Venice, California and World of Warcraft:
Persistence and Ephemerality in Playful Spaces

Silvia Lindtner and Bonnie Nardi

Donald Bren School of Information and Computer Sciences, University of California, Irvine
Irvine, CA 92697-3425, USA
{lindtner, nardi}@ics.uci.edu

Abstract

Persistent digital media extend content beyond immediate ephemeral interactions and conversations. Systems such as email, instant messaging, digital kiosks, social networking sites, and wikis collect large quantities of electronic data and store it for later use. How will people encounter and understand these data now and later? How do people move between the ephemeral and persistent in everyday settings? Can persistence exist beyond visible data? We have been exploring these questions through field studies in an urban setting and an online game. This paper is a preliminary exploration of issues that have arisen in our empirical research on the ways people move between persistent and ephemeral media. In this paper, we investigate an expanded concept of persistence which renders ephemerality as a complementary element during processes of communication and interaction. Drawing on previous work and findings from our empirical studies, we argue that seeing persistence and ephemerality as intimately linked opens up possibilities for analyzing and creating new design spaces and forms of interaction with digital media.

1. Introduction

An important trend in conversation research is to broaden the definition of conversation itself, moving toward a concept of conversation that incorporates ephemeral and persistent elements such as visual feedback, bodily interactions, performative activities, and multimodal exchange of information [1, 3, 4]. We will use the term "conversation" broadly in our discussion to incorporate the elements identified in these studies. Bergstrom and Karahalios described how abstract representations of interaction rhythms and conversational patterns can provide a valuable conversational cue within collocated spaces [1]. boyd and Heer illustrated the ways in which conversations emerge around a user's playful engagement with others' profiles in the online social networking platform Friendster.com. They suggested that analysis

of everyday conversation must move beyond words, observing and incorporating the rich data of the voice and body [3]. In a study of a community bulletin board, Churchill et al. reported that iconic conversations such as scribble drawings were often created in lieu of things that the illustrator preferred not to say out loud. The visual and textual exchanges through the board were considered conversation by users and were often "played out concurrently with the spoken conversation" [4].

In our work we have been considering relations between persistence and ephemerality, thinking about persistence not in contrast to ephemeral aspects it overcomes, but as a complementary element linked to ephemerality to render experience meaningful. We will explore the ways in which both the ephemeral and persistent are of value for collaborative and reflective activities. How do ephemeral conversations interleave with persistent digital and non-digital artifacts? What roles do persistence and ephemerality play for reflection on past and ongoing activities? To investigate these questions we draw on our ongoing research of two playful environments, urban street play and collaborative play in an online video game.

Our arguments about persistence and ephemerality are not about play per se; we happen to have been studying playful environments, which provide rich data for investigating collaboration and new forms of interaction [2, 11, 15]. Thus, we believe that our findings provide a deeper understanding of the everyday practices that evolve around persistent and ephemeral media. We do not use the street and the video game as a point of contrast or comparison between online and offline, virtual and physical, or any similar binary; indeed we found interesting similarities between the environments. Our studies demonstrate that in both environments, ephemeral conversations are beneficial for highlighting specific persistent artifacts and making them more meaningful in everyday use. We found that persistent conversations may change in

character over time due to memories of the events surrounding the conversations, and that the social dynamics that are taking place while persistent conversations are recorded and made public affects the way we receive them.

A common characterization of persistent conversation is that it facilitates reflection and recontextualization of past and remote activities, leaving traces for later use. As Erickson observed, persistent conversation expands conversation beyond those within earshot, rendering it accessible to those in other places and at later times [9]. These benefits may also come with some costs. Viégas et al. have argued that persistent conversations are not always easily comprehensible due to the large volume of data and loss of meaning for the user over time. They demonstrated that abstract visualizations of persistent conversations such as email messages can provide an important aid in revealing meaningful social and conversational patterns [18]. We will examine some of the costs of persistent conversations and how they may be mitigated through ephemeral conversation.

