

# Arts-based social interventions: First results of the AMASS testbed.

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AMASS acting on the margins  
arts as social sculpture

# The United Kingdom



# 14

## A Storytelling Method Reflection: Demonstrating and sharing immigrant heritage through an sps strategy during COVID-19

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### INTRODUCTION

Storytelling is an ancient art form and, as the act of telling a story has the potential to connect people, plays a central role in many diverse cultures (Sylaiou & Dafiotis, 2020). It is regarded as one of the oldest forms of teaching and learning, and can attract the attention and engagement of listeners or audiences, as well as evoke memories of people's past experiences (Villaseñor, 2007). The process of storytelling intertwines with the structure of people's social lives, and also strongly harmonises with the method by which the human memory works (Polletta et al., 2011). However, storytelling

is not just a tool for delivering information; it also represents a method of creating an immersive experience that helps listeners/audiences use their individual imaginations to understand the story content. Thus, it constitutes the expression of an experience, and also an experience in itself (Lewis, 2011). Storytelling has been described as the 'interactive art of using words and actions to reveal the elements and images of a story while encouraging the listener's imagination' (National Storytelling Network, n.d.). Crafting and telling stories is motivating and memorable, and is mainly conducted in one of three ways: direct storytelling by storytellers, indirect storytelling by listeners, and

participatory storytelling involving both storytellers and listeners (Sylaiou & Dafiotis, 2020). Participatory storytelling, a democratic and collaborative method, has been applied in many community-based art and heritage activities. It facilitates understanding of the complexities of local communities and, thus, fosters aesthetic perception, cultural sensitivities, and creativity (Zhao, 2020). Further, this method also affords the creation of open dialogue that motivates stakeholders to actively participate in different stories and gain an in-depth understanding of listeners' experiences and personal views.

Storytelling also represents an effective contextual and inclusive means of conducting research involving diverse groups of participants who are not familiar with digital technology. This paper introduces a case study concerning a series of virtual workshops and fieldwork involving three British-Chinese families. The aim of this study was to explore interactive-technology-based design strategies that can potentially encourage British-Chinese immigrants to share important intangible information regarding their immigrant heritage. In particular, this paper reflects on the potential of digital storytelling as a method and tool for helping immigrants convey their family histories and experiences and demonstrate their heritage in local communities and societies.

## A SHORT STORY OF DIGITAL STORYTELLING

The rapid development of computer science has led to the creation of a new interdisciplinary domain known as the 'digital narrative' or 'digital storytelling sector', which collects and groups audio, video, images, and text to form an on-screen story that creates an immersive experience for an audience (Spierling, 2005). Similar to traditional storytelling media, digital storytelling primarily focuses on maintaining a coherent narrative structure and dramatic tension (Spierling et al., 2002). Digital storytelling has been extensively utilised in user experience (UX) design and human computer interaction (HCI). As a supportive method and tool, it helps researchers and stakeholders effectively gain insights into target people/groups, and helps audiences build social empathy and emotionally connect with these people/groups. Digital storytelling can also help the target people create personal personas to reflect their experiences and/or concerns and thoughts regarding certain topics. To explain how storytelling works in design studies, UX designers have summarised and applied Aristotle's seven elements of a good story (Teo, 2021). The seven elements of storytelling are, in order of importance: Plot—The targeted achievement and potential outcomes; Character—How the target people's true needs are identified; Theme—How a trustworthy image is built; Diction—How the content is presented and a dialogue created; Melody—How emotional feeling and sympathy are established; Décor—How the visual aesthetics of the story are presented; and Spectacle—How the story is made memorable. It is worth highlighting that visual demonstrations, speech, nonverbal communication, and written words, as the key components of Décor,

can potentially create immersive experiences for the audience that helps improve their understanding of the aesthetics within the stories.

