Urban Memory: Remembering Communities in Urban Redevelopment

Lusi Wang
University of Michigan
Ann Arbor, MI 48104, USA
ruthlw@umich.edu

Jing Qian
Chongqing University of Posts
and Telecommunications
Chongqing Shi 400065, China
jodie948948@gmail.com

Niharika Ved
University of Michigan
Ann Arbor, MI 48104, USA
nved@umich.edu

Abstract

How to preserve urban memory under rapid redevelopment is an unresolved issue around the world, especially in China. Going beyond traditional concepts and practices of historic preservation, this paper proposes a solution to local communities through technological intervention. By combining offline storytelling with online collaboration, the Urban Memory project aims to remember communities that would be otherwise forgotten during urbanization.

Author Keywords

Historic Preservation; Citizen Engagement; Social Inclusion; Art and Culture

ACM Classification Keywords

H.5.2 [User Interfaces]: User-centered Design, Interaction Design, Input Devices and strategy; H.5.3 [Group and Organization Interfaces]: Organization Management, Community Building; H.5.m [Information interfaces and presentation (e.g., HCI)]: Miscellaneous; H.3.3 [Information Search and Retrieval]: Cultural Preservation, User Search Systems

Introduction

In the past 35 years, China has been going through urbanization at a phenomenal scale and rate. In 1990, only 10% of Chinese people lived in the cities. Ten years later, in 2000, Chinese cities housed 36.22% of the country's popu-

lation [2]. In 2003, the urbanization level reached 40% and scholars estimate that by 2050, the number will grow into 75%, which means, within half a century, Chinese cities will increase their capacity to house 600 million more people [2]. Such intense urbanization then results in rapid urban redevelopment.

As the city develops, it is common to find old inner-city neighborhoods where poor locals and migrant workers reside, squeezed between skyscrapers next to the Central Business District (CBD) [7]. A survey of six cities in China demonstrated that within these old inner-city neighborhoods, more than 20% of the residents live under the city's poverty line [7]. Nonetheless, these neighborhoods will not last forever. As the urbanization continues, they eventually face two possible futures – disappearing or getting preserved. Either way, decades of living of the urban poor in these neighborhoods will be wiped out.

How is getting preserved going to wipe out the trace of the urban poor? The simple answer is historical preservation can only save the buildings. Once the redevelopment happens, few buildings in the old inner-city neighborhoods might be given relic plates and turned into museums [5] or new "historical" buildings are reconstructed to totally replace the old ones [7]. Regardless, after agreeing on a compensation rate, old residents will sign the relocation contract and all move away [5]. By the time these old neighborhoods become multimillion-dollar retail districts, no one will remember the people that used to live there anymore [3]. The most valuable part of these neighborhoods, the community, is not preserved at all [3].

How to preserve the past living of inner-city communities during rapid urbanization? This is the question our team is tackling. We started by adopting the term urban memory to refer to the past living of communities in the cities. French sociologist Halbwachs defines memory as what "bounds groups of people together, recharging their commonality by reference to the physical spaces and previous instances, often a founding moment, of that collective identity" [4]. Crinson then links this definition to "the collective spatiality that is the city" [4]. Simply speaking, urban memory is not about relics documentation or analytic discourse. Instead, urban memory is about making a community through remembering. Moreover, just as the term memory implies loss [4], our team is not arguing against urbanization. We recognize that urbanization is unstoppable and has provided many urban poor with better infrastructures. Our design goal is to remember communities dispersed in this process.

Research

Surveys
To test out the potential of this project, our team conducted a pilot survey. We sent out surveys to students and staff on university campuses in Chongqing, China. This method helped us reach out to respondents from 31 cities across China. Among the total 106 respondents, 78% of them think that significant redevelopments have happened in their hometowns in the past 10 years. 88% wish that they knew more about the past of their home cities. Although such a survey is obviously limited, it confirms that, at least to some degree, fast redevelopment and memory loss is a shared experience across the country.

Ethnographic Inquires
Our team also conducted ethnographic research at three old inner-city neighborhoods in Chongqing, China. These neighborhoods were at different stages of redevelopment by the time of our visit: The White Elephant Street (Bai Xiang Jie), once a business district and middle-class neighborhood in the early 1900s, was already redeveloped; The Eighteen Stairs (Shi Ba Ti), a century-old urban slum near

Figure 1: Navigate to a nearby storytelling event using a mainstream map application plugin

CBD, is in the process of dislocation and demolition; The Lower Harbor (Xia Hao), a waning trading harbor on the Yangtze River, will be redeveloped within two years. At these three neighborhoods, we observed the pedestrians, tourists, residents, and business activities. Observing the day-to-day life in these neighborhoods revealed to us the various stakeholders in urban redevelopment.

