Reconstruction of cultural memory through digital storytelling: A case study of Shanghai Memory project

Fu Yaming D^{1,2}, Mahony Simon D^{3,4,*}, Liu Wei¹

¹Shanghai Library, Institute of Scientific and Technical Information of Shanghai, Shanghai, China
²School of Cultural Heritage and Information Management, Shanghai University, Shanghai, China
³Research Centre for Digital Publishing and Digital Humanities, Beijing Normal University—Zhuhai Campus, Beijing, China
⁴Department of Information Studies, University College London, London, UK

*Correspondence: Mahony Simon, Research Centre for Digital Publishing and Digital Humanities, Beijing Normal University—Zhuhai Campus, Beijing, China. E-mail: SimonMahony@bnu.edu.cn

Abstract

This article analyses how digital storytelling (DS) is applied to a digital humanities (DH) research project. It considers the purpose of storytelling and illustrates its use to help to democratize the wider project by including diverse voices and helping to reconstruct cultural memory. How can DS be used as a critical research method to help develop a robust methodology in DH research, particularly for organizing historical and cultural resources to form a story world and addressing biases in the established archival collections? This initiative is the latest phase of the Shanghai Memory project, adding an important additional dimension to the established showcase, A *Journey from Wukang Road*. Wukang Road, with many historical buildings going back to the colonial era, has important cultural significance as part of the former French Concession. Originally known as *Rue de Ferguson*, the name was changed in 1943, at the time of the Japanese occupation, seemingly as part of anti-colonial sentiment while China was being encouraged to resist her occupiers. Participation in the storytelling project is facilitated by user generated content and promotion in the Shanghai Library. The aim is to prepepte to balance that of the elites, importantly encouraging inclusion of the vernacular *Shanghainese* dialect as part of wider movements to protect local languages.

1 Introduction

From classical narrative theory, usually traced back to Aristotle's *Poetics*, to modern theories such as poststructuralism in the 1960s, narrative and the study of storytelling has always been a crucial science in literary research (Armstrong and Tennenhouse, 1993). However, the form of the narrative never matches any specific literary genre, and in its essence, any record relevant to human expression, creation, interpretation, and construction can be regarded as narrative—that is, a series of symbols and media with internal logic. It is an act of communication between the storyteller and the audience/listener.

The act of storytelling can be interpreted as a means of describing and presenting concepts or events in a logical and coherent way to easily reach the listeners and be widely disseminated. Although it may be true that a straight line is the shortest distance between two fixed points, when it comes to two people, it would perhaps be more accurate to say that a story is the shortest distance between them, something that can unite and bring them closer together, particularly if the experiences within the story are shared. Effective storytelling is based on the full participation of the self and of others, offering a mechanism for expression that resonates cognitively and emotionally among the listeners (Chaitin, 2003). As an approach to construct and express meaning, storytelling can also be seen as a process of reconstructing memory, the past as well as the culture of individuals, groups, and communities. For the audience, it can be a process of understanding and reinterpreting their lives and experiences, evoking corresponding emotions and thoughts, and spreading other related effects such as interactions and discussions among the listeners, prompting reflection and encouraging creativity (Bizzini, 2013). Storytelling is a way in which we can make sense of things, understand our world and our place in it. Telling stories also allows

[©] The Author(s) 2023. Published by Oxford University Press on behalf of EADH.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/ by/4.0/), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited.

the teller themselves to reengage with their memories, opening up those neural pathways to past emotions through episodic retrieval (Rugg and Vilberg, 2013), and perhaps find new meaning themselves; a way for the teller, not only the listener, to make sense of things (Münster *et al.*, 2019).

In the process of investigating and studying human expression and creativity, humanities scholars have always sought appropriate ways to present, reconstruct, and disseminate human narratives in different settings, and cultural memory institutions play an essential part in this. Cultural memory institutions such as galleries, libraries, archives, and museums (GLAM institutions), as repositories for the human record and creativity, possess cultural resources that are themselves collections of various forms of human narrative. They need to find appropriate ways to fully present, reconstruct, and disseminate them. Works of art tell a story, both with their content and provenance, as do the records held in archives, both local and national. Since the 1990s, the digital turn has brought about a methodological and epistemological shift in humanities research and also the practice in GLAMs (Barber, 2016; Daković, 2021). The concept and method of digital storytelling (DS), as a branch of storytelling, finds its way in creating, expressing, interpreting, and sharing stories by digital tools and new media forms. These provide new possibilities to engage narrative contents more widely, digging down to find knowledge that was always there but never before included in the story (Malita and Martin, 2010).

This study builds on previous research on the Wukang Road as part of the Shanghai Memory project.¹ It moves the research to the next planned level which is to engage with local people and to bring in their voices to help to reconstruct cultural memory. It examines how DS can support the reconstruction of cultural memory and asses its value, both epistemologically and methodologically, as a sub-part of an extensive digital humanities (DH) project. It also provides a new angle of approach to help us better understand how these methodologies can support post-colonial research within the wider picture of Shanghai's memory. This article draws on extensive published literature and reflection about DS and its relationship with cultural memory. It analyses how DS as a technique is applied to encourage and facilitate cultural memory reconstruction as part of the Shanghai Memory project, hosted at Shanghai Library.

2 Literature review

2.1 DS as democratization of culture

From the perspective of media evolution, human expression and narrative have gone through four key stages: the oral age, the chirographic age, the print, and the digital age (Ryan, 2004). 'The medium is the message', as the communications theorist Marshall McLuhan claimed; 'the personal and social consequences of any medium [...] any extension of ourselvesresult from the new scale that is introduced [...] or by any new technology' (McLuhan, 1964, chapter 1). Storytelling, with its roots in the pre-literate oral tradition, as one of the primary forms of human expression, depends heavily on the medium, and the evolution of media driven by technology constantly provides new forms and possibilities for expressing, creating, delivering, and sharing stories. 'Narratives are everywhere. We tell narratives about ourselves, and we make the world meaningful through storytelling. We position others through the narratives we tell and are positioned by stories told about us' (Forchtner, 2021, p. 314).

