

Materialidades da Literatura



Vol. 6.2 (2018)
Electronic Literature: Communities

Editors:
Rui Torres
Manuel Portela

‘I blamed this all on moving to Texas’: Fostering Sense of Place through Locative Literature among US Latina Girls

Cláudia Cristina da Silva

M-ITI/MADEIRA INTERACTIVE TECHNOLOGIES INSTITUTE, PORTUGAL

Valentina Nisi

M-ITI/MADEIRA INTERACTIVE TECHNOLOGIES INSTITUTE, PORTUGAL

Joseph Straubhaar

UNIVERSITY OF TEXAS AT AUSTIN, USA

ABSTRACT

This study explores how US Latina girls, in Central Texas, may develop a stronger sense of place and belonging through the grasping and crafting of locative literature. This work presents the results of a field study, in which training about locative narratives and locative media was provided during two different occasions. Firstly, a four-day workshop was conducted within the context of a summer camp with girls organized by a non-profit organization called *Latinitas*, based in Austin, Texas, USA. Secondly, the training was provided within the context of an after-school program, in a middle school, given also by *Latinitas*, to girls age ranging from 11 to 13, during five lessons spanning over five weeks. We found that the process of creating narratives rooted in the concept of place helped the participants to reflect on the location where they live, their locality, and their identity.

KEYWORDS

locative media; locative literature; storytelling; children; early adolescents; US Latinas; *Latinitas*; place.

RESUMO

Este estudo mostra como crianças e adolescentes latinas em Austin, Texas, EUA, podem desenvolver um sentido de lugar e pertença através da compreensão e elaboração de literatura locativa. Este trabalho apresenta os resultados de um estudo de campo em que foi dada formação sobre narrativas locativas e média locativos em duas ocasiões diferentes. Primeiro, realizou-se uma oficina de quatro dias no contexto de um acampamento de verão com crianças realizado por uma organização sem fins lucrativos chamada *Latinitas*, com sede em Austin. Num segundo momento, foi dada formação no contexto de um programa extracurricular no segundo ciclo do ensino básico, também pela *Latinitas*, para meninas com idades entre 11 e 13 anos, em cinco sessões, distribuídas ao longo de cinco semanas. Os resultados deste estudo indicam que o processo de criação de narrativas enraizadas no conceito de lugar ajudou os participantes a refletir sobre o local onde vivem, a sua localidade e a sua identidade.

PALAVRAS-CHAVE

média locativos; literatura locativa; narração; crianças; adolescentes; Latinas norte-americanas; *Latinitas*.

I. INTRODUCTION

Locative literature refers to literary texts attached to places as noted by Anders Sundnes Løvlie (2011; 2012). Building on electronic literature, this author (2011) states that locative media make it possible to create spatial hypertext, a textual layer over the world, a kind of “hybrid space” (de Souza e Silva, 2006). Løvlie worked on the development of a wiki-based application for mobile phones called Textopia: a locative literary system where users can freely upload and share any texts they like. Textopia enabled a large group of people, both amateurs and professional writers, to upload content to the shared platform, creating locative genres of literary expression. In this study, however, we focus on the sense of place that locative storytelling can foster among young female members of less advantaged communities, particularly among US Latinas age ranging from 10 to 14, in central Texas, southwest of the United States.

Hence, this study aligns with Lucila Vargas’s research on the Latino diaspora (2009), which looks at first-and-second-immigrant generation Latina girls and teens who live in the “New Latino South.” The latter is one of the areas of the United States where Latina/o settlement is very recent. As this author explains, it is important to remember that we use the term “US Latinas/os” as an all-inclusive category that identifies the rough 54 million of Hispanic/Spanish speakers in the United States (data by the US Census Bureau population), who are from, or descendants of immigrants, from Latin America and the Caribbean.

With this in mind, the researchers partnered with *Latinitas*, a non-profit organization funded in Austin, Texas, in 2002, aiming to “empower young Latinas through the teaching of media and technology” (*Latinitas’ website*). *Latinitas* focuses on the particular struggle that Latina youth face in adolescence. As stated on their website, young Latinas are the largest group of minority girls and represent the fastest growing youth population in the US; alarming trends show they have the highest high school dropout rate (see Zambrana and Zoppi, 2002), attempt suicide rate and teen pregnancy rate. By creating an online space dedicated to Latina youth and providing them with mentors and role models, the organization aims at increasing their self-confidence and abilities. Building on this organizational goal, our intent was to analyze the potential of locative literature to enhance these girls’ sense of place.

Our motivation was supported by recent studies showing that ‘place’ is fundamental for children’s future, and that living in an affirmative place, such as a

safe neighborhood, is crucial to achieve upward income mobility (Chetty and Hendren, 2015). This study conducted by Harvard economists Raj Chetty and Nathaniel Hendren (2015) explores how community can influence a child's future income. The authors found that a child's chances of stepping out of poverty can improve depending on where they are raised. The study also states that low-income children are most likely to succeed in counties that have less concentrated poverty, less income inequality, better schools, a larger share of two-parent families, and lower crime rates:

Counties that produce better outcomes for children in low-income families tend to have five characteristics: lower rates of residential segregation by income and race, lower levels of income inequality, better schools, lower rates of violent crime, and a larger share of two-parent households. (Chetty and Hendren, 2015: 7)

Moreover, a couple of issues make the goals of this study relevant. First, Travis County (Austin, Texas) is among the worst counties in the US in helping poor children up the income ladder (Chetty and Hendren, 2015). Second, Austin was found to be one of the most segregated in the United States (Florida and Mellander, 2015). In order to tackle these issues, this work is informed by studies from geography, anthropology, locative media and psychology as sources. Although we are touching upon on these several different areas of study, the common theme is storytelling anchored in places.

