

ADOPTING THE FUTURE

DIGITAL ADOPTION SURVEY

24 MAY 2017



Introduction

The digital revolution has transformed the way business interacts with and delivers for its customers. The UK takes pole position as Europe's leading digital economy. Digital technologies offer businesses the length and breadth of the UK the tools and platforms needed to start, scale and reach a global audience.

The world stands on the brink of technology-driven change. New business models, digitally enabled trade and automation will pose real and tangible challenges to how we do business.

Technologies such as cognitive learning, and Artificial Intelligence (AI) will fundamentally transform society. **The current pace of change in technology is unrivalled and individuals, companies and governments are racing to keep up.**

The McKinsey Global Institute estimates that AI's disruption of society is happening ten times faster and at three hundred times the scale of the Industrial Revolution, meaning AI will have three thousand times the impact. Half-measures will not be enough, we must be forthright, bold and honest in developing solutions to the coming challenges.

The CBI is looking at the future of work in the digital age and has committed to working with businesses to understand how technological advance is changing the tasks and jobs employees do. Act together to, identify what can business and government do to connect people up with the opportunities created. Business are ready to work together with government to help people navigate the changes technological advance will create, bringing people on the journey and delivering inclusive workplaces that foster prosperity. **The UK must be bold in embracing digital and not lag behind, businesses need Government to proactively plot a way forward.**

Use the industrial strategy challenge fund to tackle societal problems using AI. For example, cities can compete to implement the first driverless bus network or reduce hospital admissions to treat chronic diseases.

Kick start our journey to 3% investment in R&D through an enhanced tax allowance and renewed partnership between firms, universities and Government.

Set up a joint Commission involving business and Government to examine the impact of new technologies, including Artificial Intelligence and robotics, on people and jobs, with recommendations for action and policy by June 2018.

Building on last year's 'Embracing digital in every sector' the CBI has surveyed business leaders to understand how ready UK companies are to adopt and adapt to new digital technologies. The findings are clear, business can't afford to miss this window of opportunity to seize the economic benefits of innovation. Companies are currently investing in a diverse range of technologies. Technologies like cloud which were seen as niche just a few years ago have matured to now underpin much of the UK business infrastructure.

Yet, there is a shift on the horizon. AI investment is gaining momentum with 42% of companies planning to invest in AI over the next 5 years. And that's on top of the one in five companies who already invested in AI during the past twelve months. **Our survey shows that half of businesses believe AI will fundamentally transform their industry.**

But while some trailblazing companies are leading the charge to embrace the benefits and opportunities of digital - there is a significant gap between these 'pioneers' and 'followers'. We need many more businesses closing the gap with these 'pioneers'. But challenges lie ahead as only a third of business leaders say their businesses has the skills and capabilities needed to adopt data-driven technologies, like AI.

The time to act is now. Businesses should think about how they adopt and utilize technology to interact with consumers and with each other. As a result, we must not embrace innovation for innovation's sake but make innovation relevant to the lives of our customers and fellow citizens.

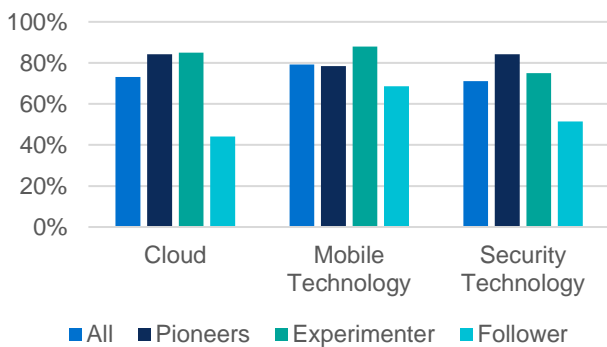
“As we are a digital business, Artificial Intelligence learning will underpin ever more of our products; it is present in some already”

Pioneer in London

Cloud, Mobile and Security Forming the UK’s Digital Backbone

- Companies are investing in a diverse range of technologies. However, technologies like cloud which were seen as niche just a few years ago have matured to now underpin much of the UK business infrastructure.
- Cloud, mobile and security technologies come out on top for business investment over the last twelve months showing a business drive towards collaboration and boosting agility and protecting critical data assets.

