

Educational Games and Mixed Realities: what I learned from Chinese Online Game Players

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Introduction

Many recent approaches have explored the usage of games for educational purposes. The games for health initiative¹, for example, encourages projects that apply games to teach children about diseases or encourage healthier behavior. Brenda Laurel's "purple games" approach is motivated by the goal to teach girls self-confidence and reflect on their self-identity. Within HCI and Ubicomp, games and playful interactive technologies have been used to stimulate increase in physical activity [8], to explore social dynamics around new technologies [4], and to evaluate new theories in a lightweight and playful context [3].

In my recent work I have investigated playful activities across different local contexts. In particular, I have examined how people transition between play and other activities such as work, tourism, and sports [8][10]. In these playful settings I found that technology gains relevance not only as an infrastructural tool to support a particular activity, but as an instance of a socio-technical system dynamically shaped by the interplay of the virtual and the physical. Whereas approaches within Ubiquitous Computing and Game Culture Studies have challenged the divide between virtual and physical game environments, e.g. [1, 2, 14], studies of online games within HCI tend to focus on interaction and collaboration within the virtual realm [6, 7] [6]. Little attention has been paid to the intersection of one into the other within a particular local context and how the educational outcome might shift between different social and cultural localities. What is trained or taught through a game remains a generalization of individual and collective preferences and behaviors. Local and cultural differences are rarely considered as a shaping factor of the particular local taking on an educational game approach.

I believe that much can be learned from a perspective that looks at online game worlds as negotiated and culturally and socially embedded entities. For example, millions of people play the online role playing game World of Warcraft (WoW). The single largest group of WoW players is in the People's Republic of China². The game is based on the same logic, strategies, and interaction mechanisms for American and Chinese game servers. However, the cultural contexts that shape understandings of the game are quite different. I propose to look at online activities in games like WoW as mixed reality phenomena that are tied to their spatial, cultural and economic contexts. By mixed reality I refer to the blending between virtual and physical, but also to the mix of social realities when people transition between different spaces like work, school and play. To understand how game technology as an educational tool is adapted within a particular local context we have to make sense of the mixed realities within existing technology sites.

In this paper, I reflect on the ethnographic research on World of Warcraft I conducted in collaboration with anthropologist Bonnie Nardi in Beijing and Shanghai in July and August, 2007. I describe the types of activities that took place in the game and their impacts on the culture specific renderings of the game. In what follows, I will illustrate some of the realities I observed

¹ <http://www.gamesforhealth.org>

² <http://www.blizzard.com/press/070111.shtml>

during my time in China and relate them to previous interpretations and studies. This is not a preclusive description for future online game design for educational purposes, rather should be considered an exploration of existing practices that shape multiple realities within a socio-technical system. I wish to open dialogue around usage of educational games and how we might extend existing approaches to consider local interpretations and takings on learning through games.

Methodology

Over a period of 6 weeks I observed and interviewed WoW players in Internet cafes, university dormitories, and apartments in Beijing and Shanghai. I interviewed 30 people between 19 and 37 years old, 25 male and 5 female, observed their play behavior in the game and interactions at the physical game location. I conducted the interviews with translation and cultural interpretation provided by three native speakers of Chinese. Two were graduate students at Beijing University and one Chinese-American collaborator. The findings are limited by a small sample size, but we believe they provide important preliminary data on online game play in China.

This ethnographic inquiry is one phase in an ongoing project. My collaborator Bonnie Nardi has been conducting immersive ethnographic research on WoW since December 2005 [5, 11, 12]. I have been studying playful interactions in work environments [8] and public urban environments [10]. We will continue to explore dynamics in playful settings and between the virtual and physical realm, with the aim to inform system design.



Figure 2 Internet Café at a train station.



Figure 1 Inside of an Internet Café in Shanghai.