Digital storytelling has frequently been applied in diverse interdisciplinary studies to explore the potential of digitisation and interactivity for solving societal issues. For instance, in the field of migrant and immigrant studies, digital storytelling has been integrated with interactive interfaces and algorithm-based 3D models to reflect migrants' and immigrants' cultural values within domestic settings and support their self-expression (Rutta et al., 2018; Sabie et al., 2020). Furthermore, digital storytelling can be utilised as a means of revealing the core elements of people's cultural lives, creating a new form of artistic expression and meaning; it can also enhance public cultural engagement. In heritage and museology studies, the communication process relating to digital storytelling in this field has been described as a re-experiencing of one's own heritage, thereby reinforcing identity and a feeling of belonging to a community (Abrahamson, 1998). For instance, based on a platform of interactive interfaces and digital archives, digital storytelling has been effectively applied to support, among cross-cultural audiences, aesthetic appreciation of and engagement with intangible cultural heritage (Zhao et al., 2018, 2019). Moreover, in the 'CHESS' project (Pujol, 2012), digital storytelling and socio-personal interactions were utilised to create an innovative conceptual and technological framework that enhances the experience of heritage in archaeological museums. Digital storytelling also has the potential to improve education, well-being, and mental health among children, patients, women, and other vulnerable groups. For example, Smith et

al. (2019) combined story distribution and complex gestures on an automated software platform to enhance primary-school children's engagement and willingness to interact with a digital system. Meanwhile, through integrating game narratives and characters within storytelling, Bowman (2018) developed a virtual support group for alleviating loneliness and fostering a sense of companionship among patients with cancer. Further, a HCI study conducted in Ireland demonstrated how digital storytelling can support the rejection of false narratives and raise awareness of the realities of abortion laws; this study also offered design considerations for fostering empathy and polyvocality in local communities and society (Michie et al., 2018).

## CASE STUDY

To further explore the potential of digital storytelling to represent a valuable tool for supporting cross-cultural immigrants' expression of their heritage, the following section describes a case study on this topic.

This case study specifically explores how interactive technology can help British-Chinese immigrants express and demonstrate their cultural heritage and identities to local communities and other stakeholders. Based on the methodology of the participatory action research (PAR) approach (Hayes, 2011), a digital-storytelling approach was developed for these families through a two-stage process. First, a series of exploratory semi-structured interviews (online) were conducted during the Coronavirus Disease 2019 (COVID-19) Pandemic to record the immigrants' stories and concerns regarding previous heritage-sharing experiences. Then, a series of

