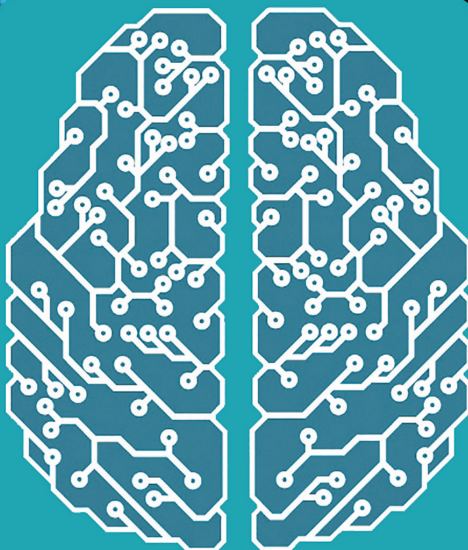


The Impact of AI on Business and Society



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Foreword

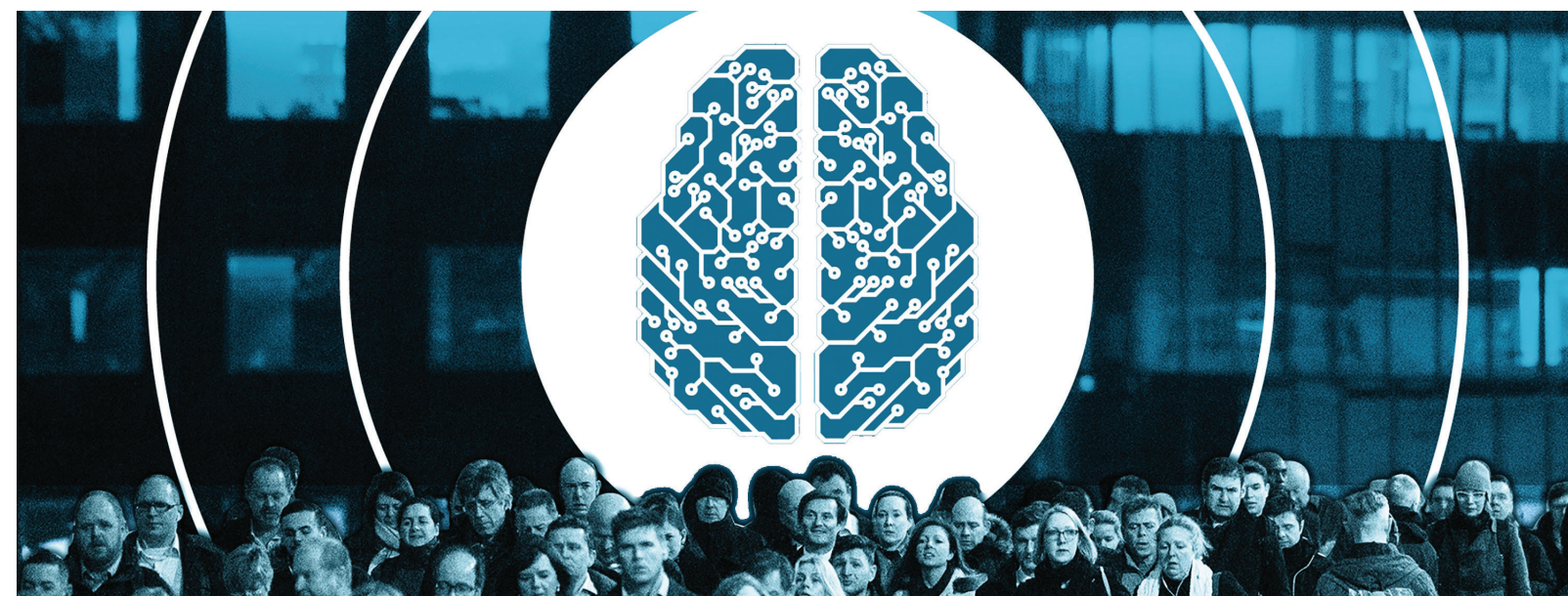


For many people, the words “artificial intelligence” conjure up Hollywood images of sophisticated cyborgs poised to usurp the mastery of human beings. We are not there yet, however. The reality of “intelligent machines”, as currently constituted, is somewhat more prosaic — autonomous software is one thing, and the deadly Terminator quite another.

Yet for all the limitations of AI, the opportunities it holds out for streamlining and refining a wide range of human activities are considerable. In this third report from the FT Future Forum think-tank — which follows a panel discussion moderated by John Thornhill, the Financial Times’ innovation editor — Lucy Colback examines what this technology, in its many guises, offers to companies, as well as the challenges, ethical and practical, that come with it.

The report assesses the extent to which the use of machine learning or language recognition, say, can improve outcomes in a number of sectors, from financial and legal services to education and manufacturing. It also asks how seriously we should take claims that AI is going to “steal” or destroy jobs on an unprecedented scale. Businesses and their employees need to be braced for change. This report is a guide to our automated future — its pitfalls as well as its promises.

