



# AI and robotics: from science fiction to business fact

How will AI transform your organisation?

## Definitions

**There are legions of terms associated with AI and robotics, so we have chosen to focus on those most frequently used in this report.**

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### Algorithm

A process or set of rules to be followed in calculations or other problem-solving operations.

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### Analytics

The discovery, interpretation, and communication of meaningful patterns in data. Especially valuable in areas rich with recorded information, analytics relies on the simultaneous application of statistics, computer programming and operations research to quantify performance.

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### Artificial intelligence (AI)

First used by Alan Turing in the 1950s, AI refers to using machines to do things that we consider to be 'intelligent'; capable of learning and making use of that knowledge such that it is impossible to distinguish between human-generated or computer-generated answers.

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### Machine learning

Algorithms that learn underlying statistical patterns from training data, leading to an ability to make predictions for novel data.

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### Narrow AI v general AI

AI in its narrow sense is here now. There are specific tasks that machines can do better than human beings; play chess, for example. Defined parts of a process or individual tasks can be delivered by machine. However, a world in which a broader spectrum of capabilities can be managed by a machine is further away.

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### Robotics

Physical machines that move within an environment with a degree of autonomy.

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### Robotic Process Automation (RPA)

Robotic process automation is the application of technology that allows employees in a company to configure computer software or a robot to capture and interpret existing applications for processing a transaction, manipulating data, triggering responses and communicating with other digital systems.

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## Research

This report is supported by primary research conducted by University of Birmingham MBA student Syed Munshi as part of a Curium-backed project: 'To develop insights into how AI and robotic technologies are being used and their potential impacts on the contact centres of the future'.

Thanks to Syed and the contributors to his research. Our report also draws on research and reports from Gartner, Keynote, McKinsey Global Institute, Puzzel and the Royal Society for the Encouragement of Arts, Manufactures and Commerce.

See the bibliography for a full list of sources.

# Introduction

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From killer robots to job-stealing technology, artificial intelligence and robotics have captured the public's imagination. Thanks to some excitable headlines<sup>1</sup>, it can be difficult to separate the hype from what's really happening.

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Footnote:

1. 'Will robots replace humans by 2030?', BBC, 2018

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In May 2017, Google DeepMind's AlphaGo beat the top-ranked human player of Go, a complex Chinese board game. This year, at the Consumer Electronics Show, LG unveiled a smart fridge, which tells its owner what food is soon to go out of date.

At Kings College in London, a heart attack-predicting algorithm achieves greater levels of accuracy than cardiologists (80% v 60% accuracy). Elsewhere, a machine has 'read' thousands of retina scans to identify the earliest signs of disease.

Robots have come a long way from the manufacturing assembly line. They are helping care workers to lift patients<sup>2</sup> and enabling retailers to move goods around their warehouses.

Voice recognition for certain languages is at 99% accuracy, with Alexa, Siri and Bixby in millions of homes and phones across the world. Machine learning plus human curation is processing huge quantities of data to better match questions and answers.

A few years ago, an Oxford University study predicted that up to 35% of jobs would go as a result of new technology. By contrast, the OECD estimates that only 10% of UK jobs are at risk of full displacement, calculating that a further 25% could see roles change considerably as AI and robotics take on routine tasks.

So, will humans be obsolete? Are we about to be replaced by faster, smarter and cheaper alternatives? And what of customers? What do we want?

Speed, ease and reliability are the watchwords of today's consumer. Services must be easy to access and use, and satisfy the customer's requirements, any time and anywhere. That's a high benchmark for any organisation managing customer or client expectations.

But, self-service checkouts in shops take longer to process a transaction than the traditional model.<sup>3</sup> Not all innovations are popular.

**In this report, we consider how organisations can make the best use of AI and think through the consequences for their customers and their employees. We will strip back the hyperbole to reveal current levels of adoption, challenge some myths and focus on areas of opportunity.**

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Footnotes:

2. 'Japan: robots will care for 80% of elderly by 2020', The Guardian, 2018

3. 'The unpopular rise of self-checkouts (and how to fix them)', Hamacher, 2017

# Data

**Us\$153bn**

estimated global market value for robotics and AI-based systems in 2020

(Government Office for Science)

