Alternative Mexico: A Mobile Application Empowering Heritage 2.0

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For more than a century, infrastructure building and promotion of modern lifeways to strengthen Mexico's economy have created a built environment that has been appropriated by its citizens. The urban environment holds memories and experiences that are now part of "their own history", "of their heritage". Unfortunately, their heritage contests the national definition of cultural patrimony, still preserved by Mexico's stewards in terms of monumentality and relevance to the history of the nation. When infrastructure building to produce goods and services to transform Mexico into a competitive economic platform threatens people's heritage, they are on the streets demanding its preservation. Since Mexico's heritage management looks exclusively to the past, it denies the possibility to protect alternative views of what heritage means to society. Therefore, the aim of this project is to facilitate a technological platform to the "(dis)empowered citizen" to communicate the value of their heritage, through a mobile application, *Alternative Mexico,* for iOS and Android devices is available for free in the iTunes and Google stores. Analyzing the economic context in which digital technologies have developed, *Alternative Mexico* considers not everyone in developing countries has access to its benefits. The followed methodology compensates the "digital divide" by consolidating a strategic alliance with the public through a value chain teaching-research transfer, in which students enrolled in heritage preservation courses recover the silenced voices of what heritage means to society and to be incorporated into the digital world. Precisely, this is what makes us different from other projects, how we have built its contents. The recovered information reveals "their heritage" has outstanding value and significance to the history of the nation. *Alternative Mexico*, albeit its modest technological platform, hopes to contribute to the democratization of knowledge, by considering people's heritage as the best heritage management practice to promote social sustainability and peace.

INTRODUCTION

Mexico's definition of heritage builds from the outcomes of the French Revolution, protecting properties in terms of monumentality and relevance to the history of the nation. In the 19th century, constructing nations and identities through monuments was the norm for those countries seeking independence from colonialist nations. In 1939, President Lázaro Cárdenas founded and mandated the "National Institute of Anthropology and History" (INAH) to protect the nation's cultural patrimony and to promote Mexico's economic and social welfare programs. Since then, Mexico's heritage management protects only three types of properties: archaeological, artistic, and historic monuments [DOF 2018]. The management process prioritizes the preservation of archaeological monuments, as these are the product of those cultures inhabiting the Mexican territory before the Spanish Conquest in the 16th century [López Varela 2018]. Mexico's Independence from the Spanish Crown in 1810, eventually, gave place to a nation considering historic monuments as emblematic of its national identity. Therefore, the law protects only documents and scientific collections, as well as, religious, military, and state architecture related to the building of the Mexican nation between the 16th and 19th centuries. Beyond the 20th century, Mexico protects only artistic monuments with relevant aesthetic value from a deceased author.

While public heritage management policies around the world have moved away from rigid standards of authenticity and monumentality [Silberman and Purser 2012:13], Mexico's heritage management is one of the few left, protecting only what is relevant to the history of the nation, not to its people. To be fair, Mexico's stewards also assume ancestors left behind oral traditions, social practices, rituals, knowledge about nature and the universe, as well as, skills to produce crafts. Despite Mexico's being a member of UNESCO, these "heirlooms" and their intangible quality are set aside from Mexico's federal legal framework for heritage preservation, leaving these type of resources in a defenseless stage when their preservation is at risk due to policies for economic growth and development.

Reversing social inequality has been at the center of every political party that has ruled Mexico over the last hundred years [López Varela 2014]. To overcome poverty levels through macroeconomic variables, Mexico has requested loans from many organizations, including the World Bank and the International Monetary Fund. Since raising GDP demonstrates economic competence among countries, it is not surprising governments allocate more resources to improve infrastructure building than social development. Consequently, the strategy slows down social development growth rate.

