Preserving Cultural Imprints Leveraging Non-Fungible Token for Secure and Transparent Artifact Protection through Blockchain

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Cultural Imprints such as arts and artifacts hold an important significance in connecting a community that shall embody itself with its previous generation to hold pride and relate in stories; it's a form of a symbol to remember and relate themselves to their ancestors. In the current decade where technology limps on, certain connections with our Ancestorial Imprints are found to be impending, upon which pride, ally identity and knowledge preservations are leaned. Certain conservatives fanatical in their imprints collect artifacts through illegal trading, thus leading to dysfunctionality in retention of knowledge. The illegal trade of these cultural artifacts which hold significance in history has led to the loss of invaluable heritage, artifacts often culminate up in private collections or the black market. Preserving cultural artifacts which hold a major significance in the ancient imprints of the yonder humanity has been an enormous issue, as illegal trade thus auctions in black market have amplified suggestively. Many historical relics which have been excavated from sites end up in private collections, depriving the public and future generations of their cultural heritage. Traditional initiatives to illegal artifact trading like the international treaties the UNESCO 1970 convention and UNIDROIT 1995 which have not been met successfully. These measures remain largely reactive, relying on state cooperation and extensive legal processes, often failing to prevent illicit trade at their first crackle. In order to tackle these issues, the proposed system uses Blockchain Enabled Decentralized Preservation Model (BDPM); each artifact can be digitally scanned via High resolution Scanning techniques and Multimedia encoding techniques for generating distinct 3D- identity modeling and this creates a verified digital twin afterwards. These liabilities are tokenized into distinct Non-Fungible Token (NFT), with metadata such as historical context, place of origin, relative finds etc. This initiative provides a comparative analysis of blockchain based and traditional factors for Integrity, Transparency, Access Latency and Authentication with ownership likely by Inter Planetary File System (IPFS) which is used to safe guard off-chain resources in public chain where tokens are placed. The proposed approach can help in curbing the transaction illegal by combining innovation and preserving heritage that can be accessible for generations to unlock their novices.

Keywords: *3D-Identity modeling; Blockchain Enabled Decentralized Preservation Model (BDPM); Inter Planetary File System (IPFS); Non-Fungible token*