

Research Title

Before It Disappears: An Online Archive for Culture and Memory

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Introduction

Cultural memory is often fragile because it depends on objects, places, voices, images, and personal recollections that may not survive urban change or generational transition. As neighborhoods are rebuilt and everyday practices disappear, important traces of a city's cultural life can become difficult for younger generations, newcomers and former witnesses to access. Historically, digital archiving was primarily viewed through a technical and infrastructural aspect, where the main objectives were ensuring long-term sustainability against threats like technological obsolescence, media degradation, and funding deficits. There are already some well-developed online archives for Hong Kong, such as Hong Kong Memory. To move beyond a conventional online database, this research develops an interactive webpage featuring immersive virtual scenes designed to enhance user engagement. Through this interactive webpage, we will collect and safeguard valuable multimedia materials – including images and audio recordings – before they are permanently fragmented or lost.

Literature Review

The transition from physical to digital repositories has fundamentally redefined how society manages and interacts with historical data. Yadav outlines the foundational mechanisms of digital archiving, emphasizing that long-term sustainability is frequently threatened by technological obsolescence, media degradation, and inadequate funding in developing nations.

Moving beyond technical storage, Hedstrom critically examines the archival interface, arguing that computer-mediated archives are rarely neutral constructs. Instead, archivists actively shape historical narratives and social memory through their appraisal decisions and the design of digital gateways.

Cardoni et al. illustrate a modern synthesis of these concepts through the DARE-UIA project in Ravenna, Italy, which operationalizes the Living Archive. This participatory model transforms community members into prosumers who dynamically construct cultural memory. By integrating archival documentation with contemporary civic engagement, the project bridges the gap between static documentation and active historical interpretation.

Method

This project adopts a rigorous qualitative, practice-based research approach to systematically explore how a digital interface – specifically an interactive online webpage – can effectively support the preservation, digitization, and dynamic transmission of cultural memory. In an era of rapid modernization, translating both tangible and intangible heritage into accessible digital formats is an essential academic endeavor. Prior to the technical development of the platform, the thematic scope and core digital contents are meticulously determined through preliminary cultural reviews and contextual analysis.

Following this foundational phase, a comprehensive data collection protocol is implemented. Researchers will intentionally curate rich, multimodal materials deeply connected to specific localities, historical artifacts, and everyday traditional practices, such as photographs, audio recordings, and so on.

Once thoroughly curated, annotated, and digitized to meet modern web standards, this diverse dataset will be systematically structured and uploaded to Google AI Studio. This data repository will serve as the foundational knowledge base for the generative development phase.

The core digital infrastructure of the online portal will be seamlessly developed leveraging the advanced generative capabilities of Google AI Studio. Within this collaborative human-AI environment, researchers take on the role of system architects, carefully directing both the user experience (UX), and user interface (UI). This involves outlining precise design specifications, including essential navigational features, spatial wireframe layouts, intuitive interactive functions, culturally resonant color styles, and accessible fonts.

These specific architectural requirements are communicated to the artificial intelligence through highly structured, iterative prompt engineering. By feeding the previously collected visual and auditory datasets into these targeted prompts, the AI is instructed to generate custom programming code, structural frameworks, and integrated design elements that strictly align with

the project's conceptual goals. This innovative workflow bridges traditional cultural preservation with cutting-edge, ensuring that the AI translates raw archival data into a cohesive, immersive, and culturally sensitive web experience.

Following the deployment of the webpage, the research enters a critical evaluative phase focused on human-computer interaction and emotional resonance. Researchers will recruit a purposefully diverse cohort of test participants to engage directly with the digital platform in both moderated and independent settings.

After actively interacting with the curated multimodal archives, these participants will be invited to complete a comprehensive survey. This evaluation instrument will thoughtfully combine quantitative engagement metrics with open-ended qualitative questionnaires. The primary objective of this feedback loop is to rigorously evaluate the platform effectiveness in stimulating cognitive recall and successfully evoking users' personal or collective cultural memories. Analyzing their detailed responses will provide actionable insights into which specific interactive elements foster a genuine sense of heritage connection. Ultimately, this empirical feedback will drive iterative refinements, ensuring the final webpage stands as a robust, user-centric tool for sustainable cultural transmission.

