



Toyota Research Institute Launches Machine Assisted Cognition Programme

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Machines can help Toyota make ever-better cars, but they could also have the potential to help people make better decisions.

The [Toyota Research Institute](#) (TRI) is expanding its work with the launch of Machine Assisted Cognition (MAC), an initiative aimed at developing and demonstrating artificial intelligence tools that can understand and predict the way humans behave in decision making.

“Exploring ‘what’s next’ for Toyota is a key pillar of TRI’s charter, and MAC is another way we can apply our AI expertise to help humans perform better,” said Eric Krotkov, TRI’s Chief Science Officer.

“Our vision is to create a human amplification system for Toyota where people and machines work together in synergies to make better predictions, forecasts and business decisions, and to do so more quickly.”

TRI intends MAC to be scalable, according to the size of the data available, or the numbers in the decision-making group. It also believes it essential that the programme respects transparency and privacy principles when collecting and using data.

TRI has appointed Franziska Bell as Senior Director to manage the MAC programme. She is currently hiring a new team of interdisciplinary researchers, including behavioural scientists and will have oversight of the TRI’s Accelerated Materials Design and Discovery programme. Bell joins TRI from Uber where she served as the Head of Platform Data Science, working on forecasting, anomaly detection and conversational AI.

TRI’s new MAC team will initially build and test basic capabilities, looking at use cases that could be generally applied to many different business functions. Once a proof of concept has been developed, the group will explore specific capabilities that can support people in different parts of Toyota’s organisation, such as sales, product planning, engineering and R&D.

Going further, TRI hopes that MAC will also contribute to a deeper understanding of human behaviour, to the benefit of society.

Since its launch in 2015, TRI has worked with university partners to conduct sponsored research into artificial intelligence. To gain additional support for the MAC programme, TRI will engage academics to collaborate on joint research projects. The partners and projects will

be announced at a later date, but their focus will be on achieving breakthroughs in difficult technical challenges.

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