2. Methodology

We have been conducting ethnographic research in two environments: street play in Venice, California, a beach town in Southern California, and online play in World of Warcraft, a massively multiplayer online game. Over a period of two months, Lindtner conducted field work on the Ocean Front Walk, in Venice. Observations and semi-structured interviews were carried out and complemented by 200 photographs. Lindtner visited the street on average once per week during the two month time period, on both weekdays and weekends. She had informal conversations with twenty-five people and conducted semi-structured interviews with fifteen people. Interviewees were a diverse group of different professions and ages including artists, street vendors, street performers, older and young locals, tourists, and families. Nardi has been conducting immersive ethnographic research on World of Warcraft ("WoW") since December 2005. With her students, she has conducted over 100 interviews on learning, collaboration, and gender [12,13, 14].

3. The persistent and the ephemeral on the street

Venice, California means many things, and different things for different people, but it is known as an "often-creative and genuinely eccentric community, a curious historical spot, and a high-energy human circus, all rolled into one within Los Angeles' vast metropolitan sprawl" [8]. As a place for hanging out in public, Venice became popular for its walking-culture—one of the few places in Los Angeles where people get out of their cars and walk through the streets. "The Venice of America," which stretches for a mile and a half along the Pacific Ocean south of Los Angeles was built on the vision of Abbot Kinney, a wealthy tobacco mogul, to create a resort town culturally reminiscent of Venice, Italy, at the beginning of the twentieth century. Failing to turn into the luxurious art and culture center Kinney imagined, Venice transformed from a public amusement site in the 20s, to a place for Beats in the 60s, and hippies in the 70s. Today it is an outdoor paradise for skaters, street performers, sidewalk artists, and tourists. The street's history and image attract a diverse group of people who like to "hang out" in Venice. Whether a short-term visitor such as a tourist, or a long-term community member such as a vendor or artist, what matters is to be able to be part of the flair associated with the street.

While many of the interactions, conversations, and activities that are performed on the street in Venice seem of ephemeral character, they are intimately linked to persistent traces people leave behind and are part of a persistent social and spatial infrastructure. We will begin by describing the ephemeral stories and conversations that arise on the street and how they gain relevance in the ways they are embodied in persistent artifacts. We will then demonstrate how persistent artifacts are made visible and meaningful through ephemeral conversations and interactions. Finally, we will illustrate how the ephemeral conversations that arise on the street take on similar qualities of persistent conversations, to extend beyond those within earshot, as discussed by Erickson [9].

Stories about individuals and stories about the street's collective history gain relevance through constant re-telling of personal or collective experiences on the street. However, while not all individual stories are captured, a trace is kept and is either retold in a more complex story by community members or captured by a photograph, graffiti, or a painting. For example, the story of one of the long-term community members, an 80 year old woman from Germany who came to Venice about 40 years ago, is well known in the Venice community. Affectionately called "Skateboard Mama," she spends almost every day on the street, roller skating or wind skating up and down the street. Here are parts of her story that have become known inside and outside the street's social space. She told us in an interview:

I come here almost every day during the week, when the weather is fine. To exercise. I also ride the bike sometimes, but mainly I am skating. I learned skating when I was 52. At this time I still came here very often with my children. But today they are too busy, so I come here mainly by myself.

I came here after World War II, I married an American guy and decided to stay here. I enjoyed my life here and hung out more and more in Venice.

Many of our interviewees repeatedly told us Skateboard Mama's story and how her activity on the street became part of the street's image as an outdoor skateboard resort for all age groups. Her story also occurred in persistent versions. She explained:

Most of the people here know me, they broadcasted shows about me on TV and wrote about me in newspapers. They call me Skateboard Mama here. They also interviewed me for a show in Germany: "Heimat in der neuen Welt" (transl. "Home in a new World").

During an interview Skateboard Mama showed us a newspaper clipping—a dogeared old copy of a story from a local newspaper. In the quote above she interleaved the persistent and the ephemeral suggesting how they are neither separate nor polar opposites. In one sentence she invoked both the ephemeral and the persistent: "*most of the people here know me*," and "*they wrote about me in newspapers.*" She mentioned what people "*call*" her and then a television show she appeared in.

Figure 1. Skateboard Mama's news article.