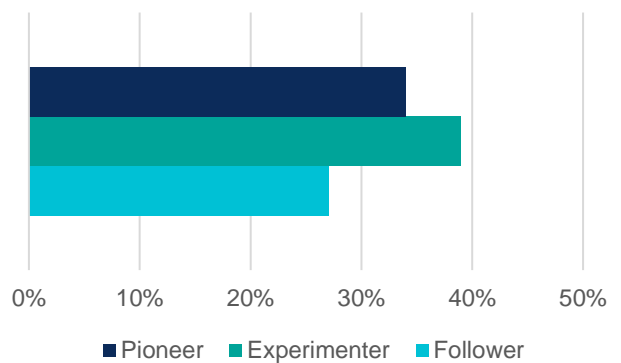
Exhibit A: We have invested in this technology over the last 12 months



- UK businesses are ambitious to embrace digital technologies. A third of business leaders (33%) self-categorise their businesses as digital pioneers, labelling themselves as early adopters and digital innovators. Slightly more businesses (39%) see themselves as Experimenters; those who are curious about technology and regularly experiment with digital innovations, but wait for pioneers to demonstrate success before fully adopting them into their businesses.

- This paints a relatively positive and digital-savvy picture of UK businesses, showcasing a healthy appetite among a majority of businesses to be leaders in adoption and use of digital technology
- However, over a quarter (27%) saw themselves as ‘Followers’ of the digital revolution, typically waiting for technology to become mainstream before adopting.

Exhibit B: How would you categorise your business’s approach to digital innovation?



A major shift is on the horizon as Artificial Intelligence investment is gaining momentum

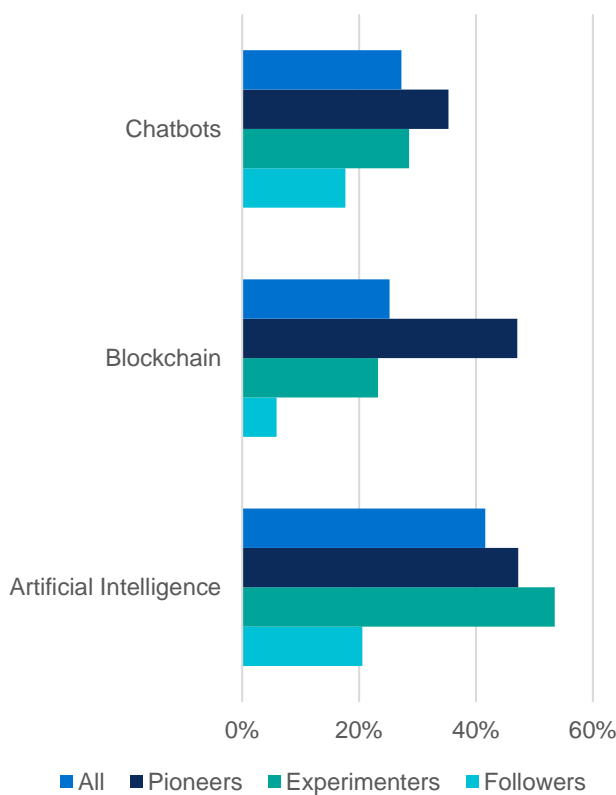
- Looking to the future, UK business leaders are now considering the next generation of emerging technologies, like the Internet of Things (IoT) and AI, as sources of competitive advantage and growth.
- AI is starting to feature in more business strategies with 42% of companies planning to invest over the next five years. And that’s on top of the one in five companies who already invested in AI during the past twelve months.

