This event brought together 15 participants from UCL, Government, Parliament, professional institutions and not for profit organisations to consider the UK's technological future. In particular, the role that new types of computing hardware, specifically neuromorphic computing, could play in a world where new technologies that fuse the physical, digital and biological worlds are increasingly the norm.

The roundtable was chaired by Alok Jha, Science and Technology Correspondent for *The Economist.* It offered attendees an introduction to neuromorphic computing from leading UCL researcher Professor Tony Kenyon. Through discussions, a presentation and question and answer session with Prof Kenyon, delegates explored the challenges facing the future of computing and the potential opportunities that advanced technologies could provide. It also considered the role that neuromorphic computing could potentially play in the UK's technological future, during a topical discussion on the cross-

million.[2] These costs are likely to prohibit the widespread use of this sort of computer. Energy use associated with digital technologies is also a significant and growing source of greenhouse gas emissions.

A separate concern is the natural resources required for current computing methods: metals required for computing will soon be depleted, and alternatives will need to be found.[3] Continued growth in the use of data, AI and internet-connected devices will not be sustainable unless these challenges are addressed.

Neuromorphic computers could use up to 100,000 times less power than conventional computers. Neuromorphic computing is inspired by the brain, which operates at around 20 watts compared to a conventional computer's 7.9 Megawatts. This could drastically reduce the energy consumption of some computing tasks and improve battery life for devices.

On-device processing would improve privacy and security by removing the need to utilise data centres. This would be particularly beneficial for IoT and edge devices which could operate independently of the cloud to improve their reliability, speed, and safety and security.

Law would be alleviated by using new hardware. Neuromorphic technology does not face the same challenges of conventional computers in respect to the end of Moore's Law.

New hardware would have improved capabilities to deal with unstructured data. Neuromorphic computers would be far better at dealing with unstructured data while using less power than conventional computers.

Next steps for neuromorphic computing

Neuromorphic systems are not going to be universal and will not replace conventional computers, but they could complement

potential long term impacts of social media on mental health and wellbeing.

There is currently no best practice for how to regulate in anticipation of new technologies, as it is difficult to predict the future. The ongoing work by Nesta on anticipatory regulation in this space was highlighted by participants in this regard.[6] In addition, research councils are being challenged to undertake responsible research and innovation. There is also a Government 'Centre for Data Ethics and Innovation' which is working to develop the right governance regime for data-driven technologies.

One example of a negative consequence of new technologies driving behaviour is the case of takeaway convenience food: companies like Deliveroo and Uber Eats have made it easier for people to access food without going out. This has