Skateboard Mama does not indiscriminately show her newspaper clipping to everyone. Some of our interviewees commented that we had gained her trust or she would not have shared it with us. She selectively used a persistent artifact to establish a relationship with us and to reveal something of her life in the context of our ephemeral conversation.

With digital media it is often not so simple to artfully weave the ephemeral and the persistent because of the volume of persistent data [18]. People do not know how to select what is meaningful, how to display it, how to interpret it. In our conversation with Skateboard Mama, the single newspaper clipping, pulled deliberately from her bag at just the right moment, carried worlds of meaning. Our constant encounter with enormous volumes of digital information is a contrast to the careful selection of persistent information Skateboard Mama shared with us. The endless flow of persistent digital information may be disorienting rather than informative or meaningful [3, 18]. In part this may be because people do not have the opportunity to surround persistent digital conversations with ephemeral events that allow for the selection and interpretation of the meaningfully persistent. This suggests that a more reflective and participative use of the persistent is facilitated by its connection to the ephemeral.

Let us look at some other examples from Venice, California. One afternoon we observed a performing clown who carried balloons and formed them into funny animal figures for children. A child came near him and he seemed suddenly excited to create an animal (see Figure 2). The joy of the activity emerged within a moment of spontaneous interaction between the clown, the child, and an audience who looked on. The balloon animal itself represents a marginally persistent artifact—it may not have even survived the afternoon—but it caught a moment when the ephemeral juxtaposition and interaction of performer, child, and audience were made concretely persistent in the figure of the animal shape. The transformation of a limp generic balloon into a delightful toy gave meaning and pleasure to the participants who shared a moment of what anthropologist Victor Turner called *spontaneous communitas* [17]. Turner theorized that spontaneous communitas is "a direct, immediate…confrontation of human identities" in which people do not experience merging with one another, but rather an "intersubjective illumination" in which the distinctiveness of participants' identities are marked in a spirit of "openness and lack of pretensions" [17]. Artifacts like the balloon allow an assemblage of diverse participants to experience a moment that is somewhat "magical" as Turner said,

and which contributes to the persistent image of the street as a place of playful spontaneous activity.

Figure 2. A clown performer entertains a child.

What struck us about the spontaneous development of the persistent artifact in the shape of an animal balloon was the interleaving of the ephemeral and the persistent; the balloon came into being as a result of a special moment when a child encountered a clown. Our argument, then, is that broadening analysis of the persistent to encompass the ephemeral is an important step in understanding how and when persistent digital media live up to or fail their promise as artifacts that allow for reflection and recontextualization. The extent to which digital media are cut off from the rich context of ephemeral events should be a part of our analysis of how they succeed or fail.

In the case of the balloon toy, the ephemeral juxtaposition of child and clown led to the moment being inscribed in the artifact of the animal shape. But the opposite relation also occurs in which a persistent artifact leads to ephemeral activity. On the street in Venice, performers used all kinds of small artifacts to engage their audience. We observed one performer playfully grab the digital camera of an audience member and take pictures of them while they watched him performing (see Figure 3). Dressed as a fireman and spitting fire, people kept their distance from him. Spontaneously, he created a bridge between him and his audience through the creation of a persistent artifact, a picture with a mobile camera phone.

Other performers developed similar connections to their audience. A stunt man asked a girl to be part of his performance and used a chair from the vendor next to him to lift her up into the air. A young man from the East Coast came to the street just a few days before we met him. He sat between vendors and artists to "show his stuff off." His "stuff" was a crystal collection he brought with him "because there are always people who like these things." Asked if he sold any of the stones, he

replied: "Not really. It's really just about showing them off and talking to people." By stimulating conversation through the crystal stone collection, the young man became part of ongoing ephemeral activities on the street.

Figure 3 A perfomer incorporating his audience.

Ephemeral conversations also arose around artifacts such as graffiti on the walls, the structure of buildings, pictures people took, and digital devices. A young couple from Brazil brought a mobile game console to be, as they said, "part of the playful activity" on the street. All of our interviewees carried cell phones. About half said they used their cell phones while in Venice only for taking pictures on the street—to capture certain ephemeral moments they wished to remember. Again we see that the use of persistent artifacts is linked to ephemeral conversation and activity, that they are not cleanly separated.

