Chapter 1

Innovations in the Game Industry: Online Games Versus Offline Games

1. The impact of online games: Turnover of Korean game industry against American and Japanese competition

Online gaming has been taking the world by storm since the 1990's, and Korean developers have been among the leaders. While Korean games are successfully exported to China, Japan, U.S. and other Asian countries, highly-developed manufacturing nations such as the U.S. Japan and several countries in Europe struggle to develop an identity in the online gaming space. The spectacular growth of online gaming marks a new chapter in the history of game industry.

Since the so-called "national awakening" in the 1960's, Korea strives to industrialize, modernize its economy, and compete on even footing with other advanced manufacturing nations. In fields such as electronics and automobiles, Korean companies imported technology and production techniques and worked to improve upon them, competing primarily on price with manufacturers from other countries. Now, Korean companies create some of the most competitive and advanced products in their industries, such as semiconductors, LCDs, and mobile phones, all based on the "import-and-improve" technique developed in the 1960's.

The online gaming industry stands apart in Korea. In gaming, Korea is now the market leader rather than the follower, both in terms of production and distribution. The first major online game, Ultima

Online, was American in origin but was commercialized and marketed by Koreans. Online gaming is a field where Korea no longer is forced to compete on price, but on technology and service. Currently, the Korean game industry maintains about a two year lead in technological innovation over its Chinese, Japanese, and American competitors (Wi, 2006a; 2006b).

Over half of the Chinese, Japanese, and East Asian gaming markets are made up of Korean games. Their spectacular success has attracted major game developers such as Sony Computer Entertainment and Microsoft, which are trying to build affiliations with Korean producers. This is significant in the development of Korean industry, as this is the first time Korean companies represent the pioneer in a major market.

Korean games usually operate on a different business model compared to other online games. Games created by American companies (such as Everquest and Ultima Online) use what is called a "selective monthly payment" model, in which users pay a monthly subscription fee for access to the game. Korean games generally operate via a system of micro transactions, where players have free access to the game but can purchase power-ups and aesthetic items for their characters.

One difficulty online gaming faces is that the advancement of the industry has outpaced the development of high-speed Internet services in many areas. Most new games require broadband Internet service to play; however, in America the ADSL network does not provide the capacity needed to play the newest games, regulating online gaming to a niche market. The American online gaming industry of roughly $700 million is overwhelmed with web games and the like, as most Americans do not have the internet services required to play cutting-edge games online. Japan faces similar issues, as the lack of available content and difficulties handling payment processing have stalled the development of its online gaming community.

The above explanations are reflected in Figure 1.1. Japan's online gaming community makes up about 1% of the entire industry, whereas Korean online games represent a whopping 62% of the total market.

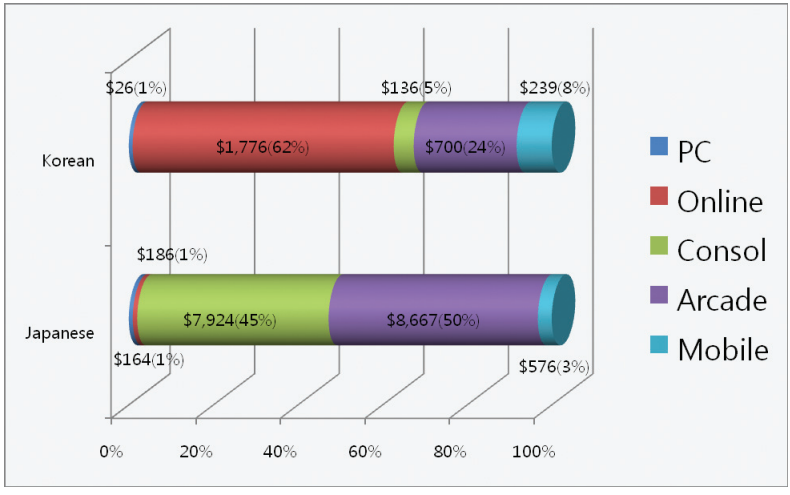


Figure 1.1 Size of online game markets in Korea and Japan (Unit: 1 million dollar)
Source: 2007 The Rise of Korean Games

The Korean online gaming market has been experiencing explosive growth. As Figure 1.2 shows, the game industry began tracking market performance in 1998, with revenue of 20 million dollars in 1999. In 2000, the market had exploded to 1.9 billion dollars continuing to grow another 40% in 2001. Long-term projections predict an annual growth rate of 20% past 2007.

These numbers are even more impressive when considered in light of their exclusion of sales from third-party facilities such as internet cafes. In 2008, sales from Korea's roughly 20,000 internet cafes are predicted to reach 2.5 billion dollars.

The Japanese shrinking gaming market is a stark contrast, compared to the amazing growth rate of the Korean online gaming market.

2. The potential of online games

Online gaming has also seen explosive growth in China, Taiwan and many other Asian nations. The Korean market skyrocketed to $20 billion in just 10 years, driven by the launch of the immensely popular game

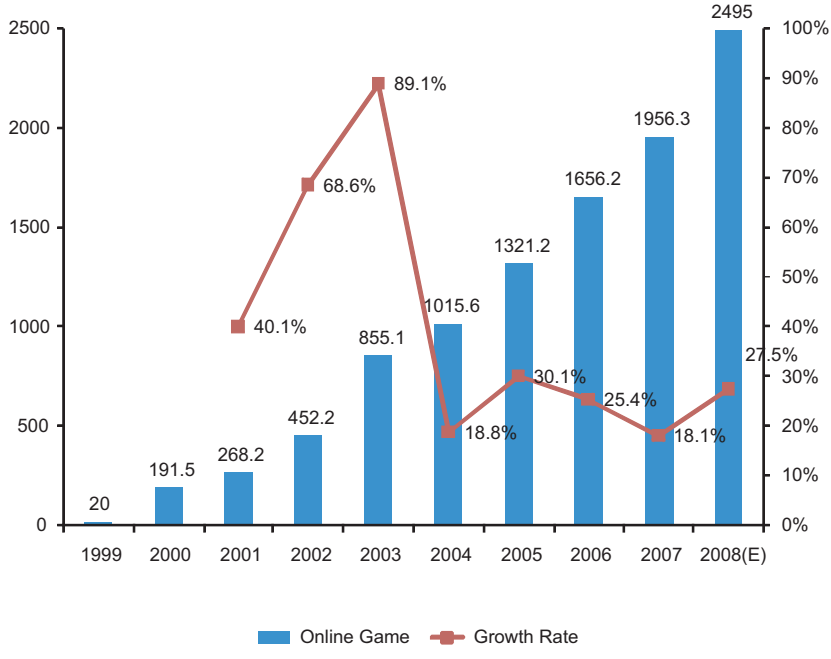


Figure 1.2 Development of the Korean online game industry (Unit: 1 million dollar)

Source: 2007 The Rise of Korean Games

Lineage in 1998. The Chinese market is currently experiencing similar growth, driven by Korean-developed games such as Legend of Mir II and B&B II, which have recently recorded over 700,000 players simultaneously logged into their games. The success of online gaming in Asia is far beyond anything seen thus far in America and Europe.