The theory and practice of DS have been developing steadily since the 1990s thanks to the development of the interactive web, with its possibilities for usergenerated content (UGC) and participation, and the advancement of multimedia technology. The concept of DS was first conceived and developed in the field of media, with a focus on audio-visual story creation using digital media (Lambert, 2018). Following this, ideas and practice extended into multiple fields such as public history (Burgess and Klaebe, 2009), and education (Robin, 2008), where there is a close relationship with human narrative. These fields discussed the possibilities for DS as they encountered the digital turn which prompted the move from traditional storytelling approach and techniques into the digital sphere and brought about epistemological as well as methodological shifts (Noiret, 2018). In the media field, it first got attention in popular movements using multimedia digital tools to help ordinary people tell their stories and has since been used in journalism and media studies to refer to various emerging forms of DS. In public history, the reproduction and reconstruction of historical memories generated through the use of DS can be seen as an important addition to both official and private collections concerning local communities (Conrad, 2013). In education practice, it is regarded as an effective teaching tool for enhancing the interaction between students and teachers, encouraging dialogue between the two, and helping students understand important concepts and knowledge (Robin, 2008; Smeda et al., 2014).

DS, understood here as a movement or method for creating, expressing, interpreting, and sharing stories and personal experiences with the use of digital tools and new media forms, has been viewed as a *democratization of culture* (Burgess, 2006). As both consumers and participants of mass media, people publish, share, and disseminate their daily life, experiences, personal

stories, and all kinds of subjective reflections through digital means, all of which can be seen as typical DS practice. These reflections are then transformed into the public domain through social media, becoming part of the mass culture; therefore, DS is regarded by many media researchers as an important way of embodying folk creativity with the assistance of new media forms (Burgess, 2006). From the perspective of media research, the act of storytelling itself can be closely related to the expression of social rights and unequal power distribution; the act of storytelling in traditional media channels often lacks the ability to fully represent society, thus the emergence of DS is argued by some be a part of social justice movements that challenge the power of the mainstream discourse (Canella, 2017). As Castells (2011, p. 773) argues, 'wherever there is power, there is [what he calls] counterpower', and DS can be used as a powerful tool in the 'ways in which narratives are crafted and [...] the struggle over how dominant paradigms are established, reinforced and [also importantly, how they are] resisted' (Canella, 2017, p. 26).

Researchers in public history and archival fields have adopted DS to explore and gather individual and collective memories of the marginalized, the minority, the overlooked, and forgotten (Burgess and Klaebe, 2009). The production and reconstruction of collective and cultural memories generated through DS practice is treated as an important complement to formal and informal historical collections (personal and family archives) (Burgess, 2006; Conrad, 2013). It is not the digital technology used in presenting stories that historical researchers pay most attention to; instead, they are concerned with preserving memories, increasing community interaction, and sharing historical knowledge with the support of digital technologies. For example, Bristol Stories² is a DS project run by Watershed (cultural cinema) and M Shed with support from Bristol Museums, Galleries and Archives, and Bristol City Council, in the UK; here local residents use digital technologies to produce and present storytelling materials online to form a story map of the city's history.

The underlying ethos of the project is that everybody has a story to tell, and these personal stories have an intrinsic value as a trigger for memory [...]. What lies at the heart of each story is that person's unique voice—telling us about the people, places and events that are important in their lives. (Bristol Stories, n.d.)

GLAM institutions, working with local communities, such as the above, use DS as one of their essential tools for collecting important pieces of evidence and material for preserving the memory of the community. These contain more diverse and efficient memory materials than the traditional single-form historical records used in the past, such as scattered textual archival records, undigitized old photos, untranscribed oral history materials (audio and video recordings), and so on. Despite the ongoing discourse and practice of DS in education, history, and media research, its theory construction in DH and its practice in GLAMs are still at an exploratory stage. Nevertheless, it has been suggested that DS can be repurposed for DH research as a new way of thinking and approaching research, and for updating the DH paradigm epistemologically and methodologically (Barber, 2016). DS provides new opportunities for DH as both academic fields seek to encourage dialogue, make the world comprehensible, and discover new ways of interaction with the support of digital tools (Barber, 2016). DS, as part of the research toolkit, can also serve as a bridge between cultural heritage and DH with 'space and time as shared concept[s]' (Münster et al., 2019, p. 814). DS helps us to analyse cultural heritage with the historical and cultural background that is linked to it. Repurposing ideas from Mikhail Bakhtin's theory of Chronotope, the dispersed semantic elements that appear in the stories embedded in cultural heritage can be structured based on the dimensions of time and space (Lawson, 2011). DH methods provide semantic tools such as Resources Description Framework and linked open data to structure the cultural heritage data and so that stories can be retold in temporal and spatial dimensions. The digital method is also claimed to be useful in activating audience participation, which also brings additional value (Münster et al., 2019). As an important source of materials with research potential, cultural heritage collections preserved in GLAMs provide DH practitioners with great potential to reconstruct knowledge and cultural information, add new possibilities to their scholarship, discover hidden knowledge, and support knowledge creation with audience participation through the lens of DS.

2.2 From collective memory to cultural memory

Memory is dynamic and complex to analyse. There are many derivations of memory concepts, such as collective memory, social memory, cultural memory, public memory, and so on, which demonstrate the diverse principles, scope, and layers involved. Maurice Halbwachs proposed the concept of *collective memory* by analyzing the three sociological categories, which he described as family, religion, and class; and specified the oppositional relationship between individual memory and collective memory: 'autobiographical memory' and 'historical memory' (Halbwachs, 1980, p. 50). He asserted that individual memory not only impacts on shaping a person's identity, but also the way in which they respond to their society; in addition, despite the effects of individual memory, collective memory evolves within its own pattern, and any personal memories can potentially be changed and

transformed in this process without any awareness (Halbwachs, 1980). Also, individuals 'extend [their] family memory in such a way as to encompass recollections of [their combined] worldly life' (Halbwachs, 1992, p. 81). Consequently, an important function of memory within society is that it brings people who share similar memories together; that is in the collective memory which forms a part of the bonds 'based on social union' that strengthen the ties of association and common interest within the community (Tönnies, 2001, p. 131). Additionally, Halbwachs claimed that memory not only exists in the private and individual realm, but collectively at a societal level with the definition and formation of relationships in social networks (Halbwachs, 1992). Recollections of memory may differ between individuals, but they help us to understand ourselves within our shared cultural context. In addition, spatial elements (places, locations, roads, architecture, and so on) play an important role and act as triggers in the construction of social and cultural memories (Stanković, 2014).