Persistence on the street does not imply that persistent elements are always immediately visible; they can be selectively brought into the foreground when a participant wishes to do so, as with Skateboard Mama's newspaper clipping. This selectivity was a common feature in street interaction. For example, we observed a group of four young men distribute flyers about their band. The young band members did not come to the street merely to advertise their music. They said that they also came to Venice to be entertained. The flyers were made visible only during a short period when they wanted to draw attention to their band.

Ephemeral conversations are embedded in persistent artifacts. Many of the artists we spoke with remembered parts of conversations that had inspired the paintings they created. Tourists showed us the pictures they took on the street, reflecting on the conversations they had with the performers and artists they photographed. Memory is a persistent resource

that informs the meaning of persistent artifacts even though memory can only be shared when and how the actor chooses to do so, unlike a database that can be consulted at any time.

In Venice, people experienced the street and its persistent social and spatial environment through their memories, which they shared in conversation with us and with others on the street. One street vendor said:

> *Venice became popular in the early nineteen hundreds... Everyone knows about it, even people from Europe. The history makes it such an interesting place.*

A young couple from abroad met in Venice and decided to spend time together. Both came to Venice to see a musical performance. They said:

> *We wanted to hang out here and meet people...Venice has its own character. It's kinda crazy here. I met so many crazy people here. The dude over there for example is pretty weird. These are the kinds of characters you will find here.*

Two vendors from Canada who spent half the year in Venice commented:

> *All day long, we meet so many people here. Movie stars, lawyers, everyone... the people next to me have been here for 25 years. You should talk to them. They know a lot about this place.*

> *I have seen Paris Hilton once. She was wearing a black wig, she was on an old bike, her boyfriend behind her. We meet a lot of celebrities here.*

The persistent sense of "what Venice is" is nurtured by these repeated, ephemeral conversations.

Let us compare the dead quality of certain digital data with the dynamic, lively quality of persistent artifacts in street activity in Venice. boyd and Heer found the persistence of the digital data in the social networking platform Friendster.com produced an "eerie quality, because of the data's frozen nature" [3]. Quite the opposite was true on the street in Venice; the constant interleaving of ephemeral conversations and persistent artifacts rendered the artifacts deeply connected to an immediate context. They were shared, contextualized and interpreted—made intersubjectively meaningful— through ephemeral conversation. The opportunity to constantly decide what to share or keep private, how to

phrase a thought about an artifact, what to capture, how to spontaneously use the environment for activity, created a feeling of responsibility and safety rather than the social awkwardness reported by boyd and Heer [3]. Many participants commented on the open but simultaneously safe place for interaction. For example, one street performer said:

> *It's an interplay of everyday activities and leisure. I like the openness here.*

Embodiment of ephemeral conversations in particular artifacts as brought up by the memorized stories of our informants, illustrates that the ephemeral is linked to and of equal significance to the persistent, rendering it visible and meaningful beyond the immediate use and interaction.

4. The persistent and the ephemeral in an online game

Let us now turn to conversation in an online game, World of Warcraft. Produced in California by Blizzard Entertainment, "WoW" has eight million players worldwide. The single largest group of players is from China, followed by North America, Europe, Australia, New Zealand, Latin America, and elsewhere.

Set in a medieval landscape based on J.R.R. Tolkien's novels, WoW is a role playing game in which players create an animated character which they move through an elaborate 3D space, using mouse and keyboard. Each character type has certain abilities used to slay monsters, make money, learn "professions," and conduct other game activities. WoW is a social game; most game activities involve other players. Players join "guilds" or clubs of players with whom they play and socialize. Players advance through 70 levels, taking on more difficult challenges at each level. Players engage in conversation in text chat and voice chat. Voice chat is not part of the game; players install third party software, usually Ventrilo or Teamspeak. Text chat is ubiquitous; voice chat is used by only some players and at certain times. Text chat can be recorded although players rarely do so, making it essentially an ephemeral medium. Similarly, recent studies have demonstrated that persistent conversations are often perceived to be of ephemeral character [3, 4].

