

Press release: Industry-led review details plans to supercharge UK Artificial Intelligence (AI) industry

The Government has been urged to help the UK become the clear world leader in the development of Artificial Intelligence (AI) – to boost productivity, advance health care, improve services for customers and unlock £630bn for the UK economy.

Experts from industry and academia today (Sunday 15 October 2017) unveiled new proposals for how Government can work with industry to stay ahead of the competition and grow the UK's use of AI right across the economy – from smarter scheduling of operations in health care, to hiring on-demand self-driving cars.

The Industrial Strategy Green Paper, published in January, identified AI as a major, high-potential opportunity for the UK to build a world-leading future sector of our economy.

The independent review, 'Growing the Artificial Intelligence Industry in the UK', was announced as part of the Digital Strategy in March, and led by Dame Wendy Hall, Professor of Computer Science at the University of Southampton, and Jérôme Pesenti, Chief Executive of BenevolentTech. The reviewers were asked to report on how this pioneering technology can best thrive and grow in the UK and will inform BEIS and DCMS policy making relevant to this exciting new sector.

Culture Secretary Karen Bradley said:

I want the UK to lead the way in Artificial Intelligence. It has the potential to improve our everyday lives – from healthcare to robots that perform dangerous tasks.

We already have some of the best minds in the world working on Artificial Intelligence, and the challenge now is to build a strong partnership with industry and academia to cement our position as the best place in the world to start and grow a digital business.

Business Secretary Greg Clark said:

Artificial intelligence presents us with a unique opportunity to build on our strengths and track record of research excellence by leading the development and deployment of this transformational technology.

This important review exemplifies the world-class expertise the UK

already has in AI, demonstrating the huge social and economic benefits its use can bring.

We will continue to work with the sector in the coming months to secure a comprehensive Sector Deal that make the UK the go to place for AI and helps us grasp the opportunities that lie ahead.

Many sectors across the UK economy are already embracing innovation through AI and benefitting from its use in how they do their business day-to-day including:

- Health: Using the most advanced Artificial Intelligence, Your.MD has built the world's first AI Personal Health Guide that provides users immediate trustworthy healthcare advice from the NHS to anyone with access to a mobile phone;
- Banking: To help verify customer identity and increase security for HSBC customers, the bank has created an AI chatbot, Olivia, who can assist customers 24 hours a day, 365 days a year with their enquiries;
- Education: With technology that records patterns of behaviour, including what learning style works for each student, CENTURY, an AI platform, is helping children learn and teachers provide more personalised education programmes, with feedback and suggestions to help fill knowledge gaps;
- Legal services: AI is helping lawyers to do legal searches and to draft the best standard documents, the law firm Pinsent Masons has developed its own team of computer scientists and legal engineers to put AI into practical context for its lawyers; and
- Cars: Driverless cars are set to make the roads safer for pedestrians and car drivers alike, with companies like Oxbotica developing fully autonomous operating systems that diagnose vehicle issues and identify the best, most logical route on the move.

AI is also being deployed in a variety of different ways to assist businesses and consumers such as:

- protecting consumers and shoppers against spam and bank fraud;
- computer vision that monitors CCTV to improve safety;
- managing and monitoring supply chains to reduce loss and waste;

- improving electricity grid management to save costs and reduce CO2 emissions; and
- using data to provide personal shopping recommendations.

Professor Dame Wendy Hall, Regius Professor of Computer Science at the University of Southampton said:

I was very honoured to be asked to co-chair this review at a time when AI is set to make major changes to the way we live and work. I'm particularly keen to ensure that we use it to inform the establishment of initiatives and programmes to help us extract the most value from artificial intelligence for the country; that includes an emphasis on increasing and improving our skill levels to prepare the workforce for the number of jobs the industry will need for the future.

AI has been around for a very long time as a concept and this latest surge of technological development is likely to see automation continue to escalate and accelerate in every walk of life. Now is the time for us all – scientists, researchers, entrepreneurs and the government – to come together and address the issues about how AI is going to impact society and seek ways to ensure that we're able to deliver the great breakthroughs the technology has the potential to deliver.

Jérôme Pesenti, CEO of BenevolentTech, the technology division of BenevolentAI said:

In our AI review, we focused on recommendations that are both practicable and deliverable. By following these recommendations, Government, Academia and Industry can help strengthen the UK's position in the global AI market. Our proposals are deliberately specific and boil down to three fundamentals – enable better access to data, create a greater supply of AI skills and promote the uptake of AI. I am looking forward to working with Government, Academia and Industry to drive these changes.

The report makes 18 recommendations for how to make the UK the best place in the world for businesses developing AI to start, grow, and thrive including:

- Skills: increasing the UK's AI expertise through new initiatives including an industry-funded Masters programme, and conversion courses to bring a broader range of people into the field;
- Increasing uptake: helping organisations and workers understand how AI

can boost their productivity and make better products and services, including public services;

- Data: ensuring that people and organisations can be confident that use of data for AI is safe, secure and fair by making more data available, including from publicly-funded research; and
- Research: building on the UK's strong record in cutting-edge AI research, including making the Alan Turing Institute a national institute for AI.

These recommendations will now be carefully considered in discussions towards a potential Industrial Strategy sector deal between Government and the AI industry.

As part of the Industrial Strategy, the Government has increased investment in research and development over the next 4 years by £4.7 billion to create jobs and raise living standards, including through the Industrial Strategy Challenge Fund.

The Business Secretary announced in April that the first £1 billion of investment is being made in six key areas in 2017/18, driving progress and innovation that will create opportunities for businesses and sectors across the UK.