Interviews
To further understand potential users, our team interviewed fourteen people from a wide range of social and economic backgrounds. (See the sidebar on Page 3.) Through on-site interviews, we inquired neighborhood stories and investigated residents' diverse attitudes towards redevelopment and relocation. Interviews with locals also revealed to a wide range of attitudes towards adopting new technology. After the site visits, we initiated interviews with a diverse group of non-locals for their personal experiences on preservation in a rapidly changing city. These interviews helped us understand values, resources, limitations, and needs of various stakeholders when it comes to remembering dispersed communities during urbanization.

Define

Data Synthesis
By creating an affinity diagram, our team synthesized the qualitative data collected from interviews and site visits. We parsed out notes into small pieces, grouped relevant ones together, and wrote a summary for each group. After repeating the grouping and summarizing process multiple times, our team uncovered four potential user groups in urban memory sharing – preservation institutions, motivated individuals, local residents, and the general public.

User Analysis
Preservation Institutions

- Value: study physical objects, especially world-class heritage
- Resources: in-house preservation experts/government funding/connections to local community leaders
- Limitations: can't motivate the local residents to participate/rarely collaborate with others
- Needs: find ways to raise public awareness and to encourage public participation

Motivated Individuals
- Value: stories in redeveloped neighborhoods
- Resources: diverse skill sets/accumulation of multimedia works on urban memory/personal relationships with local residents
- Limitations: limited channels for displaying their works/lack of connection with each other
- Needs: an audience for thoughtful feedback/partners who share the same passion on urban memory

Local Residents
- Value: a stable and secured life
- Resources: rich knowledge about their community and fascinating personal stories
- Limitations: not aware of the value of their stories
- Needs: an comfortable situation to share memories

The General Public
- Value: take pride in a shared cultural identity
- Resources: a large population/diverse opinions/memories about their own neighborhoods
- Limitations: passive in information acquisition
- Needs: engaged at a personal and emotional level/easy access to urban memory

Figure 2: Pre-register for storytelling events on the Urban Memory APP.

Figure 3: Follow an active organizer for future events on the Urban Memory APP

Ideate

Brainstorming and Impact-Feasibility Analysis
Based on the data synthesis and the user analysis, our team generated 26 ideas on how to remember communities in urban redevelopment. We crafted the ideas so that they are diverse in terms of technological use and communication modes. Then we scored and ranked all the ideas based on monetary investment, time investment, maintenance difficulty, and social impact. We also evaluated the potential support from the four groups of users identified in previous section. Each criterion was weighted based on previous research.

Ideas Synthesis
To craft a coherent solution, our team listed the top ideas and found following patterns: All the top 5 ideas involve relationship-building and in-person experiences. Furthermore, all the top 4 ideas are low-tech and require no internet access. Based on these patterns, we listed out resources needed and connected the four user groups together according to their values, resources, and needs.

Design Solution

Our final solution includes offline storytelling events and online event planning. Offline storytelling events will take place in public spaces such as parks and marketplaces. Online event planning will happen on a mobile application named Urban Memory.

Public Spaces
Urbanization has generated a lot of public spaces, where strangers meet and share an urban life together [6]. These places are accessible for a large and diverse population. Holding the storytelling events in public spaces lowers the psychological barrier for new participants. Our ethnographic inquiries show that in China, people are comfortable to play

Chinese Chess with strangers under street light poles and to organize matchmaking activities in parks. Therefore, it is not too far a stretch for people to hear and to tell stories in public spaces. In addition, patrols at these places can help ensure event safety. Although holding events in public spaces may require organizers being responsive to weather changes, in general, the benefits outweigh the cost.

Sharing with the General Public
Our team designed three ways to lead the general public to storytelling events. First, as an event happens in a public space, a pedestrian can simply drop by and listen to the stories. Second, by opening the story layer on a mainstream map application, map users can find out recent events and navigate to locations nearby [Figure 1] (Unlike Google Map, the mainstream map applications in China, like Baidu Map and AMap are open to third-party plug-in.) Third, a person with further interests may register for events beforehand [Figure 2], leave feedback, and follow event organizers [Figure 3] using the Urban Memory APP. These three ways are designed to accommodate users at different levels of commitment.