Figure 3 Work, living and sleep space in a student Dormitory

Findings: local economic values and spatial infrastructure

In what follows, I present a subset of our findings that illustrate some of the idiosyncratic takings on the online game WoW in China. Compared to players in the United States and Europe, who tend to play games like WoW at home, Chinese players play mostly at Internet cafes (Figure 2 and 2). [15] point out that players go to Internet cafes to access not only the Internet but also their close friends and peers. While we found similar evidence, we also observed that tight living spaces and family dynamics have impact on the decision of where people play the game. Most student dormitories in Beijing and Shanghai provide little or no private space for students. Dormitory rooms are shared by 4-8 people and fit not more than a bed for each that is simultaneously used as workspace (Figure 3). Many young professionals in Beijing and Shanghai live at home with their parents until they are married. The small living spaces as well as parental disapproval of game play render the local public play space in Internet cafes an attractive choice.

“The Burning Crusade” (TBC), an expansion to the game that introduced among other features the increase in level cap to 70 (60 before), new professions and new playable races, was released on January 16, 2007 in Europe, United States and Australia, on April 20, 2007 in Taiwan, as well as the regions of Hong Kong and Macau. In China, however, the TBC was not

released until September 2007. Our informants reasoned that The9³, distributor of WoW and other games in China, should be made responsible for the delay, because of their general bad reputation in terms of server maintenance and player support. The delay of the release was hence attributed to low quality of service provided by the distributor.

However, players did not only speculate about the reason behind the delay of the release. Many of them also took action to get their grip on the TBC, which should change several dynamics in and outside of the game. For example, a strategy players pursued was to create an account on a server outside of China, e.g., a Taiwanese or American server. While others quit playing the game, some players made use of the local media-pirate industry, installed an unlicensed version of the TBC on a privately maintained server, which other players could access. Even though these “private servers” were very often unstable and did not provide the full set of features as the commercial TBC, players logged onto them to experience and practice the new game features. Some of the players we talked to had at least one additional account on a private server, which they played regularly especially during downtimes of the regular Chinese game servers.

Players quitting the game and moving to private or foreign servers also changed certain dynamics in the game. Guilds, an important social structure in the game that allow people to group together in order to achieve high-level in-game goals collaboratively, broke apart because of the decreased number of online members. Consequently, many players engaged in activities that could be successfully accomplished as a single player, like simple quests or training their characters in their specific professions such as fishing or collecting herbs. Others mentioned that they began using the game to chat and meet friends online, because they couldn't find enough people to collaborate on a bigger in-game task. Whereas some of the private servers did not require the player to pay, others were implemented with a quite different economical system compared to the original game version. For example, players could literally buy their way into the server through membership payments that provided high-level virtual characters based on the amount a player was willing to pay:

You pay a 30RMB, 50RMB, 100RMB, or 1000 RMB membership. I went in there and my character was already at level 60. It's a rip off from the other server.

In North America, Europe and Taiwan players generally pay a monthly fee for a game account. In China players purchase hourly-based point cards that are not linked to one specific account to play the game. A point card costs about 30 Chinese Yuan Renminbi (or ~4 US\$) and allows a player to be logged into the game for 66 hours. This payment system affords quite different game strategies: since the point cards are not linked to a specific player account, players trade point card IDs for in-game currency. A point card could be acquired for about 400-550 in-game gold coins at the time of our study. The value fluctuated between servers and was based on the current activities in the game. For example, during a time of high guild activity, a point card could be worth up to 600-700 gold coins. Players who sell point cards usually have less time to invest playing the game. For them, selling point cards was a mechanism to earn gold coins in the game without spending too much time in the game. One of our informants described how this could influence the value of the in-game currency:

Some players don't play the game often, and bring a lot of point cards to sell. And the economy in game will decline like during inflation times. When the game came out, one player could buy a point card for only 70 or 80 gold.