In this project, we follow cultural memory theory from Assmann and Czaplicka where cultural memory connects the three aspects of 'memory (the contemporized past), culture, and the group (society)', emphasizing the different ways in which communities form their cultural understanding over the course of their history (Assmann and Czaplicka, 1995, p. 129). Moreover,

what is stored in historical archives is materially preserved and catalogued; it becomes part of an organizational structure, which allows it to be easily sourced. [...] The archive, therefore, can be described as a space that is located on the border between forgetting and remembering; its materials are preserved in a state of latency, in a space of intermediary storage. (Assmann, 2008, p. 103)

To interpret the inert knowledge hidden in the memory archives, it can be inspected and reclaimed by situating it in a new memory context (Assmann, 2008). Moreover, the feelings experienced in places that carry the passage of time and historical events are more vivid than those experienced by reading. The physicality of place combined with personal history and experience can trigger powerful emotions. Moving through a space 'at a particular time, in a particular way [...] might deepen our understanding of human interaction with [that] place more broadly. It means communicating these things meaningfully as stories or arguments' (Dunn, 2019, p. 156).

3 Method

This article examines how DS has been used as a critical research method in the DH project *A Journey from Wukang Road*, initiated by Shanghai Library.

The site of Wukang Road and its associated buildings, the celebrities that lived there, the historical events, and other recorded knowledge are the research objects. The project uses knowledge organization methods, linked data, and UGC to extract, link, and create narrative elements and relevant details about people, events, activities, and historical changes. It also explores DS as a DH research method and discusses its uniqueness and value in DH research compared with its application in other fields. The data in this project are pulled from the extensive library resource collections, including newspapers, old photos, books, maps, videos, and audio recordings. Through a discussion forum, users are encouraged to input information about their stories, memories, and thoughts about Wukang Road and its history. This constitutes the UGC part of this project. In this way, the project aims to reconstruct and restore the historical evolution of Wukang Road over more than 100 years.

By using Semantic Web technologies, the wider project has constructed a data infrastructure that supports the knowledge organization and presentation of the city memory. The knowledge organization method combines the Bibliographic Control and Authority Control of the library along with the technical ontology proposed by W3C providing an implementation scheme (Xia et al., 2021). The implementation of the semantic technologies, knowledge organization, integration, and the data stack is comprehensively described in an earlier publication, which is openly accessible, by the team at Shanghai Library.³ Through describing the relationships between the different types of sources and resources, the ontology creates the necessary connections to achieve their integration across the various institutional fields (Fig. 1). By organizing cultural resources based on their narrative elements, the evolutionary history of Wukang Road can be reconstructed with a more complete and clear story line. In addition, it also engages citizens by having them upload photos and personal accounts of their own individual memories and experiences of the road; this creates or rather restores a rich picture of diverse voices from the community and challenges the established historiography.

Building on the previous scholarship on Wukang Road, this project adds an additional dimension and explores how DS as a primary research method is used to reconstruct the cultural memory of Wukang Road. The project borrows the essential concepts in storytelling and narrative research including *storyworld*, characters, plot, and narrative structures (Roine, 2019) and uses them for the construction and delivery of our resources related to Wukang Road. These are then displayed through digital techniques, such as the worldbuilding on the user interface, the timeline tool, and

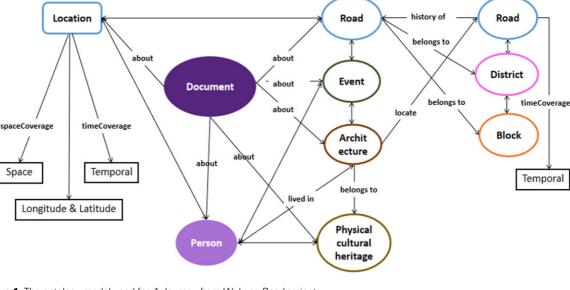


Figure 1. The ontology model used for A Journey from Wukang Road project

image gallery. In building the project, 'while the author creates the storyworld through the production of signs, it is the reader, spectator, listener, or player who uses [...] a finished text to construct a mental image of this world.' (Ryan and Thon, 2014, p. 3). The project website is constructed with the goal of evoking users' memory of Wukang Road by organizing the historical elements into a storyworld with persons, events, architecture, and other related objects that witnessed the evolution of the road (Fig. 2). Space and time as dimensions are consciously used to reorganize historical materials and retell the story by digital means (Dunn, 2019; Münster *et al.*, 2019).

Through the process of collecting, organizing, storing, linking, and displaying historical and cultural information with the support of digital tools, this project is in essence a process of attaching consciousness and various perspectives to the past. It supports inference from the existing resources to supplement and discover hidden and unlocked knowledge by using the memories of the people connected with it. Knowledge that was always there but that has never before been recognized or included in the story.

4 A case study of the Shanghai memory project

Wukang Road, situated in the former French Concession of Shanghai (Fig. 3), is well known as the home of many historic buildings going back to the colonial era, with each one having its own unique cultural and historical story. This road, 1.17 kilometre in length, includes thirty-seven government-protected historical buildings and has witnessed the lives of over 200 celebrities, reflecting the style and features of the *old Shanghai* (Street Stories-Wukang Road, 2018) (Fig. 4). A centrepiece of the Shanghai Memory project is *A Journey from Wukang Road*,⁴ which is tasked to explore its historical evolution over more than 100 years. It does this by using the historical resources and collections pertaining to Wukang Road and its related history, held primarily in Shanghai Library, and the memories of people connected with it.

At the top level, the *Shanghai Memory* project brings together many aspects of memory construction as part of a comprehensive programme of cultural heritage management to reshape the history of the city (Xia *et al.*, 2021). The wider project identifies the material culture embedded in heritage objects and, supported with sources, makes 'literature the historical witness for the material cultural heritage objects themselves' (Xia *et al.*, 2021, p. 844). The focus of the formal literary accounts (presumably shaped by the elites), however, is very different from the more personalized experience of the citizens, or in other words, the history of the people.