America and Japan are far behind Korea in the efficiency of their development process. Japan, long known for its gaming industry, is where many of the top console gaming systems were developed, such as the Playstation 3 and the Nintendo Wii. Japan is also home to many eminent console game developers such as Square Enix, Konami and Namco Bandai.

Japanese and American game companies face huge difficulties competing against Korean companies in developing games due to their

massive development processes. They often spend many years and massive amounts of money on a title, only to see it reach a comparatively small market. A prime example is Square Enix's Final Fantasy 11, which cost around $100 million to develop and host. Koei's The Ambition of Nobunaga Online has spent over $10 million in development alone. Comparing those costs to the $3 to $5 million spent on an average Korean 3D online game, the inadequacy in Japanese game development and server hosting techniques are clear. American game developers face the same difficulties in their development processes, with costs similar to those of Japanese companies.

This disparity in development costs has led American and Japanese companies to be very interested in the Korean online game model. These companies hope to learn from and emulate the success of Korean developers. Mark Berner, the senior technical director of America Online, says the following:

> "I'm profoundly interested to see how casual online games have so spectacularly succeeded in Korea. And I believe that there's a good chance of importing those games to America, too. Of course, the cultural differences between the two worlds would have to be balanced first. But come to think of it, I see some positive prospects of such favorable Korean games being equally prosperous in American market as well."

As previously mentioned, Korean online games usually operate with a different business model from American and Japanese games. They feature cash shops, where players can essentially invest real money in their characters, making them more powerful. This creates a "pseudo-fund" of cyber money, online currency interchangeable amongst online gamers. This is an interesting type of capitalization that serves no real function as soon as the computer is turned off.

Yet, the value of these pseudo-funds is very real to online gamers. This cyber money identifies an individual and upgrades their status in their online game's society. In such a community, one is commonly judged by the strength of one's character; thus players are eager to invest

in improving their characters. There is even a Japanese company whose sole product is online avatars for gamers. American game companies are learning about this business model and have begun to express interest in the Korean cash shop system. Jason Bell, vice president of American game developer Turbine, said:

> "I'm very intrigued by the profitable online game items in the American gamers' market …. users are willing to spend money on things like dressing or changing a hair-do of a cyber avatar character. I look forward to learning more about the Korean game corporate strategies as our broadband expands, soon to enlarge the online game community accordingly."

The actual online gaming industry is far larger than just the games themselves. Businesses supporting mobile accounts for payment processing are completely independent from game developers, and such businesses are successful primarily due to online gaming. The vast majority of their transactions come from teenagers who are unable to obtain credit cards, and use these payment processing services to pay for their gaming.

Internet cafes also benefit greatly from the growth of online gaming. Internet cafes offer high-speed broadband access for optimal gaming, and Internet cafes are springing up in other Asian countries to serve gamers who are unable to get high-speed access at home.

Online gaming is even spreading to sports. The concept of "E-health" is a new attempt to combine gaming and sports. This is being tested by a Korean company that has developed a system in which the game character's earned experience points are increased based on the distance the player runs on a treadmill which is hooked up to the computer. This experiment may be an attempt to resolve the "gaming addiction" problem that some players experience.

Online gaming is here to stay, and it is spreading like wildfire. All console games will soon feature online components. In time, every video game (whether played in an arcade, on a console at home, on a personal computer, or on a cellular phone) will be played online to add more content and connect gamers who share similar interests.

The present online gaming market is just an initial stage, a test of how the Internet will eventually influence the gaming industry as a whole.

Many people regard online gaming as a hobby. Some even call it a dangerous addiction. But clearly the impact of online gaming is being felt in today's societies. How did it come to hold such influence, and how will the differing cultures from which players come affect how they interact online? In this book, we shall explore the growth and the impact of the online gaming industry in detail.

3. Innovations of online games

While the world continues to witness an explosive expansion of online games with millions of players logging in from almost every country on the planet, the entertainment industry and other businesses position themselves to take advantage of this exciting growth. Relatively few people understand that the rate of expansion could be even greater were it not for an inherent tension between offline games and online games. To understand how this is the case, we should look at the fundamental differences between offline and online games.

In the past, all video games were offline. Users played games on ROM cartridges or CD-ROMs via game consoles, PCs and TVs. For players, this meant either playing alone or with a few other people in the same real space using the same, single piece of equipment. In the offline game business, software makers developed the game and sold it, usually through traditional retail channels. This business model has been dominant in the offline game industry for over 20 years.

The mid-1990's, saw the emergence of online gaming. These online games involved users connecting to servers via game consoles, PC's and communication networks. Players no longer needed to be in the same physical space or use the same machine or console in order to play a game, and over time they were able to play with more and more people. Using their own machines and connecting from remote locations around the world, they were able to log in to the same game simultaneously. Today, players interact with hundreds or even thousands of other players within online game worlds (Wi, 2006a).

It is crucial to understand that the creation of online games was induced by disruptive technology and business model. Technology developed to make offline games more enjoyable for players by allowing them to play with others has led to the tension in gaming we see today. When a disruptive innovation so different from previous technology and existing business models is generated, even leading companies often fail to adapt to the newly created environment. When technology or the very structure of the product undergoes enormous changes in a short period of time, such as the changes involved in going from offline to online gaming, management resources accumulated by the corporation can turn into obstacles and hinder the organization's ability to adapt. Christensen (1997) has described this phenomenon as "the innovator's dilemma."

To best appreciate the dilemma offline game makers faced in the past and continue to face in the present vis-à-vis online games; as well as to understand the challenges online games have to contend with and continue to have to confront because of offline games, we can compare and contrast the two forms with respect to several key differences. The differences on which I will focus are as follows: 1) revenue model; 2) product attributes; 3) development process; 4) distribution channel; 5) communication; 6) game style; and 7) immersion.

1) *Revenue model*

The first difference between online and offline games involves revenue and how it is generated. With offline games, the developers' source of revenue is via the retail sales of their game. However, for online games the main source of revenue is the recurring fee users pay for connecting to the game server. Let us look at how these sources compare.

Offline game developers acquire revenue through software sales. Prospective players must purchase the console and the software in order to play the game. As shown in Figure 1.3, a piece of game software that retails for $58 returns a margin of $18 to the retailer and $10 to the wholesaler, with $10 going into paying for production and any royalties. The developer is ultimately left with a profit of $20.