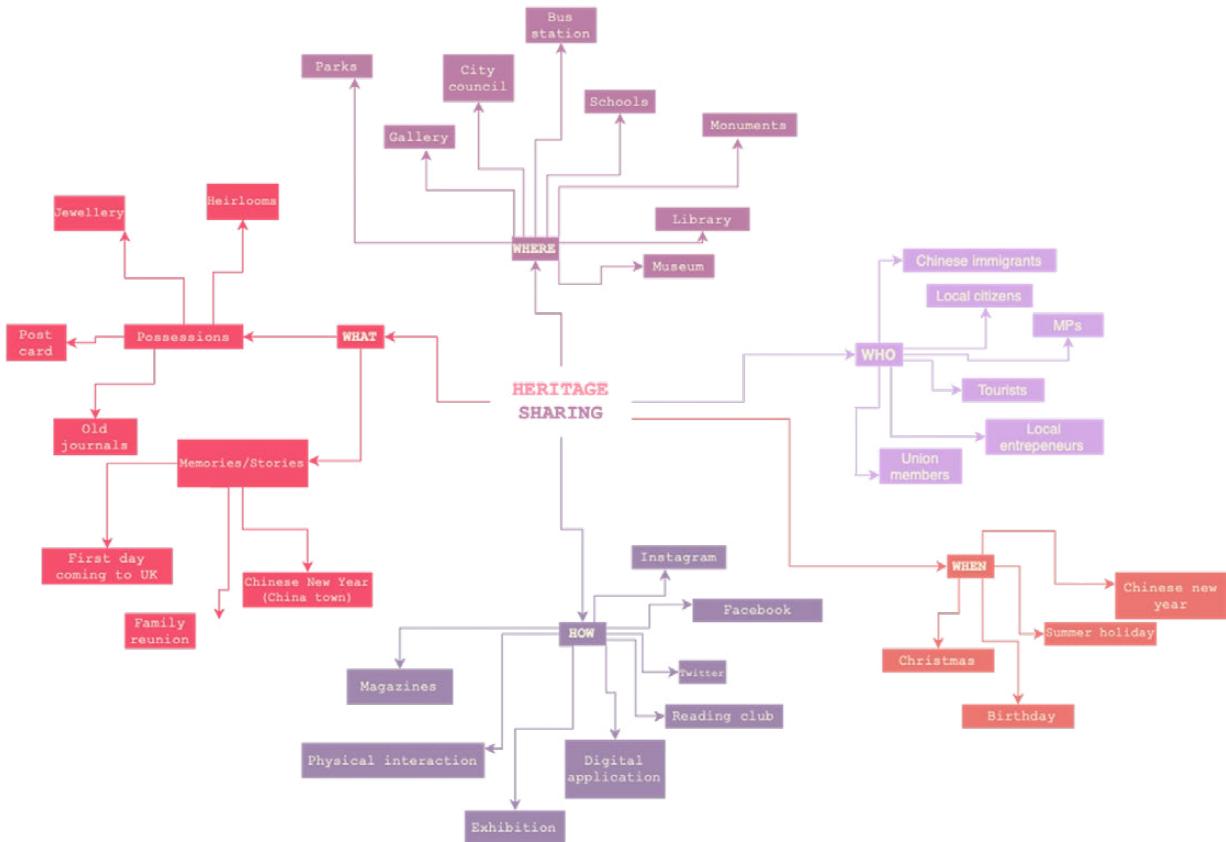


Fig. 1. Mind maps generated from the online workshops with participants (source: Zhao, 2021).

family-based participatory design online workshops were conducted to collect stories concerning family possessions and heirlooms bequeathed by previous generations, and to investigate each family member's preference concerning different technological approaches. Through these discussions with the families, keywords and mind maps were generated (which were illustrated on whiteboards), and were utilised as the main strategies for encouraging families to share their heritage (Figure 1). The final

mind map comprised five dimensions, asking: 1) who are the main listeners? 2) what do the families want to share in terms of their cultural heritage and stories? 3) when would the families like to share their cultural heritage and stories? 4) where would the families like to share their cultural heritage and stories? 5) how would the families like to share their cultural heritage and stories?

MPs: Members of parliament.

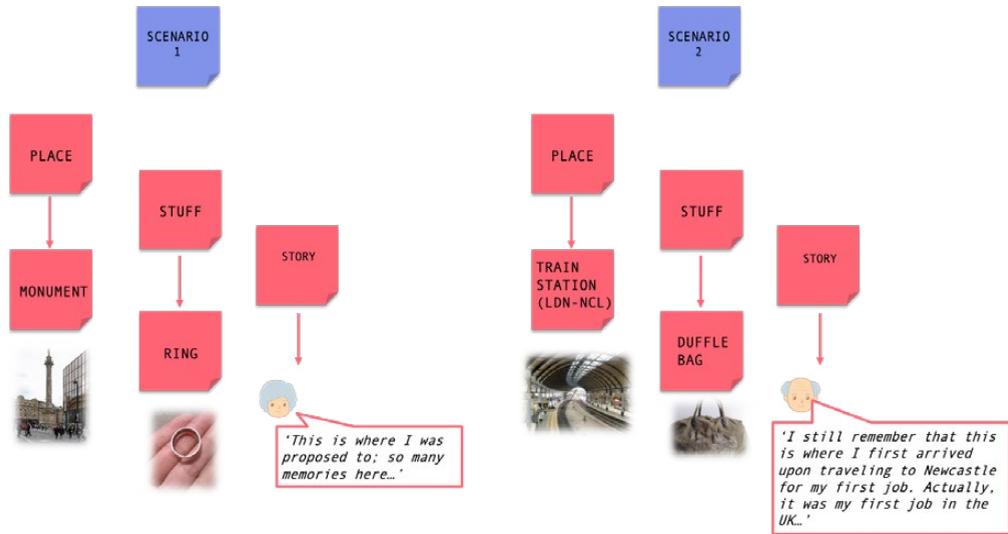


Fig. 2. Two scenarios generated by family members, reflecting on places, possessions, and stories (source: Zhao, 2021).

