

Chapter 3

Unintended Consequences

ABSTRACT

Advancements in artificial intelligence (AI) are commonplace given its rise and the diversity of its application. From medical treatment, gaming, manufacturing to daily business processes, huge amounts of money are being invested in AI research due to its exciting discoveries. Technology giants like Google, Amazon, and Tesla are amongst the driving forces today. But the rapid growth, innovation opportunities, and excitement that the technology offers obscure us from looking at its “unintended” consequences: the basis of this chapter. Proceeding chapters will explore further the impact and social ethics of AI across society.

You want to know how super-intelligent cyborgs might treat ordinary flesh-and-blood humans? Better start by investigating how humans treat their less intelligent animal cousins. It’s not a perfect analogy, of course, but it is the best archetype we can actually observe rather than just imagine.” –Yuval Noah Harari, History Professor and Author

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INTRODUCTION

Human ingenuity has not only changed our world, it has changed, or, perhaps, *is changing* us. As humans evolved, we developed technologies to control, master and modify our environment. The ability to communicate, accumulate knowledge and build on previous innovations has enabled us to change nature. However, these innovations increasingly affect our biology, behaviour, society and nature (e.g. wildlife and climate). Rarely do we pause to consider the longer-term costs of innovation (Gluckman and Hanson, 2019). Examples follow:

- To provide nourishment for a growing population, humans have developed methods to process and preserve food. Alternatively, easy access to energy-dense foods results in obesity (Thomson, 2017).
- To protect ourselves from dangerous pathogens ('superbugs'), we embraced cleanliness and invented antibiotics, which has led to rising rates of autoimmune diseases and antibiotic-resistant bacteria (Ventola, 2015).
- Our growing dependence on the internet and social media has been linked to mental-health concerns and declining social cohesion (Vaknin, 2015).

Presently, we are at the beginning of a digital transformation that is increasingly powered by artificial intelligence (AI), which is bound to influence every part of our existence. Although technology is agnostic, AI is influenced by our innate human biases. If we acknowledge these drawbacks, the question remains 'how do we integrate AI and emerging technology into our world positively'? Answering this sincerely will empower us for good over evil, like how splitting the atom generated useful energy, but it also resulted in a devastating bomb.

Every emerging technology comes with two things: promise and unintended consequences. It is the latter that we expand upon in this chapter.

Every time society introduces an emerging technology, it is typically accompanied by targeted marketing campaigns overflowing with promises of improved lifestyles, autonomy and, ultimately, more time for ourselves to do whatever it is we would prefer to be doing. However, in all cases, there are unintended consequences that go unnoticed until something negative manifests that impacts our culture and society. Consider, for example, social media (e.g. Twitter, Facebook, Instagram and Pinterest) which promised to

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