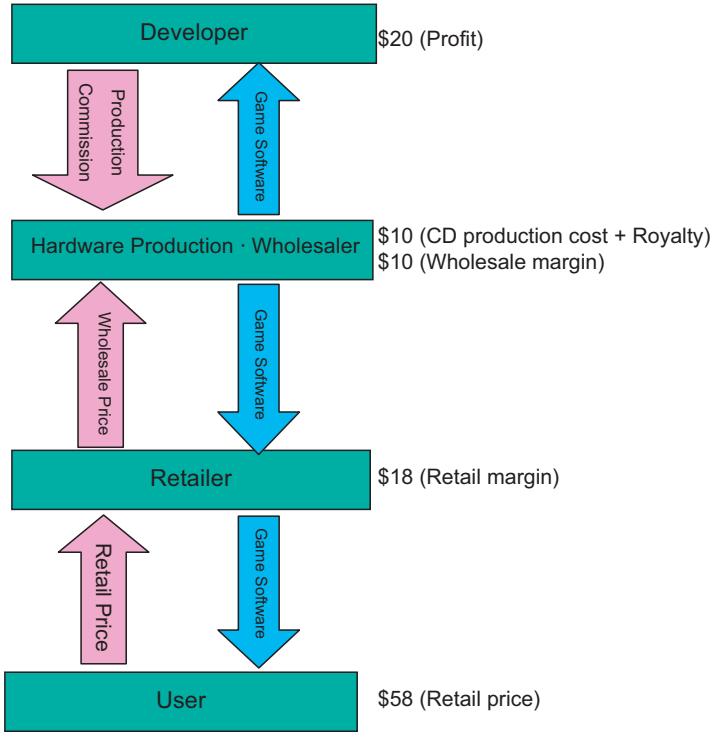
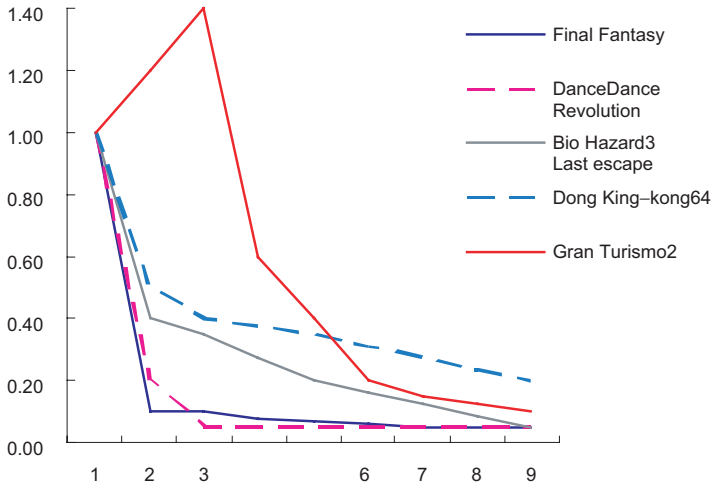


Figure 1.3 Revenue distribution structure of offline games

If development, advertisement and sales cost a total of $2 billion for a title, 100,000 units of the software must to be sold to retrieve that cost. Offline games require only a one-time payment: when the consumer purchases the software. Thus, with offline games, additional costs cannot be retrieved aside from through the profit gained from software sales.

The profitability of offline games rests solely on how many game packages can be sold. For the majority of offline game software packages, sales peak with release and decline with time, adhering to a right-descending pattern. Seen as a whole, most of the total sales volume is concentrated in the extremely short period immediately following release, in what is known as a distinctly characteristic "early concentration" sales pattern (Shintaku *et al.*, 2003). This makes the



Title	Maker	Platform	Releasing date	Total number of sold units	Number of sold units in releasing week	Ratio of selling in relasing week (B/A)
Final Fantasy	Square	PS	1999.2.11	3,470,590	2,502,859	72.10%
DanceDance Revolution	Konami	PS	1999.4.10	1,007,811	261,616	26.00%
Bio Hazard3 Last escape	Capcom	PS	1999.9.22	1,379,329	1,002,614	72.70%
Dongki kong64	Nintendo	N64	1999.12.10	1,089,825	189,669	17.40%
Gran Turismo2	SCE	PS	1999.12.11	1,764,922	815,430	46.20%

Figure 1.4 Sales pattern with first-week sales set as 1

1) Abbreviations of platform are as follows. PS = PlayStation, SS = SegaSaturn, N64 = Nintendo64, DC = DreamCast, PS2 = PlayStation2. These are used in the following figures.

Source: Shintaku *et al.* (2003), p. 151

decision of how many game units to produce and release in the first week of sales critical (see Figure 1.4).

Analysis of the game software sales data between 1997 and 2000 indicates that most products adhere to the early concentration sales pattern and the degree of early concentration increases annually. Simply put, practically none of the games that performed poorly in the first week ever recovered. Also, given the data, we can understand why a product is marketed intensely immediately before and after its release.

Consider the case of Final Fantasy 8, developed by Square Enix. While total sales reached 3.47 million units, 2.5 million of those were in the first week after release, producing a first-week sales concentration of 72%. It is this sort of performance that drives offline game developers to concentrate their marketing efforts immediately before release in order to maximize sales.

But with online games, payment for rendering services instead of payment for software is the main source of revenue. Users of online games are required to pay a connection fee to access and play the game. These fees range between $20 and $30 (in the case of Lineage, $28.5). With the partial pay model of item sales, users pay for their server connection through making in-game item purchases. If a server connection fee is not paid consistently on a monthly basis or in the form of item purchases, users of online games are typically unable to connect to the server or cannot play the game smoothly or to their full satisfaction. Of course, online games require the game to be installed, usually by downloading the client from the Internet. But this does not necessarily constitute a sale; it is merely a process of exchanging information.[1] With online games, once users are secured, a continuous stream of revenue can be generated. The strength of communities formed within the game is one of the determining factors of success for online games, and this leads us to the next key difference.

[1] 'Ever Quest 2,' a recently released 3D graphic online game, requires 4.3 gigabytes of software to be installed in the PC. This caused daylong downloads during the beta phase when prospective users inundated the game.

2) *Product attributes*

Offline and online games differ with respect to product attributes. Product attributes refer to endemic attributes that can be identified and evaluated by users (Lancaster, 1991). Before proceeding to discuss the product attributes of offline and online games and the major differences between them, let me elaborate on what product attributes are and explain how they are important.

A notebook PC, has two critical product attributes. A notebook PC is typically evaluated according to 1) how little it weighs and 2) how efficiently it processes information. These two product attributes are important in notebook PCs, but their relationship is inversely proportional. The lighter the laptop is, the less efficient it will be. To shed weight, CPU efficiency has to be scaled down and generated heat has to be reduced, as does the hard disk capacity. Accordingly, laptop developers must choose between championing lightweight machines or information processing ability, or attempt to balance the two. Consumers manage their priorities with respect to machine weight and information processing ability, and they make their purchases accordingly (Wi, 2004, 2006b).

Differences in product attributes exist between offline and online games and the central tension arises from the fact that an online game is a type of modified offline game architecture with community identity added to the gaming experience (Wi and Nojima, 2003). The gaming experience is a general term referring to what users experience and evaluate with respect to graphics, sound, story structure, character design and other categories that fall under what it is like to play the game. In other words, the aesthetic and functional satisfaction, or lack thereof, users obtain from the game is referred to as gameplay. On the flip side, community is a product attribute particular to online games that creates a sense of solidarity, camaraderie and satisfaction amongst users via communication, competition and other forms of interaction. Many user-communities such as guilds, clans and alliances have been formed in online games. These communities facilitate the gameplay of new members, and strengthening a sense of unity for community

members is critical to generating quality extended gameplay and thus retaining players over the long term.

Offline games usually involve one player vying against a preset program while online games feature a massive number of users engaged in mutual warfare or cooperation. Accordingly, offline and online game preferences vary. Kenji Matsubara, CEO of Koei puts it as follows.