Undoubtedly, Mexico's citizens have benefited from global policies for economic growth and development. However, the start-up period of an infrastructure project for the production of goods and services involves conflict and discontent, as people are on the streets demanding the preservation of a busy street, a casino hotel, an urban view, or a festival. Unfortunately, these "heritage resources" contest the national definition of cultural patrimony and are not taken into account by environmental impact or risk assessments during land-use planning or policymaking. Even if land-use planning and assessments require consideration of heritage resources and public consultation to mitigate the impact of any project over people and their culture, developers follow the law and consider the exclusive preservation of monuments. Furthermore, citizen participation is limited and underrepresented in these projects, as stakeholders are selected based on their social leadership, their contributions to society, or as government experts [López Varela 2014]. Since Mexico's stewards, by law, are the only experts on heritage preservation, their participation in these projects denies the possibility to protect alternative views of what heritage means to society. Why are people demonstrating on the streets of Mexico City demanding to preserve "their heritage"? When institutions look exclusively at the past, heritage becomes a fixed and frozen entity, loosing relevance both for the present and for the future, as discussed hereby.

Transformation of urban spaces into places of heritage

After a century of infrastructure building and promotion of modern lifeways for Mexico to become a competitive economic platform, these strategies have created an urban environment with modern buildings (Fig. 1). With time, dwellers have created meaningful relationships with the modern built environment [Low and Lawrence-Zuñiga 2003], as its social dimension holds people's memories and their experiencing significant events that are now part of their "own history", of "their heritage".

Mexico City has witnessed the building of migrant entry points, where people share their culture and heritage through customs, foods, and traditions (Fig. 2). These places tell a different history -the search for a better future as immigrants or as refugees. The economic aspects of neighborhoods –from family businesses, playgrounds, to shopping malls, have created a sense of place attachment and are now representative of Mexico City's many identities. Those that have contributed to their community, the elders, and sellers of goods and services are relevant to Mexico City's neighborhoods. Why should anyone be surprised that people are on the streets demanding the preservation of these places and the memories they hold, when these are threatened by infrastructure building to produce goods and services?

In 2018, people were on the streets to stop a public transportation project that would modify the integrity of *Paseo de la Reforma*, a boulevard modeled in the 19th century after the Champs-Élysées in Paris. Today, the boulevard houses Mexico City's tallest modern buildings, five-star hotels, banks, luxurious restaurants and businesses, art galleries, the headquarters of the second largest stock exchange in Latin America, and even the American Embassy. The boulevard displays Mexico's social and economic equality, but it has also witnessed the loud demands of social and political rallies. This is a perfect example to demonstrate the coexistence of different identities within the same collectivity.

This is no isolated incident. Frequently, people are on the streets, demonstrating their discontent against similar initiatives and demanding Mexico's stewards to preserve a modern built environment and new social practices. Frustration builds, as Mexico's stewards see no legal reason to protect people's spaces and memories. These were created after the 19th century and have no relevant aesthetic value to be considered worthy of Mexico's rich history. Regrettably, Mexico's heritage management excludes the opportunity to enhance an individual and collective sense of belonging, by ignoring heritage as a 'product and process, providing societies with a wealth of resources that are inherited from the past, created in the present and bestowed for the benefit of future generations' [UNESCO 2014:130].

Against such a rigid legal framework, most of the time, their efforts are unsuccessful. Still, people are sending strong messages to Mexico's stewards. Effective preservation cannot be practiced through a traditional management process excluding people and their heritage. Crucial to effective urban planning is the inclusion of those living and experiencing the urban environment. These are the "experts", who hold the knowledge of the social dynamics shaping these spaces. Around the world, heritage management processes are interested in promoting sustainability through the preservation of social value, concentrating their efforts to the safeguarding of a place than on a single object [Dameria et al. 2018]. Tensions will continue to develop with costly consequences for developers, if the

launching of projects threatens people's memories and social practices created in the urban environment. How can *Alternative Mexico*, a project considering the potential of information and communication technologies to the democratization of knowledge be of help to Mexico's citizens?