Jonathan Derbyshire
Acting deputy world news editor,
Financial Times



The impact of AI on business and society

New technology can bring huge benefits to society but first we must take away the fear, writes *Lucy Colback*

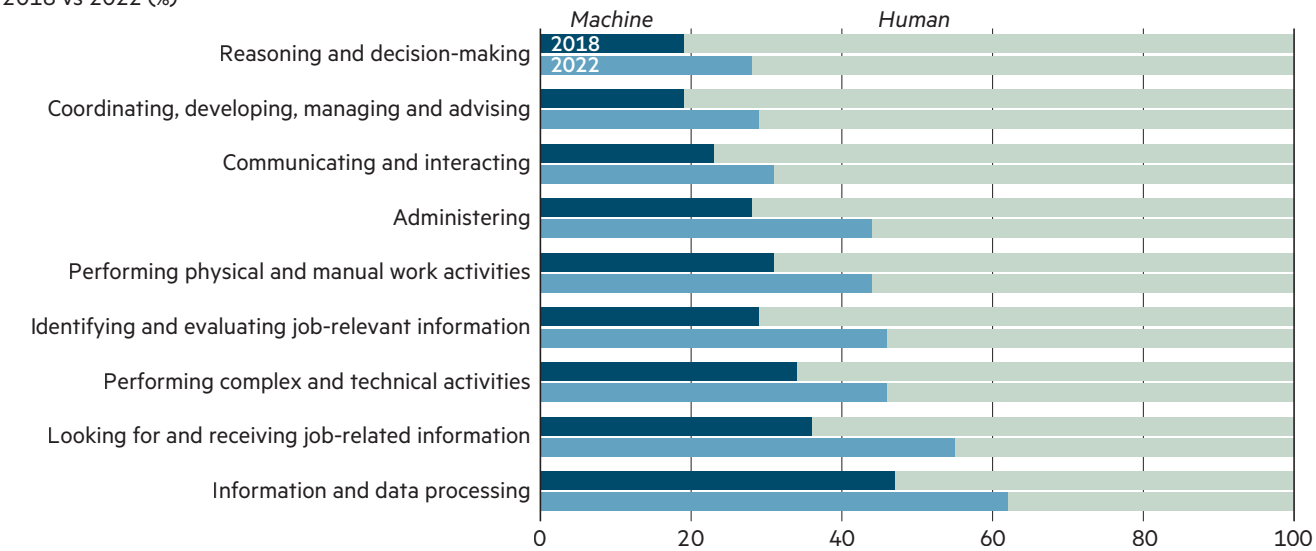
Artificial intelligence, or AI, has long been the object of excitement and fear. In July, the Financial Times Future Forum think-tank convened a panel of experts to discuss the realities of AI – what it can and cannot do, and what it may mean for the future. Entitled “The Impact of Artificial Intelligence on Business and Society”, the event, hosted by John Thornhill, the innovation editor of the FT, featured Kriti Sharma, founder of AI for Good UK, Michael Wooldridge, professor of computer sciences at Oxford University, and Vivienne Ming, co-founder of Socos Labs. For the purposes of the discussion, AI was defined as “any machine that does things a brain can do”. Intelligent machines under that definition still have many limitations: we are a long way from the sophisticated cyborgs depicted in the *Terminator* films. Such machines are not yet self-aware and they cannot understand context, especially in language. Operationally, too, they are limited by the historical data from which they learn, and restricted to functioning within set parameters.

Rose Luckin, professor at University College London Knowledge Lab and author of *Machine Learning and Human Intelligence*, points out that AlphaGo, the computer that beat a professional (human) player of Go, the board game, cannot diagnose cancer or drive a car. A surgeon might be able to do all of those things. Intelligent machines are, therefore, unlikely to unseat humans in the near future but they will come into their own as a valuable tool. Because of developments in neural technology and data collection, as well as increased computing power, AI will augment and streamline many human activities. It will take over repetitive manufacturing processes and perform routine tasks involving language and pattern recognition, as well as assist in medical diagnoses and treatment. Used properly, intelligent machines can improve outcomes for products and services.

To stay ahead of the competition, companies must think creatively about how to incorporate AI into their strategy. This report looks at areas where AI can be deployed, some of the issues that may arise and what we should expect to see.

Human-machine working hours

2018 vs 2022 (%)



