Learning in Liquid Place

Vanessa Carpenter
Interaction Design Masters Program
Malmö Högskola, K3

Sweden
vanessajcarpenter@gmail.com

ABSTRACT

This paper examines how liquid place can be created using three specific qualities: curiosity, questioning, and awareness. Three contexts were examined and analyzed to learn how to create liquid place and how to enhance learning in any given environment.

Categories and Subject Descriptors

K.3.1 [**Computers & Education**]: Computer Uses in Education – *collaborative learning.* K.4.3. **[Computers & Society]:** Organizational Impacts – *computer supported collaborative work.*

General Terms

Documentation, Performance, Design, Human Factors, Theory, \

Keywords

Curiosity, Questioning, Critical Design, Collective Intelligence, Awareness, Montessori, Learning

1. INTRODUCTION

Space as a term, can describe innumerable places. The concept of place is determined by factors such as location, structure, time, even inhabitants, so how can one define what place actually is? It is important therefore to examine experience. Experience defines a place; the experience had in a place can define what the function of the place is, and what potentials exist within it. The concept of Liquid Place, as described by Carlos Giovannella, [1] can be examined and redefined to include the creation of experience within liquid place, and the resulting creation of a new place.

Within the confines of this paper, the concept of experience creation will be examined. Experiences based on learning, curiosity and questioning situations are the study of this paper, examining how liquid place can be created by designers for people to experience various situations and contexts.

Three contexts were explored for the purposes of this study: Montessori preschools based in Sweden, an electronics workshop for Denmark Art School students, and a night club in Malmö night club where a hip hop youth group were having a monthly event.

2. QUESTIONING EXPERIENCE

The evolution of place it seems, is created by a number of factors, a change in the physical environment, a change in behavior of an element, of a single person, of a single aspect can change the perception of the experience in that place for everyone, both in groups and individually.

It is essential to create a debate or discussion about the psychological, physical, emotional, cultural, and technological values regarding the place. It is no longer enough to simply create a 'solution' that fits everyone; that satisfies the need for a technology-mediated experience; that makes people feel 'cool'. It is important now to consider how to raise awareness, how to make people consider and think about their situations, and to make them realize that change is possible, change is encouraged, and change can be good.

Dunne and Raby describe objects which are "clearly not intended for production, but are designed to provide mental pleasure and stimulate reflection". They describe how critical design "takes as its medium social, psychological, cultural, technical and economical values, in an effort to push the limits of lived experience not the medium." [2] In describing these objects; and the critical design used to create them, the concept of curiosity, reflection and response is examined. Although questioning every situation might seem cumbersome and non-productive, it is an interesting considering on how one can experience a space. Questions have an inherent quality of having destructive or constructive values and can create insight which contributes fundamentally to the establishment of new places and helps to establish infrastructure, in any environment. If the resulting insight provides "mental pleasure" and "stimulate(s) reflection" then it is providing an essential component of the formation of liquid place.

My goals were to examine how people learned in each environment, how the environmental factors including physical objects, equipment, and layout influenced them, and how curiosity, actual attempts at discovery, and question generation contributed to their experience of the environments.

3. PROCESS

The exercise which I chose to do to explore the formation of liquid place and the experiences surrounding that was to explore the three contexts, and define the development of practices within them. As stated by Björgvinsson, "places contain structural, cultural, and social clues that contain and enable behavior" [3]. The design of the workshops conducted was made in such a way that the use of place would not be hindered. It was important to observe these structural, cultural and social clues and see what behavior emerged from that. Giovannella explains traces, patterns that are recognized and learned from, and explains that one should "identify the most meaningful traces in order to be able to derive from them quantitative indicators". The process used for this study consisted of observing such traces, as well as the clues and behaviors, and considering how all these elements combined to create an experience that had the potential to be questioned and re-considered.