Finding a solution to empower people's heritage

Archaeology and heritage studies have incorporated digital technologies as part of their research strategies [Giaccardi 2012:17]. Digital technologies offer an array of possibilities to share, promote, and experience people's memories and identities to a wider audience [Fairclough 2012:xvi]. Increasingly, mobile applications are being used for cultural heritage promotion and museum sectors around the world [Boaiano et al. 2012]. The incorporation of social media has created a unique opportunity to reframe our understanding and experience of heritage, by opening up more ways of interacting with community-based practices and personal accounts [Giaccardi 2012; Liu 2012]. One of the many advantages of using social media to promote heritage is its potential to reach a wider audience by creating a cyber space where people come together to generate, organize, and share content through an ongoing dialogue [Fairclough 2012]. Currently, the spread of smart phones and mobile technology, combined with a computer, has opened the possibility of experiencing heritage in virtual and augmented reality.

Unfortunately, the benefits digital technologies introduce, also highlight world inequalities. As the world heads to the *Fourth Industrial Revolution*, to a future where innovation and technology are centered on humanity and the need to serve the public interest, half of the world's population, estimated at 7.6 billion people [Schwab 2015; 2018], has no access to the Internet, according to the International Telecommunications Unit [ITU 2016:179], the United Nations specialized agency for information and communication technologies. At the end of 2018, 3.9 billion people (51.2 %) had connected to the Internet, most living in advanced economies. In developing countries, only 45 % of individuals are using the Internet, according to the ITU 2018 report. In advanced economies, most people have computer literacy and can afford the charges to access the Internet and the constant costs of updating mobile devices [Silberman and Purser 2012]. In developing countries, individuals who are connected to the Internet have the economic potential to do so, basic digital and literacy skills in English to access content distributing mostly in this language throughout the Internet.

There is no doubt that the *Fourth Industrial Revolution* is benefiting our quality of life, by restructuring the way we live, the way we work, even the ways we relate to one another. That technology and digitization will revolutionize everything [Schwab 2015] is easier said than done, as it is creating unrealistic expectations for most developing countries. In developing countries, heritage institutions are moving slowly in the digitizing of their collections and to share their value with the public through the Internet. In fact, technological advances exceed their ability to acquire them.

Mexico's National Museum of Anthropology, for example, uses an online catalog, designed for the user to visualize an object through a high-resolution photograph and to read a brief description of the object. The Museum is providing a monolithic view of their collections through a typical Web 1.0 format, based on hyperlinks, texts and photographs, to a highly visual and interactive digital community [López Varela 2018]. Moving into a Web 2.0 format, away from the static Web 1.0, to promote greater user interactivity and collaboration, is not about adding Facebook, Twitter, or Instagram links to a webpage. It is about transforming digital space into a place of social negotiation. The Museum's Facebook page, for example, is used to reproduce the existing structure of power surrounding the institutional notion of what heritage has to be.

In a country with more than 135 million inhabitants, the Museum has nearly 284 thousand followers. Only 1 % of its followers like their post, and hardly anyone leaves comments. Reaching the digital community through a Web 1.0 format, reproduced even in their use of social media, is not the ideal solution to promote Mexico's heritage. The transition to the social web, to a 2.0 format, demands a collaborative relationship with the public that goes against the rigid legislation. The change to a Web 2.0 requires a structural change in the ways narratives are offered by government institutions to promote a collaborative relationship with the public. Creating a digital place of cultural negotiation is no easy task. Therefore, *Alternative Mexico* is a project using digital technologies to partner with the public and to create a repository of social memory that bears witness to modern life in Mexico City and its surroundings [López Varela 2018]. If Mexico, as mentioned before, is a country in which nearly half of its population is living in poverty (Fig. 3), how do we justify the use of a mobile application to promote Mexico City's alternative heritage resources, since not everyone has access to the Internet, owns a smartphone or a computer.