Collaborative Event Organization
The main purpose for Urban Memory APP is collaborative event planning. With enough resources already, formal institutions and motivated individuals can directly create an event in the application. (They can invite local residents offline as guest speakers through personal connections.) After creating of an event, organizers can send out event updates to registered attendees.

More importantly, the Urban Memory APP encourages people with limited resources to come together for remembering past communities. For instance, if someone is passionate about a neighborhood but does not know enough to organize a complete storytelling event, that person can start

Figure 4: Respond to event calls as a storyteller or a organizer on the Urban Memory APP.

an Event Call on Urban Memory APP and write down the kinds of help needed. Every user can then respond [Figure 4]. Not only formal institutions and motivated individuals but the general public who happen to have the knowledge about that particular neighborhood can also contribute.

Test

Motivation Analysis
To examine the validity of the solution, our team studied the possible motivations for potential users to participate.

Formal Institutions: Organize storytelling events takes time. However, having hired full-time workers for public education, many formal institutions already have human resources available. These institutions are starting on popularizing their academic works. Hosting storytelling events and interacting with the audience will provide valuable experiences on public engagement. Moreover, formal institutions seeking collaboration with others using the Event Call function will help remove the stereotype that preservation is only government's business and open these institutions to partnerships with motivated individuals and local residents.

Motivated Individuals: It takes time for motivated individuals to prepare for an event but this is a great opportunity to showcase works they have been accumulating for years. At these events, motivated individuals will have a better chance to receive thoughtful feedback and have meaningful discussions. By participating and hosting events through the Urban Memory application, they can build relationships with people who share the same passion and get inspired by each other. Exposure to a large amount of potential audience may also lead to further business opportunities for selling their works.

Local Residents: It takes time and courage for local residents to share their stories. Our team designed three ways

to lower the barriers for the locals to speak up. First, locals who already know motivated individuals can participate as a speaker through personal connections without using a smart phone at all. Second, the Event Call function finds partners for locals who want to share but are not ready to organize an event. Third, holding these events in public spaces, where people are ready to have informal interactions with strangers, decreases the pressure on speakers. At these events, locals can find an audience who listens to their past even after their community has been dispersed.

The General Public: By spending time listening to stories and participating in discussions, the general public will gain a deeper understanding of a city beyond the visible physical structures. The neighborhood history becomes lively and personal when the general public hears stories of people who once lived there. Since the general public is used to passively receive information, holding the events at public spaces and utilizing existing map platforms make the events more visible to the public.

Usability Testing
For the Urban Memory mobile application, our team created a low-fidelity prototype and conducted high-level usability testing with three users, who have different levels of technology efficiency. We asked them to complete three tasks – event search, event registration, and event creation. After observing how they navigated through the prototype, we streamlined the interface flow to reduce users' cognitive load. These findings also informed our later creation of high-fidelity prototypes.

Our team is aware that, the scope of our solution demands more than usability testing with the mobile application. If this project gets a chance for further development, our team will make sure to put the offline storytelling event also into usability testing. For now, we can only refer to precedents

and some of them already hint practical challenges. For example, in 2015, several locals in Beijing started weekly storytelling events under a neighborhood spice tree and attracted a growing number of audience from surrounding communities. Then, after moving into an activity room sponsored by the municipality, these events ended up with a political propaganda tone [6]. Our research showed us that people have diverse political opinions on redevelopments and we believe that such diversity is essential to urban memory. For questions like how to preserve diversity, we may never know the answer until we get our hands dirty.

Conclusion

Using human-centered design methodology, this project on how to remember dispersed communities in rapid redevelopment landed at the boundary between human-computer interaction and civic engagement. By proposing storytelling events in public spaces and designing an application for collaborative event planning, our solution connects and mobilizes formal institutions, motivated individuals, local residents, and the general public for urban memory sharing.

The meaning of this project is not limited to China. Even though the rates may vary, increasing urbanization is a global trend, especially in the Global South [2]. Urbanizing regions not only face similar challenges discussed in this project, like gentrification and spatial injustice [8] but also share the commonality in potential solutions. Public spaces are identified as the central stage for civic culture in an age of global urbanization by urban geographers because these spaces are accessible to people from diverse social and economic backgrounds [1]. We hope our design can spark imaginations in raising voices for the disadvantaged communities in urbanization around the world.

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