Source: Future of Jobs Survey 2018, World Economic Forum

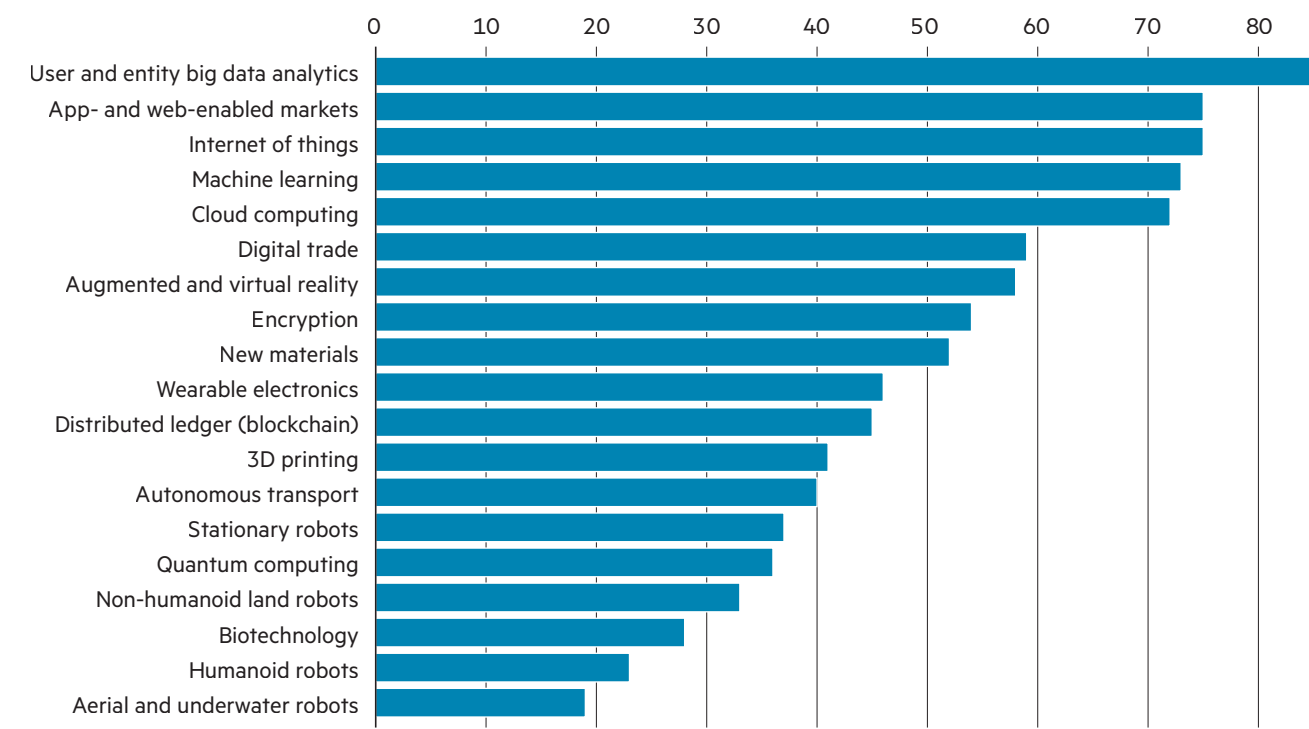
Dealing with data

Adoption of AI has been particularly widespread in the financial services sector. Forrester, the research group, notes that about two-thirds of finance firms have implemented or are adding AI in areas from customer insights to IT efficiencies. Data analysis already detects fraud. Jamie Dimon, chief executive of JPMorgan, noted in 2018 that as well as having the potential to provide about \$150m of benefits each year, machine-learning systems allowed for the approval of 1m “good” customers who might otherwise have been declined, while an equal number of fraudulent applications were turned down. AI is also useful in stock market analysis. Schroders, the fund manager, says such systems are basically “sophisticated pattern-recognition methods” yet they can nevertheless add value and improve productivity. Schroders uses AI in tools that forecast the performance of companies after initial public offerings, monitor directors’ trades and analyse the language in transcripts of meetings. Like many other businesses, the company also employs AI to automate low-judgment, repetitive back-office processes. Interestingly Schroders believes we may already be at “peak AI” since the technology is “difficult to implement in a meaningful way for many of the high-complexity tasks that a typical knowledge worker does as part of their job”. Professor Richard Susskind, author of *Online Courts and the Future of Justice* and technology adviser to the Lord Chief Justice of England and Wales, observes that “professionals invariably see much greater scope for the use of AI in professions other than their own”.

Elsewhere in professional services, law firms have applied language recognition to assess contracts, streamline redaction and sift materials for review in litigation cases, as well as to analyse judgments. The London firm Clifford Chance notes, however, that the facilitation of processes does not yet “transform the legal approach”. Prof Susskind says: “I am in no doubt that much of the work of today’s lawyers will be taken on by tomorrow’s machines.” This could have major implications for how lawyers are trained and recruited. Healthcare is another sector to benefit from AI’s rapid development. Applied to large data sets, AI has identified new drug solutions, enabled the selection of candidates for clinical trials and monitored patients with specific conditions. Roche, for example, uses deep-learning algorithms to gain insights into Parkinson’s disease. In the consumer sector, data and language analysis has been applied to develop translation apps, online moderation and product and content marketing. It has also identified epidemic outbreaks and verified academic papers. In energy, Iberdrola, the Spanish multinational, has achieved efficiency gains that benefit both the company and the environment. It uses AI to improve the operation and maintenance of its assets through data analytics. Systems developed with machine learning co-ordinate the planning and delivery of maintenance, monitor electricity usage and optimise distribution. Set against these advances, it should be acknowledged that AI has also worked in less benign ways: it has given criminals the means to commit sophisticated fraud and assisted in the creation and dissemination of “fake news”.

Technologies likely to be adopted by 2022

Per cent of companies adopting ...



Source: Future of Jobs Survey 2018, World Economic Forum

Sound recognition and analysis

Chatbots — software that can simulate conversation — have become the mainstay of many customer service centres and are used to answer questions on topics ranging from product options for online marketplaces to telephone inquiries at utilities and banks.

These digital assistants vary in sophistication and are limited by their command of what is known as “natural language processing”: the ability to treat words as more than mere inputs and outputs. This makes empathetic responses difficult to simulate, while the inability to comprehend context means that AI cannot distinguish a joke from a slur. Advances in this area could be transformational to the range of possible applications, as well as to acceptance by consumers.

Elsewhere AI developed by Huawei has been deployed by Rainforest Connection to fight illegal logging and poaching.

Dealing with images

Facial recognition is perhaps the best-known use of image analysis. From its application in identity verification to unlock mobile phones to its more sinister deployment by “surveillance states” — in Xinjiang province in China, for instance — its adoption is increasingly widespread.

There remain significant drawbacks to the technology, not least its unreliability in identifying the faces of people of colour — just one of the many ethical problems connected to the use of AI.

Less controversially, image analysis is being used in the medical industry. It can help in the identification and diagnosis of diseases such as cancer and its performance in eye scans is at least as accurate as that of human specialists.

In 2018 the US Food and Drug Administration approved a retinal scan algorithm designed by IDx, an Iowa start-up, that can diagnose diabetic retinopathy without the need for an eyecare specialist. The implications for healthcare could be far-reaching, both in terms of changes in the skills needed as well as improved access to care.

Image recognition has also been put to use in environmental conservation. A platform called Ewa Guard, jointly developed by Lenovo and Bytelake, remotely counts trees and monitors the health of forests. Lenovo, which is based in Beijing, has joined North Carolina State University in the US to apply deep-learning algorithms to identify farmland and monitor soil and crops to optimise water management.

A further possible application is in waste management, where image identification may assist robots to extract recyclable items based on logo or component recognition.

