Preserving India's Rich Dance Heritage: A Classification of Indian Dance Forms and Innovative Digital Management Solutions for Cultural Heritage Conservation

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Deep connections exist between dance and cultural heritage. Dance is frequently passed down through generations as an essential component of a culture's identity and as a means of maintaining and honoring that culture's distinctive traditions and customs. A culture's history, beliefs, and values can be powerfully expressed via dance, which can also be used for communication and storytelling. For the purpose of protecting and promoting India's cultural legacy, it is crucial to comprehend how Indian dance styles are categorized. This paper proposes a hybrid Convolutional Neural Network (CNN) and Recurrent Neural Network (RNN) deep learning approach for the accurate classification of Indian dance style categories. The proposed model combines the strengths of both CNN and RNN to leverage spatial and temporal information, respectively, resulting in enhanced performance and improved accuracy. Extensive experiments were conducted to evaluate the performance of the proposed approach. The results demonstrate that the hybrid CNN-RNN model achieved an impressive accuracy of 97.74%, outperforming traditional methods and single-model architectures.

Keywords: *CNN, computer vision, cultural heritage, dance classification, deep learning, RNN*