Chapter 6
The Political Economy of Artificial Intelligence: A Critical Assessment of DeepSeek

Cem Sefa Sütcü
https://orcid.org/0000-0002-9389-6832
Marmara Üniversitesi, Turkey

Elif Akçay
https://orcid.org/0000-0002-2566-7288
Maltepe Üniversitesi, Turkey

ABSTRACT

This study argues that AI technologies, as exemplified by DeepSeek, must be examined not only in terms of economic efficiency and cost advantages but also through the lenses of data ownership, surveillance, ethical responsibility, and global inequalities. Rather than adopting a merely critical perspective, the study embraces a critical stance to analyze the societal implications of DeepSeek and similar AI applications. It draws upon current academic research in critical theory, political economy, and communication studies to explore how the rapid adoption of AI is deeply intertwined with broader social, economic, and political dynamics. In this context, the future of AI is not merely a technological issue, but a normative one, the protection of data privacy, the design of systems for the public good, and the fair distribution of benefits must be safeguarded through democratic governance. The impacts of DeepSeek and similar systems will ultimately be shaped by how these fundamental questions are addressed.

DOI: 10.4018/979-8-3373-2960-4.ch006

INTRODUCTION

The emergence of DeepSeek, a Chinese artificial intelligence company offering low-cost, open-source large language models, marks a turning point in the global AI landscape. Following the release of its R1 model in January 2025, DeepSeek's mobile AI assistant quickly topped app store rankings within days, surpassing OpenAI's ChatGPT. This rapid success triggered stock selloffs among major U.S. tech companies as investors began to reassess the dominance of Western AI providers. Far from being a straightforward tale of technological triumph, the rise of DeepSeek brings urgent and critical questions to the forefront. Who controls the data and infrastructure that support such AI applications? What are the ethical implications in terms of privacy and surveillance? How might these systems transform democratic flows of information and the public knowledge sphere? And how do geopolitical asymmetries—such as China's advantage in AI development due to data-rich platforms like WeChat—shape this process?

This chapter addresses these issues through a political economy framework that foregrounds power, inequality, and governance, adopting a communication and information science perspective. Rather than merely adopting a critical viewpoint, the chapter takes a critical stance to analyze the social implications of AI applications such as DeepSeek. The main themes include: (1) ethical challenges such as data privacy, surveillance, and security vulnerabilities; (2) impacts on access to democratic information and the public sphere; and (3) competitive advantages shaped by geopolitical and infrastructural factors. Furthermore, the chapter draws on contemporary academic research from critical theory, political economy, and communication studies to understand how the rapid adoption of AI is interwoven with broader social, economic, and political dynamics.

Although AI applications are often portrayed as a technological "revolution" or a sudden leap forward, they are, in fact, products of a socio-technical transformation arising from the evolutionary deepening of digital infrastructures. A core misunderstanding lies in framing AI merely as a "tool" or a technical system. Technologies, however, are not just technical objects; they are also regulatory forces that shape social relations (Winner, 2020). In this context, AI constitutes the institutionalization of cybernetic rationalities—such as control, automation, and predictability—within the digital ecosystem. These systems evolve not only through increased computational power, advanced network infrastructures, or software architectures, but also through political-economic decisions, regulatory frameworks, cultural norms, and ethical concerns. Sheila Jasanoff's concept of "co-production" becomes crucial here: technologies like AI are shaped not only by scientific knowledge but also by social values and institutional power relations. Technologies are co-produced with society; and society is simultaneously reconfigured through technologies (Jasanoff, 2004).