This DS project derives ideas from Bakhtin to build a narrative Chronotope that organizes the dispersed semantic elements and diverse types of materials (old photos, buildings pictures, audio recording of *Shanghainese*, and textual information) that inform the history of Wukang Road and arrange them in the dimensions of time and space to give the users a quick and easy way into the story (Lawson, 2011). In addition, the project website was built to bring together the three dimensions of memory (the conteporized past), culture, and the group (society) to organize and

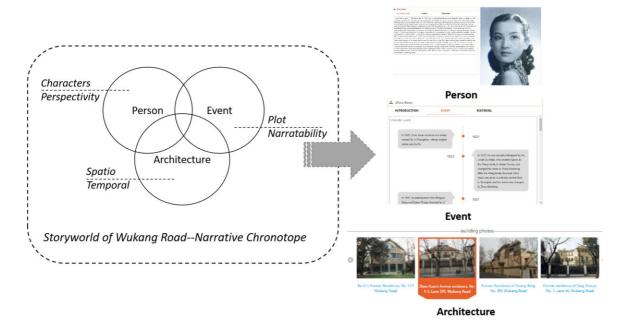


Figure 2. The Storyworld of Wukang Road



Figure 3. A map of Shanghai showing the former French Concession Source: Jonipoon, CC BY-SA 3.0 via Wikimedia Commons. https://commons.wikimedia.org/wiki/File : FormerFrenchConcessionMap.jpg.

Downloaded from https://academic.oup.com/dsh/advance-article/doi/10.1093/llc/fqad044/7208045 by Beijing Normal University user on 28 June 2023



Figure 4. Map detail showing Wukang Road and points of interest there Source: Shanghai Xuhi, District People's Government, https://www.sohu.com/a/500361662_121124215.

construct resources as proposed in the theory by Assmann and Czaplicka (1995). The buildings themselves are monuments to the formal history as part of the urban cityscape, and the 'road is the smallest unit of urban geography [while] another focus of urban memory is the space-time structure' (Xia *et al.*, 2021, p. 849). Deriving thinking from postcolonial studies around critical 're-reading' and 're-writing' of the colonial past along with the continuing effect of memory (Ashcroft *et al.*, 2002, p. 221), the project recognizes and tells the holistic story of the past.

4.1 Historical context

Wukang Road itself has deep cultural significance within the historical context of Shanghai and particularly concerning the Western colonial powers. It is arguably symbolic as a part of throwing off the dominance of the Europeans. Hence, the voice of the Shanghai people is important and particularly so for Shanghainese which was the dominant language in the region before it was replaced by Mandarin as the official language of China in 1949 (Chen and Gussenhoven, 2015). Despite the dominance of Mandarin, the vernacular Shanghainese remains popular among locals as a way of confirming their identity as indigenous people (Shen, 2016). The naming of cities, towns, streets, and urban districts has a strong political impact; renaming them 'have long been key strategies that different political regimes have employed to legitimize spatial assertions of sovereign authority, ideological hegemony, and symbolic power.' (Rose-Redwood et al., 2017, Abstract). Following the Treaty of Nanking (1842), Shanghai was divided up into the International Settlement, the French Concession, and the Chinese city, 'each operating under its own laws and regulations' (Scheen, 2022, p. 9). This was the first of a series of unequal treaties following wars with Western powers and later Japan, resulting in a significant loss of control over aspects of domestic development. Although still sovereign Chinese territory, under the treaty, the land in Shanghai was rented by the foreign colonialists 'in perpetuity' with many of the legal rights passing to the 'foreign municipal authorities' (Mou, 2012, p. 148). The colonial powers enjoyed extraterritorial privileges within these areas of Shanghai, and each maintained a court to oversee trials of their own nationals (Pratt, 1938).

Within the French Concession, Wukang Road (武康 路) was unnamed at its construction in 1907 but known locally as Rue de Ferguson, after the funder. The records suggest that it was originally constructed as a housing development by John Calvin Ferguson for staff at what is now Shanghai Jiao Tong University and soon became a fashionable home for the city's growing wealthy population (Qiao, 2015). This was part of the early Twentieth Century expansion of what is known as the former French Concession in a mainly Western architectural style (Mou, 2012) (Fig. 5). The road was shortened slightly in 1915 'when the starting point was changed from the junction with Huashan Road to the junction with Huaihai Middle Road in the south', and renamed as Wukang Road in 1943 (Xia et al., 2021, p. 849).

The year of the change of name (1943) is significant in the colonial context. In that year, France, along with Great Britain, and the USA, relinquished control of all their extraterritorial concessions in China and the French Concession in Shanghai was signed over by the French Vichy government to the pro-Japanese Wang Jingwei regime (Taylor, 2020; Strauss, 2015; HMSO, 1943). Following this, the Japanese military government and Wang signed an Agreement on the Return of the Concession and the Revocation of Extraterritorial Rights (关于交还租界及撤废治外法权之协定).



Figure 5. Route Ferguson heritage plaque in Wukang Road, building 393 (Author's image)

The renaming of many roads and apartment blocks in the French Concession was performed against this backdrop with the legitimacy of the Wang Jingwei regime not recognized or supported by many Shanghai citizens, the Kuomintang (KMT—the Chinese Nationalist Party), the Communist Party, nor the international community (Taylor, 2020). Nevertheless, the Wang regime took back administrative control of the Concession and changed the names of many roads and buildings, mostly named after foreigners, presumably to get rid of the distinctive colonial characteristics. It may have been hoped to demonstrate independence, stimulate a sense of Shanghai identity and integrity, to promote anti-colonial sentiment among the citizens as well as to gain local support for the Wang regime.

Considering the etymology and literary sources, the change of name has considerable significance and hence given attention here. A literal meaning of Wukang (武康) would be armed (or martial) resistance and coming at this particular time it would be interesting to determine who exactly it was that should be resisted. This name change would have been decided by the collaborationist Wang regime and agreed to by the Japanese and so, arguably, (overtly) resisting the colonials whilst engendering local support by (covertly) resisting the current occupiers. Looking at possible textual sources allows such ambiguity as the name could be claimed to refer to a 'hilly area' in the countryside of Zhejiang Province with scenery that looked familiar to Wukang Road.⁵ This literary connection would allow a sufficient degree of uncertainty to allow such a name as although Shanghai was officially under Chinese sovereignty effectively it was colonial Japanese rule. Further investigation of the correct interpretation is beyond the scope of this article but, nevertheless, it is pleasing to consider *armed resistance* at this juncture of Shanghai's history and the end of the (formal) French

Concession, but sufficiently concealed beneath a reference to the countryside to allow it to be accepted and convenient for it to remain after the conflict.

