

Parliamentary and Scientific Committee

'Artificial Intelligence: Transforming Science and Law'

A meeting held in partnership with the University of Liverpool

April's discussion meeting highlighted AI research, concentrating on two practical examples of how pioneering work is being applied, in the legal sector and the materials innovation R&D space. The Chair, Viscount Stansgate, President of the P&SC, welcomed visitors, including Professor Tim Jones, Vice Chancellor of the University of Liverpool, and introduced the speakers.

AI is now relevant for a wide range of disciplines, explained our first speaker, Professor Katie Atkinson, Professor of Computer Science, and Director of the Interdisciplinary Centre for Sustainable Research, University of Liverpool. She concentrated on the impact of AI on the law; not a new idea but better computing resources have only recently made it viable. Machine learning approaches for legal case prediction are now more popular, and future systems must be accurate, trustworthy, and unbiased to assist legal professionals in their decision making. Examples were given of real-world applications; a digital assistant has been developed to assist solicitors cross-reference client data against previous cases. In the future she envisages powerful 'Hybrid AI' systems, combining multiple AI techniques into more powerful models.

The work of LawtechUK was described by its Chair, Christina Blacklaws, founder of Blacklaws Consulting. It is a government funded programme operated by CodeBase and Legal Geek, guided by the LawtechUK expert board. Aims include fostering innovation within the legal sector, and increasing access to legal services. Free innovation support and mentoring is provided, and events organised nationwide. The Ecosystem Tracker and UK Jurisdiction Taskforce (UKJT) are related developments. Many individuals and small businesses in England and Wales have unmet legal needs; LawtechUK addresses this, providing beneficial information opportunities, and considerations for AI-driven solutions.

In a changing world, R&D needs to keep up with economic opportunities, and developments in new materials, stressed Professor Andy Cooper FRS, Academic Director of the Materials Innovation Factory (MIF), University of Liverpool and Director of the Leverhulme Centre for Functional Materials Design. A video of their 2020 mobile robotic

chemist working in the laboratory was shown; since it was launched similar robots have appeared worldwide. He outlined future strategy for UK R&D, highlighting recent Liverpool digital materials research. The Liverpool Materials Innovation Factory (MIF), set up in 2017, is a world leading centre for AI and robotics in materials chemistry R&D, employing a mix of industrial and academic researchers working together very successfully.

Dr Jonathan Hague, Head of Bright Future Science and Technology, Unilever Homecare, described their growth action plan, aiming for superior products, AI scientific advances, sustainability, and ethical, responsible activities employing good people. Their involvement with MIF was explained, using integrated new product ingredients formulated there, with automated and computer aided material science. AIM HI is a proposed future new build facility adjacent to the MIF and university science; it will include a Hybrid AI materials chemistry laboratory, building on learning gained from MIF.

A Q&A session followed. There were varied concerns about the impact of AI; loss of formulation chemist jobs in cosmetics, impact on the 'social contract' between vets and clients by increasing AI use, fears about legal reliability without human input, and heavy consumption of energy by AI. Our experts explained that AI might offer new job opportunities, there is a move towards 'small data' so reducing power needs and assured us that human checks are still in place. They did admit to being surprised by the speed of developments, more training is required; all students and employees need to learn about AI.

Finally, Viscount Stansgate announced the 2025 Westminster Medal winner, selected from the five Gold Medal Winners at the recent STEM for BRITAIN event, for best communication of their research. He presented the medal to Dr Edwina Yeo of UCL, and a certificate was awarded by Steve Smith, of Syngenta, representing SCI, sponsors of the award.

Sue Wharton, P&SC Discussion Meeting 'Artificial Intelligence: Transforming Science and Law' 29th April 2025