> A majority of offline gamers play alone, slowly and deliberately. In our "Romance of Three Kingdoms," individual players ponder the game at work or at home, devising strategies alone. But it is different with online gamers. They engage in speedy gameplay via communicating (chatting) with other users, rapidly increasing their experience rate while hunting monsters.

Hence, offline gamers usually engage in individual play while online gamers cooperate and compete with other users via communities.

Offline games strive to offer high-quality sound, graphics and plot, and those gameplay elements are often their main focus. One of the goals of the Japanese developer Square-Enix is to create outstanding graphics no matter how much development cost it may entail.

However, that is not the case with online games. Gameplay elements such as graphics and sound must be balanced with community. Unlike offline games, community is critical in online games and so chat and other enabling functions are offered. The developer of an online game must therefore strike a balance between pursuing excellent graphics, sound, and plot with other needs such as supporting user communities. Online game developers support user communities in various ways by creating communication tools such as chat windows, building user events and Web sites, and holding offline meetings.

Originally, guilds were primarily formed in order to collectively participate in sieges and hunts; however, guilds with communication objectives are on the rise. For example, in Lineage 2, one of the largest MMORPGs (Massively Multi-player Online Role Playing Game) in terms of active subscribers, diverse communities whose

objectives are other than sieges have emerged. Within those communities, chats and debates on common hobbies and interests take place, and specialized groups such as fan clubs, married player groups, same-age player groups and groups of relatives have formed.

The sense of community is usually extremely weak in offline games, if not non-existent. Because of that, user management or service to players following release is of little, if any, importance. But with online games, continuous user management, especially with respect to community, is required after the service is launched. As the number of user communities increases, the value of the game increases. This leads to more players, and again greater value. A set of more players can result in a larger monthly user fee, which in turn translates to greater corporate profits. This increased revenue also enables the developer to invest in system upgrades, which increases the appeal of the game, and in turn induces a further surge in the number of users. A firm that has secured such a propitious cycle will be able to obtain millions of users.

3) *Development process*

The third difference between online games and offline games involves development as it relates to technology and process. Technology needs differ between offline and online games. Unlike with offline games, servers and network technology are essential for online games. Offline games do not require network technology as they involve an individual player vying against the game or multiple players waging battle against one another but playing on the same machine. Online games are composed of client programs which install on the user's PC and on the server (see Figure 1.5), while offline games are composed of only the client program on the user's machine or on a disc.

With online games, many players engage in gameplay via the server. Hence, technology addressing how to accommodate players on a restricted server and how to deal with an inundation of players logging onto the server at once are essential.

Consequently, server management, maintenance and repair costs are a formidable expense that only online game developers face.

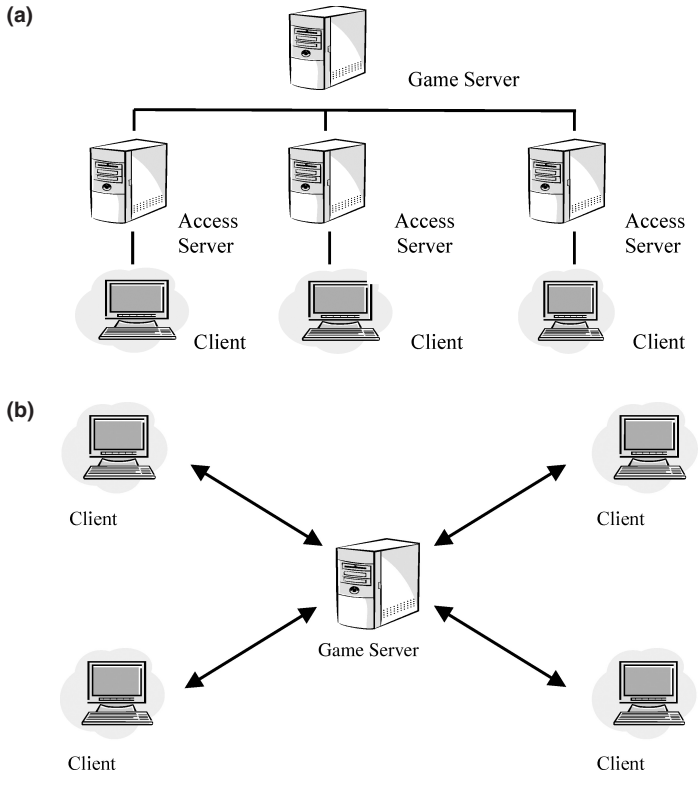


Figure 1.5 (a) Distributed server model (b) Client-server model

Jake Song, a former Executive Vice President of NCsoft, recounts an early server programming learning process.

> "I majored in computer science in college and picked up server technology by collecting text MUD open sources from the Internet and elsewhere. I obtained MUD sources and studied and improved them. I deemed myself an able programmer but it was my first time dabbling in network programming. By providing game services, I discovered many ways to increase server efficiency with repeated improvements. I took a network-programming course in college and it was a big help. Those who took graduate courses in server or network technology have an advantage."

This combination of server and network technologies required for online game development makes a smooth transition from creating offline to online games difficult for dominant offline game companies. For Japanese companies looking to expand beyond offline games, there are few engineers available who have developed games based on server and network technology. The lack of experienced developers to build server programs requires extensive trial-and-error, and consequently an enormous cost in online game development.

Another way we can appreciate the difference between offline and online games in terms of development is to consider the development of offline games as analogous to film production. Once a film reel leaves the editing room and is transported to the theater, no more revisions are possible. With offline games as well, once bugs are removed in the final stage and CD-ROM production is under way, no more revisions can be made. If a severely detrimental bug is detected after the offline game's release, the only remedy is to recall it. But it is a different story for online games. Even after an online game is released to the public, continuous content revision is possible.

Online games can be revised in various ways with respect to a number of post-release needs. For example, character ability balancing is critical in online games. If one type of character is especially strong, word spreads among users that this type of character is easy to do well with, that it has an advantage over other characters. Soon, players swarm to play that type of character. When something like this overpowered character class occurs, the GMs (Game Masters) who monitor the game report it to the developer, who can implement a patch to address character balance. The same applies to controlling the volume of virtual items and the game's economy.

Players tend to concentrate at sites where it is easy to acquire specific items or in-game money. If it is determined that a game item being traded — a powerful sword, for instance — is too easily found or purchased, the developer lowers the acquisition rate. That way, the supply decreases and prices increase, and not as many players are able to wield such a powerful sword. In online games, users are constantly observed, enabling developers to address their needs via system modifications in real time. Returning to the film analogy, it is almost as if

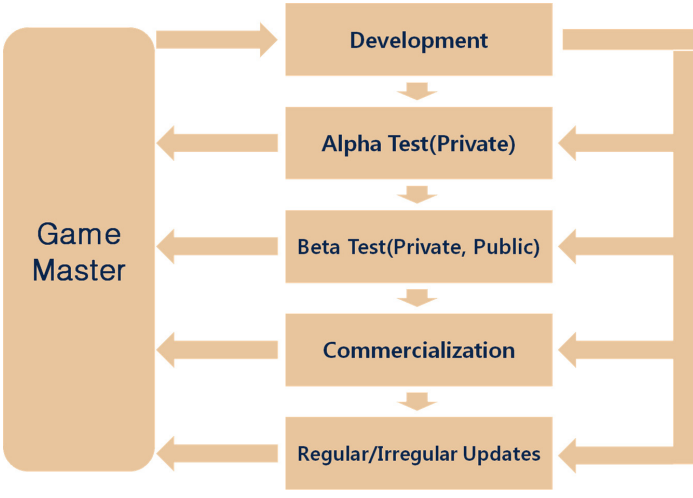


Figure 1.6 Online game development and update process

a film could be edited, enhanced or expanded while being shown in a movie theater.

