Lauren Sager Weinstein, Chief Data Officer, Transport for London

Biography: Lauren Sager Weinstein is chief data officer at Transport for London (TfL), where she is responsible for driving decision-making and improved customer services through provision of data products and services. Lauren oversees TfL’s business intelligence / data science strategy, TfL’s data technical platform development, as well as support for data products and services. Lauren has worked for TfL in various roles since 2002 and before this she was employed by the City of Los Angeles and the RAND Corporation, a non-profit institution that helps improve policy and decision making through research and analysis.

SUMMARY OF EVIDENCE

We see that AI as an evolution in the way that we can use data to inform decision-making. We have a long history of making the best use of data and computer processing power available at the time to deliver analysis to drive our decision-making. We at TfL have used analysis and statistics for many years—starting with calculations that we could do by hand. For example, we were surveying people and manually counting them in order to plan our network as far back as 1939. Today we utilise the computing processing power available from cloud computing to collect and process our telemetry data to support the day to day running of our network to deliver essential services for our customers.

• We have become more sophisticated over time, and where we could we have looked to automation and using new computer technology to plan our network. For more than a decade our Oyster ticketing system has allowed us to construct patterns from depersonalised ticketing to understand our customers’ journey flows to better plan and run our network.

• What used to take considerable computing even a decade ago, can now be calculated much faster. And we have employed new pattern analysis techniques now that the computing processing can support this. This includes taking advantage of new techniques such as machine learning and deep learning.

• As we as an industry move forward, we expect the technology to improve, allowing for even better data tools. However, underpinning this we need to make sure that our underlying data is fit for purpose. This means that we as an industry need to make sure our data foundations are strong, through understanding our data quality and the way in which it is collected and stored.
• Transparency is fundamental on this. Our approach has been to make sure that we are clear with our customers about how we use data and the benefits it can deliver.

Our broad aim is to understand patterns in how our customers move in aggregate. We give our customers the option to not be known to us when we are collecting personal data. And we treat our customers’ privacy extremely seriously, when we do need to support them through delivering a personalised service (such as refunds, or when they ask to get service information from us).

• We rely heavily on the ICO’s guidance, which underpins our approach. This assistance has been very helpful for us.

We recognise that the industry is evolving and changing, and as society, we need to all think about the ways that data is used, and potential and risks across society for this. There is a role for philosophical/ethical discussions about this as a society, in terms of how we set guiding policies to protect our citizens, whilst delivering improvements for them and the wider community.