Us\$20bn - Us\$30bn



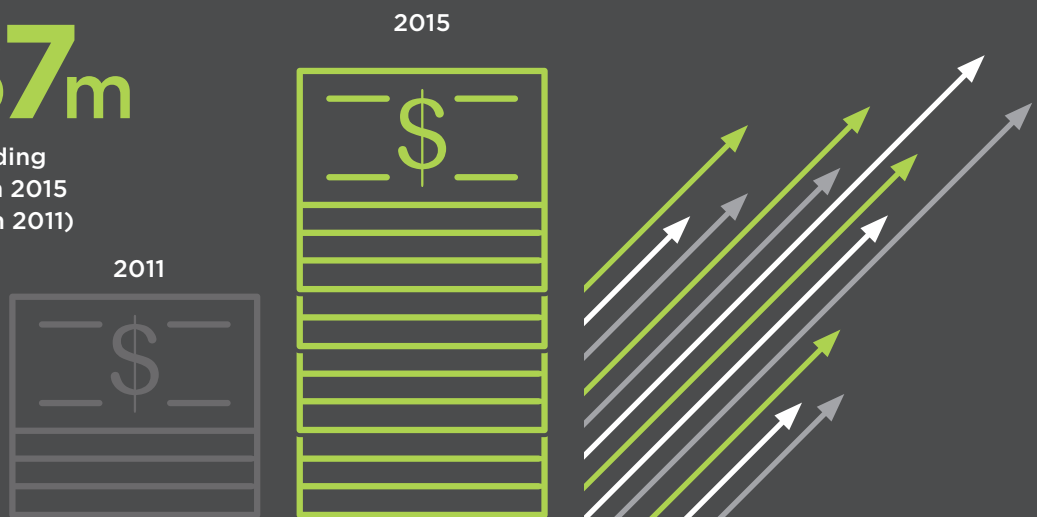
estimated spend by 'tech giants' on AI in 2016

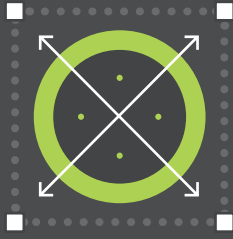
(McKinsey)

**Us\$587m**

venture capital funding going into robotics in 2015 (double the amount in 2011)

(CB Insights)

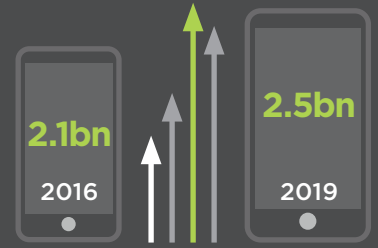




Gartner rates 41% of AI technology profiles as **transformational**, with another 44% rated as offering high benefits



The world creates about **2.2 exabytes** (or 2.2bn gigabytes) of data every day  
(McKinsey)



The number of smartphone users is forecast to grow from **2.1 billion in 2016** to around **2.5 billion in 2019**



**14%**

of business leaders are currently investing in AI and / or robotics, or plan to in the near future

(RSA / YouGov)



**Top 5**

By 2020, AI technologies will be a top 5 investment priority for more than 30% of CIOs

(Gartner)



**22%**

see no prospect for automation in their business

(RSA / YouGov)



**35%**

of UK jobs could be made obsolete by new technology

(University of Oxford)



Only **10%**

of UK jobs are at risk of full displacement

(OECD)



**15%**

of private sector jobs in Britain have the potential to be fully automated in the next decade

(RSA / YouGov)

# Disruptor or dinosaur?

We are standing on the cusp of a technological revolution, with AI and robotics poised to change the way we live and work. How will AI transform your organisation?

The story of AI dates back to the last century and has experienced more than its share of booms and busts. From initial interest and investment in the 1950s to disaffection from government backers in the 1970s. Computer developments in the 1980s prompted a revival, only for this to peter out due to a perceived lack of commercial progress.

This time, things are different. AI capabilities are developing fast, thanks to a combination of processing speeds, computer power and the vast quantity of data available for them to learn from. The AI available for commercial exploitation is rooted in existing technologies, including machine learning, algorithms and natural language processing.

Investment is flowing into AI and robotics, with machine learning receiving the lion's share. McKinsey states that in 2016, companies invested between US\$26bn and \$39bn in AI. Of this figure, it estimates that up to US\$30bn has been spent by tech giants including Google and Baidu.

However, for all its potential and promise, AI remains limited. There is still much that AI and robotics cannot do and, in some cases, may never do. There is no machine capable of thinking and acting like a human, with all its many complexities and emotions.

According to a report by Gartner, "AI functions best and has its greatest impact when its constituent technologies are narrowly focused on well-scoped problems."

Even in this limited, 'narrow' form, AI has the potential to be transformative across all sectors: forecasting and ordering retail inventory; making healthcare diagnoses; driving cars and running our home appliances; dealing with customer service enquiries; delivering goods; or analysing complex legal contracts or claims.



"How is your business anticipating the threats and opportunities posed by a world in which technologies capable of learning are becoming a reality? Look at your organisation and understand where you want to compete and how this technology can create the most value for you."

As McKinsey says in its discussion paper, *'Artificial intelligence: The next digital frontier?'*, "AI has the potential to accelerate shifts in market share, revenue, and profit pools – all hallmarks of digitally disrupted sectors."

McKinsey surveyed more than 3000 senior executives across 10 countries and 14 sectors on their use of AI technologies. Despite its potential, only 20% of those surveyed said they currently use any AI-related technology at scale or in a core part of their businesses.

