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DESIGNING NEW CASUAL GAME EXPERIENCES: COMPETITION AND SOCIAL INTERACTION CONVERGING WEBSITE AND GAMES

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ABSTRACT:

Casual games are usually considered to be single player and short-term games without direct competition. These web-based and downloadable casual games are played within a single game window. To update this old-fashioned gaming concept, we proposed new experience models that focus on competition and social interaction in an environment where websites and games are converged; even puzzle games have direct competition against real people and interact with other users who display themselves using their own customizable avatars. To design a new user interface optimized for North American users, we performed user studies with participation of real users. Playability and usability of the games were improved based on the results from the studies. Finally, through competition-related elements such as player matching and level system and community features such as avatars and relationship building services, users could enjoy integrated game experience through both the gameplay itself and the related long-term services.

1. BACKGROUND

This paper delineates an experience design process on a new portal game website. The website provides many games ranging from web games powered by Macromedia Flash to Mid-core games which need 50MB-500MB hard disk drive space to install, most of which are localized from Korean to North American versions. To provide a novel game experience to North Americans beyond mere language translation, we designed game experiences maximizing the synergy of the website and individual game clients. Among these games, this paper focuses on "Casual Games." This paper describes the design problems we have faced, the development process and the final design solutions.

2. CURRENT STATE OF NORTH AMERICAN CAUSAL GAMES

"Casual Game" is a term used in the game industry, referring to a game that generally involves less complicated game controls and overall complexity in terms of gameplay. End-users who play these games are more familiar with the names of game genres such as card games, board games, and puzzles. The two most popular casual game formats in North America are web and downloadable games: web game is a game launched via a web page with no prior installation of software required. Downloadable game is a "small file game," typically less than 25MB downloaded from a web site or peer-to-peer network and installed on a user's computer, where it runs as a standalone executable program (Wallace and Robbins 2006).

One of the popular models for web games is associated community features such as chat, points-based reward system and friends list. Although these community features supplement the simple nature of web games, they are indeed supplementary to the gameplay and have no direct bearing on the game. Except some card and board games inspired from real offline games like poker or chess, most web gamers play alone without in-game competition (only their ranking relative to that of other players is displayed after the gameplay) and chat only showing their text screen name.

Downloadable games are typically offered by try-before-you-buy modes and free web demos are available on the game website. In many cases, such downloadable games should be purchased for users to enjoy the full features which are restricted as web demos. Once users download the games, they do not have to visit the website again and even the Internet connection is not

necessary in case of single player games. Consequently, the website functions merely as a game information provider before users finally purchase and download the games.

In benchmarking popular North American casual games, we found that competition is not the key factor of both web and downloadable games. Instead, single player for short duration is the most common gameplay feature. Furthermore, neither game category utilizes the advantage of the different gaming environment, i.e. website, effectively. The essence of the gameplay did not change much from the early arcade game style. And there was no interaction between website and gameplay, so the experiences in the two domains were totally separated.

3. DIRECTION OF NEW EXPERIENCE DESIGN

Since competition and community features crossing website and independent games are deficient in North American game markets, we oriented the experience design of the game portal website and the games on it toward the direct competition and social interaction among users, as providing various games of different genres and coherent gameplay experience are the concept of our new game portal website. As the broadband Internet access becomes more dominant in North America, we assumed that bigger size games would be acceptable to the causal gamers. Therefore, the games we developed are downloadable and installable games, but should be initiated on the website for the integrated experience over the website and a game client.