In designing the workshops, I chose to encompass the role of "participant observer" as defined by Blomberg. [4]. In each scenario, I participated NOT as an observer, but as part of the environment in order to remove as much bias and self-conscious behavior as possible by the participants; especially considering the vast difference in ages that I was observing.

3.1 Context 1: Montessori Pre-School

The children are aged 2-5 years and come from various backgrounds, mostly Swedish and French, but all children speak English, French and Swedish and some have American or English backgrounds also. They learn using the Montessori practice which is described as a "respected individual choice of research and work, and uninterrupted concentration rather than group lessons led by an adult" [5]. There are stations throughout the classroom which are placed at the children's eye level, in an uncluttered way so that the children are easily able to take the contents of the station (learning materials) to a nearby table (of their choice) and use them. Every activity has its own shelf as it is believed that cluttering leads to confusion and requires assistance. For example, if a bunch of boxes are piled high on each other, then the child would have to ask for the teacher's help to get out the box they want, however, if each box has its own place on a shelf, then they can easily access it on their own. Montessori promotes responsibility and the children do nearly all tasks, including eating, cleaning up, and getting dressed entirely on their own. They are very independent. The environment contributes to this and their learning is a result of this. Placement of objects, encouragement to be independent, and easy to follow, structured placement of child-sized furniture and tools makes it possible for them to be independent. As a result children learn from the objects in the environment rather than from the teachers (necessarily). Teachers are there for guidance but do not interfere with the child's learning. The children are able to be independent and to be as curious as they wish to be. They are responsible, and taught responsibility to be independent in their actions.

Activity Shelves

In this environment, it was easy to recognize that the environmental design promoted curiosity, "mental pleasure and stimulated reflection". The children always found some activity to participate in, and facilitated social interaction on their own without prompting. Giovannella explains that students can be given the "opportunity to be involved in the organization of initiatives" and in the case of the Montessori classroom, this is very true. Children teach other children how to learn, how to play, how to interact. Children ask for help when it is needed and are otherwise adamant about their independence and sense of responsibility. Often they object to attempts at help when it would appear that they might require help, in fact, they are simply figuring out the process for themselves and in most cases, prefer to do so alone, or with another child.

This context provided an excellent basis for understanding concepts of curiosity and discovery and how these contributed to

creation of an experience. Each child adapted to new situations rapidly, and considering liquid place, and its ever-changing and evolving qualities, this environmental setup could be ideal to present to an adult audience. If the types of learning practices were introduced to an adult audience, perhaps in an office building, would the office be restructured physically? Would corporate culture change to promote questioning, and curiosity? Would this impact how adults learned; and further, how they experience their everyday space, would it then become fluid to them, would it provide them with the necessary stimulation to be creative, and to find solutions? It is a very interesting consideration.

3.2 Context 2: Electronics Workshop

The electronics workshop was a one week long workshop held at the Royal Academy for Fine Art in Denmark. This introduced students to basic electronics, the Arduino interface and programming in Processing. Students who had no experience in these fields had an opportunity to realize some of their ideas and make them happen during that time. The students were aged mid to late twenties. The workshop began with an introduction to the concepts of using electronics and recycled technology to create something new and ended with an open house show to display what they had created over the week. The environment was a small room in a university building, which over the week was made into a comfortable space, with nearly endless resources. The room had been filled with recycled electronics and technology and tools were everywhere, making it very easy to grab a tool to work with.

Electronics Workshop

Unlike the Montessori environment, which is very structured and organized, the workshop was very chaotic, with parts strewn about everywhere and a general unordered sense to the location of materials and resources. In this context, this method worked very well. The concept of a treasure hunt can be applied here, students dug through components looking for 'treasure' – a piece of recycled technology that would offer inspiration to their creative process. By requiring students to sift through piles of materials, they quickly became familiar with various components, and were able to recognize different parts, and ask about parts they encountered that they did not know the function of. Students were learning simply by hunting through materials, and being curious about everything they encountered. By questioning every object they encountered, and asking how each component worked, they learned much more quickly and effectively than if they had been told to do a certain task with a certain item. They had a strict deadline to accomplish a seemingly impossible task: learn about

electronics, learn to computer program, think of a concept for an interactive design, search through many boxes of recycled materials, and construct and test it all before the open house.