Important game-related conversations occur outside the game, in the form of FAQs, forums, blogs, wikis, listservs, guild websites, Facebook groups, and other venues for persistent conversations. We will examine the guild website of the guild "Divine Spirit" (a pseudonym) to which Nardi belongs. Guild websites

are used to arrange practical matters such as when guild activities will take place, and to share guild members' opinions and thoughts, as well as information about themselves and the game.

Figure 4. A WoW character

The character of the guild website is somewhere between the vitality of the street in Venice and the "eerie" quality of Friendster. The Divine Spirit website displays screenshots of important moments of guild history, such as when a difficult monster was slain for the first time. These screenshots preserve joyous moments of spontaneous communitas. Some threads are devoted to congratulating members on accomplishments or wishing them Happy Birthday. But the website also has old posts from departed members, evoking sad memories of players who left the guild, imparting a bit of melancholy.

Online communities are generally fragile [7] and WoW guilds are no exception. Conflicts arise over comments made in voice and text chat, behavior during guild events, and the interpersonal frictions that are inevitable in human life. Players leave guilds, but traces of them remain on guild websites. These traces are not edited away as happens in ordinary life when people remove traces of those with whom they are no longer at good terms, such as a divorced spouse. Conversations about why a player is leaving or has left are usually conducted in one-to-one "whispers" in in-game chat or sometimes in voice chat—both ephemeral media. Thus the feelings evoked by traces of former guild members that appear on the website are informed

and shaped by ephemeral conversations, linking the ephemeral and the persistent just as we saw on the street in Venice.

Digital traces of former guild members are in part a result of the threaded structure of the forum software used by Divine Spirit (and many other guilds who use the same software). If no one adds to a thread it slowly sinks to a low place on the list of threads and eventually is no longer seen. But threads remain visible (1) if they are marked "sticky," meaning they remain near the top of the list of posts because they contain important information or (2) when someone adds a post. Thus many visible threads have posts from players who have left the guild. These players are no longer an active part of the conversation, but a ghostly presence remains. Sometimes a player posts a wistful good-bye or a bitter good-bye. These traces persist for a while, interleaved among other more upbeat posts by the same member. Often a post written by a former member is jocular or cheerful, creating, when juxtaposed with the posts on departure, the awkwardness of "frozen" data described by boyd and Heer [3].

The eerie traces on public websites first reported by [3] seem perhaps unique to online life (although further investigation is needed). Family members remove photographs of divorced spouses, workplaces cleanse all mention of laid off workers from visible company materials, friends who are no longer friends put away once-cherished items that remind them of the rupture. It would certainly be possible to remove digital traces of former guild members from a guild website. But often the posts contain valuable information, such as technical pointers or guild requirements, which is why the posts were originally marked sticky. Removing them would require that a guild officer delete the post and move the information to a new post. Running a guild website is of course strictly a volunteer activity, so in practice such editing does not seem to happen. It may be more difficult to forget unhappy memories in an online game community, but at the same time, a former guildmate's contributions, while frozen and awkward, are remembered, not deleted as though they had never taken place, as in a company undergoing a layoff or a family experiencing a divorce.

Persistence and ephemerality interact in an unusual way in World of Warcraft through a website called the Armory. The Armory provides daily updates of a character's profile including gear, profession levels, competitive rankings, and game statistics. A play session in World of Warcraft involves thousands of small actions—executing a sequence of commands to slay monsters or make money, text chatting with

friends, listening to voice chat, watching other players. The ephemera of this play are captured, in condensed, reduced form, by persistent traces of the character's development in the Armory database. This information is available to anyone with a connection to the Internet. By going to armory.worldofwarcraft.com (see Figure 5), viewers can examine the status of any character whose name is known (or search the site by guild name and other categories). Thus the game makes persistent, in reduced form, the thousands of ephemeral game actions that contributed to the overall play experience.