Family members were encouraged to use old possessions or collections to demonstrate their experiences and stories. During the participatory design workshop, with technological support from the main researcher, the participants created different scenarios to reflect their design ideas for sharing their immigrant heritage. Figure 2 presents two examples of scenarios that were designed by different families. Storytelling represents an effective contextual and inclusive

means of conducting research involving diverse groups of participants who are not familiar with digital technology.

LDN: London; NCL: Newcastle upon Tyne.

Based on the different scenarios discussed, the family members also co-designed a video-based online exhibition by generating content that related to ‘what’ they would like to share and ‘how’

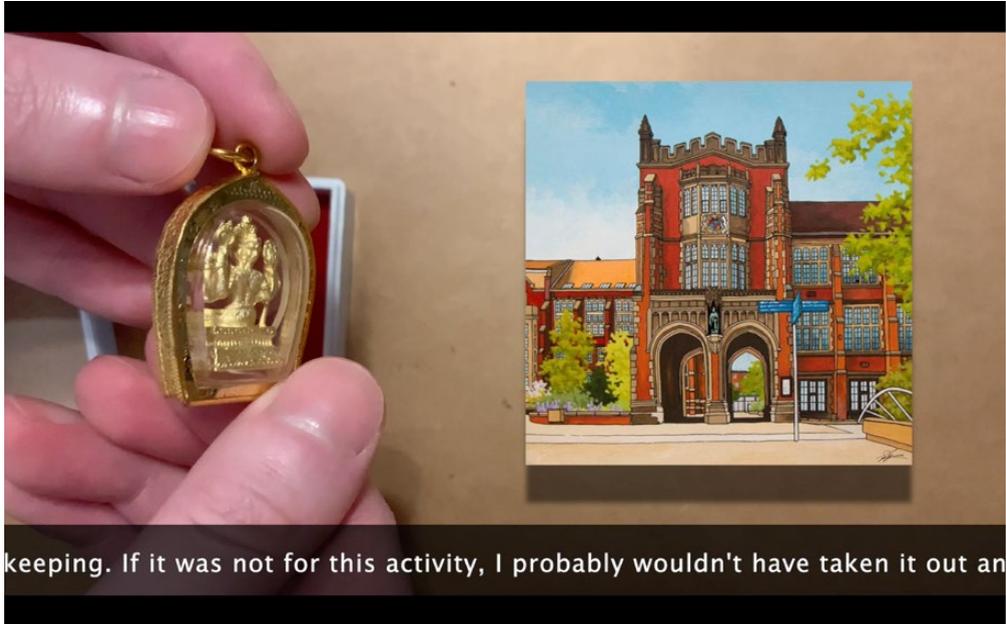


Fig. 3. Screenshot from a family-created video in which the family present and discuss a possession (source: Zhao, 2021).

they would like to share it. Figure 3 contains a screenshot from one of the videos a family created to exhibit a possession (a golden Buddha); the video has transcribed subtitles for non-Chinese speakers and features a split screen, with a video of the possession in question on one side, and an image of the location it relates to on the other.

## REFLECTION

This section elaborates on two main perspectives regarding how digital storytelling can be used to support heritage-sharing among immigrants. First, design strategies for the storytelling method are discussed. Second, a series of reflections on the design considerations of community-based

storytelling and engagement are presented.