According to a 2017 YouGov survey of business leaders for the RSA, just

**14%**  
are currently investing in AI and / or robotics, or plan to in the near future.



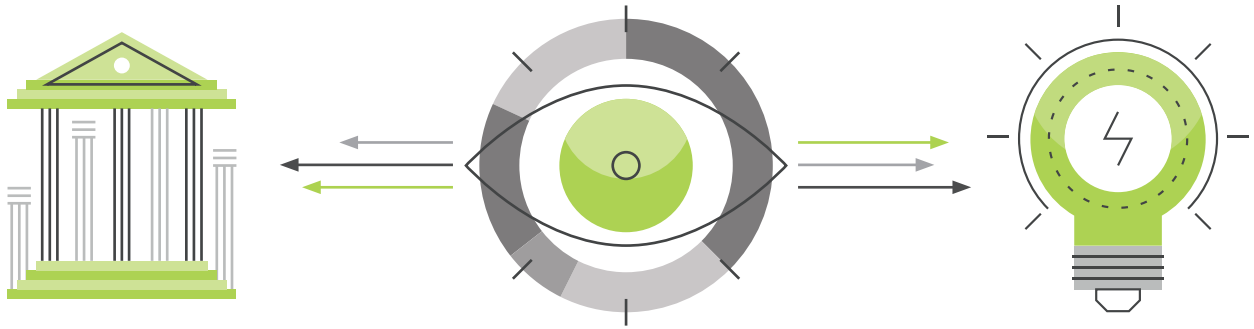
The vast majority are not, and almost a quarter (22%) see no prospect for automation in their business.

Biggest barriers are uncertainty around the business case or return on investment. For many, the technology is too expensive or unproven. Some simply have yet to appreciate how it could be used in their organisation.

Curium Director and Co-founder Andy Dawson says, "How is your business anticipating the threats and opportunities posed by a world in which technologies capable of learning are becoming a reality? Look at your organisation and understand where you want to compete and how this technology can create the most value for you."

Whatever your business or industry, AI and robotics will have some part to play. Disruptor or dinosaur: it's your choice. If AI isn't on your strategic agenda as a competitive weapon, then it should be.





## Digital first

“AI’s dependence on a digital foundation and the fact that it often must be trained on unique data mean that there are no shortcuts. A successful programme requires firms to address many elements of a digital and analytics transformation.” (McKinsey)

“Our conversations bear out what we are seeing from the likes of RSA and McKinsey. Many business leaders don’t know what AI can do for them and how best to introduce it into their organisation. It just seems too difficult,” comments Adam Farrow, Curium Director and Co-founder.

He adds, “The same was true of digital a few years ago. ‘Digital’ was a buzzword and companies spent significant money before they even knew what they were trying to achieve. Companies who not only embraced digital as part of their strategy but also had their data, systems, processes and people aligned to that strategy are the ones winning out.”

“Similar to the digital revolution, if you can be clear on the outcomes you are after, the levers you are trying to move and design your organisation around these, then companies can be much clearer on where technology (such as AI) can play a valuable role and, importantly, where it will not.”

## McKinsey identified six characteristics of early AI adopters:

- » Digitally mature
- » Larger businesses
- » Adopt AI in core activities
- » Adopt multiple technologies
- » Focus on growth over savings
- » C-level support for AI

In other words, those companies leading the charge in terms of digital adoption and advances, are also at the vanguard of AI developments.<sup>4</sup> This is why there is a high correlation between sectors like high tech, telecoms and financial services – all early digital adopters – and those using and investing in AI.

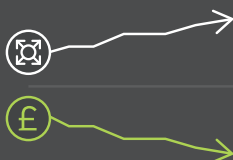


“Our conversations bear out what we are seeing in data from the likes of RSA and McKinsey. Many business leaders don’t know what AI can do for them and how best to introduce it into their organisation. It just seems too difficult.”

## Change drivers

### Technology breakthrough

Rapid digitisation is disrupting all industries powered by advances in big data analytics, natural language processing, computer capacity, processing speeds and cloud services. Costs have come down and possibilities have increased.



### More for less

Austerity and deficit reduction have cut public sector spending, putting pressure on public bodies and local authorities to deliver more for less. In both the private and public spheres, productivity improvement is crucial to meeting financial goals.



### Consumer behaviour

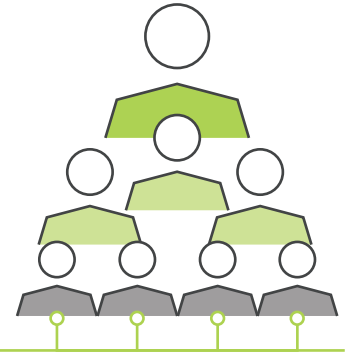
Customers expect a digital experience that matches their busy and digitally savvy lifestyles. Digital technologies have shaped people’s behaviours, attitudes and attention spans.