The most distinct feature of the games is direct competition. For example, even puzzle games, which exist as single-player games, are competition-based gameplay; players compete in order to beat others by finishing a given task earlier or earning the winning score faster, or even more, using items to launch attacks against counterparts. Since such game format is unfamiliar to North American users, our main challenge was to reduce the level of confusion which users many confront and induce them to become regular players of our game in the end.
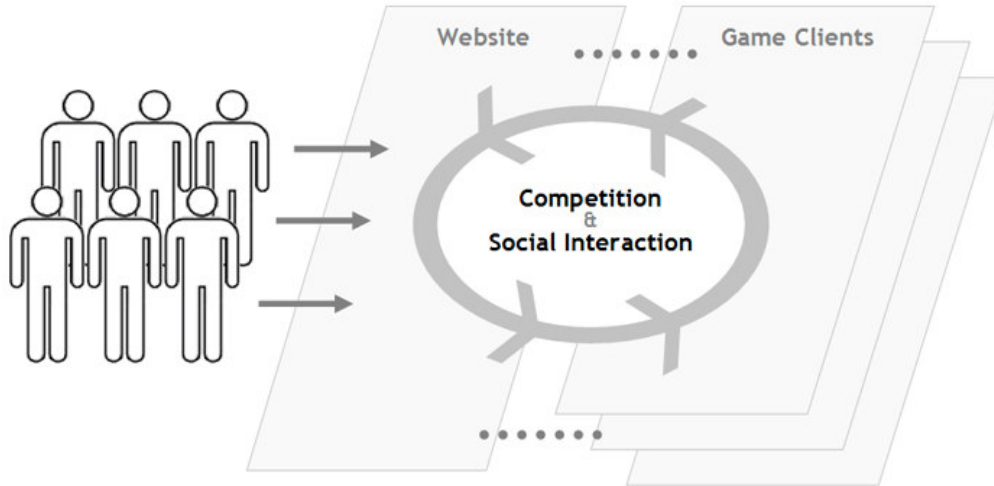
Figure 1: New Experience Design Concept

The website was designed and developed from scratch, but the games were localized from Korean games. These early localized games were alpha versions; only the interface language was translated to English and rearrangement or improvement of interfaces did not occur. Afterwards, we performed user studies by inviting North American users. Analyzing users' responses provided us with usability and playability feedback. In response to these user studies, we embodied two experience design models – competition and social interaction. The models were implemented into the website and the games. These games are now under open beta test service. We are keeping track of users' behavior on the website and continuing both statistical and qualitative researches in order to maintain and increase the number of regular players.
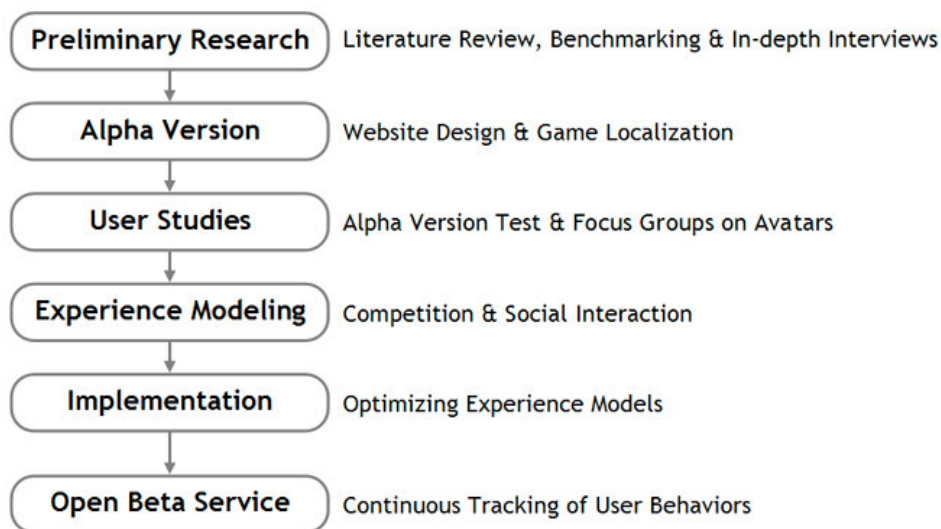

Figure 2. Experience Design Process

4. USER STUDIES

To address the design challenges, we started by conducting user behavior research based on literature reviews and in-depth interviews. We then developed alpha version websites and games, which were tested with emphasis on usability and playability with end-users. In addition to the website and games, we also focused on enhancing customizable avatars which were proposed as one of the core services for community. With the users' participation, the avatars were improved so that they are more user-friendly. The detail of user studies is delineated afterwards.

