


Chapter 9


Law and Regulation of AI, Blockchain, and Digital Rights.

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ABSTRACT

As digital technologies increasingly shape social, economic, and political life, the legal and ethical implications of their deployment demand urgent scholarly attention. Among the most disruptive technologies today, Artificial Intelligence (AI) and Blockchain raise pressing questions about the future of governance, individual rights, and democratic accountability. Their convergence introduces both opportunities and challenges that existing legal systems are not fully equipped to address—particularly in relation to digital rights. This chapter examines the intersection of AI, Blockchain, and digital rights through a unified theoretical and regulatory framework. While

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AI systems introduce concerns around algorithmic opacity, bias, and automated decision-making, Blockchain technologies challenge legal norms through decentralization, immutability, and cross-jurisdictional complexity.

1. INTRODUCTION

This section will deal with the introduction to the convergence of artificial intelligence, blockchain technologies, and digital rights, outlining the scope and rationale of the chapter. AI and blockchain are two of the most transformative digital technologies of the 21st century, each posing novel challenges for law and regulation. AI refers to computer systems capable of performing tasks that typically require human intelligence, from automated decision-making to pattern recognition. Blockchain, on the other hand, is a distributed ledger technology that enables decentralized record-keeping and “smart contracts” without a central intermediary. The rapid advancement and deployment of these technologies have sparked debates on how existing legal frameworks can adapt to ensure that fundamental rights are protected in the digital environment. In particular, there is growing recognition that AI algorithms and blockchain networks can both enable and threaten *digital rights* – understood as the extension of citizens’ rights into the digital realm. Governments and international bodies have begun responding with new regulatory initiatives aiming to align technological innovation with the rule of law and human rights.

Despite these emerging efforts, the intersection of AI, blockchain, and digital rights remains under-theorized and complex. The rationale for this chapter is to provide a *theoretical exploration* of how law and regulation can address the challenges posed by these technologies while upholding digital rights. A theoretical approach allows us to move beyond siloed discussions – where AI regulation, blockchain law, and digital rights are often treated separately – and instead to consider a holistic governance framework (Bleher & Braun, 2023). By examining underlying concepts and normative principles, the chapter aims to clarify how legal doctrines and regulatory strategies might evolve to manage AI and blockchain in a manner consistent with democratic values and fundamental rights. This introduction has set the stage by highlighting the convergence of these issues and the need for integrated analysis. The following sections will build on this foundation, first by unpacking key concepts and legal foundations, then reviewing relevant literature and theoretical perspectives, and finally identifying major themes, research gaps, objectives, and the anticipated contributions of this chapter.

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