Personalisation

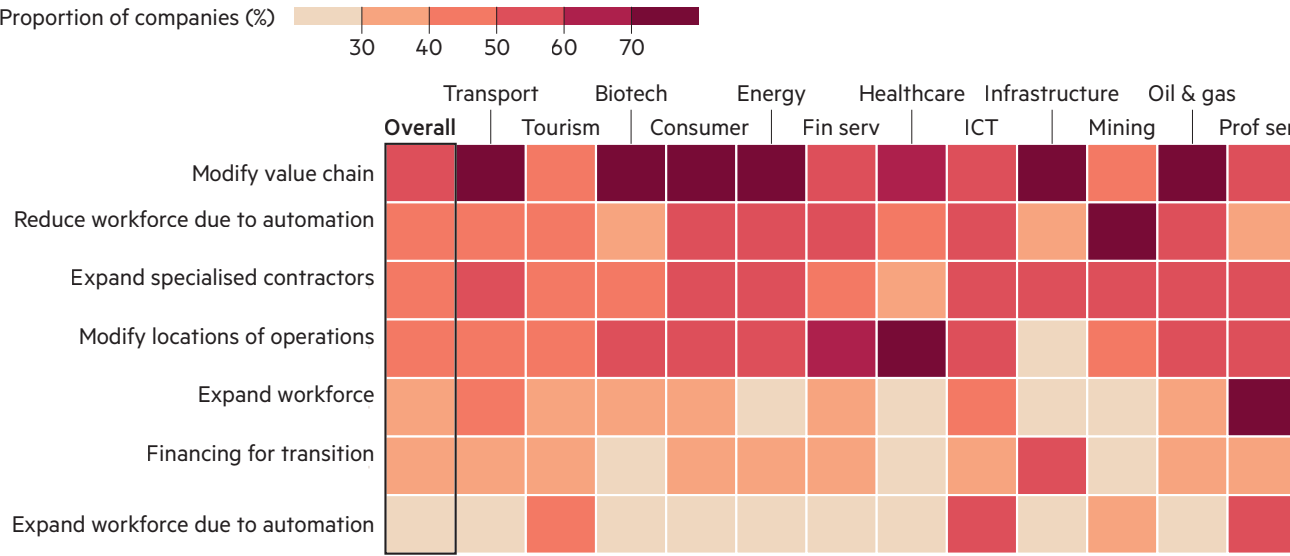
Personalisation of products and marketing is an area of rapid development which could greatly benefit manufacturers and retailers. A 2018 report from PwC, the Big Four accounting firm, estimated that the value derived from the effect of AI on consumer behaviour, for instance through product personalisation and an increase in free time, could be as much as \$9.1tn by 2030.

Among the sophisticated algorithms to personalise internet content is that used by TikTok, the app that allows users to upload short videos. Byte Dance, TikTok’s owner, revealed in June that its system is based on user interactions, video information and to a lesser extent, device and account settings. Cosmetics, too, can be personalised by data analysis. Companies such as Kao, a beauty group, use genetic data to tackle wrinkles and dermatological conditions.

Meanwhile the redesign of car-making processes by Mercedes — converting “dumb” robots on its production line into human-operated, AI-assisted “cobots” — has enabled a previously impossible level of customisation, such that “no two cars coming off the production line are the same”, according to a report in Harvard Business Review.

So much for the way AI is being deployed in businesses around the world. What are the implications of its widespread adoption?

Effects of technology on the workforce by 2022



Source: Future of Jobs Survey 2018, World Economic Forum

Businesses

For a business to adopt AI with any degree of success it must have a coherent and active strategy. Equally critical is that the strategy is controlled centrally rather than executed piecemeal: businesses need to consider the use of AI holistically, so that entire processes are reimagined, along with the redesign of tasks to blend machine and employee skills.

FT panellist Ms Ming cited an example in which her company came up with a tool to eradicate inefficiencies in manufacturing processes. While the technology did what was needed, “the companies were not ready to act” as their entire workflows would have to change.

This perhaps offers an advantage to companies that operate without the burden of legacy processes, but incremental change is still better than none. Research by Automation Anywhere and Goldsmiths, University of London found that “[AI] augmented companies enjoy 28 per cent better performance levels compared with competitors”.

Buy-in from employees is also essential and can be made easier by including the workforce in the process of redesigning their roles. Lenovo suggests that in future “as teams become more experienced, part of their training will be focused . . . in identifying which parts of their work are suitable to deploy AI towards”. Communication and transparency with employees is critical to engendering trust in the adoption of AI.

