Chapter 9
Leveraging MIS Technologies for Preserving India's Cultural Heritage on Digitization, Accessibility, and Sustainability

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ABSTRACT

Written documents, inscriptions, and artefacts have been left behind by India's long and eventful past, providing a wealth of essential information about the country's cultural legacy. India's history spans many millennia, making it one of the world's oldest civilizations. However, given the fragile nature of these old materials and their widespread distribution across the world, preserving and gaining access to them can be a difficult and time-consuming endeavour. This study investigates the application of management information system (MIS) technologies with the goal of enhancing digital archiving and preservation techniques for India's immense cultural heritage in order to overcome the challenges described above. The research endeavours to provide solutions to problems that arise in relation to the maintenance and accessibility of historical documents and artefacts by centering its attention on digitalization, data management, and cloud storage.

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1. INTRODUCTION

The history of India extends back over many centuries and include a great number of written records, inscriptions, and artefacts that provide light on the country's rich cultural past (Tripathi & Al-Shahri, 2023). However, the delicate character of historical materials, in conjunction with their geographical dispersion, provides considerable hurdles to both the preservation of these resources and their accessibility (Ocoró et al., 2023). This study investigates the potential for Management Information System (MIS) technologies to revolutionise digital archiving and preservation strategies, thereby ensuring that India's cultural heritage will be preserved for future generations (Vashishtha & Dhawan, 2023). This research was conducted to address the challenges that have been mentioned (Ahmad & Sharma, 2020).

The process of digitising historical records is going to be the primary focus of this investigation (Srinivas et al., 2023). The procedure entails the application of cutting-edge imaging techniques, Optical Character Recognition (OCR), and data validation in order to guarantee the correct reproduction of tangible historical records while maintaining the original documents' authenticity and integrity (Priscila et al., 2023). This shift from physical to digital formats not only improves the long-term preservation of these delicate items but also makes it easier for scholars, historians, and the general public to gain access to a greater amount of information (Vashishtha & Kapoor, 2023).

The lifespan and accessibility of digitised historical records are dependent on effective data management and storage practises being put into place (Venkateswaran & Viktor, 2023). This chapter examines the significance of effective data organisation, the generation of metadata, and quality control techniques in order to facilitate effective retrieval and to guarantee the integrity of the data (Kuragayala, 2023). Cloud-based preservation solutions are being considered as a potential perfect platform for safely preserving India's historical archives due to their scalability, accessibility, and redundancy (Venkateswaran et al., 2023). This research investigates the design and development of user-friendly interfaces with the objective of simplifying the process of searching for and navigating through historical documents in the interest of increasing user accessibility (Said & Tripathi, 2023). These user interfaces improve the overall user experience, which in turn encourages increased involvement with India's cultural legacy, which in turn fosters a deeper understanding and appreciation of the country's past (Tambaip et al., 2023).

However, the preservation of India's cultural heritage through digitization gives rise to legal and ethical considerations (Ramos et al., 2023). This chapter critically examines the implications of copyright, intellectual property, and ethical concerns related to digitization and data sharing. A delicate balance must be struck between the principles of open access and responsible preservation, taking into account the rights and responsibilities of all stakeholders involved.

2. LITERATURE REVIEW

Cultural heritage, encompassing both tangible and intangible expressions, has gained prominence since the mid-20th century, spurred by organizations like UNESCO, which articulated its definition during the 1972 Convention for the Protection of World Cultural and Natural Heritage. This definition, acknowledging the evolving nature of cultural heritage, reflects changes in conservation paradigms influenced by global developments (Vecco, 2010 & UNESCO). Heritage knowledge, the legacy inherited from the past, is transmitted through oral tradition and written mediums such as songs, poems, and philosophical