This renaming occurred within the Second Sino-Japanese war with Shanghai under Japanese control since 1937. Japan's military expansion around Shanghai had escalated in 1941 with attacks on the British-dominated International Settlement coinciding with their attack on Pearl Harbour (which drew the USA into direct conflict with Japan), Thailand, Hong Kong, Malaya, and the Philippines (Paine, 2012). By 1943, Japan had taken Singapore, the foremost British military base in South-East Asia, conquered Burma (Myanmar) and were on the borders of India. The Sino-Japanese war had merged with the global conflict of World War II with Japanese expansion in East- and South-East Asia inflicting a series of military defeats on the Western colonial powers; Australia was also under threat (Paine, 2012). With the Japanese fleet now occupied in the Pacific, reducing the bombing of Shanghai and the surrounding districts from their aircraft carriers, increased Chinese military activity would have had the effect of engaging Japanese troops which could otherwise have been deployed in the other theatres of conflict. It would, then, have been in the interests of the colonial powers to encourage Chinese resistance, in whatever way they could, to put pressure on the occupying Japanese forces.

Other evidence for the Western powers encouraging support from the Chinese in the conflict with Japan, and specifically as an ally of the USA, can be seen with the 1943 Repeal of the (USA) Chinese Exclusion Act. The Repeal was 'a decision almost wholly grounded in the exigencies of World War II' and was followed by new legislation allowing limited Chinese emigration under a quota system (DoS, Department of State, Office of the Historian, n.d.). The importance of this repeal was emphasized by President Roosevelt, who regarded 'this legislation as important in the cause of winning the war and of establishing a secure peace' and a move to 'silence the distorted Japanese propaganda', which was attempting to distance the USA and China (Roosevelt, 1943). Increased armed resistance from the Chinese would seem to be helpful to the Allied forces.

Wukang Road was not the only name change at that time and, as above, assigning place (and street) names is a clear political act which to a degree defines ownership. Changing the name of this and many other roads and buildings within the French and other Concessions was arguably an act of re-claiming the districts by assigning Chinese names to the former homes of the colonials. As this was done, despite Shanghai being controlled by the Japanese military, it would have made a strong nationalist statement.

4.2 Facilitating the digital narrative

DS, in this project, is used as a tool to first, organize the historical materials as narrative elements and help to create a storyworld; and second, to elicit and collect more personal accounts from the lives of everyday people, such as their old family photos, personal stories about the road, or even their perspective on the history of the road. At the time of writing, the UGC section of the Journey from Wukang Road online platform, although limited, has supplemented the existing records with additional personal photos and effective comments. Reflections and voices about the colonial past are aimed to be collected from ordinary people with the goal of displaying a diverse range of perspectives on the cultural memory, retelling the story, rebuilding a more complete picture, and including the voices that were previously neglected.

One guided road tour event was organised by the library (in April 2018) with more than thirty library users attending and they were encouraged to upload their real-time reflections about the road during the visit. The comments included, 'Beautiful architecture design', 'Midget apartments, many movie stars lived here before!' (First author's translations). These comments along with the participants' photos have been uploaded to the UGC interface (Fig. 6), where there is a consent and use notice, and are available online. In addition, the project interface is promoted within the library itself as well as on its online platform as a place for users to upload photos and comments. The project engages local Shanghai people and encourages them through the online interface, the library, and local networks to upload photos and accounts of their memories and experiences of the road. Many more events and activities such as workshops and focus groups are planned to collect local peoples' personal memories, and their family histories, with more guided tours of the road.

This shifts the stories and memories from the private to the public sphere, from 'private forms of communication and translating them into contexts where they can potentially contribute to public culture' (Burgess and Klaebe, 2009, p. 155). Using DS in this way adds additional value to the material for researchers in public history; it opens up new channels for them to collect data about ordinary people's opinions and personal narratives of their local history, and importantly allows 'the recording of oral histories' (Earley-Spadoni, 2017, p. 97). Sharing methodologies with oral history and public history, we capture voices of the common people so that the history and culture of Shanghai is democratized in the modern postcolonial era, through the reorganization and critical re-reading and re-writing of the past. Collecting these vernacular stories fills the gaps over time and gives voice to those usually unheard. This brings together what

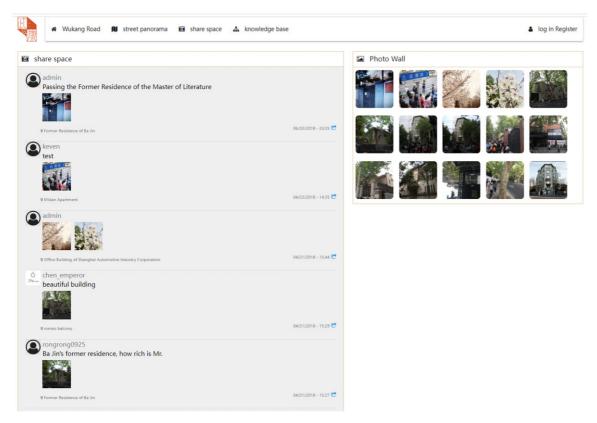


Figure 6. UGC interface to upload images and recordings *Source:* http://wkl.library.sh.cn/gallery.

Dunn (2019, p. 39) describes as the 'clear spectrum between the observation of place, the documentation of place, the transmission of that documentation, and the effect that that transmission has', with regards to the story of Wukang Road (Fig. 7).

In addition, it foregrounds the underrepresented art forms housed in the library collections (old photos, audio recordings, maps, books and manuscripts, and images of buildings in different historical periods), the places and people that constitute the history of Wukang Road. By using the memory and voices of the people, it is particularly hoped that this would help efforts to collect and preserve the vernacular Shanghai dialect, Shanghainese, and link in with the wider 'ongoing movement to "save Shanghai dialect" across academia and the general public' (Shen, 2016, p. 714). In addition, this vernacular expression can further enrich but also democratize the wider project and help to challenge the established historiography in the modern postcolonial era. In doing so, it unlocks the diverse possibilities for reconstructing its history and the expression of existing narrative materials to meet the needs of different aims, contexts, and communities.