4.1 TEST ON ALPHA VERSION WEBSITE AND GAMES

The goal of this user research was to evaluate the first impression of the website and the casual games and develop new game experience and remedy the apparent interface problems. The research method was a combination of gameplay observation and focus groups. We executed eight sessions with four casual game players in each, totaling 32 studies. Half of them were heavy users or major casual gamers (Wallace and Robbins 2006) who play more than ten hours a week of online casual games. Most of these users were middle-aged women. The other half was light users who are in their teens and twenties, playing less than ten hours per week.

Following the moderator's instruction, participants played two games for twenty minutes each. Upon fishing the game, they answered questions having to do with their initial game experience. The moderator monitored all participants' screens at the same time on her screen. Other researchers in an isolated room were also able to observe the participants' computer screens in real time. Unobtrusive observation is an empirical method that is used to measure the usefulness and acceptance of the system (D'Hertefelt 1999). Moreover, on-screen clicks and mouse movements were tracked for thorough post-observation analysis. Focus groups are known to be the best game research method for idea generation (Fulton and Medlock 2003). We designed questions to evaluate tested games and their concepts. Also, general game behavior, environment and opinions on their favorite games were topics for discussion.
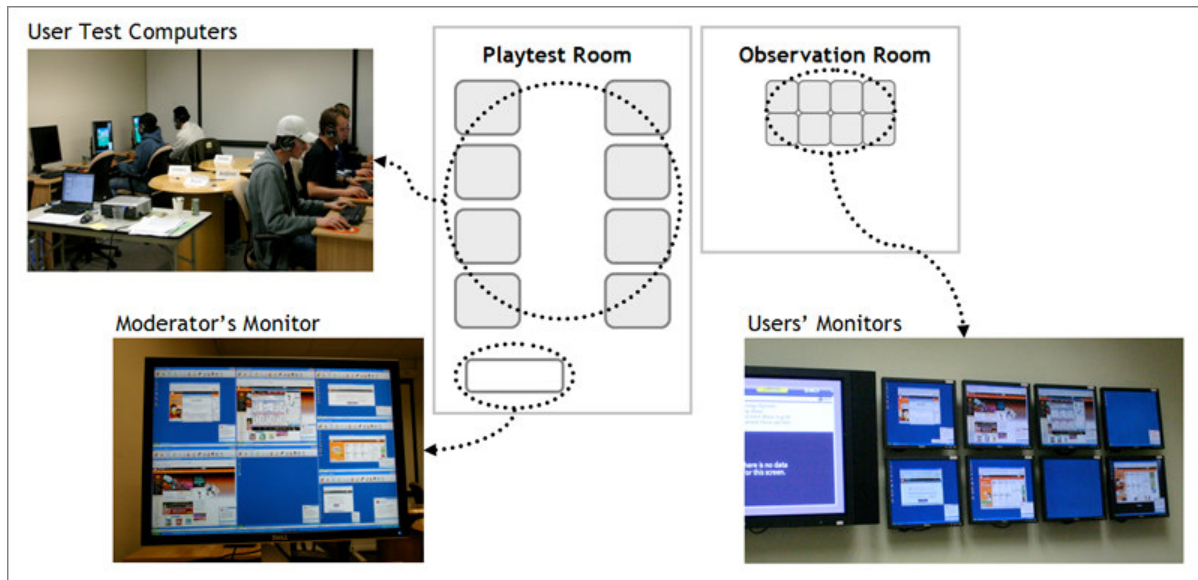
Figure 3. Game Testing Facilities

By analyzing the recorded game test screens and discussion, we were able to identify the difficulties the users faced while they were playing the games. Some usability problems were arose from the game interface such as feedback or locations of specific elements. More seriously, insufficient experience in playing multiplayer games resulted in inability to notice many competition and community related concepts. As we expected, participants were not able to understand multiplayer features such as ranking indicator, numbering system and host function. The insights gathered from the user research were the starting point of the interface improvement, and the improvement was not just a change in visual interface but that of gaming experience as a whole.