Online games evolve through mutual interaction with users, and this interaction typically proceeds through stages. Figures 1.6 and 1.7 refer to online game development and the update process. After an offline game is developed and released, the development team is disbanded and development-related tasks are terminated. Online games, however, go much further.

After the basic game has been built, a point at which an offline game would exit development, the online game enters a closed (private) alpha test phase. At this stage, the development team is not disbanded but supplemented with additional developers to prepare for revisions. The closed alpha phase entails testing the game and detecting bugs with a limited user pool, the number of testers ranging from the dozens to the hundreds. The game is not available to the public at this stage.

The second stage is the closed beta test. The beta is different from the alpha test phase in that the game has been further developed and more users are added to the test pool. For high-profile games that enter the beta test phase, participants are often selected from drawings.

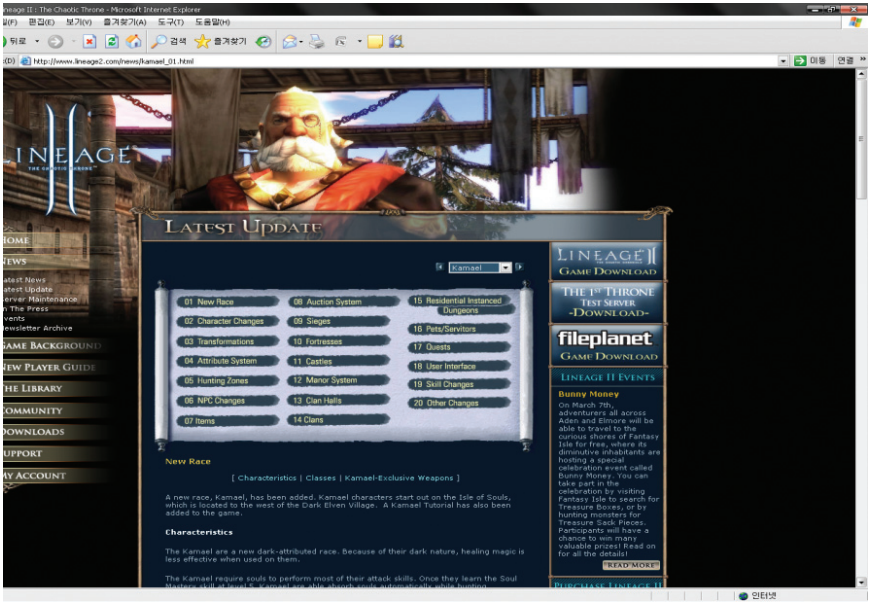


Figure 1.7 Lineage 2 update instructions

Source: <http://www.lineage2.com/news/kamael_01.html>

Such selection processes are extremely critical marketing decisions, as many of the gamers participating in these beta test phases have the power to sway public opinion. As such, it is important to take the judgments of private test participants very seriously and possibly make revisions reflecting their preferences.

At the third stage, the online game advances to the open beta test phase. Many more users are invited. This large pool of users actually tests the game under the same conditions as when it will be offered commercially. The open beta phase is critical because some of those who participate in the open beta phase will remain when the game goes commercial.

It is standard for about 10% of the users from an open beta test to remain when an online game goes commercial. The transition from the beta phase to the commercial phase is determined to be a success if more than 10% of the users remain. In a case where 1 million users access an online game in the open beta phase, the goal would be to

have at least 100,000 players remain. If 100,000 users participate, 10,000 are likely to remain.

When an access fee is charged, there is a substantial difference between 10,000 and 100,000 users remaining. In order to make 10,000 swell to 100,000 after the game's launch, enormous amounts of money must be spent on marketing. But if 100,000 remain and the game's bottom line is immediately in the black, then the developer has achieved an excellent head start. This is why a developer will often try to have as many players as possible participate in an open beta test.

The final stage is commercialization. In the commercialization stage users are charged a fee to play the game. Set monthly fees range from $20 to $30. At this stage, users who accessed the game in the open beta stage must decide whether to remain or to leave. For the game developer, deciding on the duration of the open beta phase is critical. A lengthy open beta raises the probability of communities forming and the members of those communities wishing to stay connected with one another, but the cost to the developer increases. In contrast, a short beta period cuts costs but the probability of users remaining drops. Consequently, aptly adjusting these two opposing factors becomes a key component to the game maker's strategy for when to commercialize.

Throughout all phases, GMs (Game Masters) perform a vital function. GMs absorb user comments and requests and relay them to the development team in the form of feedback during the alpha, both beta, and commercial phases. Developers repair bugs and execute updates based on that feedback. Of course, the function of the Game Master is non-existent in offline games.

With online games, multiple complex phases exist across development wherein constant interaction with users is possible, thus enabling perpetual content revision. If the reception is tepid in the alpha test, a major overhaul can be performed in the beta phase so as to try and produce an improved reaction that will hopefully lead to success in the commercialization phase. This ability to explore user reactions and apply changes based on those reactions is a critical difference between online and offline games.

4) *Distribution channel*

The fourth difference between online and offline games is the manner of distribution.

With offline games, the game console manufacturer is routinely commissioned to manufacture CD-ROMs containing the game software, which are sold via retail and wholesale vendors to the consumer (see Figure 1.8). CD-ROM packages containing the software for game consoles are sold via two distribution trajectories. For one, the package is manufactured by the software producer and sold via retail and wholesale outlets to the consumer. Moreover, the package is manufactured according to the above method and reaches the user by way of the software developer directly, such as via website or catalog sales.

In cases like those discussed above, the software company typically develops a game autonomously with the game console selected as the foundation for development. As game consoles are stable for a set period without much changes to their features, the developer can concentrate exclusively on software development. For offline games, software developers and manufacturers are disparate with respect to development and distribution. With such a clear division of labor and vested interests, game software developers need only to focus on developing the software.

