All-Party Parliamentary Group on Artificial Intelligence

Evidence Meeting 6 - Trade

Monday, 15 October 2018 | 5:30-7:00 PM - Committee Room 1), House of Lords

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Matthew leads Artificial Intelligence projects at Deloitte - spanning strategy, proof of concept, pilot, implementation and integration. He works with a broad range of data science technologies including Google, Amazon and IBM Watson, and focuses on internal transformation as well as client services.

Matthew has over 15 years' professional experience, spanning big 4 & boutique consultancy, Corporate, Start-up and academic research environments.

SUMMARY OF EVIDENCE

AI has a significant role to play in transforming how UK businesses operate and trade, both nationally and internationally. From powering autonomous vehicles to reviewing legal contracts, improving translation accuracy and optimising negotiation and growth strategies, AI is impacting every aspect of traditional commerce models.

However, AI is not reaching its potential in delivering the productivity gains British businesses urgently need. While AI and advanced technology is pervasive in consumers' everyday lives, from smartphones to computer games, it is nowhere near as widely used in businesses' day-to-day operations.

At Deloitte, much of our AI work concentrates on helping organisations make the best use of their data and resources. Whether that be through automating low-value tasks, deriving intelligent insights or enabling higher quality engagement with customers – the focus is to improve operational efficiency and help make them more competitive in the immediate and long-term future. In other words – we often focus on automating the more 'boring' tasks to free up valuable time and improve productivity.

As an example, one of our recent projects was to automate customer contact handling using AI powered natural language processing, deep learning techniques and Robotic Process Automation. This was for a major UK retailer who receives over half a million queries a year, with a significant amount of time being spent in the front office reading emails only to re-assign them to back office teams. To make this

process more efficient we developed an automation solution to identify the category of customer emails, and whether or not they needed to be sent directly to the back office. This freed up staff from the repetitive process of reading and reassigning emails to specialist teams, whilst also boosting the response turnaround time for customers. The techniques we have used here are highly cross-sector – for example, we have already taken the same set of technologies and AI frameworks to explore how to help NHS Trusts automate referral triage, with already highly promising results.

We welcome the AI Sector Deal and the creation of the AI Council – especially the ambition to boost national R&D spend, improve critical infrastructure, open up more public interoperable data and foster new talent in the field. As has been discussed in previous APPG sessions, having a long-term strategic plan will be crucial to our success. However, in terms of the here and now, we think there is a pressing need to address three issues:

1.   Bridging the technical and commercial knowledge gap: According to our research, less than half of executives believe their organisation's leadership has a clear understanding of AI. At the same time, only 12% of leaders believe UK school leavers and graduates have the necessary digital skills. Bridging this gap will require much more proactive coordination between academia, business and government. Canada, for example, is a leader in the area, with universities running robust business incubation programmes and launching flexible AI management courses targeting business executives. A large part of this will also be removing the barriers to working in AI and making the field more inclusive. For example, there is a perception you need a PhD to work in AI – you don't. Clearly we need great academics, but we also need strong, business focused data scientists working at the commercial sharp-end of 'business AI'

2.   Greater prioritisation of scalable pan-industry solutions for investment: Matched funding vehicles are highly effective, but many programmes are industry-selective rather than focusing on cross-sector opportunities with the most widespread impact. In the examples I gave, we were able to repurpose a Natural Language Processing model that reads and triages incoming customer emails for retail into one that reads GP referral letters and assigns patients onto appropriate pathways. At Deloitte we consciously created a cross-sector AI team to address these overlaps and we believe research funding programmes should reflect this trend.

3.   Post-Brexit, the UK must continue to be a favourable business environment: The UK must be internationally-recognised as a great place to build businesses at the centre of European and world technology and trade. Critical to AI advancement in particular will be the flow of data, people, ideas and services amongst our partners in Europe and worldwide.