ALTERNATIVE MEXICO: A DIGITAL HERITAGE PROJECT

Mexico is a country in which 62.8 million people are living in poverty [CONEVAL 2019]. However, their living in poverty does not seem anymore to be determinant for people to own a mobile phone, as only 26.5 % of Mexico's total population is not using a mobile phone [INEGI 2019a]. At first sight, it may seem the adoption of "Information

and Communication Technologies" (ICTs) has fulfilled its promise of having a positive impact in Mexico's economy. However, this is far from the truth. Launching ICT has not overcome poverty levels. Most social development policies involving ICTs, include a single infrastructure allocation, devices, networking components and software [Ranján Patiño 2011]. It is up to the community living in poverty to update their ICTs. If people living in poverty own mobile phones is because they lack basic services and infrastructure. Furthermore, people use mobile phones for emergency purposes, not for entertainment.

Mobile penetration has reached 83.1 million people in Mexico, of which, 93.4 % own a smartphone, [INEGI 2019a]. Nearly 45.5 million people using a smartphone, installed applications in their telephones for instant messaging (89.5 %), for accessing social networks (81.2 %), to download audio and video contents (71.9 %), and to access mobile banking (18.1 %) [INEGI 2019a]. In 2018, 74.3 million people aged six years old or more were Internet users [INEGI 2019a]. The high percentage of users, simply means those connected to the Internet go to school and already have learned Spanish, as statistics show 54.9 % of Internet users have basic education studies [INEGI 2019a]. The group between 25 and 34 years old is the one that registers the highest percentage of Internet users. In contrast, the population of 55 years or more is the one that uses the Internet the least. Most users live in urban areas (73.1 %) and are driven to the Internet for its offering entertainment (90.5 %), to communicate (90.3 %) and to search for information (86.9 %) [INEGI 2019b].

Based on these tendencies, *Alternative Mexico* partners with those living in urban areas and under the age of 35 to build its contents. This group includes generation 'Y' (Millennial, in between 20-33 years of age), and generation 'Z' (Centennial, in between 14-19 years of age) [Deloitte 2014]. These generations are looking for innovative and creative projects in which to participate to benefit society. Both generations are purpose-driven for opportunities of impact in the service of better projects, brands, science, technology, and nature preservation [Deloitte 2014; 2017]. *Alternative Mexico* supports their interests by fostering a collaborative relationship with the public through digital technologies owned by the "empowered citizen". Even if the digital divide exists in most areas of Mexico City, students enrolled in BA heritage preservation courses at the Faculty of Philosophy and Letters at Mexico's National Autonomous University (UNAM), who fall within this age range, are looking for opportunities to contribute to projects dealing with science, technology, and nature conservancy. Therefore, *Alternative Mexico* creates a strategic social value teaching-research transfer by incorporating these students to the project to recover the silenced voices of what heritage means to society. How is it done?

Developing a mobile app

The project, *Alternative Mexico*, developed a mobile application for iOS and Android platforms to promote heritage resources, a website (mexicoalternativounam.com) to communicate with the public (Fig. 4). To develop the app, the project considered data from the International Data Corporation [IDC 2015] to choose its platforms. Half of the world population uses an Android (85.1 %) smart phone, followed by an iOS (14.7 %) device, a Windows (2.6 %) or a Blackberry phone (0.3 %). The recent ban by the current US administration to Huawei, the second largest smartphone maker in the world, will have an impact on these tendencies. Not long from now, Android or iOS will be the only options for using an operating system to develop applications [IDC 2019].

The App is entertaining and educational. Its design is appealing, handy, and easy to use. The project created a visual identity for "México Alternativo" that included the design of a logo, communicating the presence of alternative Mexico's heritage values. The message is expressed by using two modified typographic families (Hele and Air Factory). Alternative is a word offering innovation and uniqueness in its contents. The word Mexico integrates basic geometric elements to create an environment outside conventionalisms conveying the idea of a novel, alternative, and different concept. The clash between words, formed by clean characters and stenciled details, creates a metaphor of what will be offered, a heritage concept, beyond national values (Fig. 4).

