

Chapter 1

Embedding Artificial Intelligence into Archival Data Governance: Opportunities, Challenges, and the Chinese Experience

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ABSTRACT

Archival data governance stands at a pivotal crossroads, where technological advancements intertwine with the complexities of societal values and institutional frameworks. This study delves into the integration of AI into archival data governance, with a focus on the Chinese context. While AI unlocks opportunities for enhancing the value and utility of archival data, optimizing management workflows, and re-imagining service paradigms, it simultaneously raises issues such as trust deficits, ethical dilemmas, and the erosion of human subjectivity. Against this backdrop, this chapter examines the tensions between technological innovation and institutional lag, proposing strategies to fortify data quality, align governance practices with ethical imperatives, and foster collaborative governance across diverse stakeholders. By situating archival data governance within the broader spectrum of national modernization and intelligent governance, this chapter illuminates a pathway for harmonizing technological potential with the enduring principles of trust, equity,

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and human-centered development.

INTRODUCTION

Through the swift rise and boundless reach of new-generation information technologies, the era of big data has surged forward, reshaping the world with unmatched force. In 2015, China introduced the “National Big Data Strategy,” marking a significant milestone in its commitment to harnessing the potential of data. Further consolidating this focus, the Central Committee of the Communist Party of China and the State Council issued the *Opinions on Building a More Complete System and Mechanism for the Market-Oriented Allocation of Factors* in April 2020, designating data as a novel production factor. This directive emphasized fostering a data-driven economy by advancing government data sharing, enhancing the value of societal data resources, and strengthening data integration and security measures. These initiatives underscore the irreversible trajectory of big data development, both within China and globally.

Archives, as strategic resources, serve as a fundamental pillar for supporting various endeavors of the Party and the state. In alignment with the demands of the big data era, archival practices have undergone significant transformation. Both *The Outline of the 13th Five-Year Plan for the Development of the National Archival Undertaking (2016–2020)* and the *14th Five-Year Plan for the Development of the National Archival Undertaking (2021–2025)*, issued by the National Archives Administration of China, emphasize the profound influence of the national big data strategy and the “Internet +” initiative on archival concepts, technologies, methods, and models. These plans advocate for exploring the integration of electronic archives with big data initiatives, alongside establishing frameworks for managing electronic records, ensuring data openness, and safeguarding security. Moreover, they highlight “archival data governance” as a pivotal area of research, aiming to seamlessly integrate archives into the national big data strategy. In this evolving technological landscape, the complexity of archival data governance has grown significantly, and the full realization of archival data value increasingly depends on technical innovations.

The archival departments of European and American countries have also issued various policies to encourage active exploration of artificial intelligence applications in archival practice (as shown in Table 1). At the same time, the risks associated with artificial intelligence in archival applications are also taken into account in order to pursue a balance in artificial intelligence governance.

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