This paper is structured as follows: we will provide the theoretical framework, explaining the relevance of 'place' for locative storytelling, followed by the explanation of methods, results, discussion and conclusion consecutively. The closing section will cover limitations and future research.

II. THE RELEVANCE OF PLACE AND SPACE FOR LOCATIVE LITERATURE

Place is the source of "locative stories" and is the central notion that justifies the use of locative media in this study. We draw on notions that sense of place is linked to the "rooted and healthy self" (Convery, Corsane and Davis, 2012: 2). This work is grounded in the concept of sense of place, which stems from the field of geography and has been largely applied to mobile media and locative media (Wilken and Goggin, 2012; de Souza e Silva and Sheller, 2015). Sense of place can be defined as the "meanings, attitudes, and perceptions that people ascribe to a place, usually conveyed in a way that portrays that place as a unique object of human belonging or attachment" (Long, 2010: 4). In other words, sense of place refers to the subjective and emotional attachments people have to place (Convery, Corsane, and Davis, 2012; Agnew, 1987). Vanclay (2007), for example, notes how storytelling is a way in which any place becomes 'our place' or 'our

patch,' where we assert some authority, or ownership, or at least some connection to a place. As Vanclay notes, "it is generally argued that people with strong place attachment are more likely to have place commitment" (8), which can be used as tool to foster immigrants or their children to have a better sense of place and consequently belonging.

In fact, anthropologist Keith Basso's work (1996) reveals the impact of storytelling and places on children. Basso did an ethnographic study about how Western Apache Native Americans transmit wisdom about place through storytelling and place-names, while also transferring moral values. For them, geographical locations have moral significance. In regards to Apache children, if they do not know the stories of what has happened to certain places, they may have social problems in the community where they live. This may happen because the historical tales tied to places convey guidelines for dealing and getting along with other people. Thus, children who lack knowledge about such narratives are more likely to act in ways that run counter to Apache social norms (Basso, 1996). What is relevant to highlight about Basso's work is the example of Native Americans in how they use landscape to reinforce their stories. As Basso (1996) highlights, "places served humankind as durable symbols of distant events and as indispensable aids for remembering and imagining them" (7).

That said, this study builds on Basso as a departure point to encourage Latina girls to produce stories based on the recent past or memories about meaningful places. In this sense, it is important to distinguish place and space, which is one of the leading ideas of all scholars who address locative storytelling. For the human geographer Tuan (1977), "space" is more abstract than "place." While space is related to room, size, and time, place is related to meaning. As the author puts it: "space is transformed into place as it acquires definition and meaning" (136) or "place itself offered little outside the human bond" (140).

Basso's work on place and storytelling as moral values can be linked with psychology studies on personality and life stories for identity formation. According to McAdams (1996), the development of identity over the modern life course may be divided into three broad areas: *prenarrative era* (infants, children, and early adolescence — 11 to 14 — gather material for the self-stories they will someday construct, as they are not actively constructing identity yet) the *narrative era* (from adolescence or young adulthood) and *postnarrative* (search for a confirmation of what the person was in the past in middle age life). Locative literature may have the means to provide pre-narrative groups of children and adolescents with literary materials to be used in their future lives, not only giving them an instant result: the written story.

Another interesting notion about place is that it is not scale specific; it can be small as a table and as large as the Earth (Cresswell, 2008). The impact of place can be also dislocated. In her work, Paula Levine (2014) explains that

there is also a potential for mobile and locative media to change one's relationship to a place by introducing distant events or circumstances onto local spaces and making

events that are happening elsewhere highly relevant to the immediate, local space. (143)

By drawing from the psychological concept of “cognitive dissonance,” Levine (2014) proposes “spatial dissonance,” which means, as she explains, the experience of two contradictory spaces (or ideas about a space). Levine (2014) explains: “cognitive dissonance describes a state of mind that arises when two contradictory ideas must be held in mind, for example when information that is presented stands in conflict with strongly held beliefs” (148). Some theories suggest that “we attempt to move away from this state of contradiction by turning away from the new information presented to return to the safety and familiarity of beliefs we previously held” (148).

Levine (2014) further argues that this conflict may also be applied to the ways we think about our relationships with space and place. Levine refers to the juxtaposition of spaces, for example, by overlaying certain locations of Baghdad on the map of San Francisco. An example is overlaying a local map with events that are happening elsewhere in the world. Levine (2014) writes that locative media can collapse geographies to mix *here* with *there*: “By narrating pathways among the geospatial-temporal gaps, participants forge links between familiar places and their relationships to events, locations, and circumstances that normally lie outside of the local borders” (144).

