OPPORTUNITY #28

WHAT IF MACHINE-RUN ORGANISATIONS WERE BUSINESS AS USUAL?

GOVERNANCE BY MACHINE

Companies and government projects run by machine intelligence reporting to a human board

WHY IT MATTERS TODAY

Around 70% of businesses will use at least one form of artificial intelligence (AI) technology by 2030[279] and global spending on AI in businesses is expected to reach $110 billion annually by 2024.[280] AI decision-making is set to increase global economic output, with a possible boost of around $13 trillion[281] to $15 trillion[282] to the world economy by 2030.

Many governments have developed formal AI frameworks[283] as the adoption of AI could widen performance gaps between countries. Leading countries (developed economies mostly) are expected to capture an additional 20%–25% in economic benefits.[284] Some governments have already tested or already integrated AI into service delivery and policymaking. Quebec, for example, has used AI to analyse economic, labour and education differences among sub-regions and Australia has applied it to track reported symptoms and patient characteristics in hospitals to identify key public health concerns. In the UK, AI has helped to estimate the impact of a carbon tax on emissions and overall business productivity.[285]

In the Middle East, AI could contribute $320 billion to the regional economy in 2030, equivalent to 11% of GDP, particularly in the UAE, where it is expected to account for 13.6% of GDP by 2030. For Saudi Arabia it is expected to amount to 12.4% and for Egypt 7.7%.[286]

THE OPPORTUNITY TOMORROW

Advanced autonomous machine intelligence is progressing from solving specific problems using big data and algorithms to optimising business and policy strategies. This can eventually enable machine intelligence to augment the work of corporate leaders and government officials. These machine management teams would be answerable to shareholders and government decision-makers but require no human input into their proposed decisions.

SECTORS

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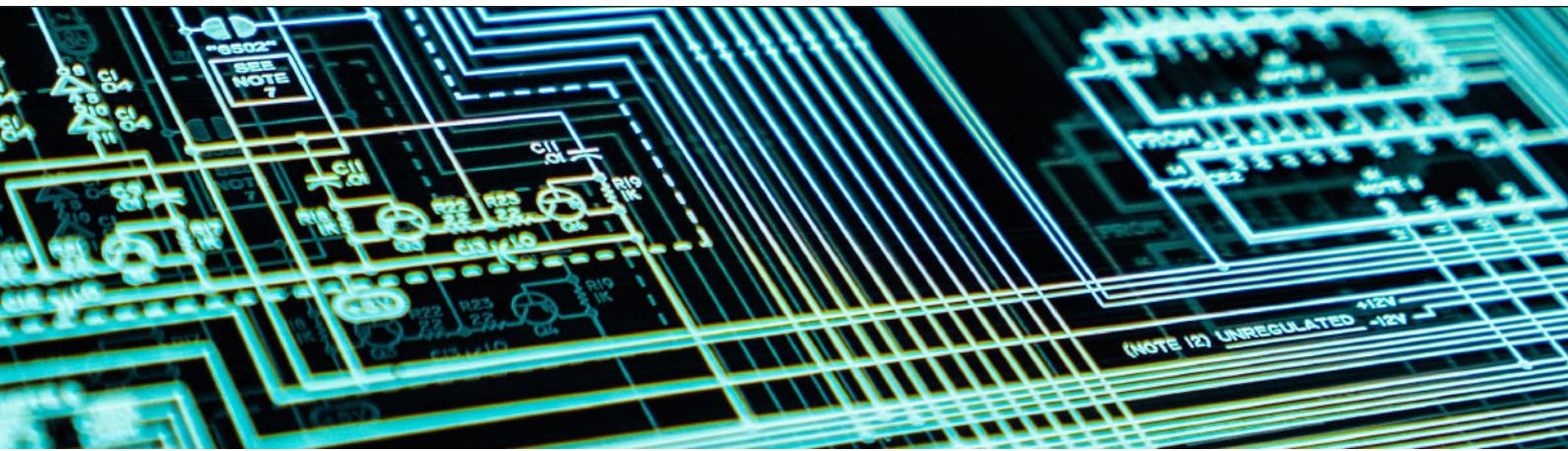
Machine intelligence can model decisions rapidly and notionally free from emotional bias, enabling impartial and professional decisions for complex problems. Machines would use data sets and powerful modelling technologies to simulate the costs, benefits and likely outcomes of projects, large and small, from infrastructure to buildings, business models and policies.

However, when machines initiate such important decisions, governments will need to develop guidance on the responsible use of AI,[287] with global and jurisdiction-level regulations and standards. Corporate governance would also need to align with these developments. This will include ensuring that board-level risk management committees are set up to understand risks associated with underlying algorithms and decisions.

Decentralised autonomous organisations (DAO),[288] enabled by blockchain and governed by a digital contract to ensure transparency, are an emerging phenomenon that may be of relevance in the future.

BENEFITS

Accurate projections can inform more effective decision-making, with fewer 'white elephant' projects, negative externalities and other unintended consequences. With greater transparency, citizens are more likely to support new initiatives and innovation can flourish as new approaches involve less risk.

RISKS

Corporate governance would need to evolve to prevent machine managers from attempting to dominate markets. Board and committee directors may not understand the factors and processes used in underlying AI algorithms that may exacerbate human biases. Other risks include worsening the consequences of cyberattacks or errors, perpetuating biases in decision-making.

UNINTENDED CONSEQUENCES

Perpetuating biases in decision-making and advice, and potentially closing off career paths affecting workers' morale and ambition.