The App structure moves between a classic Web 1.0 format to the Social Web. The app gives the user the opportunity to participate in this project, by adding a resource both on our App and our website. The user is able to locate the resource on a map, include a photograph and a brief text description, after answering a few questions, and accepting our terms of reference. The app offers the user the opportunity to learn and experience heritage resources distributing throughout Mexico City's boroughs and nearby municipalities, both online and off-line. Browsing through each borough and municipality, the user experiences the social value behind Mexico City's heritage resources -the foundation of its many identities (Fig. 5). The visitor moving around Mexico City and its surroundings would have the opportunity to visit those new resources that are located on a map, read a description of the site and look at a photograph. Most likely, the reader might be thinking *Alternative Mexico* is another mobile application for iOS and Android platforms to promote heritage, using also a website and social media to communicate with the public. In principle, it is. What makes us different is how we have built its contents. The methodology we have followed consolidates a strategic alliance with the public through a value chain teaching-research transfer.

Community Engagement

For the last five years, the project has been recovering the material and immaterial witnesses of Mexico's modern history, even the sounds of the city. The methodology we have followed partners with students enrolled in heritage preservation courses. Every student enrolled in Cultural Heritage and Cultural Heritage Preservation courses at the BA program in Development and Intercultural Management at UNAM, records Mexico's national and contemporary heritage values. Having their home as central point, students trace a circle on a Google map image, extending one kilometer, and survey the area to identify national heritage values. Knowledgeable of their existing cultural and social capital, students also recover the history of the defined area, by carrying research in libraries and archives. Given the scarce academic publications about people's heritage resources, students have to rely on electronic information that is later verified by students in advanced courses.

Since Mexico was built on what was once the Aztec city of Tenochtitlan, the possibility of having archaeological resources underneath the built environment is very high. By researching the history of the area, students recover limited archaeological information. In some neighborhoods with protected historical areas, students register mostly colonial churches. To identify contemporary resources and events, Millennial and Gen Zs interview their neighbors, asking modest questions in a very simple language, such as, what kind of places are important for the community and if they were to disappear, how would they feel. By interviewing their neighbors, who might or might not own a mobile phone, students record places, traditions and objects that are relevant to them and that are not considered part of Mexico's national history.

After students have surveyed their neighborhood, carried research on the history of the area, and interviewed their neighbors, together, we evaluate their findings in the classroom by considering national heritage criteria, but also, values of significance. These values follow standard criteria by heritage management processes around the world, mostly, considering social value –feelings of association and significance. Therefore, these criteria lack strict temporal and spatial limits, and are not valued in terms of priority scales. The recovered resources have social value, as these are associated with events that yield information about contemporary Mexico, and are significant to those that lived them, or know about them.

The places and stories shared by their neighbors are inspiring, personal and engaging (Fig. 6). These new resources have lasting value and significance, are unique expressions of human knowledge, and are part of Mexico's history (Fig. 7). Near Mexico City's international airport, for example, a busy street frames an apartment compound complex, designed by Mexican architect Mario Pani (1911-1923), who shaped Mexico City with his emblematic building of UNAM campus. In the 19th century, an American-Mexican family, who founded Braniff International Airways, owned most of the land that witnessed Alberto Braniff flying his plane during the centennial celebrations of Mexico's Independence in 1910. This was the first flight to take off in Mexico, marking the beginning of its aviation history. The "Hacienda de Balbuena", the colonial manor controlling this land, owned by the Braniff family, today houses an apartment complex, named after President John F. Kennedy that he inaugurated during his visit to Mexico City in 1962. The project has recovered testimonies of those that lived that moment, of the warmest reception ever expressed to a head of state by the Mexican people, an incalculable crowd that covered the 20 kilometers between the airport and Mexico's presidential home. Not even John Paul II, who they also remember passing by through this busy street, received a similar welcome. *Alternative Mexico's* webpage displays heritage resources narrating similar stories.