In Convergence Culture, Jenkins explains how fans understood "The Matrix" films " The depth and breadth of *The Matrix* universe made it impossible for anyone consumer to "get it" but the emergence of knowledge cultures made it possible for the community as a whole to dig deeper into this bottomless text." [7]. This same concept of collective intelligence can easily be applied to the workshop week, students were working together to literally dig deeper into all the 'hidden treasure' provided to them, asking questions along the way, sharing knowledge, and helping each other to comprehend what was available to them. It would have been impossible for a student with no prior electronics or programming knowledge to create the type of projects they created over the week (including a touch-sensitive shirt set, one for males, one for females, where one shirt responded with audio and visuals to the other shirt being touched) without having a collective intelligence of the process, products and production practices. Tutoring was of course given but it was decidedly the sharing of knowledge that contributed to the overall result.

3.3 Context 3: RGRA at Inkonst

RGRA is a youth group based in Malmö, Sweden which centres on the hip hop culture. Usually once a month, there is an event at a local night club, (Inkonst) where music is played by DJs, people do performances, and an opportunity is created for the members to gather and spend time together. The important aspect of RGRA and Inkonst is that RGRA is a youth group comprised of multi-cultural members who may come from immigrant families to Sweden, and who are involved in RGRA as a positive movement, to be involved in a community group supporting multi-culturalism. Organizers ensure that all the people, aged anywhere from 11 to 25 (give or take) are having a good time and are contributing positively to the experience. Members perform on stage, some DJ, rap, dance, or sing; non-alcoholic beverages are served at the bar; and the venue is turned into a full dance floor with lounge for the evening giving the members an opportunity to enjoy a night out where they can have fun and be in a safe environment.

Recording vocal tracks with RGRA members

This environment provides an interesting insight into how people interact, behave, and learn considering the different forces present at any given time, including age and ethnicity differences, and the increased energy of being in a night club. People have certain patterns of behavior at a night club, and there are social norms which are followed in a typical night club experience. However, this typical behavior is completely changed because there is such an age difference from a typical night club age group of 20 years or older, to including for RGRA, members as young as 11 years old. Behavior interactions between the ages is interesting as the younger groups look to the older groups to learn behavior patterns. Older members look to each other and mentors for approval, and a tension exists between members of the opposite sex in the age range of approximately 15-20 years as they are also learning how to behave in an intimate social situation of a dance floor, bar area, or lounge area.

Questions do not exist in this setting as a verbal statement. Rather, questions and exploration exist in how members interact with each other, and how they follow behavior patterns of those older than them, or those who are more popular in the group. It can easily be seen that if someone is questioning what they "should" be doing in a given situation, they look to those immediately around them to get an indication of what their behavior should also be. Further, it could be seen that many of the older members were actively guiding the younger members on etiquette and behavior patterns, in some cases, physically guiding them to where they should be situated, or what they should or should not be engaged in doing (such as running around the lounge, which was quickly remedied by an older member who told the younger members running around wasn't appropriate and guided them instead to the dance floor). Members learn from each other by observation and by constantly questioning their own actions. Curiosity exists, but not to the same degree as in either of the classrooms (Montessori or Workshop). Curiosity instead existed in an almost undetectable practice of members glancing around, and mimicking behaviors of others. It can be seen that Giovannella's concept of 'traces' can apply here. Traces of behavior, seeing what others do, and doing the same or similar leads to learning and progression.