5 Discussion

DH projects often involve research objects from multiple fields and disciplines such as humanities, history, philosophy, art, archaeology, and so on. In the process of sorting, organizing, describing, and processing these multi-sourced and heterogeneous resource objects, it is significant to extract, relate, reconstruct, and present the elements of people, places, times, and events. These are also the crucial elements for DS. The process of presenting the results of DH projects is often the process of developing stories through digital means based on the elements and their related relationships. The focus of our DS is to reorganize and present scattered materials with a considerable degree of reliability and efficiency using digital technology to reconstruct history within a certain time period. In the process of this reconstruction, a large amount of historical material is Downloaded from https://academic.oup.com/dsh/advance-article/doi/10.1093/llc/fqad044/7208045 by Beijing Normal University user on 28 June 2023

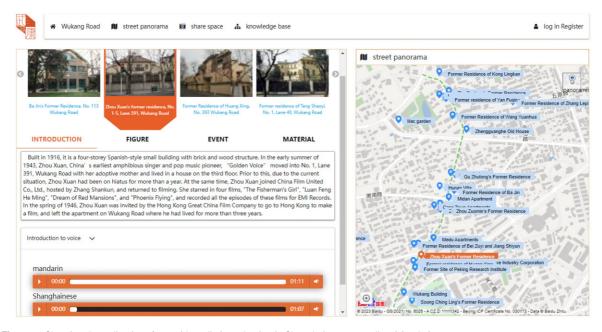


Figure 7. Showing the online interface with audio introduction in Shanghainese as well as Mandarin *Source*: http://wkl.library.sh.cn/.

pulled together so that small and missing clues may be found to complete the picture. The application of DS here and in the wider DH context, unlike in other fields, is not to focus on *creation* nor *free expression*, but primarily on *reconstruction*.

A primary objective of the research described here is to incorporate the voices, including the local vernacular Shanghai dialect (Shanghainese), of the people whose lives have been touched or in some way affected by their experience of the Wukang Road. In our project, "[...] digital methods help us to access and share marginalized or silenced voices and to incorporate them into our work in ways not possible in print or the space of an exhibition gallery.' (Brennan, 2019). The official records held in the archives and libraries have undoubtedly been mediated and represent the official record, regardless of the sources, with all the inherent and unescapable biases. In Shanghai these have been particularly influenced by the long-term colonial occupation and the shorter but to an extent more divisive ravages of the Japanese occupation. The prevailing historical record has been unavoidably shaped by these events and factors external to Shanghai and China. As Jennifer Guilliano argues, 'the embrace of capitalism, and the consequences of colonialism have long affected and been central in the discipline of history' (Guilliano, 2022, p. 5). The voices of the ordinary people of Shanghai, and particularly in the traditional vernacular dialect, can help to redress these biases and the historical record. This is an important additional dimension

to the wider Shanghai Memory project. This fills the gaps in the historical and cultural record so that we can 'ensure that the stories and voices which have been underrepresented in both print and digital knowledge production [...] can be heard' (Risam, 2018, p. 129).

The first phase of the overall project, which is still ongoing, is mainly to reconstruct the historical materials about the Wukang Road and retell the story of people, places, buildings, and events that happened there from the perspective of the records held in the library. By linking different entities about the road, this next phase of the project that includes the DS aspect aims to present a more complete picture (as far as we are able) and give the audience a clearer storyline of the evolution of Wukang Road.

In terms of the limitations, there was only one guided road tour before the pandemic when regulations prevented more and also prohibited the planned workshops, interviews, and focus groups. Thus, so far, the data collected from the users are limited but with a planned expansion of activities once the current restrictions allow. In addition, it has so far been problematic to locate people previously connected with the road to encourage them to upload their own or family memories and records about the road; an advertising campaign has been started to use the library membership resources and mailing lists to find more of them. Nevertheless, despite the limited number of photos and comments that were collected, looking at the feedback, it seems that ordinary people (both local citizens and tourists) wish to learn more about the stories and history of the road during the colonial era. Although they may not have experienced those times themselves, they are willing to share their opinions about the cultural memory and their shared heritage that is to be found in the buildings, roads, and districts of the city.

Although a story may have a beginning, a middle, and an end (as indicated by Aristotle, Poetics 1450b-1451a), progressing in a linear fashion, 'non-linearity has been common to narrative discourse from the earliest recorded instances of story-telling' (Abbott, 2020, p. 33). Ancient epic poetry such as the Iliad and Odyssey, part of an oral (storytelling) tradition themselves, start in the middle of things in an episodic approach rather than a linear one that takes the listener from the beginning to the end. The Iliad begins in the final year of the ten-year conflict outside the walls of Troy and would have been delivered in episodic chunks by the rhapsode rather than sequentially. Indeed, the Homeric characters themselves employ narrative storytelling as inset or meta-narratives within the plot itself. For example, in Iliad Book 9:524-99, the story of Meleager is told by Phoenix, accompanied by Odysseus and Ajax, in an embassy from Agamemnon to persuade Achilles to return to the fight as the Trojans were gaining control (Burgess, 2017). Similarly, the other Homeric epic has the blind bard Domodocus, singing the story about the fate of Troy and reducing Odysseus to tears when he recalls the painful memories and the tragedy of his long journey home (Odyssey Book 8:62-67). Storytelling predates the written word and, just as the examples above, can be persuasive and/or provoke strong emotions. Memory does not work in a linear way and what is remembered and the way in which it is recalled is dependent on the individual and their experiences; hence, people remember things in different ways and recall what is important to them. This is true for groups as well as individuals where their memories are shaped by events in their collective lives (Halbwachs, 1980).