CONCLUSIONS

The need for economic growth and the use of an outdated heritage management process has contributed to the obliteration of mnemonic elements of Mexico's modern history and lifeways. Since Mexico's citizens demand their preservation on the streets, *Alternative Mexico*, partners with the "(dis)empowered citizen" by facilitating a technological platform to communicate the value of this heritage through a mobile application for iOS and Android devices available for free in the iTunes and Google stores. Over the last five years, we have recorded heritage resources without strict temporal limits or priority scales. Heritage resources are associated significantly to people's live ways both in the past and the present, or simply evoke part of their modern identity. These heritage resources contribute to a collective sense of belonging through which territorial cohesion is maintained. The technological platform promotes heritage resources that are of great value to Mexico's citizens, not only to heritage institutions.

Embracing alternative views of what heritage means to society may be difficult for the Mexican academia and heritage institutions. However, the increasing discontent is evidence of their demand for an increasingly collaborative relationship with institutions to redefine Mexico's heritage, through new structures and patterns of communication, relationships, collaborations and expectations. Stewards' use of digital technologies and social media demand a different approach to reach Millennials and Gen Zs -the users of the Internet and mobile phones, demanding new user experiences and communication strategies through blogs, media content upload, or social

networking sites. In fact, statistics demonstrate museums underperform significantly [López Varela 2017]. Based on the limited visitor-based information provided by the Secretariat of Tourism [DATATUR 2018], the number of international visitors (2,093,700) to archaeological sites decreased between 2018 and 2019, while the number of national visitors (4,058,722) slightly increased. Taking into consideration that 41.4 million international tourists visited Mexico in 2018, and that only 688.533 were interested in visiting the National Museum of Anthropology, should be a call for action to analyze what heritage stewards are communicating and how are they communicating with the public.

Alternative Mexico might be considered anther mobile application for iOS and Android platforms to promote heritage, using also a website and social media to communicate with the public. However, *Alternative Mexico* is a participatory project promoting a culture of connectedness through community engagement, giving the opportunity to Millennials and Gen Zs to acquire academic and intellectual abilities, as well as technical skills, by participating in a project seeking to benefit society. Therefore, advanced heritage students engage with people through social media, by uploading contents with different communication tools, and responding to their requests.

Alternative Mexico's growing social media community is building social capital through the comments people have to the photographs posted on our Facebook page. Their posts are full with nostalgia, interesting a community in knowing more about these novel resources and their significance in the present (Fig. 8). Already, *Alternative Mexico* has received requests to collaborate with the project. In fact, those no longer living in Mexico City have joined the project community and are enriching the contents of the places they once inhabited. Therefore, I agree with Gregory [2011: 22] social media, 'enhances both awareness of and collective attachment to the past by facilitating public expression of emotional responses to the past, generating the needed social capital needed to mobilize against the destruction of heritage buildings and places.'

Analyzing the institutional context in which digital contents are developed leads to the conclusion that the democratization of knowledge is so much more than promoting access to museum archives through the Internet. The democratization of knowledge requires closer examination of the complexities of institutional discourses and practices. Digital technologies, unfortunately, have excluded citizens from its benefits in developing countries. Nonetheless, digital technologies are transforming the way people perceive the world and are encouraging people to express their views [WEF 2016]. Use of digital technologies in this project, hopefully will contribute to the democratization of heritage, and will demonstrate, considering people's heritage is the best heritage management practice to contribute to social sustainability and peace [UNESCO 2014].