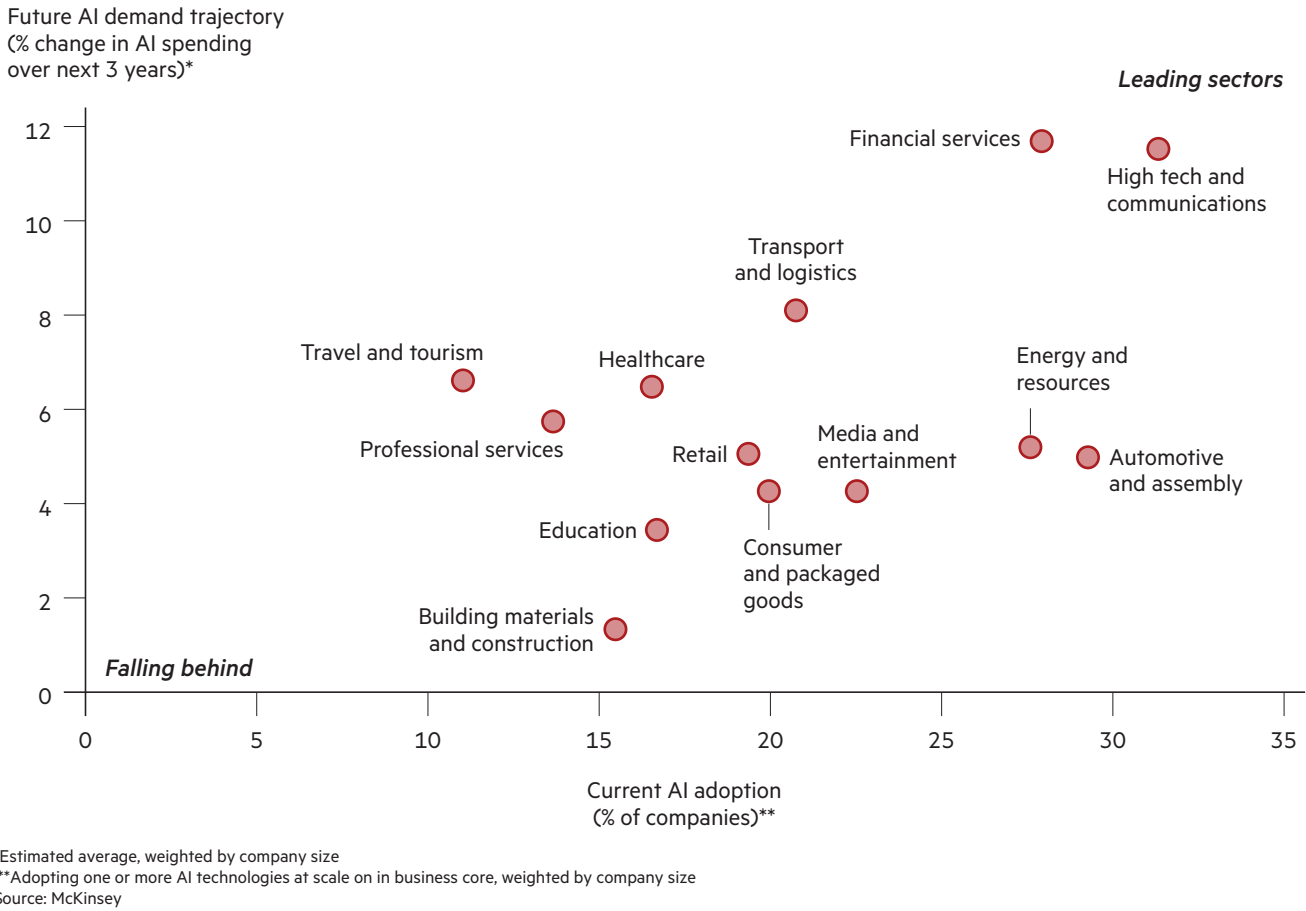
IT systems, too, are likely to need a radical overhaul to function in an AI world, and those built from scratch will be more effective than bolt-ons to existing software. Although the cost may be daunting, Clifford Chance argues that the marginal cost of AI systems is relatively low once they are built and offset by the fact that AI can help to “significantly reduce the cost of providing legal services”.

As well as establishing ownership of AI strategy at board level, companies will also need to consider how to deal with the ethical challenges the technology brings. Coupled with the focus on environmental, social and governance (ESG) goals encouraged by the Covid-19 crisis, is a need for more formalised ethics oversight on boards to ensure that AI implementation conforms with corporate values. Could chief ethics officer be the next boardroom position?

Businesses will have to consider the risk of deploying AI from multiple perspectives, including the legal, regulatory and ethical.

In a global survey of 200 board members, Clifford Chance found that “88 per cent agreed (somewhat or strongly) that their board fully understands the legal, regulatory and ethical implications of their AI use”, but that “only 36 per cent of the same board members said they had taken preliminary steps to address the risks posed by lack of oversight for AI use”.

Leaders in AI adoptions also intend to invest more in the near future



Employment

We are all familiar with blood-curdling predictions that AI could “steal our jobs”. The consensus among researchers, however, is that rather than put humans out of work, the adoption of AI is more likely to change both the nature of the jobs we do and how we carry them out.

In its Future of Jobs Report 2018 the World Economic Forum cited one set of estimates indicating that while 75m jobs may be displaced, 133m could be created to adapt to “the new division of labour between humans, machines and algorithms”.

Carl Frey, author of *The Technology Trap* and director of the Future of Work programme at Oxford Martin School, estimated in 2013 that 47 per cent of US jobs (based on occupation classifications) were at risk of automation, while UK categorisations gave a figure of 35 per cent. These numbers have been widely debated but Mr Frey observes that they account for those jobs that can be restructured in order to be automated — and individuals can be allocated new tasks as long as they acquire fresh skills.

While occupations involving, say, the ability to navigate social relations are to a large extent secure, Mr Frey points out that this is true mainly for more complex interactions. For example, fast-food outlets, where interaction is not integral to the appeal of a product, use more automation technology than fine-dining restaurants.

As businesses’ reliance on AI increases, it is clear that a redistribution of labour is inevitable. To deal with the shift in skills that this implies, retraining the workforce is critical. The WEF notes that on average about half of the workforce across all sectors will require some retraining to accommodate changes in working patterns brought about by AI.

Prof Luckin points out that businesses have a huge amount of data on their staff that could be invaluable to understanding how to optimise redeployment. “The savvy businesses will be really trying to understand their current workforce and what workforce they need, and looking to see how they can retrain on that basis.”

Much of that education is likely to go to the higher-skilled segment of the workforce and “saving people” if not “saving jobs” will have to be considered. In the first instance, the burden may fall to governments but the threat to low-skilled workers could require businesses to pick up the slack, especially given the additional pressures caused by Covid-19.

So far it appears that the pandemic has accelerated the trend towards automation. The effect is being felt in call centres, part of an outsourcing services industry worth nearly \$25bn to the Philippines in 2018. Even before the pandemic, the IT and Business Process Association of the Philippines noted that the increase in headcount in 2017 and 2018 had been just 3.5 per cent, against a forecast of nearly 9 per cent. One of the reasons for this is increased automation.