Regarding children/adolescents and sense of place, scholars Jones, Williams and Fleuriot (2003) conducted a research project called ‘A New Sense of Place’ in order to understand how “wearable” and “mobile” technologies might be applied to help children (re-)engage with urban spaces. This research team has raised important concerns. The first is the “apparent crisis in the spatialities of childhood brought about by the increasing confinement and control of children in many environments, particularly urban environments” (2003: 167). These authors also mention other studies that support the notion that children growing up in urban spaces are often restricted in their homes and bedrooms. Another concern is the relationship between childhood and technology and its relationship with space. Scholars associate the saturation of childhood by technology with their physical and geographical confinement (Jones, Williams and Fleuriot, 2003). In other words, since children growing up in urban spaces are limited in exploring the world outdoors, they end up being left with the enjoyment of technology indoors. This situation might be more complex regarding the financial restrictions of low-income or underserved kids, because they tend to have less social capital. The issue here is that children are restricted from moving through and using the wider, ordinary, everyday landscapes around their homes and in the areas where they live. An implication of studies on locative storytelling and children is that it might enhance their sense of geography or spatial skills. Hence, locative literature may play a role in strengthening or revealing difficulties children and adolescents face to understand issues of place.

III. METHODS

This two-phase case study used ethnographic techniques such as participant observation and fieldnotes to understand how the crafting of locative literature could help young populations to have a better sense of place. The researcher conducted workshops with Latinitas' groups that happened in two separate phases: 1) A four day (2 hours daily session) training during a one week summer camp (June 2013) with 9 girls age ranging from 10 to 14 years-old, in Austin, Texas. 2) A five sessions training of one hour each spanning over five weeks in late October and early November (2013), conducted with middle-school students girls age ranging from 11 to 13. The sessions were conducted during an after-school program, in Round Rock, a city within Greater Austin metropolitan area. The number of participants of this second phase was not fixed. Since it was an after-school program, participants would show-up according to their free will, which affected the outcomes of the study, as we will explain later on this section. In both phases, the researcher introduced a specific glossary for both groups with a few terms such as: GPS, smartphones, tablets and locative media. The girls' reactions and responses to the content were observed and noted by the researcher. Participant observations were conducted in both situations, as we were interested in understanding how the participants perceive place and locative media. The first author was the leading instructor for both phases and was assisted by a couple of Latinitas' interns in both occasions.

For the purpose of this study, during the training and workshops, the researcher did not act as a conventional teacher, but as a sort of focus group facilitator. In other words, at first the researcher did not provide the participants with details about the technology or the application that was taken as a case study. Rather than providing the participants with guidelines, the goal was to expose them to the concept of locative media. Before moving on, it is important to say that this study had approval from the Institutional Review Board (IRB) from the University of Texas at Austin, in which this research was conducted. Informal interviews conducted by the girls among themselves were also used as data for these studies as well as the locative stories they produced. The latter was the main dataset analyzed for this paper. In the next subsections, we will explain in detail how we collected this data during the two phases.

Phase 1

Nine participants ranging from 10 to 14 year-olds participated in this training. During this phase, girls were stimulated to think about the concept of place, and place-based storytelling through different prompts. First, the researcher exposed her own experience with locative media showcasing examples of her own locative stories (Silva et al, 2017). The instructor subsequently showed them how to digitally geotag through the Historypin website, the application that was later used to upload the stories. Second, students were also asked to read the locative story written by the researcher out loud and in turns. Third, they were asked to

bring for the next session a photo of a physical place (e.g. building façade) that could symbolize a meaningful place to them, and write a story about the place symbolized on the image, and geotag it onto a map through Historypin.

After this demonstration and introduction to the concept of locative media, on the second day of the training they were coupled into pairs and asked to interview each other. They were given a script by the researcher with the following questions: age, which mobile devices they had at home, if they had smartphones, differences between a tablet and a smartphone, what is your favorite place and why, which mobile apps do you use most, tell me something about the photo you brought to write the story about. The goal of these background questions was to understand how well the participants understood the place before the training. Also, we wanted to understand their social capital and their “raw” sense of place. All participants were born in Austin, but their parents were from other countries, such as Mexico, Honduras, Ecuador, or from different US states (Wisconsin, Oklahoma, Chicago). Thus, these children were mostly second-generation US Americans, because at least one of their parents was not born in the United States. In response to the question of what was their favorite place (in general), they responded “Texas,” “school,” “my house,” “my grandma’s place,” “Illinois,” “Mexico,” “El Buen Samaritano.” Thus, their understanding of place was diverse, ranging from understanding of geographical divisions such as states and countries to more emotional conceptualizations such as “house” or very specific places like “El Buen Samaritano” (the institution where the training was held). In terms of access to the primary base of locative media, the smartphone, few of them had that basic access. Out of nine children, only three had smartphones. Finally, stories were produced during the training and edited by the instructor. Afterwards, participants geotagged them through Historypin.