FIGURES

Fig. 1. Urban spaces have been appropriated by Mexico City's inhabitants and are now part of their collective identity. (© Sandra L. López Varela)

Fig. 2. "Chinatown" is a migration entry point shaping the identity of Mexico City's downtown (© Sandra L. López Varela)

Fig. 3. In Mexico, after two centuries of trying to combat poverty through an array of economic proxies, half of its population still lives in poverty (© Sandra L. López Varela)

Fig. 4. The application "Alternative Mexico" is free and available in the iTunes and Google Play Stores as México Alternativo (© Sandra L. López Varela)
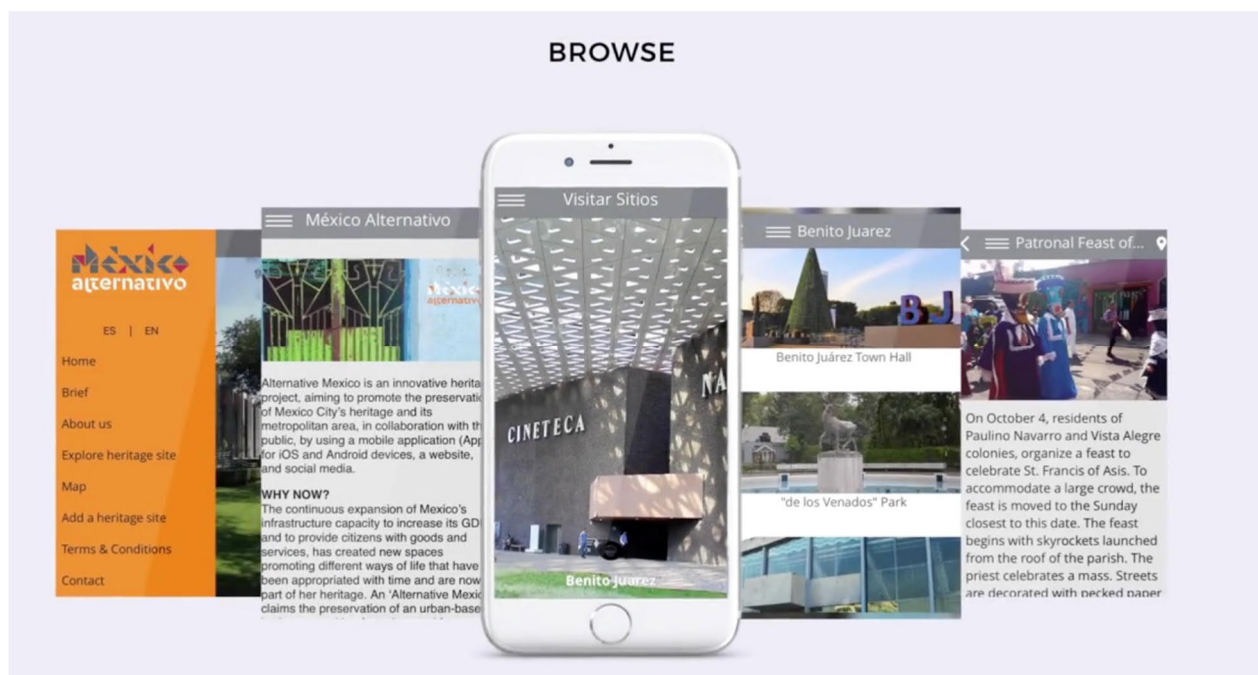
Fig. 5. The app offers the user the opportunity to learn and experience heritage resources distributing throughout Mexico City's neighborhoods and nearby municipalities, both live and off-line (© Sandra L. López Varela)

Fig. 6. In 2010 the First Lady of the United States, Michelle Obama, visited this public school during her first official visit abroad, as part of the mentoring program of the American School Foundation. The students held a ceremony to honor the First Lady of the United States (© México Alternativo)

Fig. 7. In 2009, a family in Ecatepec, a neighborhood in the State of Mexico, supported the construction of a chapel dedicated to St. Judas Thaddeus. On October 28, at midnight, the mariachis play the Mexican happy birthday song, "Las Mañanitas". A dinner is served with coffee, a maize based hot drink (atole), sweet bread, and tamales. At 2 am, the feast is marked with fireworks (© México Alternativo)

Fig. 8. "Alternative Mexico" sharing Mexico City alternative heritage through a website[1], a mobile application for iOS and Android devices, including social media, mainly Facebook and Instagram (© México Alternativo)

ACKNOWLEDGEMENTS

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