³ <http://www.the9.com/en/>

Others saved gold they acquired through the sale of point cards as preparation for the release of the TBC. Whereas some players used the point card system to buy their way into the higher levels of the game, others, who could not afford to do so or did not want to spend too much money on the game, looked at it as a cheap way of playing. Investing time in the game now affords playing the game in the future:

Silvia: Do you spend a lot of money to play the game? Informant: *No, not a lot. I didn't buy so much equipment, but rather point cards. For example, 400 gold coins for a point card. I looked at it as a free game, because I exchanged it for point cards.*

Findings: Local Gender Issues

Online games like World of Warcraft are known for being dominated by male players. Previous studies indicate about 21 percent female players in the US [17]. There aren't any official numbers of the ratio between male and female players of the game in China. During our visits at Internet cafes in Shanghai and Beijing, we found on average 6 women out of 30 people in a standard Internet cafe, one or two of them playing WoW. A common thread that spans across players' perceptions about gender differences in play style and in-game success in both China and the US is the notion that women tend to be less attracted by competitive gaming environments, choose characters that reflect supportive roles, prefer fighting from afar (e.g. the World of Warcraft character priest), and are weaker game players and are less powerful in player to player combat [5]. For example:

Shong: *Girls seldom PK with each other, because their skills are not as good usually.*

Bonnie: *So you don't PK that often?*

Shong: *My PK abilities are weaker and I lose often. Girls playing PvP, they loose often and are killed by others because skills of girls are really not that good. When you get killed, girls get really depressed.*

Bonnie: *Why are you still playing PvP then?*

Yong: *It's because of my friends, and playing alone has no fun except you want to practice.*

Such reflections on female disinterest and weakness in game play have often implicated games designed particularly FOR women's interests and sensibilities (e.g. Brenda Laurel's Purple Games). While games designed for particular purposes, such as learning and training of skills, can create feelings of empowerment for marginalized groups, they can also cause universalization across different localities. Reminding us of predecessors of contemporary VR applications such as DARPA's training simulators in the 80ies Penny pointedly asks "What exactly is the user being trained to do?" [13]. The underlying assumption that motivates game designs targeted towards women is that the virtual space makes gender liberation possible and that women can/should be taught to be self-confident. I consider this argument as deeply flawed for two reasons. First, it is based on the assumption that the Internet and play constitute a space where a second identity can be trained independently from one's culturally and socially situated identity and embodied enactments within a physical context. Penny points out "in this space between mere pictures and the 'real world' the embodied aspects of simulation influence representation in real time" [13]. Thus, the interpretation of what it is one is trained through a game is deeply intertwined with the embodied action outside of the screen and its meaning in a particular cultural context. Second, the argument of female liberation overlooks other gender realities that can not be found within stereotypical assessments and player statistics. In the following sections, I will give an example of gendered stereotypes and identity construction that

was deeply embedded in a cultural context and can not be reduced to or addressed by a game design for girls.

An overall perception prevalent in China was that women started playing the game as companions of their partners and less out of personal drive. Contradictory to this perception, we observed and talked to women in Chinese Internet cafes who decided to come to the café to play games or engage in other activities based on their own personal interests. Some women started playing the game because of their partners and friends. However, this applied as well to their male counterparts. Some of the women we talked to also mentioned that it was them who convinced their partners and friends to join the game.

Previous studies pointed out that the gender choice for a virtual character is interrelated with the players' cultural and social context [14, 16]. Similarly, we observed that players' choices for their characters' genders were tied to their positionings in society and to their particular cultural takings. Whereas American players mainly chose a gender for their characters based on individual preferences, male players in China felt restricted due to a culturally situated meaning of identity construction through the opposite gender. Let us look at some examples.

Many of our male informants perceived female players as weaker players and would thus receive more in-game support than their male counterparts. In-game support was expressed through gift giving, help in combat and general lenience. While female players we talked to did not feel privileged in the game, some of their male counterparts picked female characters to receive the expected "better" treatment. This, however, came at a certain cost. A male player, who picked a female character, ran the risk to be perceived a cheater, if he didn't reveal his "true" identity early on:

Silvia: Do you know male players who pretend to be a woman to get certain advantages?