Unlike social networking sites such as MySpace or Facebook where the user decides upon the particular information to post about himself, devising a profile with control and selectivity, the Armory takes the ephemera of play, digests it into gear categories and numerical scores (such as level 350 fishing skill) and posts it for all to view.

Figure 5. Screenshot of a character profile in Armory.

There is no way to opt out of the Armory or suppress information about one's character. It is noteworthy that players seem to evaluate the Armory, introduced in March 2007, as a positive development in the game. Players find it useful to examine the gear good players have, and to look up a character's ratings and statistics. Guild leaders consult Armory entries for prospective guild members and vice versa. As one person in Divine Spirit noted in a discussion of the Armory on the guild website, "…you can look up and see if someone is BSing [lying] about their stats." Other members commented in the same discussion thread "Sweet stuff,

yeah?" and "That's pretty darn cool!" Only one person asked in guild chat whether making such information available was necessary; her question went unanswered.

The fast linkage of a player's stats and gear to a persistent database viewable by anyone gives the persistent game information a new quality; it is entirely public, open, and up to date. While Armory information is something like the information published in newspapers on baseball players' statistics (batting average and so on), for the most part, it is unusual for our daily activities to be so quickly reduced to metrics and made publicly available. In a game such as World of Warcraft, the consequences of the immediate reduction and publication of character information are minor, but the existence of such databases may be conditioning us for the deployment of similar databases at work and in school.

5. Discussion

Our analysis of persistence and ephemerality suggests that we see them not as dichotomies but as linked intersubjective processes of interaction. Often conversations are not self-contained in either persistent or ephemeral form, but incorporate aspects of both. For example, Nardi et al. documented conversations stretching across instant messaging and the ephemeral media of phone and face-to-face communication [12]. Churchill et al. reported face to face conversations that arose around persistent digital media of a community bulletin board [4]. In this paper we have tried to examine these linkages more broadly and analytically, drawing attention to the specific ways in which the ephemeral and the persistent interpenetrate. We examined the particulars of dynamic relations between the ephemeral and persistent conversations in street play in Venice and online play in World of Warcraft.

The sites we studied demonstrate commonalities in the ways people apply artifacts and leave traces to create meaning in conversation. Entering the game World of Warcraft and stepping into the Ocean Front Walk in Venice invite participation in a communication space configured by the dynamic flows of the persistent and the ephemeral. Ephemeral conversations emerge around persistent artifacts bringing them into the foreground and making them meaningful while persistent artifacts spark ephemeral conversations. Ephemeral stories gain relevance as embodiments in or memories around persistent artifacts such as paintings, pictures, and graffiti. Ephemeral conversations can be used to highlight specific persistent artifacts and thus

make them more meaningful in particular situations. The constant interaction around persistent and ephemeral conversations creates a feeling of responsibility for traces left behind and reduces the risk of awkwardness that can occur when past traces reappear out of context as in some online media.

New dynamics between the ephemeral and the persistent accompany digital databases. The rapid reduction of ephemeral experience to persistent online conversations accessible on the Internet, as in World of Warcraft's Armory database, may have implications outside gaming activity. Whereas in Venice, people on the street selected persistent artifacts they wished to render visible in specific social contexts, persistent traces in WoW are visible to the community and non-players through the Armory website with no selection or interpretation on the part of the player. The crucial difference between the use of digital artifacts in the game and the use of physical artifacts on the street is the role of author and ownership. The decision to use or erase a particular artifact can be made by anyone populating the street. In contrast, the choice of erasure or representation within the game cannot always be made by the player. For example, the profiles of players, who have left the guild, remain on guild websites such as "Divine Spirit", potentially causing irritation or clutter on the site. Similarly, while the Armory has received a positive reception from players, it does not always represent a character's "true self." The character may have different sets of gear for different purposes, but only a single snapshot is taken during the daily update. For example, Nardi's character has three sets of gear for different kinds of play. If someone were to evaluate her gear for a particular purpose, they might conclude she was ill-equipped. In a game world, such discrepancies usually have no real consequence, but if similar databases record and publish daily updates of work activity, for example, misconstruals might have more serious consequences.