Footnote:

4. ‘Artificial intelligence: The next digital frontier?’, McKinsey Global Institute, 2017

# People



**James Farrow, Curium Director and Co-founder, says, “Empowering companies to become AI, or data and analytics driven is as much about changing employee mindsets as it is about technology, possibly more so. But, in our experience, leaders can get more excited about technology and focus less on people. As with any change, people are the critical factor.”**

For a company looking to extract the maximum value from AI and robotics, leadership and culture are vital. Creating an AI-ready culture, generating enthusiasm for change and focusing on the benefits require strong and capable leadership.

**“To be successful, AI adoption requires buy-in by the executive suite to generate the momentum needed to overwhelm organisational inertia.”**  
McKinsey

In *‘The age of automation: Artificial intelligence, robotics and the future of low-skilled work’*, the RSA is also more positive. In its view, handing over some of the more repetitive tasks to a machine frees up human capacity and capability to focus on work further up the value chain.

Emma Taylor, Head of Transforming Operations and contact centre specialist explains, “AI could see employees move to focus on higher value and more satisfying work. In the contact centre scenario, there may be a smaller number of people employed in total, but their roles are likely to require a greater range of skills.”

Within the legal services sector, some commentators have expressed concern that lawyers at an early stage of their career will not be exposed to the range of tasks necessary to develop their skills if these tasks are automated.

The best leaders will set an agenda in which employees understand the benefits AI and robotics can bring to their organisation and to their roles. A flexible mindset will be essential for organisations changing their processes, structures, systems, staffing and skills; and where humans and machines work alongside one another.

Given some of the headlines: “Robots will take over most jobs within 30 years, experts warn” (*The Telegraph*), some see AI and robotics as a threat to human employment.

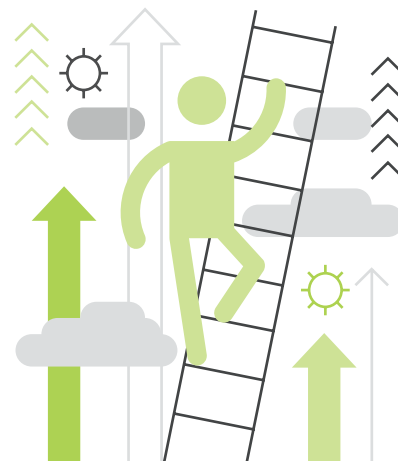
McKinsey’s survey data suggests otherwise.

**“I worry how we are going to train the lawyers of the future. All the things we grew up on once upon a time have become commoditised.”**  
Michael Shaw, General Counsel and Chief Legal Officer, RBS<sup>5</sup>

**24%**  
of the companies that have adopted AI at scale anticipate growth and expect to increase headcount.



82% of AI-aware businesses do not expect to significantly reduce the size of their workforce.



Footnote:  
5. ‘Irresistible forces’, *Legal Business*, 2017



## Changing behaviours

For effective and lasting transformation to take place – whether AI-related or not – people need to behave differently. Organisations cannot change unless the people in them change.

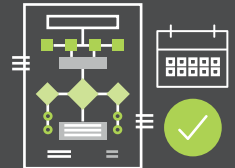
Curium surveyed 100 C-suite and senior professionals across a number of sectors, asking for their thoughts on successful business transformation.

We discovered that:

Just

**50%**

have effective, timely and appropriate structures in place



## Empowering potential

As the pace of technological change necessitates new skills, people with the desire to learn and develop will thrive. There will also be new skills and roles, including data scientists and programmers, which will be highly sought after.

This suggests that a fresh approach to recruiting, training, managing, motivating and leading people will be required. “Common to all sectors is the need for employees to adapt their skills to support and complement the AI-powered user experience.” (McKinsey)

James Farrow adds, “With every advance in technology, leaders and commentators talk of putting people at the front and centre of the change. Yet too few really follow through. If AI and robotics are to form part of your business strategy, just ensure that you update your people strategy to build a sustainable improvement across your organisation.”

**1/3**

Less than of respondents think that their organisation has an effective change management team



**2/3**

doubt their organisation’s ability to communicate change effectively





# Contact centres



**“More than a quarter of UK customers chose to take their business elsewhere or spent less with a company in 2016 due to bad customer service, at a cost of more than £37bn.”**

Consumer Action Monitor 2017 Ombudsman Services

For all the advantages brought by mobile devices, their adoption has ensured constant connectivity. Being ‘always on’ brings significant and competing demands for our attention, putting a premium on our time. We don’t want to spend time on the telephone queuing or waiting around for a delivery.

Customer demand from an increasingly impatient and digitally enabled consumer base is driving change in contact centres. They want access to support via a number of channels, when they want it, and they aren’t willing to wait.