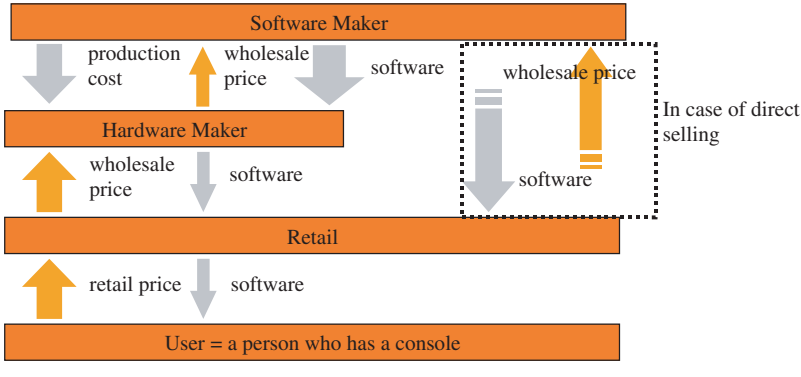


Figure 1.8 Distribution structure of offline games

Source: Wi (2003), p. 317

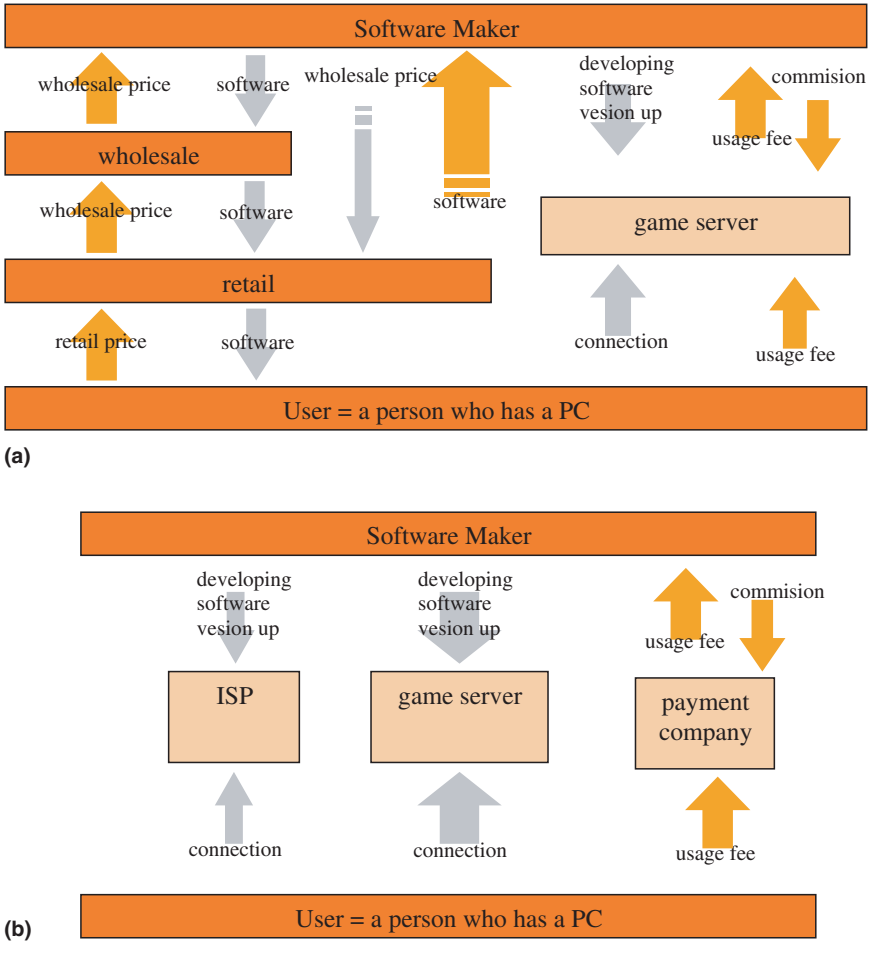


Figure 1.9 (a) Online game: Type 1 (b) Online game: Type 2

Source: Wi (2003), p. 317

For the sake of this discussion, present online games can generally be classified into Type 1 and Type 2 of Figure 1.9. Two business models exist in the online game industry, one for each game category. Type 1 is popular in the U.S. market. MMORPGs (Massively Multi-player Online Role Playing Games) such as Everquest and WoW (World of Warcraft) are typical online games using this type. Game developers sell CD-ROM type online game through an offline distribution channel.

As users buy and install the game, they have to access a game server and start playing a game. In this case, users have to pay twice for playing online game, CD-ROM package and monthly fee.

Web-based board games such as chess, mahjong and poker also belong to this category. With online simulation games the server's role does not extend beyond that of the middleman linking users in one-on-one or larger-scale gaming.

Web-based games are relatively simple games requiring little disk space and can be produced with little difficulty. Simple game development can require as little as one development designer and two programmers, and one designer may design multiple games. Users of Web games go online, access game Web sites and download clients that are generally less than 5 MB in size. These games are played when users enter one of multiple game rooms built on the hosting website.

In the distribution model of online simulation games reflected in Figure 1.9(a), the package sales method by way of wholesalers and retailers and the direct sales method of the software developer installing the server and directly offering the game to users co-exist. Online simulation games create revenue through package sales or game item sales, and software developers for these kinds of games rarely charge monthly fees. In fact, most Web-based board game revenue is created by additional paid services and avatar sales.

Figure 1.9(b) is a distribution model of Type 2. Type 2 is a game wherein warfare is waged by a massive number of players who connect to the server simultaneously and engage in competition and cooperation. Some leading MMORPGs reviewed for this study are the following: NCsoft's Lineage (Korea); and Square Enix's Final Fantasy XI (Japan).

With MMORPGs, frequent content upgrades are essential to ward off user boredom, which could lead to subscription cancellation. In other words, to keep current users from growing bored as well as to draw new users, performing incessant revisions that inject new, appealing content is imperative. NCsoft performs minor daily revisions and major updates every six months. Lineage first began with Episode 1 of the Small Island; the game currently boasts more than 20 episodes.

To develop an MMORPG, anywhere from hundreds of thousands of dollars to millions of dollars is required, and the development period typically lasts at least two years. A team of 70–80 individuals developed Lineage 2, with 3 content producers, about fifteen programmers, and well over 50 graphic and sound designers.

The defining attribute of the Type 2 model is the disappearance of the middleman. Either the developer or the publisher possesses and operates game servers in-house. The servers are directly owned and operated by the developer, or the servers are placed on IDC and the management of the servers is contracted out. In offline games the distributor was a separate entity, but in online games the developers have personally taken on distribution tasks. Because of this, in countries like the U.S. where offline games are dominant, a resistance of retailers to online games exists. These middlemen are aware that the distribution model of online games has excluded them. To overcome this resistance, when NCsoft was distributing Lineage 2 in the U.S., they signed a contract precluding online downloads and sold the game via offline distribution channels only.

While the revenue for offline games is dispersed as it passes through retailers and wholesalers, with online games the developer receives a direct payment by taking advantage of such methods as Payment Gateway (PG) when the user has chosen to pay by cellphone. In this process, the developer pays a fee to PG. In addition to the monthly fee the users pay, the developer directly manages distribution and payment. To collect server connection fees online, building a network of payment methods using landline and wireless phones, Web money and credit cards is essential, as is maintaining a high-speed infrastructure to enable the massive exchange of information between users and the company.

5) *Communication*

Community identity is the single most important product attribute of online games, and what most distinguishes online from offline games. Community identity is most profoundly enabled and reinforced through communication between users. User communication is rare

if not non-existent in offline games, whereas in online games it plays a vital role.

When novice players first access an online game, advice and help from experienced players can be very valuable, not just to the new player but to the community and game as a whole. Such advice and support contributes to motivating the novice player to remain in the game. Thus it is in the developers' interest that experienced players want to assist new players. For this reason, developers often systematize fellow-player or master-student relationships in their games. In "Legend of Mir 3," if a master-student relationship is established in the game, a valuable ring is awarded to the two players. Accordingly, among the reasons for continued play as reflected in Figure 1.10, more online game users replied "because of in-game friends" than did those of offline games.