Phase 2

Similar to what was done at the first phase, students were split into pairs to interview each other with the same script as the summer camp. Five participants ranging from 11 to 13 year-olds participated in the first session of this training. Unlike phase 1, some of them were born outside the US. When asked about their favorite place in their neighborhood, their responses were: my room (n=4), my house/friend’s house (n=1). None of them had smartphones of their own. Three out of five children had no one in their families with smartphones or tablets. In comparison to study 1, this phase had several limitations. First, this study did not have a fixed group of participants, due to the nature of the afterschool program and the fact that it happened once a week. Out of the five participants who attended the first session, only three showed up again, although during the other sessions other two or three new participants joined each time. Second, participants were not able to access Historypin website in the school computer lab, because the school policy was against accessing social media pages during school hours. That said, the researcher asked participants to explore Google Earth instead and present to the class their houses on the Google Earth map. A

significant methodological revision in comparison to the first phase was that the girls were asked to write stories specifically about their neighborhood rather than their hometown or place where they were originally from (which was also the example provided by the researcher). We wanted to grasp to what extent they had a sense of the locality where they live. However, none of the participants really wanted to write about the areas where they resided, an interesting finding we will discuss in the next sections. Finally, we decided to let them write about whatever place they had a connection with. Following the consequences of the limitations mentioned above, none of the girls were able to upload/geotag their stories. Despite this limitation, the second phase generated some insightful observations, which will be discussed in further sections of this paper.

IV. RESULTS

Based on the analysis of their stories and the observant's participation notes of phase 1 and 2, several themes emerged which will be presented and reflected below.

Phase 1: Locative literature as way to reflect on locality through distant localities

Not surprisingly, 12 and 14 year-old student girls grasped and applied the concept of locative storytelling to their stories better than the younger children like the 10 year-old. What was insightful about this finding was how older girls manifested their understanding of locative storytelling into their writing in comparison to the younger ones. While the 10 year-old participants wrote about her favorite place, without reflecting very much on it, the older girls (12, 13, and 14) used the assignment to reflect on their experiences of places, and how those places influenced their own lives or their locality of residence. For example, a 14-year-old put her locality into perspective by comparing it to the other place overseas, by writing a locative story entitled "Home is with Family," using a couch, where she used to sit with her family members, as a "place." The use of the couch as a micro location is revealing, after all it is hard to define a couch as a place itself if not as part of the participant's memories. Thus, although she geotagged the house and not the couch, this piece of furniture is portrayed in her story as the place that triggers sense of belonging.

As Cresswell (2008) points out, place can be understood on a very small scale. Even a chair may have a sense of place as somebody assigns meaning to it (e.g.: a chair where your dad sat when reading stories to you as a child). We had asked all the participants in the summer camp to write about a place in Austin, but this particular participant, for example, could only find something emotionally close, physically very far away. She could not think of any other place than her grandma's house in Honduras. It is quite striking to think that she used the "couch" at her grandmother's house as an object that modified the meaning of "home." In her story "Home is with family" (Figure 1) she wrote:

The couch that they are sitting (or in my mom’s case, leaning) on is the same couch that my niece used as a sandbox and stuffed her toys in. This couch is also where my dad, my brother, and my cousin sat together, rooting for the Honduras soccer team. The couch in my home, in Austin Texas, in the United States, is cold, dark, and leathery, whereas this couch [from the picture she geotagged] is soft, bright, and warm. While my parents and my dog sit on the couch at my American home, to watch a movie or play a game, the family in Honduras sits on the couch to bond; to make memories; and to live in the moment where we are not from different worlds, but from different streets.

This participant geotagged her story onto the map of Honduras because the picture was taken there. Despite mentioning her US house in her writing, her memory was tied to a Honduran place through a couch. On the one hand, one could think that she is disengaged from her locality where she lives, but on the other hand, one may say that the opportunity of experiencing a different cultural setting allowed her to see her culture differently and how the ways of bonding are distinct. By looking at what it is distant and apparently exempt of trouble, conflict, or boredom (her grandma’s couch in Honduras), she understands and reflects on the couch potato culture in the United States (her couch in Austin, Texas). Apart from the couch, she also wrote about the house:

My grandmother's house is old, stuffed with useless boxes and bugs, and it sits quietly in the shadow of a mountain. It holds memories and wisps of a previous life. It stands tall and sturdy. **It stands as my second home.** Though it is far away, I long for the days I had. Over those days my family and I could laugh and cheer and be together.

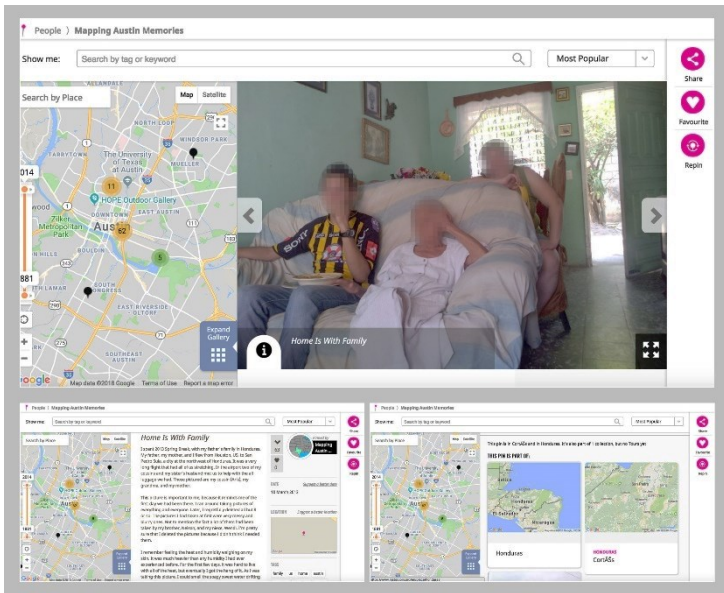


Figure 1. Historypin Screenshot of the story geotagged in Honduras titled “Home is with Family.”