The UK contact centre industry is relatively mature, with competitive advantage gained through economies of scale, and low wages and overheads. Contact centres have exploited the opportunities presented by labour arbitrage, setting up or outsourcing to contact centres in lower cost locations.

While this can save between 15-30%, the model has its downsides. It relies on finding new sources of low cost labour and can migrate legacy issues to a new location. To respond to UK customers’ preference for speaking to UK operators<sup>6</sup>, companies like EE and Barclays have repatriated contact centres and now need other ways to lower operating costs.

Automation offers cost savings of up to

# 75%<sup>7</sup>



It is repeatable, scalable and potentially transformative. Cognitive computing – machine learning without direct human input – can digest data gathered from customer interactions, identifying patterns and improving their understanding of issues and how to successfully resolve them.

However, it requires solid foundations, which may not be in place. Before introducing new technologies, contact centres need to get a handle on their data and analytics. Legacy infrastructure may also require modernisation or cloud deployment in order to integrate or build cognitive systems.

All of which makes robotic process automation (RPA) a more attractive proposition. RPA does not build decisions or insights, but rather executes tasks based on predefined instructions. It can therefore be introduced to automate repeated and less complex tasks.

**The return on investment in the first year can be between 30% and 200%.<sup>8</sup>**

Even so, RPA adoption in contact centres is 2%, with more than 30% of contact centres unaware of this technology.<sup>9</sup> Bots and digital assistants are on the increase. Enfield Council uses digital assistant Amelia to capture and categorise when she has to escalate unresolved enquiries to live assistance.

Emma Taylor says, “There’s is no denying the potential of both RPA and AI to contact centres, but contact centres can’t automate themselves out of poor legacy processes or structures.”

“Start with the customer. AI and automation have to be part and parcel of a company strategy, which includes establishing solid foundations by having the right people, processes and technologies to retain existing customers and win new ones.”



**“There’s is no denying the potential of both RPA and AI to contact centres, but contact centres can’t automate themselves out of poor legacy processes or structures.”**

#### Footnotes:

6. Contact centres report, Keynote, 2015
7. ‘Bots in the back office: The coming wave of digital labour’, KPMG, 2015
8. ‘The value of robotic process automation’, McKinsey & Company, 2017
9. Lean Consulting, a London based RPA implementation/consulting firm, 2017

## Self-service

**“Consumers dealing with customer service issues during office hours cost employers £28bn a year in lost productivity.”**

(Jo Causon, CEO of the Institute of Customer Service)

The more that customers can resolve their issues with speed and confidence, the happier they will be. For the organisation, maintaining customer satisfaction, but without the need for as many employees has clear commercial benefits.

According to research by Puzzel, anything from 15-50% of live interactions have been converted to self-service.

In 2015, Swedbank achieved a 78% first contact resolution rate using a text-based assistant, which resulted in a 60% deflection from live assistance.

Booking.com knows that 75% of its customers prefer self-service options to handle simple requests, enabling them to liaise with their hotel via their Booking.com account or app.<sup>10</sup>

If self-service is the first port of call, will contact centres need people to handle customer queries? Current thinking is that contact centres will always need some form of human interaction. Complex situations and those which trigger strong emotions are unlikely to be resolved without some human involvement.

Principal Consultant and contact centre expert Mark Turner says, “For years, organisations have seen the contact centre as the entry level into their business. New recruits join and those identified as having the best potential to develop are transferred in other ‘more important and challenging roles’ in the business.”

“If technology takes away the ‘easy’ queries, leaving employees to deal with complicated or emotionally entangled issues, then they are going to need more autonomy and empathy in order to resolve them satisfactorily. Contact centres will need to retain the best people.”

**“Skills, training, resilience, management and engagement are all going to need to evolve to give employees and technology the best opportunity to work together. How many organisations are preparing for this change?”**



## Case study

### Benefits of RPA

As part of his MBA research Syed interviewed a number of people at a large local authority. It has introduced RPA and is reaping the rewards. Further platform modernisation is the next step, along with voice analytics.

In preparation for its RPA investment, the local authority consolidated its customer information into a single database, accessible through an online account and integrated into the CRM system.

Its RPA processes requests submitted via web forms, validating documents and additional information.

**This automated approval system has generated £0.5m savings per year, with the integrated database and webforms saving a further £50,000 in salaries and printing / postage costs.**

Other benefits include employee satisfaction. Repetitious tasks are now handled by RPA. The authority's attrition rate is close to zero, compared with an industry average of 24%.<sup>11</sup>

Footnotes:

10. Data from Opus Research

11. Contact centres report, Keynote, 2015



# Retail

## Retailers are using AI and robotics to improve inventory forecasts, automate customer operations and personalise marketing campaigns.