In raising the level of characters created within the game, party (group) play is more conducive than individual play and communication plays a key role. In MMORPGs, character classes like warriors, mages and archers are assigned discrete roles. When players group together in order to benefit from one another's strengths and abilities — for example, in a monster hunt the mage fortifies the warrior's strength with spells — they can more easily achieve their goals or even accomplish tasks impossible to them if they played alone. The chat window on the game screen is a tool that enables communication for team play so that players can coordinate their efforts.

On the contrary, in Dead or Alive Xtreme Beach Volleyball for the Xbox, two or four players can play using the same console. Most offline games involve players vying against only the game program in a single-player mode. But even in the case where players can share a console and play together, there is little to no need for offline gamers to use communication tools within the game's software (they are usually in the same physical space and can communicate to one another directly). As illustrated in the Figure 1.8, the "degree of engaging in gameplay in conjunction with fellow players" tends to be higher for offline games. The degree of cooperation of identical online gameplay is higher for those who primarily play online games. Also, in

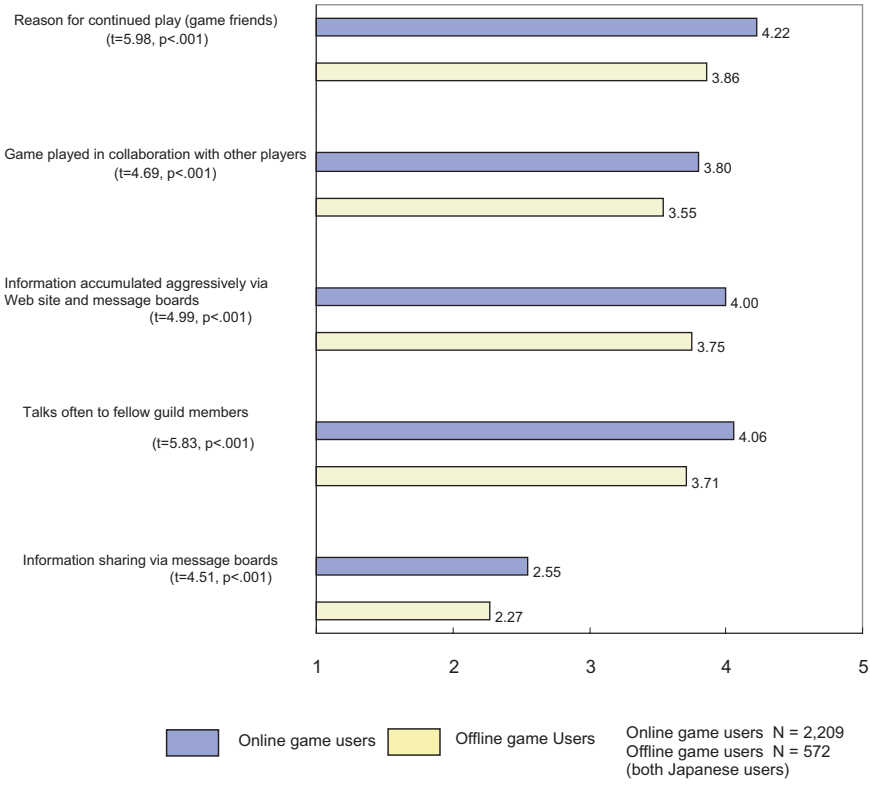


Figure 1.10 Inter-user communication[2]

"communication frequency," "aggressiveness of acquiring game information" and "sharing game information," online gamers scored higher than did offline gamers. As reflected in Figure 1.10, the "frequency of players talking to fellow players" is higher for online gamers than it is for offline gamers.

For players of online games, collecting and distributing game information is critical. Possessing information on where valuable resources can be discovered on the game map, what valuable items

[2] 'Online game users' and 'offline game users' are divided by platform preference. Through both user group is playing PC online games, 'offline game users' are playing games more on the base of console platform.

can be obtained from which monsters inhabiting which locations, and which guilds are beneficial have an enormous influence on gameplay. Accordingly, online game users aggressively compile game information and share it with others. On occasion, when an online game user posts information on the game Web site, other players offer in-game help, their own information or items in return.

But it is different with offline games. Information needed to play the game is distributed among users, but it does not determine player ranking or influence in-game power relationships. Possessing game information may be a cause to boast to friends, but lack of it does not pose a detrimental problem in gameplay as it does in online games. Accordingly, as reflected in Figure 1.10, for the two indicators "information accumulated aggressively via the Web site or message boards" and "information sharing via message boards," online game players scored higher than offline game players.

6) *Game style*

Differences exist in play styles between online game users and offline game users:

First, the concentration of online game users fared higher than that of offline game users vis-à-vis whether they are playing only one or multiple games simultaneously. More offline game users are playing multiple games simultaneously than are online game users. The issue of game concentration is linked to fees and the rate of change within the game. Online games charge a fee, and the fee is charged even while one is not playing. Consequently, for online game users to play multiple games at once, the cost would multiply accordingly. As such, online game users routinely exhaust a game before moving on to a different one.

But with offline games, the consumer incurs no additional cost after purchasing the game's software. Hence, even if they play multiple games they have purchased simultaneously, no additional cost is generated. Consequently, the game concentration of offline game users is higher than that of online game users.

The rate of change within an online game is another determining factor for game concentration. Offline game players can pause and resume gameplay; however, online games cannot be paused for individual players. If a player leaves the gameworld, other players continue to play, accruing experience rate[3] and strengthening their personal relationships with fellow players. When the player logs into the game again, the game will have undergone substantial changes, especially if much time has passed. From this perspective, an online game resembles a persistent world of its own rather than anything like a simple offline game. Truly, such online games are virtual worlds undergoing constant change.

In most online games a strong correlation exists between the duration of gameplay and character level. The character level symbolizes the degree of power that a character possesses within the game and serves as an important motive for online game users to invest more time in the game. As reflected in Figure 1.11, whereas the average duration of gameplay for online game users is 3.8 hours/day on weekdays and 6.5 hours/day on weekends, offline game users play 1 hour/day less on weekends and 30 minutes/day less on weekdays.

Heavy users of online games log on to the game every day in order to keep tabs on the game's progress and communicate with in-game friends. The number of players connected to the game peaks at night for most MMORPGs, though there is a sharp surge in hits from 7 a.m. to 8 a.m. when players check in on the events that have unfolded overnight before they leave for school or work.

The community attribute of online games is also a factor that contributes to extending gameplay duration. Association with in-game friends extends over and above the core gameplay, to taking walks within the gameworld or having conversations on mutual real life interests. In Lineage 2, a guild for married players exists. The only requirement to joining this guild is that players be married, and

[3] Experience rate means character's level inside a game. Characters with higher level get a power than that of lower level.