4.2 FOCUS GROUPS ON CUSTOMIZABLE AVATARS

As community and portal websites have started to user avatars as a means of self-expression, avatar is becoming a familiar concept to North American users. However, most avatars on a given service are pre-determined, so the number of possible choices is very limited. On the contrary, our avatar system is designed in order to provide high degree of freedom to create users' own avatars; users can choose hairstyle, face shape, clothes and other accessories separately and build up their own avatars. One of the goals of the research was to find the acceptance level of the customizable avatars and their application to major game service providers. Also, we wanted to evaluate the level of users' preference to the visual appearance of avatars which were designed for Korean users.

In the focus groups, the concept and objectives of avatars online were clearly understood to the Internet users (chat-based community users and online/PC gamers), and using avatars on websites was received well by the participants; especially on online game websites where anonymous or pseudonymous users were omnipresent. The users preferred using disguised means such as cartoon, animation or avatars rather than photos. Still, the participants thought these unrealistic visual representations should be elaborate enough to display their actual appearance. For example, users thought that exaggerated head part of avatars resulting in baby-like body proportion did not effectively express their identity. When the users were asked about the attractiveness of the avatars, their answers were negative when the avatars were solely displayed without any background. However, when they were actually used in the gameplay with various facial expressions, users' reaction became more positive.

5. EXPERIENCE DESIGN 1 – COMPETITION

5.1 ROOM LISTS AND PLAYER MATCHING SYSTEM

Online competition-based games driven from offline games such as poker and chess usually have game rooms filled with game tables where particular users within certain range of levels are able to join. On the contrary, other genres of casual games without direct competition provide individual game rooms based on the age distinction. For our games, we employed level-based room list: Beginner, Intermediate, Advanced, Expert, and Social for everyone. Each room is accessible only by the eligible users who have certain levels corresponding to the room. Users can join the optimized room for their levels either by selecting a room on the list or clicking "Play Now" button on the website.

Once a user selects a room, she is brought to a lobby in a separate screen which enables more immersive game experience. At the lobby, she can manually scan the whole list of the tables by checking the number of users and their levels and then choosing one, or similar to the website "Play Now" function, she can also click "Play Now" button on the lobby to be brought to the optimized room occupied by users with similar level.
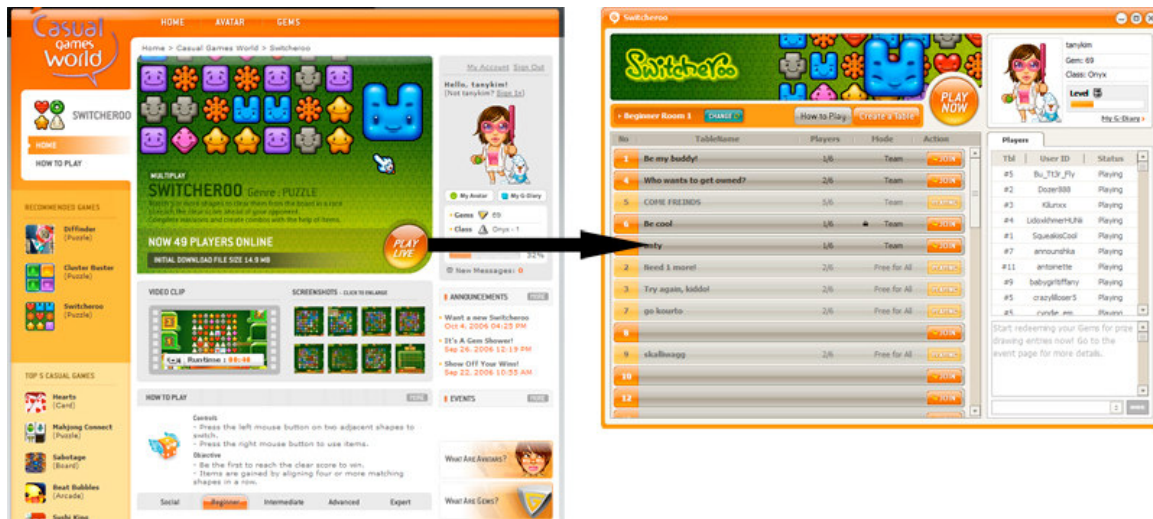
Figure 4. Individual Game Main Webpage and Lobby Screen