In 2012, Amazon acquired robotics company Kiva to automate picking and packing in its warehouses. By 2016, its 'click to ship' time had fallen to 15 minutes. The human equivalent: 60 to 75 minutes. Furthermore, operating costs fell by an estimated 20%.<sup>12</sup>

Among the trends identified in Vend's retail trends and predictions for 2018, AI and robotics loom large. The bots are coming, from robots in 'fulfilment centres' to chatbots in messenger apps.

**Data and machine learning will also drive innovation, with companies able to forecast demand and target products at consumers that suit their tastes and budgets.**

AI-powered forecasting has enabled German retailer Otto to reduce surplus stock by 20% and product returns by more than two million items a year.

Its system, which analyses billions of transactions to predict what customers will want, is so accurate that Otto allows it to order 200,000 items a month without human intervention.

"Amazon has done much to disrupt the retail sector and, thanks to its commitment to AI and robotics, will continue to do so. Retailers yet to take this seriously or who have yet to organise their data and digitise their businesses are falling behind the rest," says Andy Dawson.

According to McKinsey, this is already happening as AI will exacerbate the gap between the digital "haves and have mores". Evidence suggests that AI can deliver real value and higher profit margins to serious adopters, and can be a powerful force for disruption.



**"Amazon has done much to disrupt the retail sector and, thanks to its commitment to AI and robotics, will continue to do so. Retailers yet to take this seriously or who have yet to organise their data and digitise their businesses are falling behind the rest."**

Donna Storey, Chief Retail Officer at Lovecrafts, says, "Meeting customer demands, competing with low-cost business models, and dealing with pace of change, next generation capability, data centricity (lots of data), are not impossible. There are success stories, and there is a common theme to those success stories: a united and empowered workforce."

But, in low margin sectors, employees may see AI as more of a threat than an opportunity. A PwC review considers 44% of wholesale and retail jobs at high risk of automation.<sup>13</sup>

**The RSA / YouGov poll found that 15% of retail leaders think that their organisation has a high number of jobs (more than 30%) that could be displaced in the next 10 years.<sup>14</sup>**

"People, process and technology coming together; working towards creating great products and a superlative customer experience, is the strategic focus. Transforming while delivering business as usual is then critical," says Andy Dawson.

The stakes are high. According to the Centre for Retail Research, 44 retail businesses 'failed' in 2017, including MultiYork, Jones the Bootmaker and Jaeger.

### Footnotes:

12. 'Amazon's \$775m deal for robotics company Kiva is starting to look really smart', *Business Insider*, 2016

13. 'Up to 30% of existing UK jobs could be impacted by automation by early 2030s, but this should be offset by job gains elsewhere in economy', PwC, 2017

14. 'The age of automation: Artificial intelligence, robotics and the future of low-skilled work', RSA, 2017

15. 'Ocado deploys email AI to improve customer service', CloudPro, 2016

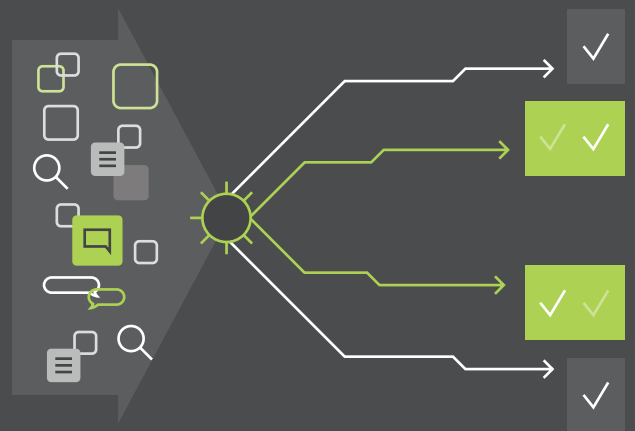
## Case study

### Ocado

Online retailer Ocado has invested in an AI-driven customer service centre. The machine learning-enhanced contact system automates the categorisation of incoming queries, scanning them to detect keywords or phrases and then prioritising accordingly.

Under the old system, customer emails would be read and categorised by an employee. Using AI speeds up the process, enabling Ocado to respond to its customers more quickly.<sup>15</sup>

Like Amazon, Ocado is using robotics to enhance its warehouse operations, using them to deliver products to human packers who then place them into bags. Deliveries are also guided by AI-enabled technology to pick the best route based on traffic conditions and weather.



Footnote:

15. 'Ocado deploys email AI to improve customer service', CloudPro, 2016



# Legal services

**“As an industry, our skillset, product mix, delivery and leverage model are going to change. Not in two years’ time, but certainly within ten years’ time.”<sup>16</sup>**

Andrew Ballhemier, Allen & Overy

The legal services world is undergoing rapid change as firms wrestle with the challenges of creating growth in a flat market, globalisation, downward pressure on fees, technology and new market entrants, which range from start-ups to the big four accountancy firms.