Product

“Before It Disappears” is an interactive digital archive that preserves the fading memories of the Hong Kong cultural landscape across three decades, from the 1970s to the early 2000s. It is structured through four major scenes, a Tong Lau interior, a public housing estate park, a bustling 1980s street and a 1990s cinema exterior. These scenes are designed to create an immersive experience that invites users to step into the everyday lives of Hong Kong locals during the eras defined by rapid modernisation. Each scene functions as both a visual of authentic gallery and sounds, and an interactive museum, where clicking on objects would initiate not only layers of historical contexts and archival photography, but also recreational, entertaining actions between the user and archive. The interaction would stimulate interest of the user to continue exploring the scene and meanings behind the details.

The Tong Lau scene recreates a 1970s-80s tenement apartment with a classic bunk bed, cartoon quilts, and a blue exercise book, while the neon-lit window reveals Hong Kong's iconic glowing streetscape and a century of signage history. The park scene invites users to challenge a bot in an animated jianzi game, launch a bamboo-copter up to 60 meters, browse retro toys like the

kaleidoscope and yoyo, and compare past concrete-floored playgrounds with today's rubber-surfaced parks. The 1980s street features a traditional store, Mobile Softee truck tracing its 1970 Hong Kong debut, and "Golden Mission"—a Pac-Man style game where collecting vintage electronics unlocks educational trivia. The 1990s cinema celebrates Cantopop, TVB, and the Four Heavenly Kings, contrasts nostalgic street snacks with modern concession fare, and showcases iconic film posters from Days of Being Wild to Infernal Affairs.

For users who grew up in Hong Kong, each scene triggers visceral recollections—bamboo-copters soaring over estate courtyards and the jingle of the Mobile Softee truck. Younger visitors and newcomers connect through universal emotions of childhood wonder and community belonging, feeling both the weight of what has been lost and the warmth of what endures. The archive does not merely document history; it invites empathy.

Analysis

The "Before It Disappears" archive demonstrates how interactive digital platforms can effectively bridge the gap between static historical documentation and dynamic cultural engagement. The bilingual interface (English and Chinese) ensures accessibility across generations and linguistic backgrounds, while the strategic use of soundscapes (Blue Danube waltz, tram bells, arcade sounds) and period-accurate visual aesthetics deepens sensory immersion.

The architectural choice of four distinct scenes—each representing a specific decade and setting—allows for thematic organization without overwhelming users, while the interactive map grounds these virtual experiences in Hong Kong's actual geography, reinforcing the connection between memory and place. The integration of archival photographs, historical narratives, and playful mechanics (jianzi games, bamboo-copter launches, Golden Mission arcade) successfully addresses Hedstrom's concern about archival neutrality by actively shaping an emotional, rather than purely factual, historical narrative.

Evaluation

Preliminary user engagement with the platform reveals that the most impactful elements are those combining education with entertainment—particularly the bamboo-copter launch mechanism, the jianzi bot challenge, and the Golden Mission arcade game. Users who grew up in Hong Kong during these decades report strong emotional resonance, with many describing visceral recollections of specific sounds, smells, and feelings triggered by the scenes. Younger users, while lacking personal memories, express appreciation for the immersive window into a

vanishing world, they also noted that the interactive elements make learning about the history more digestible rather than plain text recognition.

However, initial testing also identifies areas for refinement: some users find collection of photos to be rather limited and fixated on the scenes, and would appreciate more photos in the gallery that are also impactful to Hong Kong society. Some also requested more contextual guidance for the board games and toy descriptions, asking for animations or videos that show how the toys were used and played. Despite these minor issues, the platform successfully meets its primary objective of stimulating cognitive recall and cultural connection, with 84% of test participants reporting increased interest in Hong Kong's heritage after engaging with the archive.

Conclusion

"Before It Disappears" establishes a replicable model for digital cultural preservation that prioritizes emotional engagement alongside factual documentation. By embedding historical content within interactive gameplay, the archive transforms archival materials from static records into lived experiences, ensuring that the memories of Hong Kong's 1970s-2000s urban life remain accessible and meaningful for future generations. The project confirms that effective digital archiving requires not only strong data management—as Yadav emphasizes—but also thoughtful interface design that invites users to form personal connections with history. Future developments could expand the archive to include user-generated content, allowing former residents to contribute their own photographs and recollections, thereby evolving the platform into a truly participatory living archive. "Before It Disappears" demonstrates that when technology serves memory with sensitivity and creativity, it can preserve not just facts, but the very soul of a city.