A Centre To Navigate The Fourth Industrial Revolution

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The advances of the Fourth Industrial Revolution (Industry 4.0) are bringing rapid disruptions and, with it, great uncertainty. Industries are being reshaped and regulatory frameworks across the globe are being challenged.

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In response to this new world of uncertainty, the World Economic Forum (the Forum) has created the Centre for the Fourth Industrial Revolution (C4IR). The Centre is bringing together an international network of leading companies, governments, civil society and experts to co-design and pilot innovative policy and governance frameworks.

Deloitte is teaming up with the Forum on the C4IR to help shape the trajectory of Industry 4.0. This collaboration is an important part of Deloitte's ongoing work to educate and prepare organizations and leaders for the challenges and opportunities that Industry 4.0 brings as it transforms economies, jobs, and society itself.

The scope of the C4IR initiative is ambitious, gathering international stakeholders across industry and government to apply an agile and action-oriented approach. They will co-develop new protocols with the goal of piloting and scaling these standards globally.

Complementing its ongoing collaboration with the Forum, Deloitte will apply its global experience and wide-ranging expertise by engaging in three core C4IR project areas: Artificial Intelligence (AI) and Machine Learning; Blockchain and Distributed Ledger Technology; and Autonomous and Urban Mobility.

Unlocking Public Sector AI

AI has already vastly transformed how business operates. The same is expected to be true for the public sector and governmental operations. However, many public institutions are cautious about harnessing this technology due to concerns over unethical misuse of data, bias, complexity, and fear of potential job displacement. Protocols must be created that can achieve accountability, privacy, transparency, impartiality, and public trust in these new technologies.

Kay Firth-Butterfield, the Head of AI and Machine Learning at the Forum observed, “As AI becomes more ubiquitous, ethical considerations around privacy, bias and transparency need to be considered. The future of AI needs government and business to work together to ensure people are not left behind.”

Deloitte’s participation with the C4IR will focus on the development of protocols that support the responsible and effective procurement of AI by governments to better meet the needs of citizens and revolutionize public services. The goal is to co-design guidelines that will equip governments with a strategy to confidently and responsibly procure, deploy and develop their own AI technology, which in turn will positively impact industry. Building case studies with practical frameworks to help overcome reluctance to embrace AI will enable governments to make strategic budget investments, navigate risks, and will drive the adoption of similar standards within the private sector as an alternative to regulation.

Harnessing blockchain technology

Blockchain has the power to facilitate the seamless sharing of information between governmental agencies, reduce corruption, and increase trust & confidence. Efforts of the C4IR and Deloitte will focus on optimizing how blockchain can be utilized as a tool to manage digital identity, certification, supply chain integration, and infrastructure readiness.

To maximize impact, the Forum and Deloitte, among other key collaborators, will aim to devise blockchain decision-making toolkits to help leaders from diverse sectors identify which applications, business models, and challenges are best suited to distributed ledger technology. Other workstreams will explore the implications of key issues including digital identity, privacy, security, rights, and inclusion.

Through this collaboration the C4IR will work to overcome reservations about how to effectively implement blockchain. “There is increasing skepticism of blockchain-backed ‘solutions’ that are unilateral or bilateral in nature,” said Sheila Warren, Head of Blockchain at the World Economic Forum. “Failure stories abound from around the world. As a result, we’re starting to see more and more attention being paid to consortium models that bring together a multiplicity of actors to devise solutions that are ecosystem-wide. At the World Economic Forum, we’re focused on piloting policies that leverage some of blockchain’s core attributes, such as increased access to information.”

Embracing autonomous and urban mobility

The emergence of autonomous vehicles has the potential to vastly improve road safety, decrease pollution, reduce congestion and transform the design of our cities. However, this transition will disrupt the current models of our public and private transportation systems, requiring governments and industry to adapt to these ever-changing technologies.

To prepare for this disruption, the C4IR will work with businesses, including Deloitte, and NGO

leaders to examine the mobility ecosystem with the aim of developing a common platform for mobility systems. This is one of a number of efforts Deloitte is involved with as it invests heavily in helping clients prepare for the future of mobility.

With the imminent changes in urban mobility, there is a critical need to prepare for this evolution. “There are at least 47 cities around the world piloting autonomous vehicles (AVs). Regulations in all these places will have to change to accommodate the building, manufacturing, and operations of autonomous purpose-built vehicles,” commented Michelle Avary, Head of Autonomous Vehicles at the World Economic Forum. “We expect 2019 could be a pivotal year for AV regulation and legislation.

New approaches to managing and sharing transportation data are needed, and collaboration with secure third-party data management systems could provide essential insights to support the development of city-wide mobility platforms. As testing of autonomous transport pilot schemes begins across a network of global cities, the creation of a shared knowledge platform is crucial to connect governments with industry and facilitate the exchange of best practices.

By creating a venue for business, academia, NGOs, and governments to work together, the C4IR can safely shape how new technologies will benefit society. C4IR’s findings will inform and accelerate the adoption of new technologies, enabling new policies to be implemented and cross-pollinated by governments across the globe. Collaboration and a multi-stakeholder approach will ensure that any potential risks are minimized and that leaders are empowered to seize the opportunities offered by the Fourth Industrial Revolution.