Call centre operators in countries such as the Philippines and India have suffered further from the requirement to work from home during the pandemic. They have been hampered by poor infrastructure, which ranges from a lack of IT equipment or fast internet to security considerations when dealing with customers’ financial information.

At the end of April, US-based outsourcer [24]7.ai said demand for some automated products had risen by half

since the beginning of the year, well ahead of the call for human services.

Food preparation roles may also be at increasing risk of redundancy because of automation spurred by Covid-19, according to the European Centre for the Development of Vocational Training. The advent of robots such as Flippy, which can cook burgers and french fries and knows when to clean its own tools, shows that such a shift is not out of the question.

One domain in which AI has failed to encroach successfully, says Mr Frey, is the arts: creative output that is original and makes sense to people has not yet been successfully replicated, even if an algorithm could be programmed to produce something that sounds similar to Mozart. “The reason is simply that artists don’t just draw upon pre-existing works, they draw upon experiences from all walks of life — maybe even a dream — and a lot of our experiences are always going to be outside of the training dataset.”

Mr Frey’s point is echoed by Prof Wooldridge, who said people will have to wait a long time for works created by AI that would “deeply engage” them.

Education

AI affects education many ways. People will need to be taught what AI is and how to use it, as well as the way its inputs and outputs are conceived. Education is also crucial to establishing public trust.

This summer’s school exam-marking controversy in the UK shows what happens when trust in computer-generated results is eroded. An automated system designed to mark A-levels in line with previous years led to a public outcry. A lack of transparency as to how the algorithms used would work, combined with a lack of confidence in the metrics used, undermined the exercise.

Prof Luckin stresses that if public consent and trust are to be gained, then AI-driven processes should be both transparent and easily explained.

Data literacy will be hugely important, says Prof Luckin, to ensure that people are equipped to assess and refine AI output.

“That’s the real problem. It was an algorithm and they took the human out of the loop. It needed much more human intervention with the data. It is just having someone who is contextually aware going ‘hang on a minute, that’s not going to work’.”

Finally, AI can also be used as a pedagogical tool, complementing the work of human teachers. It can assess our ability to learn and advise us on the best way to retain information. For example, Up Learn, a UK company, offers learning “powered by AI and neuroscience” and promises a refund in the event that customers do not achieve a top grade.

‘As businesses’ reliance on AI increases, it is clear that a redistribution of labour is inevitable’

Ethics and bias

The widespread adoption of AI obviously raises ethical challenges, but numerous organisations have sprung up to monitor and advise on best practice. These include AI for Good, the AI Now Foundation and Partnership on AI.

Governments are also taking steps, with more than 40 countries adopting the OECD Principles on Artificial Intelligence in May 2019 as a “global reference point for trustworthy AI”. At about the same time, China released its Beijing AI Principles. In July, the European Commission published the results of its white paper consultation canvassing views on regulation and policy.

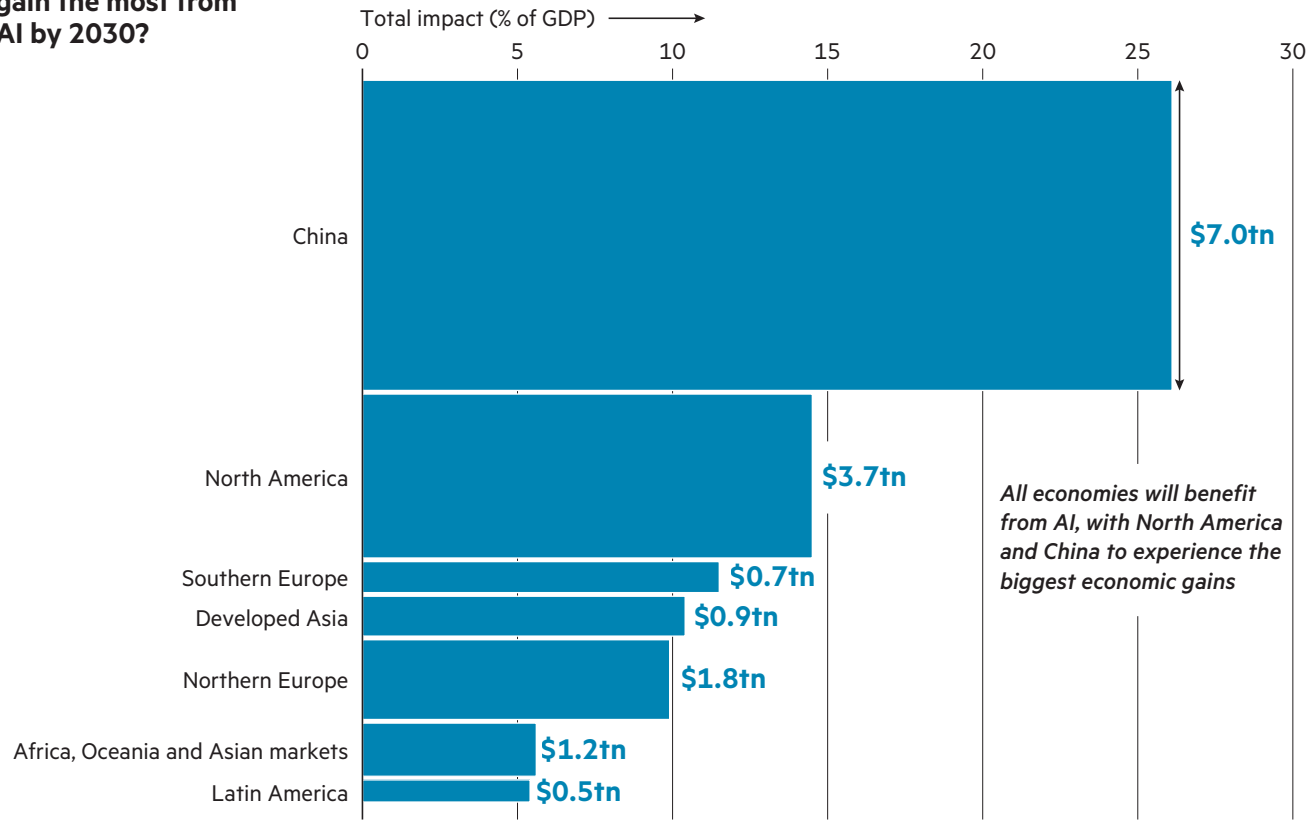
Despite this there is no globally agreed set of standards: regulation remains piecemeal.