**“It will only be a matter of time before the big tech giants figure out there’s a huge market here called legal services.”<sup>17</sup>**

Mike Rebeiro, Global Head of Innovation and Technology at Norton Rose Fulbright

The old orthodoxy is over; this is a market ripe for disruption. In ‘Civilisation 2030: The near future for law firms’, Jomati Consultants refers to a “structural revolution” in the legal services market.

As a means potentially to save time, improve quality, reduce risk and enhance client relationships, AI has its part to play in this revolution.

Thus far, law firms have introduced AI or automation as a way to speed up manual processes. Linklaters has Verifi, which can sift through UK and European regulatory registers, processing thousands of names overnight. A junior lawyer would take an average of 12 minutes per search.

In litigation, AI is aiding the discovery process, identifying relevant word concepts and clusters of words in multiple millions of documents. Similar thinking has been applied to reviewing commercial contracts for risk assessments and due diligence.

**At the inaugural *Legal Week Connect* Conference last year, general counsel and senior law firm leaders discussed issues affecting the legal services industry, including AI. They were asked, “How will AI improve or change the legal industry in 10 years’ time?” The answer: beyond recognition.**

“The role of the lawyer may evolve into one that’s much more like a consultant than a foot soldier, with an emphasis on adding value to their client’s business rather than slogging through discovery and case law.”<sup>18</sup>

**According to a study by Deloitte, around**

# 114,000 jobs

**in the UK legal sector could be automated within 20 years.**

“Eventually each bot would be able to do the work of a dozen low-level associates. They would not get tired. They would not seek advancement. They would not ask for pay rises. Processing legal work would rapidly descend in cost.”

“Clients would instead greatly value the human input of the firm’s top partners, especially those that could empathise with the client’s needs and show real understanding and human insight into their problems.”<sup>19</sup>

#### Footnotes:

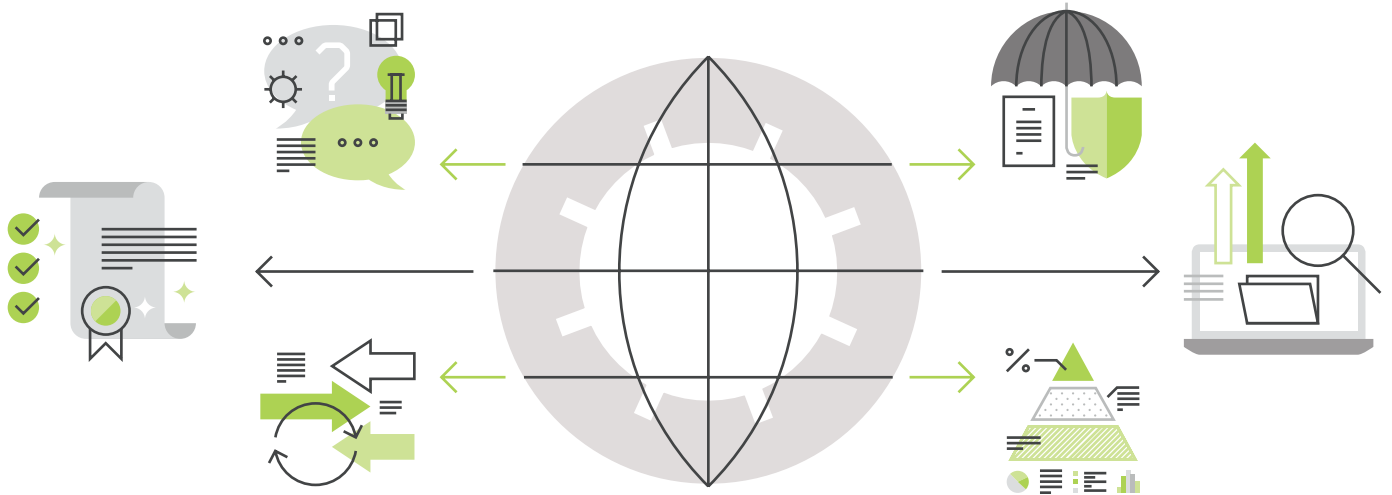
16. ‘Irresistible forces’, *Legal Business*, 2017

17. ‘Irresistible forces’, *Legal Business*, 2017

18. ‘What promise does AI offer the legal sector?’, Translate Media, 2018

19. ‘Civilisation 2030: The near future for law firms’, Jomati Consultants, 2017





“AI and automation could turn the legal services recruitment and retention model on its head. How are firms preparing for recruiting perhaps a smaller number of trainee solicitors, integrating non-lawyer data specialists, and providing a career path that satisfies both?” asks Andy Dawson.

There’s also the data challenge. As with contact centres and retail businesses, data and digitalisation are fundamental to successfully implementing AI and robotics technologies.

