Review of: "The Use of Generative AI in an Interdisciplinary Approach for Cultural Preservation"

Ahlam Bavi[1]

1 University of British Columbia

In his work, "The Use of Generative AI in an Interdisciplinary Approach for Cultural Preservation," David Graham presents a captivating exploration of how Generative Artificial Intelligence (AI) can play a pivotal role in safeguarding and perpetuating culturally significant objects and assets. The paper introduces a comprehensive process that involves the digital transformation of physical cultural assets, seamlessly integrating them into a digital landscape or metaverse, thereby ensuring their preservation and dissemination in an ever-evolving digital world.

The article boasts a well-structured composition, commencing with an abstract that concisely encapsulates the core essence of the paper. It delivers a lucid overview of the interdisciplinary approach, underscoring the paramount importance of technology in upholding cultural heritage through digital representation. Graham adeptly outlines three fundamental steps in the process: Capture and Digitization, Curation, and Dissemination, and proceeds to delve into each phase with remarkable depth and clarity.

The discussion pertaining to the technological methodologies employed for capturing and digitizing cultural assets is both informative and illuminating, encompassing cutting-edge techniques such as photogrammetry, NeRF, and LiDAR scanning. The curation process is aptly defined, highlighting the criticality of appropriate metadata tagging and traceability to preserve the authenticity and provenance of these invaluable assets. Furthermore, the author expounds on the potential of dissemination through decentralized networks and marketplaces, thereby fostering accountability and responsible usage of these assets.

The article also introduces practical use cases, drawing attention to Iceland as an exemplary focus. The paper effectively illustrates how this innovative approach can be applied to safeguard the cultural heritage of Iceland through digital representation. Particularly intriguing is the concept of creating digital twins of cultural assets and integrating them into real-time feedback loops, which promises to revolutionize maintenance and preservation endeavors.

Graham enriches the narrative with insightful discussions on the challenges and risks associated with generative AI, including concerns over adulterated provenance and appropriation. The author conscientiously emphasizes the ethical imperative of preserving unique cultural attributes responsibly. The paper concludes on an optimistic note, presenting a visionary outlook on the future of technological anthropology in the realm of cultural preservation.

In summary, "The Use of Generative AI in an Interdisciplinary Approach for Cultural Preservation" is an exceptionally well-researched and thought-provoking article that offers invaluable insights into the vast potential of Generative AI in

safeguarding cultural heritage. The author masterfully presents a holistic approach, fortified by practical examples, while diligently addressing the ethical considerations inherent in the adoption of generative technologies for cultural preservation. With its clarity, visionary perspective, and pragmatic approach, this paper stands as a commendable and significant contribution to the field of digital preservation and cultural heritage.