The British A-level controversy drew attention to the problem of historical bias, showing how AI is dependent on data and programming inputs.

Diversity is another problem, both in terms of the poor representation of women among AI professionals but also in how AI is developed. Facial recognition, for instance, works best on white male faces, a “technical problem” for which, Ms Ming noted, there is limited incentive to fix in the absence of regulatory enforcement.

On the other hand, AI can help to promote diversity through “colour-blind” recruitment processes. Schroders, for example, uses AI tools when it looks for early-career trainees and graduates. “Given that the alternative is people looking at candidates’ CVs (with ample scope to favour candidates like themselves),” the company says, “this can be much more fair.”

Which regions will gain the most from AI by 2030?



Source: PWC

Facial recognition technology raises further ethical concerns in relation to surveillance — for instance, of the Uighur population in China.

Abuse of data harvested through facial recognition is not restricted to the state, however. Identity fraud and data privacy are significant problems. In July, UK and Australian regulators announced a joint investigation of Clearview AI, the facial recognition company whose image-scraping tool has been used by police forces around the world.

Other ethical problems loom. Gartner says that by 2022 one tenth of personal devices will have “emotion AI” capabilities, allowing them to recognise and respond to human emotions, which will present opportunities for manipulative marketing. Accenture advises that the groundwork for the ethically responsible use of such technology needs to be laid now.

What does the future hold?

Businesses and employees alike need to be prepared for what is likely to be widespread and sometimes bewildering change as a result of AI adoption, and the ethical and regulatory challenges that will come with it.

“Doubters find it hard to grasp that the pace of technological change is accelerating, not slowing down,” says Prof Susskind.

“There is no apparent finishing line. Machines will outperform us not by copying us but by harnessing the combination of colossal quantities of data, massive processing power and remarkable algorithms.”

Foundation Partners

The FT Future Forum think-tank is supported by our foundation partners — *Bridgepoint, Google, Huawei* and *Iberdrola* — and these groups help to fund our reports.

Partners also share their business perspective on the think-tank advisory board. They suggest which topics the forum should cover — but the editorial director makes the final decision.

Think-tank reports are written by a Financial Times journalist and are editorially independent.

Our partners feature in the following pages. Each profiles their business and some offer a view about the impact of artificial intelligence on business and society. All partners could comment on the impact but some chose not to contribute. All partners' views stand alone. They are separate from each other, the FT and the FT Future Forum think-tank.

Foundation Partner Transformation

The Bridgepoint logo consists of a solid red square with the word "Bridgepoint" in white, sans-serif font positioned in the bottom right corner of the square.

Bridgepoint is a major international alternative asset fund management group, focused on providing private equity investment and private debt lending to middle market companies.

Our focus is on acquiring or investing in businesses with strong market positions and earnings growth potential where significant additional value can be created through transformation — either domestic or international expansion and/or operational improvement.

With over €20bn of assets under management, we invest internationally in six principal sectors — business services, consumer, financial services, healthcare, manufacturing & industrials and media & tech — via a platform of offices in Europe, US and China.

Foundation Partner

Technology



The benefits of AI must be for everyone

Covid crisis has fast-tracked trends that we had expected to materialise over a longer period

Much of the technology we use every day is powered by AI. It already helps thousands of organisations to work more efficiently and increase revenue. Governments also see the potential and countries including the UK have built the technology into industrial policy.

AI can bring great benefits — but these must be for everyone. For this to happen, we have to remove the barriers that stand in the way of AI adoption while making sure that we prevent irresponsible use.

Business opportunity for AI

The Covid crisis has fast-tracked trends that we had expected to materialise over a longer period. These include the use of AI and automation to help businesses to make better decisions, increase sales and reduce costs. This acceleration should yield a huge benefit. McKinsey research suggests that the European companies that use AI the most are likely to grow three times faster than the average firm by 2035.

Companies have also adopted AI and machine learning to improve sustainability. The Telegraph is using Google Cloud and machine learning to predict demand for physical newspapers, so maximising sales and minimising waste.

Similarly, the Google Cloud team has collaborated with WWF Sweden

to help give fashion brands, such as Stella McCartney, a comprehensive view into the impact of their supply chains.

It can be daunting to adopt new technology and some businesses fear that a lack of knowledge will lead to wasted investment. This is why Google has launched its AI for business tool in Europe — it provides a tailored report and a recommendation for the most relevant application of AI. It lists the potential benefits and gives practical suggestions on how to get started, which is often the hardest step especially for SMEs.

Google has also created a library of open educational resources so that anyone can start learning, building and problem-solving with AI. We are committed to helping UK and European citizens to enjoy the full social and economic benefits of the technology.

Enabling AI to thrive responsibly

Decisions informed by AI can be more inclusive, objective and accurate than those using processes based on human judgment — but only if they are developed in the right way.

Some of our toughest internal debates have dealt with concern over how Google AI users may apply them in ways we don't foresee.

As a result, our AI development follows a set of core principles. These strive to ensure it is socially beneficial, accountable and fair — and we will never deploy AI in ways

that will cause harm or infringe on human rights.

However, this benefit will only be seen if AI is allowed to thrive in the right environments.

Responsibility for the rules governing AI doesn't just lie with one group and must be prioritised by everyone who stands to benefit.

