DATA-DRIVEN WORLD AND COMMERCE

By 2030, the world will be entering the 6G era – an intelligently autonomous, integrated, sensory, massively distributed but highly networked world that blends our physical, digital, and human systems. At present, there is no industry or endeavour that is immune to the impact of digital and data-based disruption. The data economy and the convergence of data, cloud technologies, Internet of Things (IoT), and connected devices are the driving forces behind the exponential acceleration of the fourth industrial and digital revolution. The past decade's data explosion has created a seemingly infinite universe of data, ever expanding to the outer edge of what we can store in the cloud. Making sense and use of data will drive strategic choices, shape market advantage, and enable disruption.

Possibly the most dramatic outcome of the digital revolution is the sheer volume of data created, collected, distributed, and analyzed – a volume inconceivable just a few decades ago. The extent and pace of technological change unleashed by data and the data economy will have far-reaching implications across almost all industries. When you consider 90% of the world's data was created in the last 2 years and 1 trillion devices were connected by 2022, it's easy to understand how the total amount of global data is forecast to increase tenfold by 2025. One of the second order implications of the acceleration of data creation is the impact it has on accelerating Artificial Intelligence (AI) technologies powered by Big Data, which in turn drives further technology and industry advances.

The clear exponential nature of the data economy is presenting itself as a tsunami of change and a global megatrend. Matched with this, computing power is growing exponentially, with the global cloud microservices platform market expected to generate $4.2 billion in revenue by 2028. This in turn impacts not only how we create and store data, but how we are able to extract and synthesize that data.

The implications of the data economy are profound and far-reaching, as illustrated by the exponential nature of the growth we are seeing across all aspects of life. Every second sees exponentially more data generated, exponentially more 'things' connected. The vast network of

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connected devices generating and collecting immense volumes of data, requires processing, storage, and analysis to gain insights into customer behaviour, market trends, operational efficiencies, and so much more. This, paired with growing awareness of the commercial value of consumer data through machine learning and artificial intelligence, will enable companies to extract even more value from real-time data and insights. These technologies are helping companies automate processes, streamline operations, and create new revenue streams.

In big tech, we have seen companies position themselves at the forefront of the digital and data revolution, investing in data-driven and AI technologies. OpenAI has been at the forefront of AI research

and development, with early-stage investors including Microsoft and Amazon. Subsequently, Microsoft has already progressed the integration of OpenAI technology into its search engine, Bing, as well as its Office365 products. Amazon is similarly utilizing AI in its logistics and delivery operations, and in customer-facing services, like Amazon Alexa. Alibaba has been leveraging data and AI in e-commerce, logistics, and financial services through platforms like Taobao and Alipay.

Tech giants are not the only players in AI and Big Data. More specialized companies are developing cutting-edge processors and taking massive steps forward in quantum computing, which are essential to meet the computational demands of Big Data and AI. Big Data, together with AI, is reshaping the health sector and medicine. Successfully leveraging Big Data and AI in the US health care system could result in $150 billion in annual savings by 2026. From robotic surgeries, aided by integrating diagnostic imaging and pre-op medical data, to virtual nursing assistants to simplify initial diagnoses, triage, and patient logistics, the applications are endless. Similarly, spurred by soaring global investment in robots that could reach anywhere between $25 billion and $140 billion by 2027, Big Data and AI will revolutionize industrial automation in the physical world.

In the private sector, we have seen the tide of information rising faster than our ability to harness it. This growing universe of data holds the promise of and need for more insight and value, but we can't process it as quickly as it's generated. And that is the Data Paradox.

Businesses must be ready to incorporate data-driven decision-making and technologies across operations to capitalize on new opportunities. Data will drive new business models and ecosystems as it disrupts industries and creates entirely new ones. The rise of data-driven platforms has already disrupted traditional business models, and this trend will continue to accelerate. Companies that can effectively harness the power of data will reap significant rewards, while those that fail to adapt will be left behind. We are ushering in a new era of commerce, where an organization's competitive advantage is directly determined by how fast it converts data into insights to drive business outcomes and create new value.

In the coming years, we can expect to see an emphasis on the 'data fabric' – a combination of data management architecture and technology that optimizes access to distributed data and intelligently curates and orchestrates it for delivery to users. Being digital is no longer a differentiation, but rather consumers will seek out those who are leading the race through innovation and data-based decision-making.

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Of course, this is only one of the market spaces where disruptive forces are at work and game-changing new investment opportunities might be discovered.

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