We highlight the fact that she considered a distant place as her ‘second home’ due to an intense meaning she ascribes to that place well located “in the shadow on a mountain” by her on the map (Figure 1) in a green area. As the title of her locative story suggests home is not determined by a location, but by an emotional tie with family. The couch story resonates with Paula Levine’s concept of spatial dissonance (2014), touched upon earlier in this paper. The crafting of the couch story enabled the participant to engage with their locality by reflecting on the experience of going to her grandma’s house in Honduras.

Another participant, 13 year-old, also did not choose a place in Austin to write about. With her story titled “A bad day to go to Six Flags Fiesta,” rather than writing about a place, she narrates the process of getting to a place, an amusement park in San Antonio, Texas, a city close to Austin. She pinned the picture to her destination, but her text conveys the idea of an event — a fieldtrip, recollecting the bad luck of going on a bus trip in a rainy day to a water park. Her memory was based on the idea of mobility, of leaving her home or her city and going somewhere else to experience something different. She actually ends her story without going into the experience of being at the place itself.

While the two previous participants chose to write about a place that is geographically far away from their locality, another one, a 12 year-old, chose to write about her school located in Austin. She brought a picture (Figure 2) of her school façade and she chose it because it holds a strong memory that changed her life. This locative story helped her to make meaning about her school, situate herself in the present, and realize how she overcame all her struggles and how that place is also part of her identity. She wrote:

This school is memorable because many things happened there: my arm, my first school dance, and also it was the place where I had my first parade. All in all, I had a quite good time at Summitt (her school) and so many memories are still with me. Some people think that this school is a bit odd being made of red bricks and a bright blue roof, but I think that makes it sort of unique. The school’s playground is very fun with separate playgrounds for the big and little kids and has a small track that is a good size to do exercise but not overdoing it. Summitt is very big with many portables.

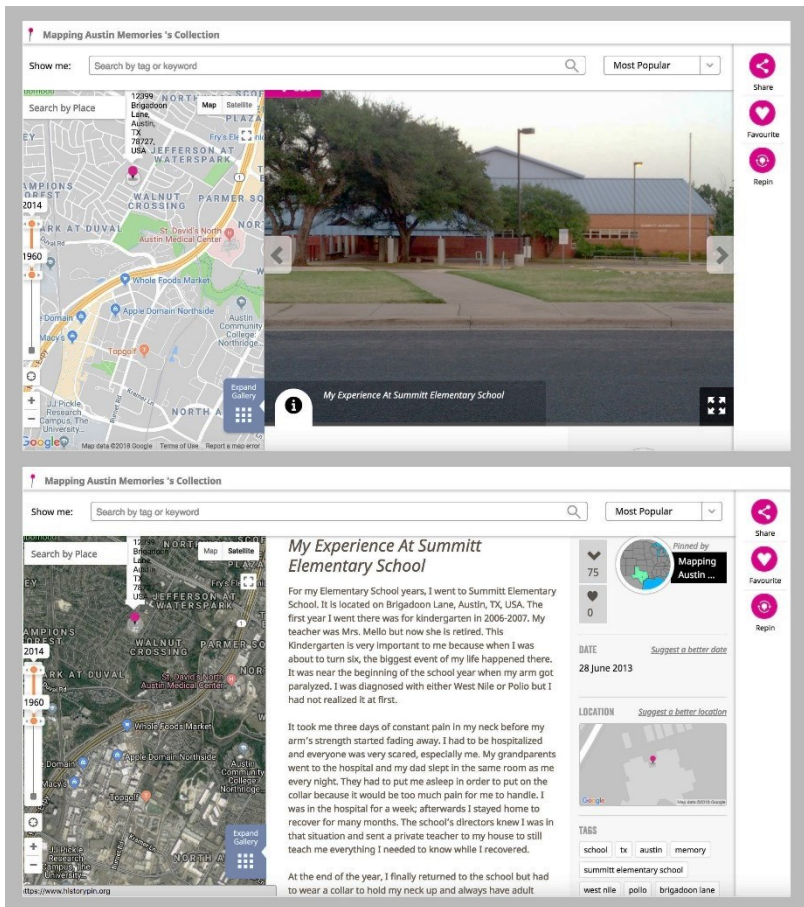


Figure 2. Historypin Screenshot of the story “My Experience at Summit Elementary School”, including the satellite view of the photo geotagged.

Another participant, 11 year-old, chose her locative story based on the memory of the celebration of her tenth birthday. In her story, she says that was the first time she went to the mall with her best friends. So, she pinned her story on the mall. She wrote:

I love the mall because it always smells like soft pretzels. It also always has cool clothes and my favorite store is Hot Topic. I will never forget this day because it was my first time I went to the mall with my best friends. After that we all went to my house to have pizza and open presents. That was my best birthday I had ever had in my life.

The last story was written by a 10 year-old about the place where the training was held: El Buen Samaritano, an institution that helps Latino and other families in Central Texas. She considered the place her favorite. She wrote:

My connection with El Buen Samaritano is really special because they help me to learn more things than I already know. I have been coming here since I was two years old. They teach me really cool stuff also because of that I learn a lot of things in fun ways. That is why I love coming here is like my second HOME!!!