4. CONCLUSION

In past design processes, I have planned elaborate field studies, user testing, prototyping and interviews. However, I felt that the best method to understand evolving spaces was to be simply be part of them and with a set of concepts in mind, observe the environments. After developing concepts that I wanted to explore further on the Life forum and discussing with some of the other members in the design process my ideas, I felt that I had narrowed my focus enough to begin evaluation. I wanted to focus on learning, and specifically how curiosity, questions, and awareness of environment contribute to the creation of liquid place. I felt that the best way to explore future places where interaction can occur, where environment can evolve, and where people can creatively collaborate was to explore three diverse environments and consider them as examples of the three values I wanted to explore (curiosity, questions and awareness). Although I had been working with the preschool, the workshop tutors, and RGRA for some time, I chose to take my existing knowledge of this, and visit all three venues in one day to fully appreciate the differences present in the three. Such an opportunity presented itself and I was able to evaluate the preschool in the morning, attend the workshop for its final construction hours and then open house, and in the evening attend Inkonst and witness RGRA's interactions. This was a truly rewarding process as I was able to see and experience

firsthand the differences in the three environments, and more strikingly, the similarities.

It would seem ridiculous to compare a preschool to an electronics workshop to a group of hip hop people in a night club, but in doing so, my theories about curiosity, questioning and awareness were reinforced. I noticed in each context, how this practice of people wanting to discover their environments in order to pursue learning was present in each instance. Further, to be curious, one must question their circumstance and environment and so in each situation, people were questioning in some form or another why they were there, what they were doing, how they were doing it, and how they could do something new. Finally, each context made me consider people's awareness of their environment. The preschool was very structured toward young, small children, with the physical environment reflecting that, and the types of activities allowing the children to be aware of their environment and all the possibilities within it. The workshop gave participants the opportunity to explore their environment and to become aware through collective intelligence gathering and sharing. RGRA at Inkonst created a culture of learning, wherein members were aware of how others behaved, and took cues from this to learn how to conduct themselves.

In the creation of liquid place, where environment and experience evolves constantly, the concepts of curiosity, questioning and awareness are vital. For a place to evolve, and for participants of that place to experience it in a beneficial and rewarding way, they should learn something about the place and the experience. To facilitate this learning, participants must want to explore and the concepts that I've laid out as part of my ideal liquid place, sharing and utilizing collective intelligence, being curious, questioning situation, being aware of surroundings and behaviors, and learning from each other is necessary.

5. FUTURE CONSIDERATIONS

It would be fantastic to this study if a liquid place could be developed that centred around these goals of curiosity, questioning and awareness. To study participants in this environment, where they learn from each other, and build a collective intelligence, and to learn what their behavior patterns become and how it affects their learning would be very interesting

and rewarding. If adults could learn the way the pre-schoolers do, with the same sense of curiosity and determination, questioning everything the way a two year old does, would it facilitate new ideas? Would we be more creative? If people had piles of materials to sort through and ask questions about, and learn from, would we learn more, would we question more and receive more answers? If culture could be learned in a manner where people willingly learn from each other, and share experiences and knowledge about behavior patterns, would our behaviors be different in a very different context (such as an office environment)? The possibilities for the design of liquid place are endless and are only limited by people's self-restrictions. If people are too shy or too proud to question, to be curious, to find awareness of their environments then learning cannot occur, or at least, not easily and not in a rewarding way. It would be very interesting to combine elements of these contexts to create an ideal liquid place where learning is desired and sought after by anyone from any background attending that place.

6. ACKNOWLEDGMENTS

7. REFERENCES

[1] Giovannella, C. (n.d.). An organic process for the organic era of the interaction. Universita di Roma Tor Vergata.

[2] Raby F. Dunne, A. 2001. Design Noir: The Secret Life of Electronic Objects. Boston/Berlin. Birkhäuser.

[3] Björgvinsson, E. B. 2007. Socio-Material Mediations. Department of Interaction and System Design, School of Engineering. Blekinge Institute of Technology.

[4] Blomberg, J. et al. (n.d.) Ethnographic Field Methods and Their Relation to Design. Xerox Palo Alto Research Centre.

[5] Jenkins, H. 2006. Convergence Culture. New York University. New York University Press.