Preparing Your Firm for AI

Firms looking to leverage the transformational potential of AI should remember that it is still people who determine the context in which the new technology develops and thrives.

It seems that every week, AI technology has learnt to do something humans do, but faster and better. From detecting **cancers** and **eye conditions** to **predicting floods** or analysing the language, tone and facial expressions of candidates **during recruitment processes**, AI is now at the stage where it not only supports human judgment, but makes increasingly more complex and accurate decisions.

As technology further improves and we learn how to better work and collaborate with AI, interactions between humans and computers will significantly enhance creativity – of both humans and bots.

As we discuss in this **recent piece on " Supercreativity**'', already we're seeing fascinating advances and possibilities in the world of art and science. AI has produced paintings, music and poetry of undeniable artistic quality. An AI painting generated by technology recently **sold at Christie's for US$432,500**. Start-ups **Aiva** and **Amper** have developed deep learning methods for generating music on demand and may soon enable **personalised music**. In the near future, the challenging and laborious process of composing and orchestrating the accompaniment to a musical theme or song is likely to be largely taken over by AI. As we note, "Creative AI may be a next milestone towards Artificial General Intelligence

that fuels engineering of multimodality and associations learning and development of effective human-AI collaboration processes".

Meanwhile, neuroscientists and engineers recently harnessed the power of speech synthesisers and AI to develop a system that **translates thought into intelligible, recognisable speech** – which could lead to new ways for computers to communicate directly with the brain and, maybe more importantly, for us to better understand both human and artificial intelligence.

So, what does AI mean for your business? And, with so much happening at such a rapid pace, how can firms leverage AI to ensure value for their business?

Selecting the ideal AI solution

By learning from data at a fraction of the speed of humans, AI has the ability to accomplish activities and make forecasts with incredible accuracy. As well as significantly reducing mindless and repetitive tasks, AI provides insights that can pave the way for better business decisions in all areas: budgeting and apportioning of resources, streamlining supply chains and engaging with customers using sentiment analysis and predictive intelligence. The transformative potential of AI will magnify over the coming decade as industries and

organisations adapt their processes and even business models to take advantage of its capabilities.

Today, while increasingly recognising the potential of AI, most organisations are in the early stages of implementing and committing to this largely unexplored technology. Even those with the most advanced technologies in place are still working out how to use it.

Investing in AI can require significant time, money and effort. With technology heading in so many directions, it would be easy to go for the most dramatic or the most popular technology available. However, to reap the biggest benefits, organisations need to devise a solution that suits their specific needs. They must also understand that AI is not about blindly putting in place technology that replaces human resources. It is about adding value and efficiency to operations by creating smoother, faster or more accurate processes.

When gauging the business value of an AI solution, organisations should as always keep in mind the basics: consider the technology's benefits and cost – even if these are very often difficult to quantify. A good starting point is to look at the decisions the technology automates (e.g. investments, procurement, advertisement, hiring and screening, etc.) and compare this with the way the decision is currently being made. By putting a dollar amount to each decision, firms can estimate the potential value the technology could create, always keeping in mind that value is sometimes non-quantifiable.

Understanding the cost of implementing AI solutions is not so straightforward either. Along with the cost of the technology, there are hidden costs such as the skills that will need to be developed, the organisational changes that may be required and potentially even updates to business models.

Implementing AI technology – a holistic approach

The adage "IT plus an old organisation is an expensive old organisation" is even more relevant when investing in AI. More than any other technology, AI requires a holistic approach. It is essential for leaders to foster technological skills; IT infrastructure and governance; data literacy; an innovative culture; norms that adhere to best practices; and the ability to align the capacities of new technologies with the needs of the core business. Leaders must also consider new risks and liabilities AI can create for the business (e.g. discrimination, unfair decisions, unethical behaviour of AI, even health risks), something that may prove key for executives and boards as AI is integrated into business processes, products and services.

While machine learning has the ability to enhance the performance of organisations, it may also present ethical and legal concerns that need to be addressed at the board level.

Identifying the quality of the solution

Measuring the quality of a solution being offered is also not easy. Many vendors will promise things that sound too good to be true because they are. However, some things that sound unbelievable will actually be true. How do you evaluate that? It is unlikely firms will have the expertise to judge the technicality of AI technology. However, what they can do is judge the skills of the people who developed it and the processes they followed. Their checklist should include: sound data quality processes, **careful use of machine learning methods**, people with significant experience developing machine learning solutions, adequate monitoring processes designed to ensure AI continuously improves and its "behaviour" remains within acceptable quality limits – among others.

Creating strong data processes

An AI solution is only as good as the data it receives. While firms can bring in data scientists and statistics experts to verify data quality and relevance when adopting AI technology, it is important to remember that the right set of data today may be wrong tomorrow. Leaders need to focus not just on quality of data at the time of implementation, but on the data quality processes that are built into their organisation. This will ensure that the quality and relevance of the data being used are of high standard today and into the future.

The exponential advancement of AI is set to trigger irreversible changes that will reshape business – and society. Early adopters, those that gain an understanding of how AI can add value to their business and face the difficulties of integration while it is still in its infancy, will position themselves to capitalise on the opportunities as they develop. It is up to leaders to understand the capabilities, opportunities and challenges of AI and reorient their business to develop the core practices, skills and processes that enable them to realise the full value the technology can bring.

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