6 Conclusions

This study contributes to our understanding of the history of Shanghai within a postcolonial setting as well as how we in the DH might effectively develop a methodology for using DS to supplement and even redress the (often unconscious but sometimes conscious) biases inherent in formal historiography. We can develop the tools to add the human voice turning memory into narrative to form the missing parts of the history and help us to incorporate and 'share marginalized or silenced voices' (Brennan, 2019, p. 2). The sources at our disposal need to be combined to achieve balance where we recognize and acknowledge the biases within our records that have impacted on the selection process along with ideological and other consequences to rectify the historical record (Guilliano, 2022). Capturing the voices of the people, collecting, and sharing them with digital tools give us the opportunity to take a step towards this. In addition, as well as filling in some of the gaps in the story of Shanghai, DS gives us the opportunity to understand the place of the individual within the wider history. The Shanghai Memory platform provides a conduit through which these stories can pass and be pulled together.

This newest initiative to incorporate DS into Shanghai Memory is the latest phase to further democratize the practice and represent the unrepresented by encouraging, presenting, creating, and sharing stories in relation to the past, current, and even the future of Shanghai city. This extension to an already established DH project adds significant value to the reconstruction of cultural memory and acts as a model for other memory projects in East Asia and beyond.

The same as all recently conducted qualitative research, this project has been severely impacted by the current pandemic. Because of the Shanghai pandemic control regulations, it has been impossible to facilitate the planned workshops and focus groups which has forced us to significantly alter our approach and move everything online. Nevertheless, it has allowed us to appreciate the many affordances of DH and our practice, putting an emphasis on digital-mediated communication and online platforms to enable data collection and upload. This phase is now operational and both the library and the online platform themselves are used to draw attention and encourage the upload of content.

Further work is planned to build on this research project in the form of a longitudinal study to look at changes over the different historic periods in Shanghai, principally from its opening-up as a Treaty Port, following the Opium Wars, to the Japanese invasion and the Long Civil War, particularly from the perspective of the many road name changes not considered here. In addition, more attention will be given to applying oral history techniques to collect voices, stories, and life experiences connected to the history of the city and Wukang Road. It will examine the relationship between personally constructed stories (personal memory) and stories generated by official records (cultural memory). Moreover, this project will continue the exploration of how DS can help to develop a methodology for telling historical stories; how it can help us to understand how the former French Concession, which is now often officially referred to as the 'contemporary French Concession' (Chen et al., 2021, p. 35), has become what it is today, actively promoted as an attraction for foreigners and domestic tourists alike; and how is this reconciled with the colonial past and how does that impact on the wider understanding of Shanghai, its identity, and its people?

Authors' Contributions

Yaming Fu (Conceptualization, Methodology, Visualization, Writing—original draft, Writing—review & editing), Simon Mahony (Formal analysis, Investigation, Writing—original draft, Writing—review & editing), and Wei Liu (Project administration, Resources, Supervision, Writing—review & editing).

Notes

- 1. Shanghai Memory: http://memory.library.sh.cn
- 2. Bristol Stories: https://www.bristolstories.org/stories
- 3. See Xia *et al.* (2021): https://doi-org.libproxy.ucl.ac.uk/10. 1093/llc/fqab023
- 4. A Journey from Wukang Road: http://wkl.library.sh.cn
- 5. With thanks and acknowledgement to Donald Sturgeon and the China Text Project (https://ctext.org/) for his help with the etymology and literary sources. The reference to the 'hilly area' referred to in the text is: https://ctext.org/datawiki.pl?if=en&c res=227220 A Mainland Chinese government publication also refers to this text as the origin of the name: 上海市徐彙區地名 志 (1989) https://shizhiban.com/p/detail/9670ae8644/.

References

- Abbott, H. P. (2020). *The Cambridge Introduction to Narrative*. Cambridge: Cambridge University Press.
- Armstrong, N. and Tennenhouse, L. (1993). History, poststructuralism, and the question of narrative. *Narrative*, 1 (1): 45–58.
- Ashcroft, B., Griffiths, G., and Tiffin, H. (2002). The Empire Writes Back: Theory and Practice in Post-Colonial Literatures, 2nd edn. London: Routledge.
- Assmann, A. (2008). Canon and archive. In Erll, A. and Noonning, A. (eds), *Cultural Memory Studies: An International and Interdisciplinary Handbook*. Germany: De Gruyter, pp. 97–107.
- Assmann, J. and Czaplicka, J. (1995). Collective memory and cultural identity. *New German Critique*, 65: 125–33.
- Barber, J. F. (2016). Digital storytelling: new opportunities for humanities scholarship and pedagogy. Cogent Arts and Humanities, 3(1): 1181037.
- **Bizzini, S. C.** (2013). Recollecting memories, reconstructing identities: narrators as storytellers in Kazuo Ishiguro's "when we were orphans" and "never let me go"/La recuperación de la memoria en la redefinición de la identidad: la narración como estrategia literaria en "when we were orphans y never let me go". *Atlantis*, **352**: 65–80.
- Brennan, S. (2019). Digital history. *The Inclusive Historian's Handbook*. https://inclusivehistorian.com/digital-history (accessed 10 August 2022).
- Bristol Stories. (n.d.). About. *Bristolstories*. https://www.bristol stories.org/about (accessed 10 August 2022).
- Burgess, J. (2006). Hearing ordinary voices: cultural studies, vernacular creativity and digital storytelling. *Continuum*, 20 (2): 201–14.