5.2 LEVEL AND CLASS

Each game has a unique level system that varies from one game to another. The more she wins at a particular game, the higher her level in that game will be. There are total sixteen levels: a level shows how good a user is at a particular game. As described earlier, high level users are able to join exclusive game rooms, which are designed to provide an arena for experienced and skilled users. Causal gamers tend to focus only on a few games, ignoring other games that are available for them to play (Fulton and Medlock 2003). Although repeated playing of a game is essential in terms of user loyalty, we aimed to encourage users to experience different games on the website for the loyalty of the game portal website as a whole. To bridge all the games, we devised a class concept applied to all casual games supporting the level system to distinguish users' skills on a specific game. Class represents status and seniority within the entire game community. It is determined by cumulative Gem points that a user receives for playing the games for certain duration or frequency. Also, the higher a user's level is, the faster she accumulates Gem points.

A user's level and class is distinctively displayed to be seen by other users through icons during gameplay and in the lobby as well. That is, level and class start as a metaphor of self-development and trigger the inner drive for competition. In fact, the number of points earned by a user after each gameplay depends on the counterparts' levels.
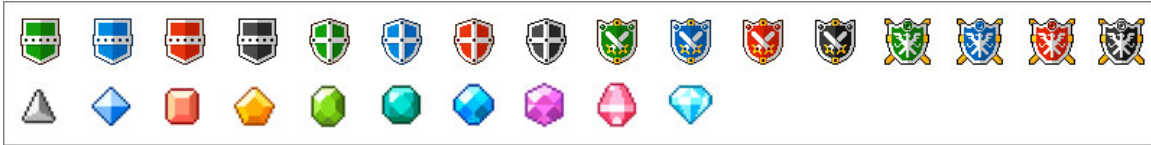
Figure 5. Level and Class Icons

5.3 INTERFACE ENHANCEMENT

At the visual interface level, several usability problems were found in the game tests with North American users. The focus of in-game interface design was assisting users to learn the competition status and recognize the multiplayer game procedure. However, some problematic interface elements were not intuitively understandable to North American users, mainly due to their lack of multiplayer game experience and cultural differences. For example, host-centered game start system and ranking indicator of each user's playing status were not intuitively understood by the users.

In the previous user test, a user was able to open a table instead of joining a table at the lobby, at which point she became a 'host'. Only the host had authority to initiate a game while other users were automatically brought into gameplay regardless of their preparedness (there was no "Ready" button). Typical North American users were caught off-guard; they first tried to find a "Start" button that did not exist. While frantically searching for the "Start" button, the game was started by the host. Also, the host did not recognize that she was the only one who can change the game options such as map and difficulty. To improve the starting system embedded in the interfaces prior to the actual gameplay, we decided to add another pre-game interface step called "Chat Table." The Chat Table provided users with opportunity to chat with other users who display their avatars. Start/Ready button was a crucial issue because failure in the initiation of gameplay could prevent future trials. To solve this problem in the starting process, we decided to provide a "Ready" button to normal users. They should press the "Ready" button when they are ready to get started, at which point the host can press the "Start" button to initiate the actual game. To prevent unready users from holding up other people who are ready to start the game, the host can banish them.

