerge from AI. Significantly ahead of cheaper goods and services (21%) the panel suggests that the nature of work itself will change. It will migrate from a manual pursuit to a knowledge-based and creative activity (38%).



- A migration of 'work' from manual to 'knowledge' work
- Cheaper goods and services
- Repatriation of manufacturing from low wage economies
- Better crime and fraud protection for everyone
- More leisure time for everyone
- Other please specify

The survey predicts a future of reduced costs of production coupled with the availability of experienced resources (people) - with more time on their hands. One possibility is that tectonic shifts in the nature of work will 'hurry in' a global level playing field. The developing economies could see an increasing ability to compete as the new wealth creation requires only relatively low levels of capital investment. One can imagine a future where commercial innovation by small business is the bread and butter wealth engine for society, a world of even more consumerism not less, but one where the winners are those cottage industries that constantly create 'new' services, products, ideas for others to consume.

The big picture – clouds on the horizon?

Our panel also identified the repatriation of manufacturing from low wage economies as the 3rd ranked effect of AI. This suggests that AI and robotics (often closely allied) will pick up tasks where lower wage economies have historically experienced significant economic benefits.

Malcolm Ward - AGN Global CEO: "The panel foresees the progressive abandonment of labor-intensive work by everyone, everywhere. That could be great news if the human workforce can be gainfully occupied in higher value knowledge, creative and relationship-based activities. But it begs the questions, what might these jobs be, and how quickly will they become available? Especially so in less developed economies. One possibility is that higher proportions of the population won't be working at all, or at least not consistently, and what would be the social implications of that?"



What might be the downsides to SME adoption of AI?



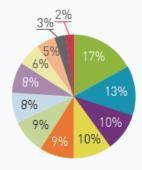
- Fewer or different and/or lower paid jobs fo working people
- Daily life becomes machine dominated lacking the colour of human interactions, relationships, empathy, humour etc?
- Data security and manipulation negatively impacting human privacy and freedom
- Human redundancy and lack of opportunity
- Machines becoming independent and threatening human well-being

Turning to the question of the drawbacks of AI, it's clear that the panel is expecting challenging times.

Malcolm Ward notes; "A quarter of the panel think there could be fewer or lower paid jobs for working people, and many are also concerned about daily lives lacking human interaction, relationships and humor. It's easy to become alarmed, but this probably doesn't factor in the effect of more time and opportunity for non-work pursuits, such as leisure, social and community activities. Having said that, it probably does not allay the concerns of 23% who think personal privacy and freedoms could be eroded, nor smaller proportions who foresee possibilities of human redundancy or even machine dominance!"

This challenges the first part of the study, which suggested SMEs will transform into a knowledge-based business thriving on innovation and creativity. There appears to be concerns of an employment gap, be it permanent or transient.

Which SME sectors will be fastest to adopt AI?



- Banking, insurance & financial services
- Logistics
- Professional services
- Manufacturing
- Healthcare
- Military and security

- Public transportation
- Science and research
- Education and training
- Public services
- Farming and Agriculture
- Construction
- Others please specify

When the panel was asked to rank which sectors are most likely to be affected by the emergence of AI, the top four were the financial services sector, logistics industry, professional services and manufacturing.

Malcolm Ward remarked: "It's immediately striking that the panel thinks that all sectors listed are going to be subject to impacts from AI. Of course, banks are already using AI, for example in detecting fraud, driverless electric trucks are expected to forever change the logistics sector, and in manufacturing robotics already have an enormous role to play. In professional services, AI is presently about researching, sampling and classifying data, and this is probably just in its infancy. Throughout all sectors, the consistent challenge for businesses appears to harness these efficiencies to reduce the unit costs of services and products, and simultaneously redeploy human resources to still higher value activities. It may be that the former is addressed ahead of the latter, but future business winners may well be those that give balanced attention to both."





Will society need protecting from AI developments?

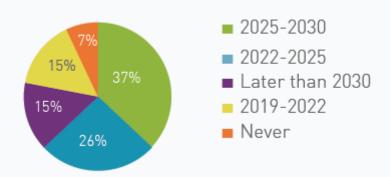


- Stricter regulation and monitoring generally of the use and ethics of AI
- Much stricter guarantees over personal data security and use
- A guaranteed minimum income
- The taxation of robots that replace tax generating jobs

If the business world wholeheartedly adopts AI, what remedial measures might be needed to protect society? 71% of the panel thought the most likely step would be a stricter governance regime around how AI is applied and data is secured and used—perhaps an ethical framework that could curtail some of the more extreme applications and misuse of private data.

Malcolm Ward: "The panel also think it could be a reality that humans will need a guaranteed minimum income. Something that would presumably be paid for via taxation. This might make the next response - the taxation of robots that replace tax-generating human jobs – compelling. But presently only 10% of the panel thought this was a valid strategy."

When will we really see self-driving trucks and cars on public roads?



We're told that the technology for self-driving vehicles already exists, and it's just a matter of time before we will be whisked along in a driverless taxi, and cargo will be delivered by driverless convoys of articulated trucks. 78% of the panel think this will happen before 2030 and 15% can imagine it within the next four years. The major OEMs are already testing robot HGV trucks on the world's motorways. Many SME businesses run fleets of vans and light trucks, and research suggests getting these vehicles to navigate more complex urban environments safely could take longer than four years.



