

All-Party Parliamentary Group on Artificial Intelligence

Evidence Meeting 4 – Citizen Participation : DIVERSITY

Monday, 3 June 2019 | 5:30-7:00 PM - Committee Room 2, House of Lords

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Biography: At EY, Sarah is responsible for delivering the Data Quality Machine Learning Tool which is part of the 'EY Appstore': a set of algorithms using machine learning and cloud based technologies to solve client data quality problems.

She has a background in delivering virtual agent technology utilising machine learning, NLP, RPA and big data technologies for banks and insurance

companies, also local government.

Sarah recently won the Tech Women 50 Award 2017, has a Masters in Computer Science and Executive MBA. She is also a TEDx speaker for City, University of London.

She has previous built mobile apps, responsive websites, online trading systems, CRM and CMS systems and implemented analytics software and analytics dashboards. She is 'technology agnostic' and utilises the appropriate technology to deliver the best value for her clients.

SUMMARY OF EVIDENCE

How can we build trustworthy AI that supports diversity and inclusion?

- We have seen many examples where artificial intelligence (AI) has had unforeseen negative impacts on diversity and inclusion (D&I) in the workplace and society.
- Examples include AI using biased data sets or poorly-designed algorithms, resulting in discrimination against certain groups, for example, in the justice system and recruitment.
- At the same time, AI is having a positive impact on D&I.
- For example, a start-up software company has developed technology to help people see the hidden gender bias in their writing, suggesting gender-neutral alternatives and so helping employers to recruit from a wider talent pool.
- Other examples where AI is positively supporting D&I include solutions that:

- Filter out biases in data to encourage recruitment of more diverse candidates
- Provide feedback on whether a data set of pictures of faces is appropriately diverse
- Help visually-impaired people understand the world around them using an intelligent camera and audible descriptions
- Now is a good time to discuss AI in the context of D&I following the April 2019 publication of the European Ethics Guidelines for Trustworthy AI.
- These guidelines call for a human-centric approach to the development of AI.
- They specifically highlight the need for AI to avoid unfair bias, both in the development of AI and in its outputs, to prevent discrimination or prejudice against certain groups, including women, people with disabilities and ethnic minorities.

Call for research

- Statistics indicate the current lack of D&I in the technology sector:
 - two-thirds of UK digital companies have no female directors on their boards – and 75% have no directors from ethnic minorities
 - although the total US workforce is approximately half male, half female, within STEM jobs, men outnumber women four to one.
- We call for more research to gather data on D&I in the technology sector and specifically in relation to the development of AI.
- This is important for considering whether lack of representation of groups such as women, people with disabilities and ethnic minorities increases the likelihood of bias in AI.
- Any such data and research can be used to encourage change within organisations in order to use AI to maximum capacity to improve D&I.

Three actions to take now

We suggest three actions organisations can take now to improve D&I through AI:

1. Identify processes where AI may be having unintended consequences for D&I, e.g., in recruitment and progression and performance.
2. Assess external communications and marketing, e.g., use image recognition software to scan across external communications to check for diversity in the faces of the people representing the firm.
3. Support inclusive workplaces, e.g., review opportunities to use AI solutions such as voice recognition technology and audible descriptions of visual images to enable people with disabilities to contribute fully to the workplace.