On the ranking indicator in the in-game interface, users' numbers (1-6) are located at points indicating their real time rank position; every user was assigned a number, and the indicator showed only the number of each user. It was difficult for users to recognize which number was

their own. In Korea, it is very common to assign a specific number to a student in school, so it is natural to match a user to a number even in computer games. However, during the user research, North American users did not know what the number on each user meant. Especially, when displayed on the ranking indicator, users' numbers did not readily convey the concept of ranking. The first suggestion to improve the interface was to display the whole ID because it is the most intuitive identification of each user. However, it became very indistinctive when users were competing at a similar level, because it resulted in all their IDs overlapping each other. An alternative to shorten the length of tags was to use numbers, but due to the problem found in user research (where players could not easily understand what the player numbers meant), we appended "P," which means player, to each number. To make the user ID more discernable, other users' numbers are placed adjacent to that of other users.
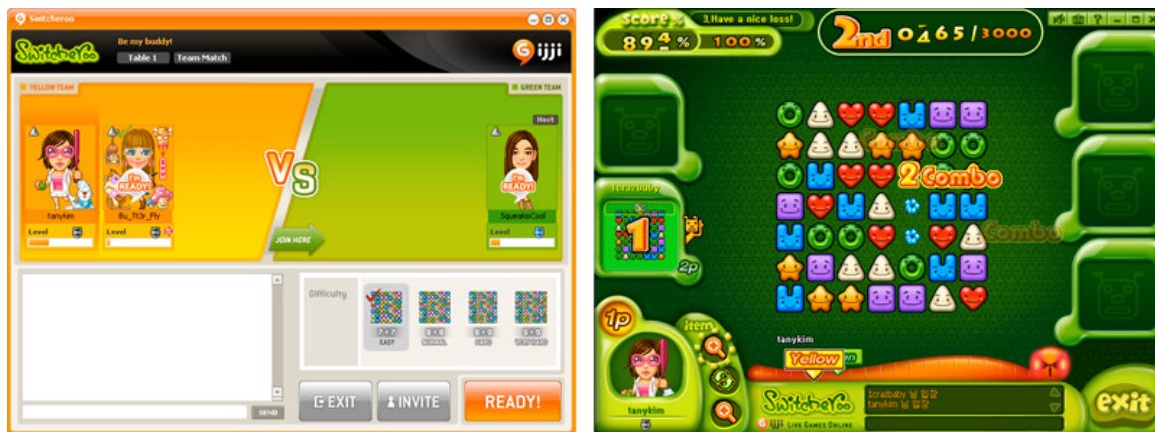

Figure 6. Chat Lobby Screen and Gameplay Screen

6. EXPERIENCE DESIGN 2 – SOCIAL INTERACTION

6.1 CUSTOMIZABLE AVATARS AND CHATTING

In many casual games in North America, the only way for a user to express herself is the screen name. Although they have visual cues such as avatars, a user is able to choose just one among limited number of pre-determined styles. To provide users with more identity, we designed a customizable avatar system especially for North American users employing the user research results. Compared with pre-determined avatars, it enables much greater variety.

Users can customize their own avatars on the website; they can choose each item of the whole avatar from the item categories such as face, hair, clothing, gear, and pet. The even enables the user to express his/her ethnicity by providing different skin tones. Various actions and emotions are also conveyed. The task to customize a unique avatar needs complex interaction since many options are offered to users and the task itself is unfamiliar. To evaluate the task and evolve it to be more user-friendly, we performed usability tests. The results were reflected to enhance the interaction design. In order to encourage users to utilize avatars and play games frequently, we allowed users to change their avatars with Gem points earned by playing games.