This excerpt shows that her sense of place is rooted to an emotional meaning that prompts her to call an institution her second home. Similarly, the participant who pinned her story in Honduras also called her grandmother's house a second home, but in this case, the location in fact corresponds to a house, and it is a place where family gathers. For the 10 year-old girl, El Buen Samaritano is a place where she stays while her mother is working. In other words, staying at El Buen Samaritano means staying temporarily apart from her family. However, on the other hand, she benefits from the activities and learning process.

As other studies have discussed, locative and mobile media have the potential to affect the process of memory and the creation of meaning, as they offer new ways to store and to share information and reflections. They also offer new ways to present self-identity to others. As other studies have noted, the experience of a place has to do with different factors, such as memories associated with a place, social circles, and people with whom we have traveled to a place (Ozkul and Gauntlet, 2014).

In the next section, we will discuss the results of the second phase of the field study with Latinitas' children, over the after school program in a middle school, in Fall 2013.

Phase 2: The psychological role of the instructor to draw out locative stories

During the training of phase 2, we have asked the participants to write about places in their neighborhood that were meaningful for them. Participants had trouble writing about the neighborhood where they live; moreover, none of the girls were able to upload a story, due to several reasons. First of all, the school did not allow access to social media in the computer lab. Some of them wrote the stories but were not able to take the photos, therefore they were not able to geotag the stories on the map, since Historypin requires an image to geotag a story. And some of them had problems in getting their parents' support in order to get such photos. That said, the data analyzed for this phase refers mostly to participant's observations related to the creation of locative stories and the data collected from the informal interviews they did among themselves.

Some participants revealed some level of disconnection with their locality. For example, a Mexican descendant wanted to write about places in Mexico. She said that she did not feel any deep connection with places in the US. She wanted to use a story she had already written about her grandparent's haunted house, which is located in Mexico. Also worth noting is the fact that another participant wrote about her grandparent's house in Round Rock as well.

Early adolescents, in this second workshop, proved to have their sense of place rooted to their family's house or a very private sense of place. The study

highlighted the difficulties of some adolescents in rerooting themselves outside their native country, if not the resistance to embrace a new culture, leaving their original one behind. Results from this study show how important locative literature may be as part of a formative goal to increase their sense of space and place. When asked if they had a favorite place (without distinguishing between public or private), 4 out of 5 declared that their favorite place in their neighborhood was their own bedroom, which reinforces our notion. Actually, many of them wanted to write about other far away places, instead of their neighborhood.

An interesting observation from this workshop was the personal effort that the researcher — acting in the role of lead instructor - had to do in order to coach one of the participants to write a story. The participant who was 12 year-old said she was living with her mother and father. She claimed that she had tried to talk to her mother to get her help with the workshop assignment of bringing a photo many times during the week before the training, but she was arriving at home late, and she was tired, and wanted to watch soap opera. This girl mentioned several times during the training that she had the dream of becoming a writer but was struggling with the lack of support from her family to accomplish the assignment for this research. Thus, the researcher had to work individually with this adolescent and share her own personal stories in order to help her to think about past events and memories, and feel confident to write about them. By doing that, we were able to come up with an outline for her story. The researcher, in the role of an instructor, was trying to help her remember some memory that was crucial to her development, something that she would remember for her entire life and that she could associate to a place. Although it required an extra personal effort from the researcher, the result was successful, as her story was the most complete and insightful in this phase. This is the way she started her three-paragraph short story: *“When I was nine I never understood the **concept of having to move to Texas** because we didn’t have money.”* And this is the way she finished:

As I grew older other things that I considered bad started happening. My birthday didn’t have enough presents, my grandpa died, many family members started to get arrested. I blamed this all on moving to Texas. Before we moved to Texas no one died or got arrested and I had enough presents. The feeling of all of this overwhelmed me.

The two excerpts above demonstrate how this 12 year-old girl associated the move from Florida, where she used to live, to Texas, with a succession of losses. The place where she currently lives was marked by these memories, which very likely troubles her connection with Texas and consequently with her locality. In summary, after concluding this study we may infer that the process of drawing stories from the students’ past and present in order to craft locative media narratives could contribute to alleviate psychological nodes related to disconnection to the place where they live, or trauma related to disconnecting

from their cultural roots. By providing these users with an opportunity to think and express personal locally relevant stories might help them to connect better with their locality. Moreover, these findings suggest that some degree of psychological and emotional stimulation and sometimes supervision to draw out stories related to place and physical locations is necessary, in particular if related to traumatic events, disadvantaged communities or locality subject to segregation.

As locative media exercised in immigrants or less advantaged communities might lead to unpack painful and at times traumatic life events and process them as stories, the presence of a therapist or psychologist could be an interesting addition to the team of researchers or locative media experts. This could be an opportunity for them to develop literary materials for their narrative era, as put by studies in the field of psychology by McAdams (1996) and as consequence the literary materials they produce may contribute for the construction of identity along with a formation of sense of place.

