


Chapter 3


Geopolitics in the Algorithmic Era: Navigating Technological Competition and National Security

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ABSTRACT

The Algorithmic Era is a revolution in geopolitics brought on by the accelerated pace of artificial intelligence (AI), big data, and machine learning. With algorithms controlling global systems—military, civilian, or otherwise—the technological rivalry between states and tech companies reshapes traditional geopolitics. This

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chapter critically analyses how AI-based innovations transform power differentials, challenge ethical considerations, and ignite data sovereignty and national security controversies. It explores the nexus of technology with foreign policy, economic power, and human rights, emphasising the strategic requirement of international regulating instruments and cooperative statesmanship for tempering the pace of innovation with security, ethics, and distributional equity in the digital era.

INTRODUCTION

Contextualizing the Algorithmic Era

The Algorithmic Age does not merely represent a stage in technological advancement but signals a profound structural transformation in global power dynamics. In this era, algorithmic thinking—realized through artificial intelligence (AI) and machine learning—supplants traditional rule-based systems. Data monopolies such as Google, Amazon, and Alibaba have emerged as quasi-sovereign entities, exerting influence over economies, public discourse, and cognitive behavior with unprecedented precision, effectively blurring the line between political authority and market dominance.

The ascendancy of deep learning algorithms has enabled machines to assume tasks once reserved for human cognition—language processing, visual perception, and moral judgment—thereby challenging long-held ontological assumptions. Yet, this diffusion of agency through machines is far from neutral. It is deeply intertwined with entrenched inequalities, as algorithmic power concentrates within a few digital oligopolies, exacerbating epistemic disparities and disempowering those unable to shape technological norms (Cave & Dignum, 2019). Regulatory frameworks such as the GDPR and OECD AI Principles remain normatively ambitious but operationally insufficient, unable to match the velocity and scale of technological disruption (OECD, 2019).

Crucially, algorithmic systems often replicate biased histories under the guise of efficiency, reinforcing exclusions and systemic disparities—particularly along the Global North–South divide. The concern is not merely technological access, but a broader redefinition of agency, autonomy, and accountability within the digital public sphere. The Algorithmic Era thus confronts societies with a complex ethical and political crucible: What should machines do? Who decides? And whose interests do they serve?

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