

Report finds AI and blockchain could transform Australia's transport sector

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Curtin University-led research has found that applications of artificial intelligence and blockchain technology are set to revolutionize the transport sector in the coming decade and Australia needs to move quickly in order to capture the benefits.

The report, published today by the Sustainable Built Environment National Research Center (SBEnc) based at Curtin University, in collaboration with Griffith University and RMIT University, presents findings of an investigation into how these technologies can be utilized to enhance the [transport](#) sector, as well as get cities moving and functioning better.

Chair of the industry steering group for the research project, Dr. Ken Michael, former Governor of Western Australia and Commissioner for Main Roads WA, said the researchers have identified significant technological initiatives which will call for a complete rethinking of how transport systems operate.

"From predictive traffic management to real time road user charging, this new wave of technology

has the potential to create numerous opportunities right across the sector that were previously inconceivable," Dr. Michael said.

Project leader Dr. Charlie Hargroves, from the Curtin University Sustainability Policy Institute (CUSP), said that enormous amounts of funding will be committed to transport infrastructure and traffic management technologies in the coming decades and these decisions need to be well informed as to the capability of these revolutionary technologies.

"The report shows that the International Data Corporation anticipate that spending on artificial intelligence will reach US\$57 billion by 2021 and according to the World Economic Forum by 2027 some 10 percent of global GDP will be Blockchain-based. It will be important for industry and government to understand the unique opportunities that these technologies present," Dr. Hargroves said.

The report suggests that a key area that combines the technologies is road user pricing. As the shift to [electric vehicles](#) stands to reduce revenue from fuel taxes, the ability to calculate appropriate vehicle charges at particular times of the day across the transport network using AI, and then charge vehicles even very small amounts in real time using blockchain technology, presents both a valuable traffic management tool and a cost recovery mechanism.

Dr. Hargroves said that the [transport sector](#) has been largely unchanged for many years and the decision making process is often better informed by what has happened in the past than what is likely to happen in the future.

"Australia needs to explore the potential of artificial intelligence and blockchain technology to identify opportunities for economic, social, environmental and political benefits," Dr. Hargroves said.

CEO of SBEnc Professor Keith Hampson said the report, which is a [collaborative effort](#) between the government, industry and academia, has important implications for the transport industry.

"This is great example of how industry-led research can deliver both academic and practical outcomes for the community," Professor Hampson said.

More information: Exploring the Potential for Artificial Intelligence and Blockchain to Enhance Transport. sbenrc.com.au/research-programs/1-63/

Provided by Curtin University

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