# Chapter 9
# The Future Is Already Here

## ABSTRACT

*In Japan, the world's most technologically sophisticated society, the future has already happened with public displays of AI-powered systems and robots underpinned by big data and fast being incorporated along with other emerging technologies such as the internet of things (IoT), augmented reality (AR), virtual reality (VR), blockchain, and cryptocurrency. Hence, the building blocks of the future already exist today, perhaps within niches, and in the coming years, they will spread to make the 'normal' of the future. The human race needs to forge a society that collectively and fairly controls how AI will 'write' the future to avoid it being unequally spread and affected by inequalities, cancers, and the dysfunctional habits of today.*

*"The future is already here – it's just not evenly distributed." –William Gibson, An American-Canadian Writer*

## INTRODUCTION

This penultimate chapter may be summed up by a simple question: '*What Will Our Society Look Like When Artificial Intelligence Is Everywhere?*'

We live in extraordinary times. New advances in technology such as artificial intelligence (AI) underpinned by Big Data along with other emerging

technologies such as the Internet of Things (IoT), Augmented Reality (AR), Virtual Reality (VR), Blockchain and Cryptocurrency, allow our society to understand the world that surrounds us in new and unprecedented ways. Today, we carry in our pockets computers more powerful than those that sent Apollo 11 to the moon. We are at the brink of an *abundant future* never before experienced that promises both exciting opportunities and disconcerting challenges.

While western media is full of stories told by adults about the future of AI – things like self-driving cars, virtual assistants and robotic caretakers for senior citizens – today's children likely imagine an even wilder set of prospects especially those born in our technology filled world. As these new tools come into use, we wonder if AI systems will be effective, trustworthy and reliable both for ourselves and for tomorrow's generation. How can we work towards a future where children's creativity and curiosity is combined with adults' wisdom, maturity and duty of care, to deliver the best possible future for all? How can we develop responsible AI for our children?

AI allows us to see ourselves in unusual new ways by revealing subtle aspects of the relationships that exist between us and the world around us. We must ask ourselves how AI systems could shape the way we interact, such as by undermining personal privacy standards or by over-engineering our daily social dynamics.

In recent years we have observed large changes in economy in general and marketing in particular as a result of internet expansion, globalisation of businesses run by Google, Amazon, Facebook and others and ubiquitous information availability. One of the scientific fields which gained momentum as a result of this was data analysis under various names: 'statistics', 'data mining', 'machine learning', 'data analytics' and 'knowledge discovery'. Many new data analysis techniques have emerged that exploit availability of more and different data from several sources underpinned by supercomputers which fuse high-performance computing (HPC) and AI to deliver 'peta-scale' performance (Zubașcu, 2019), to accelerate scientific discovery with NVIDIA's GPU-accelerated apps[1].

Everyone agrees that 'AI' will change the world and it is the most important technology of the 21st century that will help us better understand our global ambitions as well as tackle topics as diverse as space exploration to countering terrorism and even creating art.

For the first time in recent history, in regards to AI, we have observed a multitude of initiatives, strategies and actions by dozens of governments

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