Chenguang: Yes, there are those. Any dude that picks a female character, about 70-80% will keep pretending they are a woman, until somebody finds out.

Yunru: Many men are choosing female as their secondary character so that other guys help them leveling up faster.

Male players did not only risk denunciation as a cheater if their character's gender was female, but were confronted with prejudices of their sexual preferences: "Picking female as a guy doesn't feel right. We call this person a *ren yao*." The direct translation from *ren yao* into English is *Lady Boy*, which would translate more freely as freak or transvestite. Many of our male informants expressed they felt it was "unnatural" to pick the opposite gender for their characters and that other players would "look at them differently" if they did so. For example:

Peng: I don't like to be mistaken for a woman. When people think you are a girl, they treat you differently.

Silvia: How do they treat you differently?

Peng: They talk to you differently. It doesn't feel comfortable

The image associated with the notion of "Lady Boy" often influenced players' choice for a particular character. Whereas women were able to choose gender based on the look and on their own perception of the best fit for their class and race, male players often perceived the male gender as the only option for their character in order to avoid confrontation and prejudices.

Silvia: What gender are you characters?

Xiaosi: *Male*

Silvia: Don't you think the female ones are prettier?

Xiaosi: *I hate such ren yao characters.*

Silvia: *Why is that?*

Xiaosi: *I just don't like the image of the ren yao. Although the game is virtual, boy is supposed to be boy, girl is supposed to be girl. You will always feel weird if the genders are mixed up. Before this game, I have played a Chinese game in which boys and girls could get married. Thus, if they are two boys, I would feel disgusted.*

Cross-culturally, online games such as WoW are attracting more male than female players. In both cultures (US and China), players thought of female players as less interested into the game or weaker players. Contradictory to the overall perceptions, we found women who were similarly drawn to the game as their male counterparts, were leading raids and supported other weaker players. In China, the culturally embedded meaning of a player choosing the opposite gender resulted in a restricted play experience for many male players. A practice that emerged from the gendered interpretations was the exchange of characters. Online games and virtual worlds like WoW or Second Life allow the creation of multiple characters. People often shared accounts and thus allowed others to log on with their virtual characters. Players enjoyed this practice because it provided opportunity to explore the virtual world from another viewpoint, through the capabilities of an unfamiliar race, class, gender, equipment set, etc. In China, character exchange constituted an acceptable solution for many male players to act through the opposite gender. For example, couples that played the game together, logged onto the game with each other's characters to either provide mutual support for challenging tasks or to amplify the game experience. Players highlighted the enjoyment of this practice, but also the learning aspect achieved through approaching similar tasks with a different skill set and nuanced way of interacting with the world. The possibility to look through somebody else's lens and the possibility to approach a problem from different angles could be used as a framing of design for both genders instead of designing for one in particular.

Conclusion

In this paper, I have introduced a subset of our findings of a 6 week long study of players of the online game World of Warcraft and their social environment in Beijing and Shanghai to illustrate how local structures and cultural values influence the process of adopting the technology. Local governmental regulations, family dynamics, and living standards, as well as economic infrastructures in these cities shaped dynamics in and around the game, creating a reciprocal back and forth between the game and its local context. Many in-game strategies were developed to accommodate regulations devised outside of the game or to adapt to the specific infrastructural settings such as slow Internet connections. I hope to stimulate conversation about the generalized notion of the player of educational games and shed some light on how (educational) games are adopted quite differently in various local settings. Whereas different cultures might deal with similar social or health related issues – NPR⁴ (National Public Radio), for example reported on the increased risk of diabetes in adults in Africa due to the change in nutrition (increase of fast food) in the main cities, an issue prevalent in many European and American cities – the local reactions to the problem are often quite different.

⁴ <http://www.npr.org>, story broadcasted in November 2007

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