The avatars are displayed when users enter the chatting table, where they are encouraged to chat with each other. The community feature is one of the important factors to encourage users to play online games continuously (Choi and Kim 2004). User avatars are displayed not only at the chatting table, but they are also exposed during the gameplay. Especially, in turn-based and long-duration games such as board and card games, chatting functions as another fun factor during the gameplay to reduce the boredom of waiting.
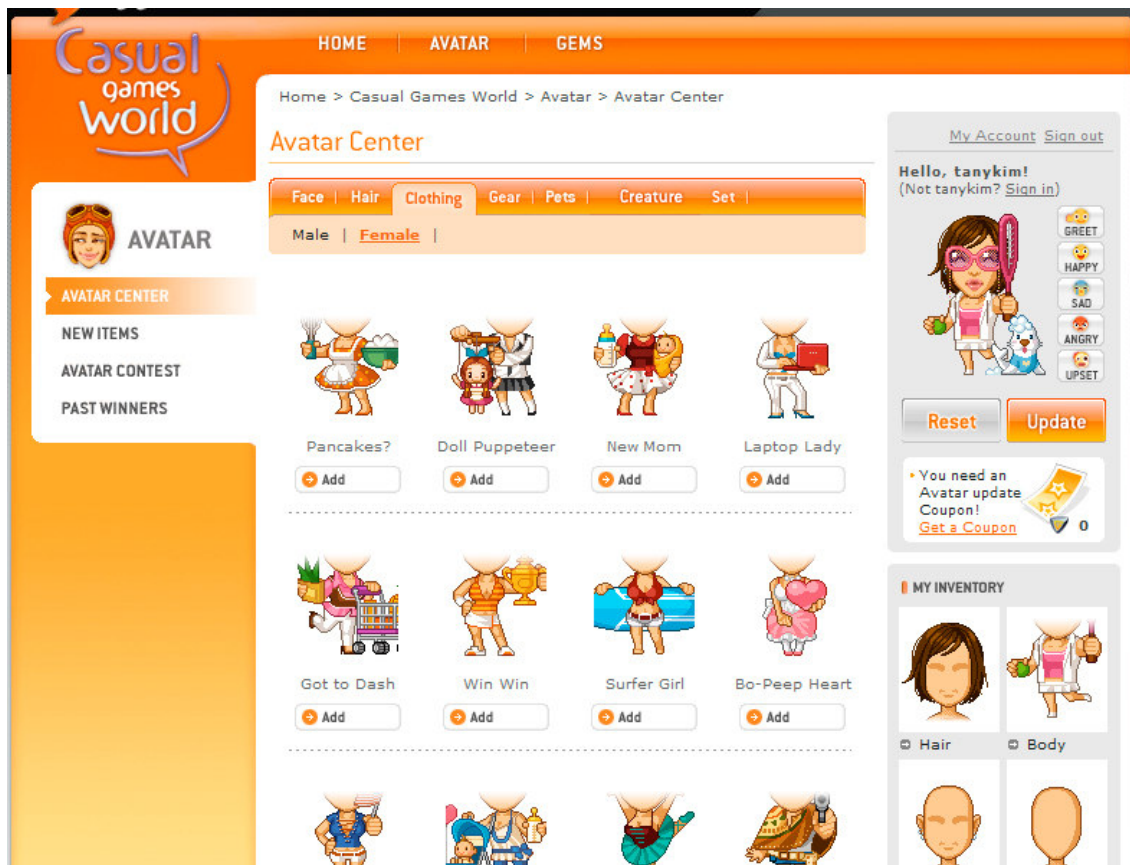