V. DISCUSSION AND CONCLUSIONS

In this section we will discuss the findings of both studies in general and expand them with reflections on several theories and frameworks mentioned earlier in the paper. The participants (of both phase 1 and 2), mostly second-generation Latinas, had trouble writing about places in their locality, which highlighted the fact that they had a poor sense of place or local knowledge in relation to their current neighborhood. This struggle may have occurred because these children do not find the places where they live attractive or fun, or they have not developed happy memories in those places. Anyhow, the relevance of teaching children about space and place can be reinforced by a metaphor provided by Basso (1996). As the Apache children, who lack knowledge of the traditional stories of their places, are more likely to act in ways that run counter to Apache social norms (Basso, 1996), these children and adolescents are more likely to have a poor sense or skills for place making, if they are not educated or stimulated about the place where they live. Similarly to the Apache children, who have to learn how to associate places and their names with historical tales in order to learn those social guidelines, we would envisage these Latinas' girls learning about their neighborhoods, cities, and the world at large in order to strengthen their social norms and respect for their locality.

By anchoring the findings of this study into the metaphor proposed by Basso, this work argues that it is crucial for children of immigrants, with the characteristics of our group of participants, to learn about the history of the place where they live or to produce happy/positive memories about their locality by relating it to their cultural heritage. This result has implications for locative storytelling applications that can be designed to aid the teaching about

places in a classroom or even for the design of learning programs, such as after-school curriculum.

Several children reported that their favorite place was their bedroom, and others wanted to write about malls, grandparents' houses, or about their own houses, but curiously never about places outdoors. Moreover, our findings are in line with previous studies of Jones et al. (2003) arguing that children are facing an "apparent crisis in the spatialities of childhood brought about by the increasing confinement and control of children in many environments, particularly urban environments" (Jones et al., 2003: 167). Children living in urban settings are often restricted to their bedrooms. Although their study was conducted in England, one may say that the United States is similar, particularly in low-income neighborhoods where parents are afraid of letting their kids go outside to play in the streets.

Furthermore, our findings echo Jones et al. (2003) study concerning spatial constraints of children, as several participants described that their favorite places were their bedroom or indoor environments, such as their house or their grandparent's house. Those places may be considered safe for them. In other words, because children can no longer explore the world outdoors, they end up being left to enjoy technology indoors. The issue is that children are restricted from having an ability to move through and use the wider, ordinary, everyday landscapes around their houses and in the areas where they live. A way to approach this problem, in the context of locative media trainings, is to promote fieldtrips to local places, to provide historical background, and to ask children to interview local residents in order to become more familiar with the locality.

Another revealing finding was that the locations that the students chose to write about were closely related to identity formation. Thus, this study suggests that locative storytelling for children also help them to create identity. Psychologist McAdams (1996) argues however that children under what he calls a "prenarrative era" (11 to 14 year-old) are not actively creating identity. Experiences in family, school, church, and neighborhood provide narrative material that may impact them in the long term. The prenarrative era may explain how several of the younger children chose places that are closely related to their family such as a grandparent's home and school. Nevertheless, places in their neighborhoods were definitely not a choice for any of them. For this reason, a fieldtrip in their neighborhood could have sparked their curiosity to increase their sense of belonging and sense of place.

Although Levine refers to the juxtaposition of spaces, for example, by overlaying certain locations of Baghdad on the map of San Francisco, her concept of spatial dissonance sheds light on how some participants decided to geotag their stories in this study. For example, some adolescents geotagged their stories in distant places to talk about a place in Austin, the city where most of them live. One striking case is the student who geotagged her grandmothers' couch in Honduras, in order to talk about her couch in Austin (Figure 2). As Levine argues in her text, the notion of place happens to be local and global at the same time.

Levine's (2014) concept of spatial dissonance sheds light on some of these results, as the author argues that locative media have potential to change one's relationship to a place by introducing distant events or circumstances and making events that are happening elsewhere highly relevant to the immediate local space. The Latinitas' girl who wrote about her grandmother couch in Honduras was transferring meaning and memories to her couch in Austin, for example. Moreover, a girl finally understood why her family had to move from Florida to Texas, while writing her locative story. What makes a family to migrate from one place to another? The participant was able to reflect on her personal and painful process while creating her locative story.

The act of creating a location relevant story has helped the Latinitas' children to have a better understanding of the place where they live, and has also raised awareness about their culture in the United States. For example, the girl who wrote about her grandmother's couch in Honduras did so by reflecting on the spatial dissonance of the Honduran and US couches, building a story about the loss of social connection to her larger family. Being able to make this kind of connection is powerful and has implications in the future of these children and early adolescents, as recent research has found that place is key for children's future income mobility (see Chetty and Hendren, 2015). By understanding the singularities of the place where they live, these children may learn moral or cultural values similarly to Apache children in order to overcome possible challenges and social struggles.

In conclusion, the process of storytelling about places was an insightful way to work issues of identity and understanding meaning of place for second-generation Latinas' girls. The writing process fostered reflection about the place where they live, and consequently helped them to better understand the locality where they live. However, for the youngest children in this group, access to mobile technology is still an issue. As this study has shown, second generation Latinas' girls need to develop a better sense of place and locative storytelling could help them to achieve that.

VI. LIMITATIONS AND FUTURE WORK

This study was challenging for many reasons: the complexity of the subject versus the short time to convey it, and the age and background history of the participants. Moreover, we did not have either smartphones or tablets for the participants to use, which is crucial for the goals of locative literature. The original idea for the trainings was to ask the participants to produce a local story about a place in Austin and take a picture of the respective place. However, we understood early in the process that this would not be possible, because of limitations regarding their age and the short time we had. Memory and old pictures then became an alternative we had to fall back on. Moreover, second generation Latinas' kids studied in this case study were hesitant to write about places in their

locality, which led us to think that if the researcher had given them a list of places in their locality to write about, the results would have been more in line with our goals.