Demonstration and sharing of heritage were the main topics highlighted in this study. All of the interviewed families integrated their old stuff with interesting stories. This form of integration potentially gives the old stuff the intangible significance of being able to help younger generations or other groups explore the exclusive immigrant heritage of the British-Chinese. Furthermore, such integration might also help preserve immigrant heritage in the long term since the possessions (collections, heirlooms) and related aural or visual data were audio- and/or video-recorded. From the perspective of safeguarding heritage, this kind of integration valuably connects intangible and tangible immigrant heritage, allowing

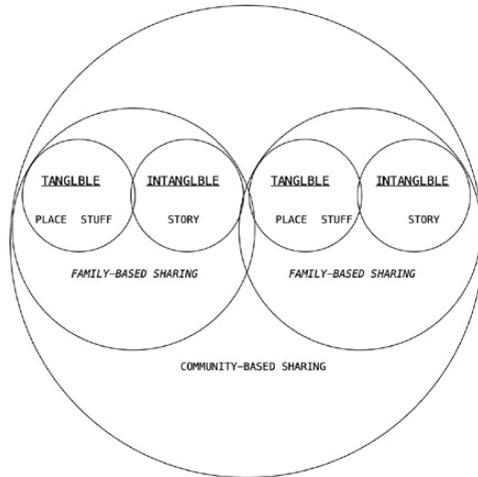


Fig. 4. The 'SPS' Strategy, integrating places, stuff, and stories (source: Zhao, 2021).

a more comprehensive demonstration of heritage. Furthermore, the case study also shows that, to generate a greater social impact within society, many possessions (representing fragments of memories) require a companion narrative. Figure 4 demonstrates a design strategy that integrates places, stuff, and stories (the PPS strategy) – a strategy for effectively demonstrating and sharing heritage.

Considering the above, the design challenge is how to integrate family heirlooms and other significant objects with audio and video data to form a narrative that can attract attention in local societies. It is also worth mentioning that the application of PAR, alongside a series of participatory design workshops, as a theoretical foundation helped the immigrant families to collaboratively develop a dialogue for comfortably sharing their heritage. Acceptance of immigrant heritage represents a huge challenge for immigrants, especially during

the COVID-19 Pandemic. However, interactive technology has the potential to support the sharing of immigrant heritage in local communities.

## CONCLUSION

One of the main design strategies concerns supporting the potential audience's interaction with immigrant heritage, and the conducting of interactive demonstrations within local communities. The engagement of British-Chinese and local citizens in the design process of interactive technology is vital; the design process is also regarded as part of the heritage demonstration. It is worth noting that physical interaction with heritage collections was deemed to be the best means of engaging people who are also interested in sharing their heritage. However, determining how to surmount cross-cultural barriers (e.g. the language in which the stories are told) and the sustainability of sharing heritage in society are prominent technological challenges for the post COVID-19 era. As part of a community practice regarding civic participation, further studies should focus on co-design workshop-based activities to design interactive technology that supports the sharing of immigrant heritage.