In World of Warcraft, artifacts such as equipment and clothes are tied to a particular player's character, which is made visible on websites such as the Armory. Players can exchange or sell equipment in certain in-game locations or during and after certain activities such as group raids. Ownership in the game, however, is treated more delicately compared to the exchange of physical artifacts on the street. For example, one can easily walk away with a colorful balloon after engaging spontaneously with a performing clown on the street. In comparison, acquiring equipment from somebody in the game requires trust that is established through weeks of collaborative game experience. But even in the game world, players might experience unwanted repercussions. A guild might, for example, reject a

prospective player after inspecting his equipment in the Armory and finding it lacking—a situation that would be experienced as disappointing to the player. This misunderstanding would likely be easily remedied through a chat conversation to provide the appropriate information for evaluation, but we can imagine situations, outside the leisure activity of gaming, where clarifying conversations might not be possible (where there is no time for example) and misleading information based on digital data could have negative consequences. It is possible that such databases might move from play to work and school settings in a process that Sutton-Smith [16] called "adaptive potentiation" in which experiments with new ways of acting in play settings penetrate the larger culture.

On the street in Venice, meaning for the space and activities that take place within it, is created through deliberate choices of what remains persistent and how it is further used. Individual decisions are made to contribute to the collective design of the persistent and ephemeral public space. Over time, ephemeral and persistent artifacts are reused and reappropriated by a diverse crowd of people. How persistent and ephemeral artifacts are reused is, as Goodwin and Goodwin termed it, "not a transparent, 'natural' ability, but very much a socially organized element of culture that is instantiated within, and sustained by, a community of practice" [10]. In their studies of airplane and flight management systems Goodwin and Goodwin found physical artifacts, such as flight sheets and visible displays of orientation, and the embodied use of semiotics as highly relevant for the dynamic interplay between context, interaction and mutual intelligibility among and within different work positions.

Similarly, we found that the same artifact can be reused based on a variety of motivations and individual goals, but "is defined by its position in larger webs of activity" [10]. For example, whereas study participants did not necessarily share the same motivation to reuse a particular artifact, they commented that the collective production of meaning for the various artifacts created an enjoyable experience of being part of the street's ongoing activity. Divine Spirit's guild website created a similar sense of community participation. In both cases participants felt that they are contributing to ongoing activities in meaningful ways. Access to persistent information in Venice required a certain amount of effort and social engagement, whereas the guild website afforded easy access to information for members. The Armory, over which players have no control, nonetheless illustrates how players publicly value and evaluate each other's performance in the game. People populating the street seem to have more choice in choosing artifacts they want to render

persistent or ephemeral compared to WoW players subject to Blizzard's choices. However, players also communicate outside of the game through websites, blogs, wikis, and forums, choosing how they represent their game experience.

The ephemera of play in WoW are captured by the characters' development process. Details of a character's development over time are captured and made persistent on publicly accessible websites such as the Armory. Players privately converse about the disappearance of characters in the game. Similarly, people who spend longer amounts of time with the long-term community members in Venice get to hear the individual stories about past and present community members. Although these conversations are of ephemeral character, they significantly contribute to meaning making and community building in the given social environment.

6. Conclusion

We have explored issues regarding relations between the persistent and the ephemeral using our empirical data and drawing on the work of others such as [1, 3, 4, 17] who have begun to investigate related issues. Our aim is to stimulate further research and discussion of these dynamics. We have tried to broaden the notion of persistence to take into account the role of ephemerality and ultimately to see persistence and ephemerality as linked processes of intersubjective interaction. These issues are crucial for technology design because digital media often afford large quantities of persistent data, but without making transparent to the user how to highlight values and meanings of the data [17], a process that often occurs in ephemeral conversation as on the street in Venice or in private whispers in World of Warcraft.

Spaces such as Venice, California and the online game World of Warcraft, provide opportunities to deal with past events and to create meanings for persistent traces by interleaving the persistent and the ephemeral. Viewing persistence and ephemerality as elements in play with one another, coming together to select what is meaningful for now and later, can provide a valuable lens for analyzing digital media spaces.

7. Acknowledgments

8. References

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