“AI offers a competitive advantage and a continuous learning culture”

Experimenter in Yorkshire & Humber

- However, there is still a significant proportion of companies for whom AI is either not on their investment radar (29%) or who simply are not familiar with the technology (8%). Indeed, 42% of Followers do not plan to invest in AI at all.
- Compounding this trend ‘followers’ investment priorities remain relatively high on mainstream technologies such as cloud compared to investment in emerging technologies.

Exhibit C: Is it part of your business's strategy to invest in any of the following technologies over the next 5 years?



AI key to efficiency and competitiveness

- The economic case for adopting AI is clear. Furthermore, almost half of business leaders saw AI as having the potential to fundamentally transform their industry/market.
- An overwhelming majority believe AI will enhance efficiency (79%) and increase competitiveness (74%). Businesses see AI playing a key role in improving customer satisfaction (72%) and differentiating their business from that of competitors (69%)
- There is also a clear sense that AI will help business leaders navigate their market with three-quarters (75%) who believe AI will help with pre-emptive decisions.

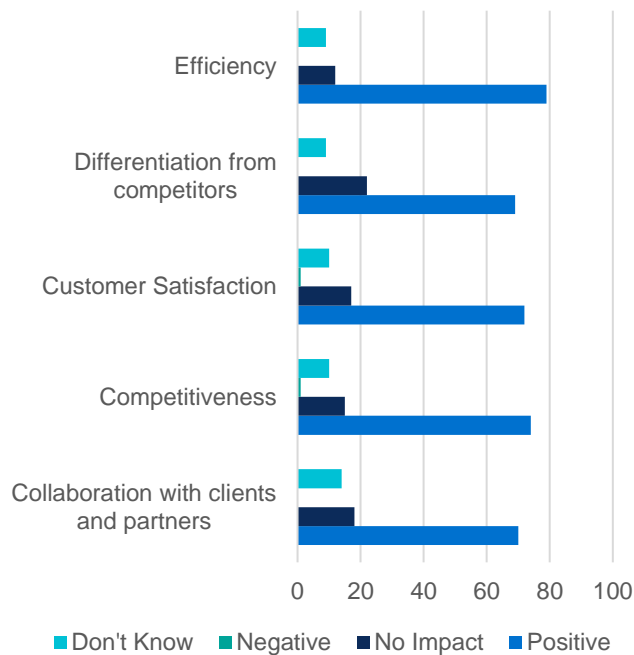
“We seek this technology to deploy in our products to give us competitive advantage and position us as leaders in the sector - this technology is a key contributor to our success”

Pioneer in the West Midlands

“A massively transformational technology. AI is the new Java, it will be everywhere and in everything”

Pioneer in the South East

Exhibit D: Thinking about your business, what do you expect the impact of AI to be on the following areas over the next ten years?



- Clearly some companies are trailblazing a path towards the economic prize offered by AI. However, the slow uptake of AI by followers risks seeing this already marked divide grow ever wider. Pioneering companies are set to reap the benefits of transforming their industry while followers struggling to catch-up.

“Artificial Intelligence will dramatically reduce the need for human intervention and will drive significant efficiency and will leave the human to do the higher value work”

Experimenter in the East of England

Awareness holds Followers back

- There is significant divergence in opinions over challenges and barriers to AI adoption between pioneers and followers.
- Those with experience of technology are more confident when it comes to overcoming challenges and are not facing many of the perceived barriers expressed by followers.
- For Pioneers cyber security and privacy was most likely to be ranked as a major barrier to adoption (38%), while followers cited internal skills (53%) and internal awareness (43%) at the top of the list.
- Overall, shortage of specialist AI skills (45%), security concerns (37%) and lack of investment (37%) are the three big themes holding back AI uptake in the UK.
- While the majority of businesses recognise the transformational nature of AI, many followers have yet to make the internal business case or are unclear about how to source and embed AI technologies into their businesses.

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