## References

- Abrahamson, C. E. (1998). Storytelling as a pedagogical tool in higher education. *Education, 118*(3), 440–451.
- Bowman, A. (2018). Creating a virtual support group in an interactive narrative: A companionship game for cancer patients. In R. Rouse, H. Koenitz, & M. Haahr (Eds.), *Interactive storytelling: 11th international conference on interactive digital storytelling, ICIDS 2018, Dublin, Ireland, December 5–8, 2018*, proceedings (pp. 662–665). Springer.
- Hayes, G. R. (2011). The relationship of action research to human-computer interaction. *ACM Transactions on Computer-Human Interaction, 18*(3), 1–20. <http://doi.org/10.1007/978-3-030-04028-4>
- Lewis, P. (2011). Storytelling as Research/Research as Storytelling. *Qualitative Inquiry, 17*(6), 505–510.
- Michie, L., Balaam, M., McCarthy, J., Osadchiy, T., & Morrissey, K. (2018). From her story, to our story: Digital storytelling as public engagement around abortion rights advocacy in Ireland. In *Proceedings of the 2018 CHI conference on human factors in computing systems (CHI '18)* (Paper 357; pp. 1–15). Association for Computing Machinery. <https://doi.org/10.1145/3173574.3173931>
- National Storytelling Network. (n.d.). *What is storytelling?* <https://storynet.org/what-is-storytelling/>
- Polletta, F., Chen, P., Gardner, B., & Motes, A. (2011). The Sociology of Storytelling. *Annual Review Of Sociology, 37*(1), 109–130. <https://doi.org/10.1146/annurev-soc-081309-150106>
- Pujol, L., Roussou, M., Poulou, S., Balet, O., Vayanou, M., & Ioannidis, Y. (2012). Personalizing interactive digital storytelling in archaeological museums: The CHESS Project. In: G. Earl, T. Sly, A. Chrysanthi, P. Murrieta-Flores, C. Papadopoulou, I. Romanowska, & D. Wheatley (Eds.), *Archaeology in the digital era volume II: e-papers from the 40th annual conference of computer applications and quantitative methods in archaeology, Southampton, UK, 26–30 March 2012* (pp. 77–90). Amsterdam University Press.
- Rutta C. B., Schiavo G., & Zancanaro M. (2018). Interactive digital storytelling and self-expression in the context of young male migrants. In R. Rouse, H. Koenitz, & M. Haahr (Eds.), *Interactive storytelling: 11th international conference on interactive digital storytelling, ICIDS 2018, Dublin, Ireland, December 5–8, 2018*, proceedings (pp. 621–626). Springer.
- Sabie, D., Sabie, S., & Ahmed, S. (2020). Memory through design: Supporting cultural identity for immigrants through a paper-based Home Drafting Tool. In *Proceedings of the 2020 CHI conference on human factors in computing systems (CHI '20)* (pp. 1–16). Association for Computing Machinery.
- Smith H. J., Riley B. K., Reed L., Harrison V., Walker M., & Neff M. (2019). The impact of multi-character story distribution and gesture on children's engagement. In: R. Cardona-Rivera, A. Sullivan, & R. Young (Eds.), *Interactive storytelling: 12th international conference on interactive digital storytelling, ICIDS 2019, Little Cottonwood Canyon, UT, USA, November 19–22, 2019*, proceedings (pp. 128–143). Springer.
- Spierling, U., Grasbon, D., Braun, N., & Iurgel, I. (2002). Setting the scene: Playing digital director in interactive storytelling and creation. *Computer and Graph-*

- ics, 26(1), 31–44. [https://doi.org/10.1016/S0097-8493\(01\)00176-5](https://doi.org/10.1016/S0097-8493(01)00176-5)
- Spierling, U. (2005). Interactive digital storytelling: Towards a hybrid conceptual approach. In *Proceedings of the 2005 DIGRA international conference: Changing views: Worlds in play*, June 16–20, 2005, Vancouver, British Columbia, Canada. <http://www.digra.org/wp-content/uploads/digital-library/06278.24521.pdf>
- Sylaiou S., & Dafiotis P. (2020). Storytelling in virtual museums: Engaging a multitude of voices. In F. Liarakapis, A. Voulodimos, N. Doulamis, & A. Doulamis (Eds.), *Visual computing for cultural heritage. Springer series on cultural computing* (pp. 369–388). Springer.
- Teo, Y. S. (2020, November 18). *How to create effective UX case studies with Aristotle's 7 elements of storytelling*. Interaction Design Foundation. <https://www.interaction-design.org/literature/article/how-to-create-effective-ux-case-studies-with-aristotle-s-7-elements-of-storytelling>
- Villaseñor, M. C. (2007). *Building echoes. The role of storytelling in museums and galleries* [Master's dissertation]. University of London.
- Zhao, S. (2020). A Methodological Reflection: Deconstructing Cultural Elements for Enhancing Cross-Cultural Appreciation of Chinese Intangible Cultural Heritage. *Culture And Computing*, 450–459. [https://doi.org/10.1007/978-3-030-50267-6\\_34](https://doi.org/10.1007/978-3-030-50267-6_34)
- Zhao, S., Kirk, D., Bowen, S., Chatting, D. & Wright, P. (2019). Supporting the cross-cultural appreciation of traditional Chinese puppetry through a digital gesture library. *Journal on Computing and Cultural Heritage*, 12(4), Article 28, 1–19. <https://doi.org/10.1145/3341882>
- Zhao, S., Kirk, D., Bowen, S. & Wright, P. (2018). Enhancing the appreciation of traditional Chinese painting using interactive technology. *Multimodal Technologies and Interaction*, 2(2), 16. <https://doi.org/10.3390/mti2020016>

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