Figure 7. Webpage for Avatar Setting

6.2 RELATION BUILDING SERVICES

To promote synergy with the community feature, we designed a feature known as "Making Friends" and a messaging interface. A user can add others to her buddy list and send messages either on the website and games. Messaging system is a common feature on casual games, but ours has a more advanced interface called "G-diary," where each user has individual pages called "G-diary." One of its functions is to display a user's profile and it has potential to become a more extensive service similar to blog. G-diary not only offers a profile page but also archives the entire casual games. The archive has detailed information about each game including level, win-loss record, and game start date, which keep track of user activity. In addition, most frequently played games are displayed. Consequently, G-diary roles as a key service for long-term game experience.
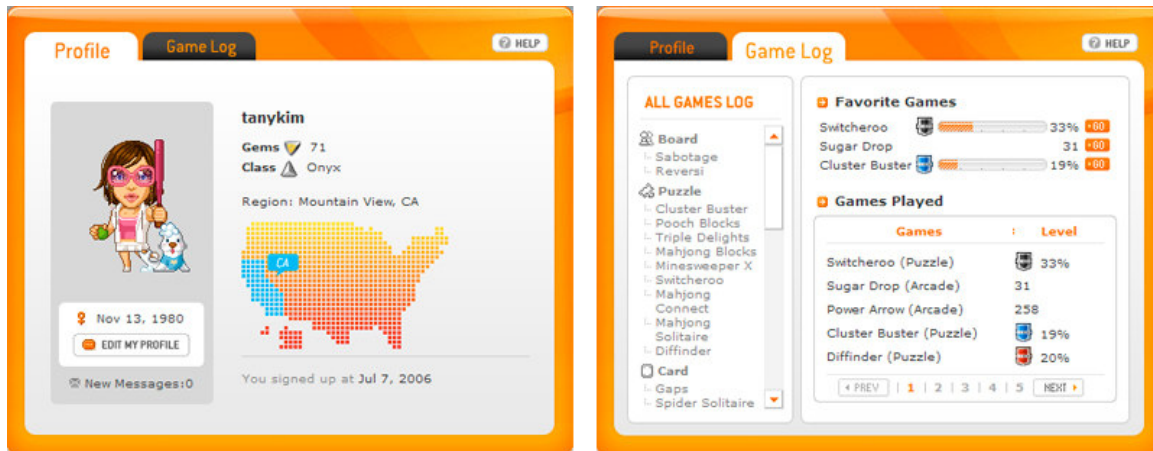

Figure 8. G-diary Screens for Profile and Game Log

7. OPEN BETA SERVICE AND CONTINUOUS EVOLUTION

The two experience design models – competition and social interaction – were implemented into a renewed website and total four casual games when we started the open beta service. Before opening the beta service, we performed usability test of the website focusing on navigation, casual game access process and avatar customizing flow. Along these qualitative researches, we also employed quantitative methods such as surveys and log file analysis. On the users' side, they are able to provide feedback through customer service centers via email and posting their own opinions on our website.

As the number of users grows and the range of their level is expanded, specialized service for high level users was devised. One such service is to provide an exclusive game room. Another modify the gameplay mechanism is to increase the entertainment value, e.g. in order to enhance multiplayer features, items to attack opponents are added. Also, more missions in gameplay are provided for diverse range of competition. The portal website also evolves to build user loyalty. Events such as avatar contests and Gem prizes provide more values to users. Thus, in contrast to traditional casual games, the convergence of website and games is a new gaming environment providing game-related community services and fun games as well.

8. CONCLUSION

The casual game market is growing fast and the industry is trying to find different service and business models (Wallace and Robbins 2006). But the most common casual game models are still web-based and downloadable games in North America. Usually, these games fail to utilize the nature of the Internet and the advantages of the media; casual games are usually single-player games not employing competition. The game experience is much limited within a single window of gameplay without social interaction with other players.

Beyond these traditional casual game models, we started a game portal website with different kinds of casual games. The website and the games as well were designed to provide new multiplayer game experiences to the North American users. We focused on minimizing the confusion non-experienced users may confront and maximize competition and social interaction between users. Also, the linkage between the website and game screen itself provided enabled rich game interaction. The traditional concept of causal games was changed from single, instant and simple play into multiplayer, long-term, competitive, collaborative experience.

This game experience design is a vivid example embodying users' needs which have been neglected because of the bias that casual games are boring. We expect the insights gathered in this paper to benefit game designers who are looking for new game experiences. Also, the insights from our design process would be enticing to the industry of web community design, localizing digital contents and cultural difference in the user interface design.

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