

28. Possibilities and Prospects of On-Line Games in Asia

Koichi Hosoi¹

Introduction

This chapter presents a perspective of on-line gaming (networked commercial games), especially the situation and prospects in Asia. The worldwide number of paying users of on-line games for 2001–2002 was about 10 million, and it is possible to estimate a market size of about US \$1 billion. However, this is a very conservative estimation. The entire game market, inclusive of packaged games, has been forecast to grow at a considerable pace into the future, and in particular, most research institutes are predicting that the on-line game market will expand considerably more rapidly than that of the game market as a whole.

For example, against the forecast of PricewaterhouseCoopers of the United States that the North American video game market, which was \$7.8 billion in 2002, will grow to \$13.5 billion, about 1.7 times its size, by the year 2007, Informa Publishing Group of the United Kingdom forecast that the on-line game market, which was \$568 million worldwide in 2001, will grow to \$5.648 billion, about ten times its size, by the year 2006.

Also, in the case of Korea, which is one of Asia's leading countries in on-line gaming, the total value of on-line game shipments has been growing fast: in 1998 it was only \$2.5 million, in 1999 it was \$16 million, in 2000 it was \$100 million, and in 2002 it was \$250 million. For Japan, packaged games are still the mainstream, but changes are also being seen in that market. According to the Digital Content Association of Japan, a research institute affiliated with the Japanese government, Japan's domestic market for packaged games in 2002 was about \$4 billion, remaining at a year-on-year growth rate of 1.1 times. On the other hand, on-line games surged to about \$55 million in sales, with a year-on-year growth rate of 4.2 times. The association has also forecast the 2003 network game market to be \$170 million.

One assumes that there are a number of compound factors underlying such fast growth in on-line games, but excluding infrastructure aspects such as the

¹Ritumeikan University

spread of broadband, we can roughly sort them out into business model-related factors and factors related to the design of the game itself. In the case of the former, on-line games are generally more profitable than packaged games, and in the case of a hit game, profits are ensured over a long period of time, there are no losses from pirated versions unlike packaged games, and it is easy to develop systems that ensure receipt of payments. According to research by the Online Publishers Association of the United States, in 2001, US consumers paid a total of \$675 million for on-line content, in 2002 the total was double that at \$1.3 billion. In addition, a tendency has been observed for users to make the correct payments for on-line content.

With regard to factors related to the design of the game, it can be pointed out that, compared with packaged games, the percentage of traditional games such as Go and Mahjong in on-line games is high. Large entertainment firms, as well as Hollywood's film industry, are injecting large amounts of capital into on-line gaming, and games incorporating already well-established entertainment-related content are being created. This is tied to speculation and strategy of the leading manufacturers who maintain supremacy of the next generation game consoles, and is connected with the new development of a customer segment that has a wide range, going beyond the traditional packaged-game users.

Of course, the novelty of the business model and game design does not just give rise to a bright future for on-line gaming. Some intractable issues such as increases in development costs, the need to develop new relationships between users and manufacturers, etc, will also be taken up.

Status of On-Line Gaming in Asia

- 1 Figure 1 shows the transition in the Asian and United States game markets. The content of the calculation and the basis for the statistics in each country differ too much to mutually compare statistics; however, the market will admittedly expand rapidly in the main game-consuming countries, other than Japan, including the United States.

South Korea

South Korea is the most developed country regarding on-line games in the world. The industry developed from changes in national policy in 1998. Broadband services spread quickly, and 30000 network cafes made the new industry. Except general ways to collect fees per month/day/hour, players can pay small (under \$1) amounts by mobile phone. This creates a new style of games with a strong communication element, for example, Avatar Game. On-line games may be said to be only a tool of a highly efficient chat. In March 2002, more than half of the 27 million Internet users in South Korea—a country that promptly developed broadband due to the spread of ADSL—were experienced on-line gamers; the

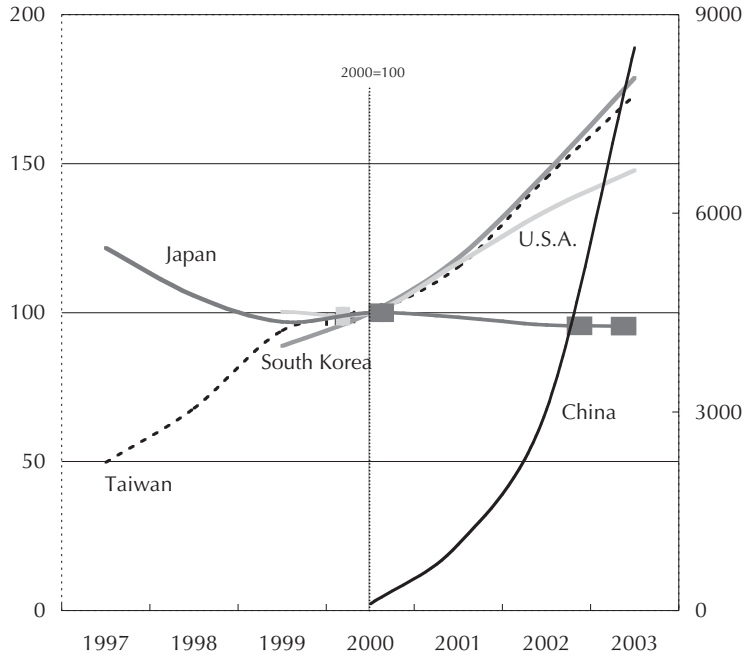


FIG. 1. Growing game markets of major countries. Refer to the *left axis* for all countries except China. Refer to the *right axis* for China

game market was estimated to be producing as much as \$1.7 billion in revenue in 2003.