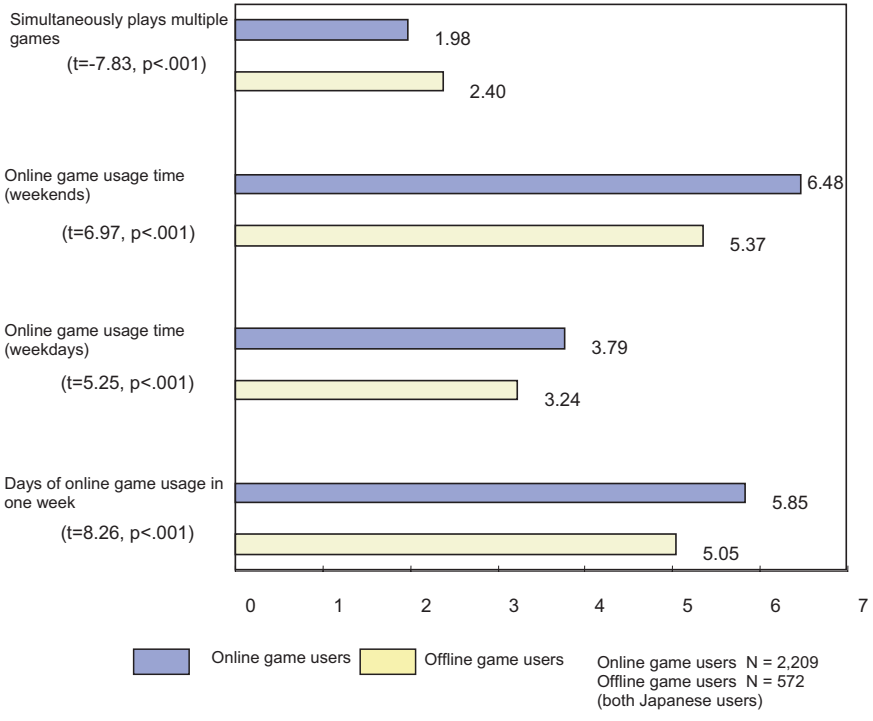


Figure 1.11 Online game styles

topics of conversation range from family issues to children's education. The motivation to level up one's character in this guild is relatively weak. In Lineage 2, members of this guild can be spotted taking walks and holding conversations sitting in groups. Such communication extends gameplay duration.

Online game makers must contend with users who are so fixated on character level that they quickly exhaust core gameplay. When players have completed all the quests or activities in the game or have reached the highest possible level, users are sometimes no longer motivated to play on. This is a critical issue for game companies who offer services in developing countries whose users are routinely extremely fixated on maximizing their character's level. The company must continue to perform updates and patches suitable for high-level

users in order to keep them playing, and this typically results in paying for additional development personnel.

For offline game users, game duration is solely comprised of actual gameplay. It is rare for them to suspend playing and talk to other users because for most offline game users how fast they complete the game is often the primary, if not the only, motive for playing.

7) *Immersion*

The final key difference between online and offline games to be discussed in this chapter is immersion. The fact is already pointed out that the duration of gameplay is longer for online gamers than it is for offline gamers. Duration is usually proportional to the degree of immersion; hence, we can conclude that online game users are deeply immersed in the game.

The difference in the degree of immersion is palpable when compared to that of offline game users. More online game users answered in the affirmative to the whether or not the following applied to them: "I think of the game even when not playing", "I play the game in my free time," or "I feel depressed when I don't play and that depression dissolves if I play."

Online games comprise virtual societies which continue to change even after users stop playing. When the user returns to the real world, diverse incidents and events continue to unfold in the game world. For example, take the case of a siege undertaken to secure a castle. Seizing a castle is a very exciting event, and when a user is forced to withdraw from the game for personal reasons while engaging in battle with in-game friends, that user will inevitably be preoccupied with the game upon returning to the real world.[4]

Such powerful absorption of online games produces game addicts who are unable to restrain themselves from playing compulsively.

[4] Some researchers are thinking that online game's immersion can be used in the educational field. They already tested online game whether it is useful as an educational tool (Wi and Oh, 2007; 2006a; 2006b; Wi and Won, 2006).

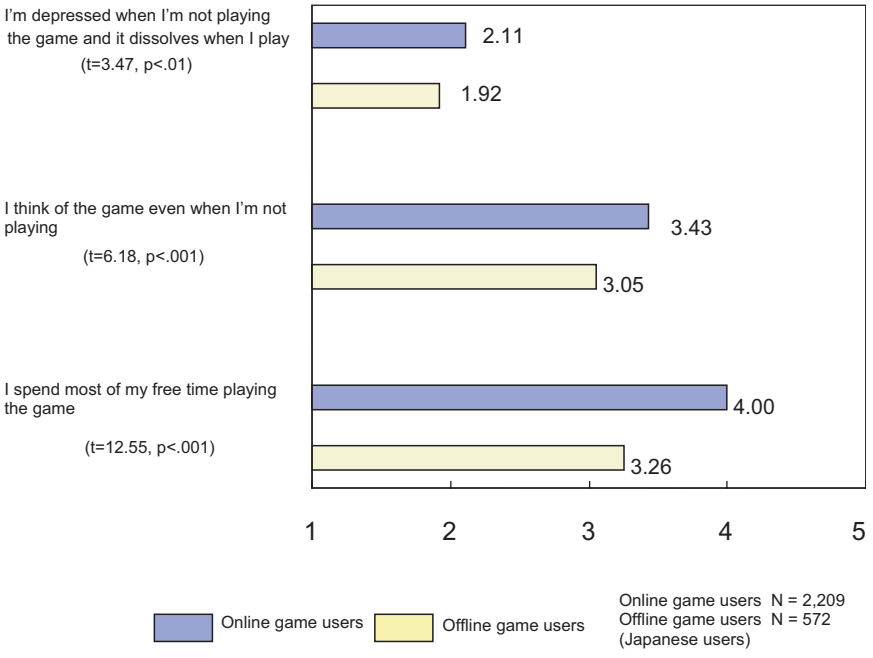


Figure 1.12 Immersion in the game

Below is a testimonial of a user whose absorption with an online game has led to neglecting offline human relations.

> I quit school one year ago. For one year I didn't venture out of the house even once a month. I only played my game at home. I've increasingly grown indifferent to world affairs and going out doesn't interest me anymore. I've grown so obese now that I don't even like to walk. If I walk for too long my back aches and I grow testy. I know this is no way to live but outside of the game I am apprehensive, nervous and fickle. I've even grown distant to my friends. I haven't made any new friends since I graduated from junior high.[5]

[5] Electronic Times, May 10, 2004.

The above individual assigns deeper meaning to online relations over those offline. Players sometimes derive a sense of achievement from accomplishing goals in online games, a feeling which eludes them in the real world.

For instance, teenagers who are hounded by feelings of inferiority induced by poor performance at school can achieve tremendous status in an online game. A player might become a guild leader or the lord of a castle with tens of thousands of subjects. When players become castle lords, they are able to wield enormous power in issues ranging from taxation to conducting battles. The game world provides an alternative environment wherein teenagers are able to achieve what they have been unable to in the real world. In some occasions, it goes so far as to replace the real world. These unique characteristics of online games contribute to boosting the degree of immersion of online gamers.

Understanding how online games developed from offline games, and how there is a tension between these two forms due to their differences, we are now ready to look more closely in the next chapter, at the arrival of online games in the world to get a better sense of what they are and how they operate with respect to business.