- Burgess, J. (2017). The tale of Meleager in the Iliad. Oral Tradition, 31(1): 51–76.
- Burgess, J. and Klaebe, H. (2009). Digital storytelling as participatory public history in Australia. In Hartley, J. and McWilliam, K. (eds), *Story Circle: Digital Storytelling around the World*. Hoboken, NJ: John Wiley and Sons, pp. 155–66.
- Canella, G. (2017). Social movement documentary practices: digital storytelling, social media and organizing. *Digital Creativity*, 28(1): 24–37.
- Castells, M. (2011). A network theory of power. International Journal of Communication 5: 773–87.
- Chaitin, J. (2003). Narratives and storytelling. Beyond Intractability. http://www.beyondintractability.org/essay/nar ratives (accessed 10 August 2022).
- Chen, G., Wu, J., and Zhang, L. (2021). Urban Practices from Delicacy Management to Governance in Contemporary China: The Case of Xuhui District, Shanghai. Berlin, Germany: Springer Nature.
- Chen, Y. and Gussenhoven, C. (2015). Shanghai Chinese. Journal of the International Phonetic Association, 45 (3): 321–37.
- Conrad, S. K. (2013). Documenting local history: a case study in digital storytelling. *Library Review*, 62(8–9): 459–71.
- Daković, N. (2021). Digital turn-memory studies. The IPSI Transactions on Internet Research, 17(2): 2–7.
- DoS, Department of State, Office of the Historian, Milestones in the History of U.S. (n.d.). https://history.state.gov/milestones/1937-1945/chinese-exclusion-act-repeal Foreign Relations (accessed 10 August 2022).
- **Dunn, S.** (2019). A History of Place in the Digital Age, 1st edn. London: Routledge.
- Earley-Spadoni, T. (2017). Spatial history, deep mapping and digital storytelling: archaeology's future imagined through an engagement with the Digital Humanities. *Journal of Archaeological Science*, 84: 95–102.
- Forchtner, B. (2021). Critique, Habermas and narrative (genre): the discourse-historical approach in critical discourse studies. *Critical Discourse Studies*, 18(3): 314–31.
- Guilliano, J. (2022). A Primer for Teaching Digital History: Ten Design Principles. Durham, NC: Duke University Press.
- Halbwachs, M. (1980). *The Collective Memory*. New York, NY: Harper and Row Colophon Books.
- Halbwachs, M. (1992). On Collective Memory. Chicago, IL: University of Chicago Press.
- HMSO. (1943). TREATY between his majesty in respect of the United Kingdom and India and his excellency the president of the national government of the Republic of China. WaybackMachine. https:// web.archive.org/web/20120930133049/http://www.fco.gov.uk/ resources/en/pdf/treaties/TS1/1943/2 (accessed 10 August 2022).
- Lambert, J. (2018). Digital Storytelling: Capturing Lives, Creating Community, 5th edn. London: Routledge.
- Lawson, J. (2011). Chronotope, story, and historical geography: Mikhail Bakhtin and the space-time of narratives. *Antipode*, 43(2): 384–412.
- Malita, L. and Martin, C. (2010). Digital storytelling as web passport to success in the 21st century. *Procedia-Social and Behavioral Sciences*, 2(2): 3060–4.
- McLuhan, M. (1964) Understanding Media: The Extensions of Man. Cambridge, MA: MIT Press.

- Mou, Z. (2012). Using cadastral maps in historical GIS research: the French Concession in Shanghai (1931–1941). *Annals of GIS*, 18(2): 147–56.
- Münster, S., Apollonio, F. I., Bell, P., Kuroczynski, P., Di Lenardo, I., Rinaudo, F., and Tamborrino, R. (2019). Digital cultural heritage meets digital humanities. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, XLII-2/W15, 813–20.
- Noiret, S. (2018). Digital public history. In Dean (ed), A Companion to Public History, 1st edn, Hoboken, NJ: John Wiley & Sons, pp. 111–24.
- Paine, S. (2012). The Wars for Asia, 1911–1949. Cambridge: Cambridge University Press.
- Pratt, J. T. (1938). The international settlement and the French concession at Shanghai. *British Year Book of International Law*, 19: 1–18.
- Qiao, M. (2015). A little sprucing up goes a long way on Wukang Road. Shanghai Daily. https://archive.shine.cn/fea ture/art-and-culture/A-little-sprucing-up-goes-a-long-wayon-Wukang-Road/shdaily.shtml (accessed 10 August 2022).
- Risam, R. (2018). New Digital Worlds: Postcolonial Digital Humanities in Theory, Praxis, and Pedagogy. Evanston, IL: Northwestern University Press.
- Roine, H. (2019). Computational media and the core concepts of narrative theory. *Narrative*, 27: 313–31.
- Roosevelt, F.D. (1943). Message to congress on repeal of the Chinese exclusion. *The American Presidency Project*. https://www.presidency.ucsb.edu/node/209602 (accessed 10 August 2022).
- Rose-Redwood, R., Alderman, D., and Azaryahu, M. (eds.) (2017). The Political Life of Urban Streetscapes: Naming, Politics, and Place, 1st edn. London: Routledge.
- Robin, B. R. (2008). Digital storytelling: a powerful technology tool for the 21st century classroom. *Theory into Practice*, 47 (3): 220–8.

- Rugg, M. and Vilberg, K. (2013). Brain networks underlying episodic memory retrieval. *Current Opinion in Neurobiology*, 23(2): 255–60. https://doi.org/10.1016/j.conb.2012.11.005.
- Ryan, M. L. (2004). Multivariant narratives. In Schreibman, S. and Unsworth, J. (eds), A Companion to Digital Humanities. Hoboken, NJ: John Wiley & Sons, pp. 415–30.
- Ryan, M. L. and Thon, J. N. (2014). Storyworlds across Media. University of Nebraska Press - Sample Books and Chapters. 276.
- Scheen, L. (2022). *History of Shanghai*. Oxford: Oxford Research Encyclopedia of Asian History.
- Shen, Q. (2016). Saving Shanghai dialect: a case for bottom-up language planning in China. *The Asia-Pacific Education Researcher*, 25: 713–22.
- Smeda, N., Dakich, E., and Sharda, N. (2014). The effectiveness of digital storytelling in the classrooms: a comprehensive study. *Smart Learning Environments*, 1: 6.
- Stanković, I. (2014). Space of memory-"The presence of absence" cultural memory and oblivion mechanisms. Култура/Culture, (8): 87–94.
- Strauss, M. (2015). Territorial Leasing in Diplomacy and International Law. Leiden: Brill.
- Street Stories-Wukang Road. (2018). Culture-shock-tours. http:// www.culture-shock-tours.com/blog/street-stories-wukang-road (accessed 10 August 2022).
- Taylor, J. (2020). Iconographies of Occupation: Visual Cultures in Wang Jingwei's China, 1939–1945. Honolulu, HI: University of Hawai'i Press.
- Tönnies, F. (2001). Tönnies: Community and Civil Society (Cambridge Texts in the History of Political Thought) (Harris, J., Ed., Hollis, M. (Trans.)) The forms of human will. Cambridge: Cambridge University Press, pp. 95–131.
- Xia, C., Wang, L., and Liu, W. (2021). Shanghai memory as a digital humanities platform to rebuild the history of the city. *Digital Scholarship in the Humanities*, 36(4): 841–57.