

Ethical technology: Mission critical in the justice system

The Justice and Home Affairs Committee (JHAC) recently published a report into the use of technology in the justice system. It probably comes as no surprise that the Committee found that artificial intelligence (AI) is being used without effective oversight, reminiscent of the Post Office Scandal, in which the improper application of technology led to over 700 wrongful convictions.

Technology can and does augment our lives, and is increasingly woven into the fabric of society at all levels. However, an issue arises when technology is used incorrectly – or without fair and robust policies in place – which can consequently cause more harm than good. It is particularly stark that this may be the case in the justice system – this is not simply a claim of a poor user experience; failures in this area have genuine life-altering consequences. If the technologies used in the justice system go unchecked, we risk reinforcing existing biases, and among the JHAC report's headline findings was that this will be directly detrimental towards peoples' human rights and civil liberties.

The cyclical problem

Technology can and has played a pivotal role in solving many of society's problems. However, using unchecked technology within the justice system could open up those operating within it to discrimination. We risk engendering existing biases, particularly if the same groups within society are being targeted by particular technology are also subject to 'real life' bias too. Getting this right couldn't be more pressing – the HM Courts and Tribunal Service found that during the advent of the COVID-19 pandemic, nearly 85% of court hearings took place using audio-visual technology. As we are moving towards a more digitised system, we must make sure that this transition will not disadvantage sectors of society through inaccuracy, error and misrepresentation.

Implementing any tools, like facial recognition technology (which might be prone to misidentifying people) can and does lead to wrongful convictions, wasted police and victims' time, as well as general apprehension towards the police and other government institutions.

A proactive process over retrospective regulation

We must tackle the root cause of the problem, rather than waiting for issues in technology's capabilities to manifest themselves in the real world with real impact on people's lives. We know that bias is a major challenge within AI and technology more widely. That is why we must aim to reduce bias *before* implementation. Bias will never be truly eliminated, but tackling bias at the earliest stages of development will be key at least greatly reducing the need for retrospective regulation.

Tackling bias from the earliest point of the design stage is critical. AI and machine learning technologies are only as good as the dataset and the algorithms used to train them. Because we're often asking machines to learn from an already biased world, the data on which they are trained naturally comes with inherent bias. This can be seen in the use of technologies like facial recognition: many standard training databases are made up predominantly of white men, which is doomed to fail if the end product were to be deployed in a city as diverse as London. In fact, not only will the tech be ineffective, it will actively harm specific communities.

Using a wider dataset is beneficial as it greatly reduces bias and makes technology more accurate overall. There are techniques, just as self-supervised learning, which are allowing machine learning models to pull data from a far

greater number of resources, without the need for a 'human in the loop' to monitor its decision making. Implementing these kinds of technology will vastly improve the quality and diversity of datasets, and thus reduce bias significantly.

Re-legitimising the rule of law

The 'rule of law' is that concept that no one is above the law, regardless of whether they are an individual, institution, or the state itself. Therefore, we are all equally accountable before the law and subject to the same rules and consequences. We know this not to be the case.

Reports such as the one published by the Justice and Home Affairs Committee, as well as accounts made by those affected demonstrate that technology – its methodology, application, and subsequent misuse – plays a significant role in the justice system, and that its impact is often disproportionate and unjust in its result. To regain the trust of communities that institutions are supposed to serve, we have to ensure that technology is honest and transparent.

Ensuring the advent remains advantageous

Technology is here to stay. Innovation is transforming the world around us, creating new industries that were inconceivable 10 or 15 years ago. However, just because something is set to remain a part of our lives, does not mean that it should go unchanged and unchecked.

The advent of technology in the justice system should not denote the descent of its legitimacy or ability to mete out rewards and punishments fairly. We should continue to scrutinise technology and its application through regulation and encourage those building these tools to consider the role of bias from the earliest stages of development. However, we should also take a step back to ensure that technology plays a positive role in making the system more just, providing a counter point to real world discrimination by addressing and overcoming bias – *before* it proliferates throughout society.

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