Governments have to create the frameworks and support the innovation behind AI's development. Businesses will be relied on to facilitate the skills required to capitalise on this technology in rapidly changing workplaces. Researchers will be relied on to foster innovation and lay the groundwork for what is technically feasible.

Collaboration is imperative so that AI can be championed and its potential can be realised for everyone.

** Google's views are separate from other foundation partners, the FT and the FT Future Forum think-tank*

Foundation Partner

Innovation



Technology sector has a vital role to play in building public trust in AI

The industry must work with governments to create the rules, standards and incentives for best practice *Victor Zhang, vice-president, Huawei*

Artificial intelligence is developing rapidly. It is increasingly a part of our lives: households talk to home assistants, social media platforms feed us content that is ever more relevant and businesses use AI to automate processes.

This, though, is just the start: society will benefit hugely as we think more creatively.

Protecting biodiversity is not the most obvious application for AI but Huawei's products are being used in the field by the Rainforest Connection (RFCx), a Californian non-governmental organisation that works worldwide.

RFCx tackles illegal logging and poaching. It employs upcycled Huawei mobile phones to create sensors, which it places strategically in protected areas. These use AI to learn and identify the sounds made by loggers and poachers, allowing park rangers to react quickly, making the most of limited resources.

NGOs are a good example of how AI enables better use of time and money. But if AI is so effective, why is it not more widespread among small and medium enterprises and public organisations?

A McKinsey survey found that businesses are only beginning to harness AI and its benefits. The

key to increasing uptake is the digitisation of organisations and finding the people with the skills to implement AI solutions.

AI can be expensive to set up; it can be daunting and require specific skills, and people do not entirely trust it. While these barriers remain, it will be difficult for organisations to adopt, apply and benefit from AI technologies.

High set-up costs are a particular issue for small organisations, which can ill-afford to gamble on technology.

Developer kits and full-stack products that give a plug-and-play experience can reduce costs. Not only is deployment cheaper but so is maintenance, which no longer requires specialist staff.

The Dr AI Cube, a solution from Huawei, is already used in hospitals to diagnose Covid-19 patients. It is up to six times more efficient than an unsupported physician, and it can be set up in a day.

Investment in research and development will drive down costs. Huawei works with more than 300 universities and 900 research institutes, and companies worldwide. It has 15,000 employees engaged in research with a planned annual investment of between \$3bn and \$5bn.

Reduced costs will help, but companies also need to understand what AI offers and have the capability to exploit that. This is especially challenging in small

organisations but technology businesses can help.

In Malaysia, Huawei has set up an SME AI programme in which it uses its expertise to encourage and enable digitisation. This sort of programme can complement the government skills programmes that will be necessary to prepare economies for the AI transformation.

Trust is another obstacle to wider adoption. As consumers interact more with AI, they need to feel assured that the technology will be used in a responsible and ethical manner and that they will be protected if it behaves unexpectedly. Action by the technology sector, and in some cases regulation, can help the AI industry gain trust by creating the rules, standards and incentives for best practice.

Huawei, like many others in the private sector, is keen to work with governments to find the correct balance between consumer protection and the need to drive innovation that will result in economic growth.

To realise the full potential of AI by spreading its use across the economy will require a concerted effort from businesses and government. Huawei stands ready to play its part in this challenge.

** Huawei's views are separate from other foundation partners, the FT and the FT Future Forum think-tank*

Foundation Partner

Sustainability



AI has the power to transform the everyday in so many fields of human endeavour

By simply making the most of every clean megawatt, technology plays a huge role in fighting climate change

José Ángel Marra, director of Human Resources and General Services, Iberdrola

The use of AI in business is revolutionising the way organisations function, transforming workforces and altering operational needs.

Between 2018 and 2022, Iberdrola is investing €4.8 billion in digital transformation, focusing on improving the operation and maintenance of our assets by using data analytics and artificial intelligence. This will increase the availability of generation plants and mean more resilient electricity networks as well as more efficient renewable assets.

The operations and maintenance of wind turbines and solar plants, substations and control room processes can all be improved by AI. For example, it can automatically plan and deliver maintenance and optimise field inspections, which prevents technical losses in our grid.

It can forecast customer demand via smart meters and deploy better products and services based on customer behaviour. Many processes can also be optimised with the use of robotics, blockchain technology and smart automation.

We are working on or assessing AI projects in most areas of our business as well as working with

start-ups and academic institutions to develop innovative concepts.

Businesses must use AI responsibly and ethically

Our mission, vision and values place innovation alongside our commitment to our workforce and our customers. Ultimately, we look to adopt technologies that improve service and reliability and complement our engineering expertise.

AI will offer genuine benefits to society

AI is already present in everyday life, from facial recognition in mobile phones to the apps we use to shop or learn.

With new concepts being integrated into systems daily, we hope to see AI continue to grow and offer genuine benefits for society. Its potential for good is massive.

As the world pursues essential but challenging sustainability targets, AI technologies will have a major role to play to help us make the most of every clean megawatt of power. These will be a major tool in the fight against climate change.

**Iberdrola's views are separate from other foundation partners, the FT and the FT Future Forum think-tank*

About FT Future Forum

The FT Future Forum draws on the FT's global influence as the world leader for financial and business news. It acts as an exclusive and authoritative venue for businesses to share ideas and intelligence. It enables the exploration of emerging trends and seeks to define and solve the issues faced by business and society.

The forum set up the think-tank to make best use of the expertise of member companies and to pull together cross-sector knowledge.

The think-tank invites experts, including academics, industry specialists and policymakers, to collaborate and contribute in workshops and consultations. This information is fed into reports that go before an audience of global leaders.

You can find how to take part in the FT Future Forum and think-tank by emailing michael.hepburn@ft.com



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