The findings suggest that the participants of the study have a poor sense of locality and place, and consequently a weak place attachment to where they live. Having in mind that living in an affirmative place, such as a safe neighborhood, is fundamental to achieve upward income mobility, future studies can investigate if the use of space by children in the combination of the use of open data about the area where they live with locative storytelling help to inform urban policies. The stories produced by children may help pinpoint social issues and enable local stakeholders to create solutions. Taking into account that the second generation Latinas still seem to feel disconnected with the place where they live, it is urgent to invest in the enhancement of their sense of belonging and identity through place.

ACKNOWLEDGMENTS

This work was partially supported by the Portuguese Foundation for Science and Technology — Fundação para a Ciência e a Tecnologia (FCT), as the first author, at the time of the study, had a full scholarship under the grant SFRH/BD/51304/2010, within the University of Texas at Austin-Portugal doctoral program. We also acknowledge the organization where this study was undertaken.

REFERENCES

- AGNEW, John A. (1987). *Place and Politics: The Geographical Mediation of State and Society*. Boston: Allen & Unwin.
- BASSO, Keith H. (1996). *Wisdom sits in Places: Landscape and Language among the Western Apache*. University of New Mexico Press.
- KATZ Chetty, Raj, Nathaniel Hendren, N., and Lawrence F. Katz (2015). *The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment* (No. w21156). National Bureau of Economic Research.
- CONVERY, Ian, Gerard Corsane, and Peter Davis (2012). "Introduction: Making Sense of Place." *Making Sense of Place: Multidisciplinary Perspectives*. Eds. Ian Convery et al. Suffolk: The Boydell Press. 1-8.
- CRESSWELL, Tim (2008). "Place: Encountering Geography as Philosophy." *Geography* 93.3: 132-140.
- DE SOUZA E SILVA, Adriana, and Mimi Sheller (2015). *Mobility and Locative Media: Mobile Communication in Hybrid Spaces*. London: Routledge.
- FLORIDA, Richard, and Charlota Mellander (2015). *Segregated City: The Geography of Economic Segregation in America's Metros*. Toronto, ON: Martin Prosperity Institute.
- JONES, Owain, Morris Williams, and Constance Fleuriot (2003). "'A New Sense of Place?' Mobile 'Wearable' Information and Communications Technology Devices and the Geographies of Urban Childhood." *Children's Geographies* 1.2: 165-180.
- GORDON, Eric, and Adriana De Souza e Silva (2011). *Net Locality: Why Location Matters in a Networked World*. Medford, MA: Willey- Blackwell.
- LATINITAS website. 30 Nov. 2015. <http://laslatinitas.com/>
- LEE, Kangodn (2012). "Augmented reality in education and training." *TechTrends* 56.2: 13-21.
- LEVINE, Paula (2014). "On Common Ground: Here as There." *The Mobile Story: Narrative Practices with Locative Technologies*. Ed. Jason Farman. London: Routledge. 143-158.

- LONG, Joshua (2010). *Weird City: Sense of Place and Creative Resistance in Austin, Texas*. Texas, TX: University of Texas Press.
- LØVLIE, Anders Sundnes (2011). "Annotative Locative Media and G-P-S: Granularity, Participation, and Serendipity." *Computers and Composition* 28.3: 246-254.
- (2012). "Flâneur, a Walkthrough: Locative Literature as Participation and Play." *Dichtung Digital* 42.
- MCADAMS, Dan P. (1996). "Personality, Modernity, and the Storied Self: A Contemporary Framework for Studying Persons." *Psychological Inquiry* 7.4: 295-321.
- ÖZKUL, Didem, and David Gauntlett (2014). "Locative Media in the City: Drawing Maps and telling Stories." *The Mobile Story: Narrative Practices with Locative Technologies*. Ed. Jason Farman. London: Routledge. 113-127.
- VARGAS, Lucilia (2009). *Latina Teens, Migration, and Popular Culture* (Vol. 19). New York, NY: Peter Lang.
- SILVA, Cláudia, Valentina Nisi, and Joseph D. Straubhaar (2017). "Share Yourself First: Exploring Strategies for the Creation of Locative Content for and by Low-literacy Communities." *Proceedings of the 8th International Conference on Communities and Technologies (C&T '17)*. DOI: [10.1145/3083671.308369](https://doi.org/10.1145/3083671.308369)
- TUAN, Yi-Fu (2011). *Space and Place: The Perspective of Experience*. Minneapolis, MN: University of Minnesota Press.
- WILKEN, Rowan, and Gerard Goggin (2012). *Mobile Technology and Place*. New York: Routledge.
- VANCLAY, Frank (2008). "Place Matters." *Making Sense of Place. Exploring Concepts and Expressions of Place through different Senses and Lenses*. Eds. Frank Vanclay, Matthew Higgins, and Adam Blackshaw. Canberra: National Museum of Australia Press. 3-11.
- ZAMBRANA, Ruth Enid, and Irene M. Zoppi (2002). "Latina Students: Translating Cultural Wealth into Social Capital to Improve Academic Success." *Journal of Ethnic and Cultural Diversity in Social Work* 11.1-2: 33-53.