McKinsey names professional services firms as being among the “less digitised industries”; slower to employ digital tools.

Andy Dawson adds, “Buying or building AI capability based on large, robust data sets like legal documents is relatively straightforward. What about the holistic view: a digital ecosystem in which time recording, practice management, CRM, email marketing can talk to one another to benefit the client experience?”

**“Law firms will not be able to ‘bring in the robots’ until they clean up their data, which could take up to five years.”**

*Legal Week*

The icon shows a central clock face with a gear inside. To the left are three server rack icons with arrows pointing towards the clock. To the right is a trash bin icon with an arrow pointing away from the clock. Below the clock are several vertical bars of varying heights, representing data or time segments.

## Case study Disrupting legal services

In the legal market, clients are increasingly using fixed-fees as a way to control costs, putting pressure on law firms to organise their processes and people in the most efficient and effective way. AI can enhance this, but only if the underlying structures and data provide solid foundations.

The traditional model: six-minute units of time and financial metrics, such as billed time, provide only limited visibility of the size of the demand facing a particular team and can lead to them prioritising the wrong things.

Our first step: gain control of the size of the work and how long each task should take (demand) along with the resource available to complete it (supply). We created a bespoke tool to give visibility of supply, demand, shrinkage and operational performance.

This more balanced set of measures enabled the Leadership team to have a much clearer view, so that realistic daily and weekly improvement goals could be agreed and tracked as part of a continuous improvement culture.

**Identify waste: we helped the team to develop a streamlined process, reducing the end-to-end time spent on each case by 22% and achieving ROI on this single initiative of 402%.**

Successfully embedding change that sticks requires different behaviours and mindsets.

Our workshops kick-started a new, more efficient way of working, changing the focus from billed time to doing the right tasks first, and helping to embed the mindset and skills required to put these operational disciplines into practice.

AI is the next step for law firms responding to an increasingly commoditised market where fixed-fees are the norm, but they will need to be data clean and lean before they start the AI journey.

# Conclusion

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After a number of false dawns, AI and robotics have moved out of science fiction to become a fact of business life.

While the numbers suggest that – outside of the highly digitised high tech, telecoms and financial services sectors – few business leaders have made much headway with AI, it is on their agenda.

“It should be. AI and robotics have the power to transform, creating competitive and commercial advantages for those organisations which get it right. But technology on its own is not enough. It has to be aligned with people and process,” says James Farrow.

As with any business transformation, harnessing potential, making the right strategic choices and then implementing them, takes strong leadership and a commitment to change.

## Empowering potential

Curium Solutions empowers individuals and organisations to achieve their personal and business potential. It helps organisations to turn their strategic priorities into reality through successful transformation, including:

- **Performance** – increase productivity and innovation, enhance employee engagement, improve customer service, introduce more efficient processes and reduce cost
- **Growth** – develop skills, leadership and infrastructure to support and sustain rapid growth
- **Digital** – enable organisations to thrive in the digital world by helping them determine what digital means to them and how to get the outcomes they are after

In a sector heavy with jargon and complexity, Curium simplifies change, taking best practice processes, tools, models and frameworks, and boiling them down to their essential and most useful elements.

Hands-on and pragmatic, Curium empowers its customers to make change sustainable long after the team has left.

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## Bibliography

- ‘An artificial intelligence roadmap for contact centres’, Brand Quarterly, 2017
- ‘Applying artificial intelligence to drive business transformation: A Gartner trend insight report’, Whit Andrews, 2017
- ‘Artificial intelligence disrupting the business of law’, FT, 2016
- ‘Artificial Intelligence: The next digital frontier?’, McKinsey Global Institute, 2017
- ‘Bots in the back office: The coming wave of digital labour’, KPMG, 2015
- ‘Civilisation 2030: The near future for law firms’, Jomati Consultants, 2017
- ‘Contact centre report’, Keynote, 2015
- ‘Five reasons why call centre AI will enhance, not replace agents’, Convoso, 2017
- ‘Getting started with AI in your contact centre’, Puzzel, 2017
- ‘The future of the professions: How technology will transform the work of human experts’, Richard Susskind and Daniel Susskind, 2015
- ‘Irresistible forces’, *Legal Business*, 2017
- ‘Report: Artificial intelligence will cause “structural collapse” of law firms by 2030’, Legal Futures, 2014
- ‘Seven benefits of artificial intelligence for law firms’, Law Technology Today, 2017
- ‘To develop insights into how AI and robotic technologies are being used and their potential impacts on the contact centres of the future’, Syed Munshi, University of Birmingham, 2017
- ‘Vend’s retail trends and predictions for 2018’, Vend, 2017
- ‘What AI can and can’t do (yet) for your business’, McKinsey & Company, 2018
- ‘You don’t have to be Steve Jobs’, *Legal Week*, 2017



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