In addition, on-line games centered on MMORPG (massively multiplayer on-line role-playing game) have already created many correlative industries in South Korea. A typical example of this is the circulation market of merchandise related to the on-line games. Furthermore, some Internet auction sites, wherein various products related to on-line games have been bought and sold, have generated a turnover of \$300 million. Moreover, for some of the free on-line games, a particular service exists wherein the player is able to buy items, clothes, arms, etc., worn by the character that the player manipulates, while playing the game with real money won in the game. In this business, the game users who buy not only items needed to win the game, such as arms and powers, but also items indirectly related to the game, such as customized externals of the character and/or the client software, have increased.

China

China is leading the explosive spread of MMORPG in Southeast Asia. The population of on-line players in China, as of 2003, is estimated to be 13 to 15 million people, most of whom have only been involved in on-line games for the past 2

years. In China, the explosive expansion of on-line games is a phenomenon not only in major cities such as Shanghai, Beijing, Hong Kong, and Chengdu, but also in small towns of provinces. It is predicted that within the next 3 years, this explosively expanding market will grow to three times its current size. In 2003, this market yielded revenue of approximately \$300 million and is expected to yield \$500 million in 2004. Shanda Network, the largest on-line game publisher in China, has issued 80 million ID in China and provides service for 700 000 people on-line simultaneously. The average fee of MMORPG is US \$4.5 (35 RMB) per month, or 4 cents or less per hour with a prepaid card.

In China, pirated games prevented the industry from developing for a long time, although the Asian model of the network cafe has changed this situation considerably. A developer can identify individual players and collect reasonable fees from the players. The success of on-line gaming needs a real off-line community. The Net cafe has the environment that allows players to easily play with real friends. This helps expand the number of players and builds a strong player community.

There are two factors in the rapid growth of on-line games in South Korea and China. The first is that an existing packaged game industry barely existed. While a strong video game market did exist in Japan, the US, and Europe, it had not yet developed in Asia. There are two reasons for this, the first being that in Korea there was an import prohibition on all video game consoles made in Japan, and the second being that there was an interdiction on video game arcades in China. Thus, Internet games emerged from computer games as a new form of entertainment that exploded onto the market without warning and became extremely popular.

The second is the infrastructural factor of on-line games. There are three constituents in the infrastructure of on-line games: namely, the broadband environment, the payment system, and the Asian Internet cafe. As for the broadband environment, speed is not indispensable, but it is important that the telecommunications cost is low when considering that there is a wide range of on-line gamers in China who reside even outside the large coastal cities. As for the payment system, prepaid card is the main method of payment in China, whereas in South Korea, small-scale charging—made possible through the combination of cellular phones, fixed telephones, and resident registration numbers—has become the main form of payment. The use of credit cards, which is the main form of payment in the United States and Japan, is not suitable for small transactions, because all credit card transactions require a handling fee. The Asian Internet cafe is a significant factor in on-line gaming for the two countries. The Internet cafe is not only a terminal for on-line games but is also a form of infrastructure in which widespread users can train their computer skills.

Japan

Japan is completely lagging behind in on-line gaming. The entire gaming industry, including on-line games, is at a crossroads, and the Japanese domestic gaming industry is rapidly shrinking. Although the domestic market hit its peak in 1997,

it had shrunk to about half that size by 2003. In addition, Japan is facing a worrisome decrease in international competitiveness, and the shares of Japanese companies in the American marketplace are continuing to shrink. In 2002, the shares in North America, which had been at 30%, fell below 20%. Moreover, there is extreme domestic competition with the mobile games of cellular phones, and the enterprise supplying materials for cellular phones has greatly increased its bottom line. Those rival enterprises have increased their bottom line because of services that they have created, rather than the games themselves, and have produced several services related to games combined with high-performance telephones.

In Japan, a major market of video game consoles has been established, so many on-line games appear as a combination of the “package model” and the “community model.” The former is a business model based on the packaged game business and the latter is based on on-line game business. The number of MMORPG users in Japan currently under a pay service contract is 700 000 to 800 000 people, and only about 1.5 million people in total have participated in on-line gaming in Japan. Naturally, popular on-line game titles that have created large earnings do exist in Japan, but the market is still undeniably smaller than that of China and South Korea. In 2002, the on-line game market yielded revenue of approximately US \$55 million (a 423% increase over the previous year), and the market of materials related to games used on cellular phones has yielded approximately \$200 million. Figure 2 shows an overview of the growing rates in the various game markets in Japan.

2

Business Model of On-Line Gaming

Design Features of On-Line Games

What can be understood from the situation in South Korea and China, where the market of on-line games was established before the market of packaged games, is that packaged games and on-line games are significantly different businesses. The success or failure of the on-line game industry depends not on the number of CD-ROM or DVD-ROM sales but on the number of users that maintain a long-term connection. In the on-line game business, the overall attractions are not only in the game’s graphics, sound, and system but also in the user community (BBS, ML, SIG, etc.). In this sense, the on-line game industry resembles the service industry, because it obtains a profit when used for a long period. The on-line game industry has quite a different profit profile from that of the packaged game industry, which resembles the movie industry in that it will generate considerable marketing for the product, realizing profits in the short term.

The packaged game lacks the aspect of a charging model. To put it differently, the charging model must be included in the design of on-line gaming. The reason why on-line gaming in South Korea has succeeded in various ways is because a charging system has been built into the individual game design. Whenever new

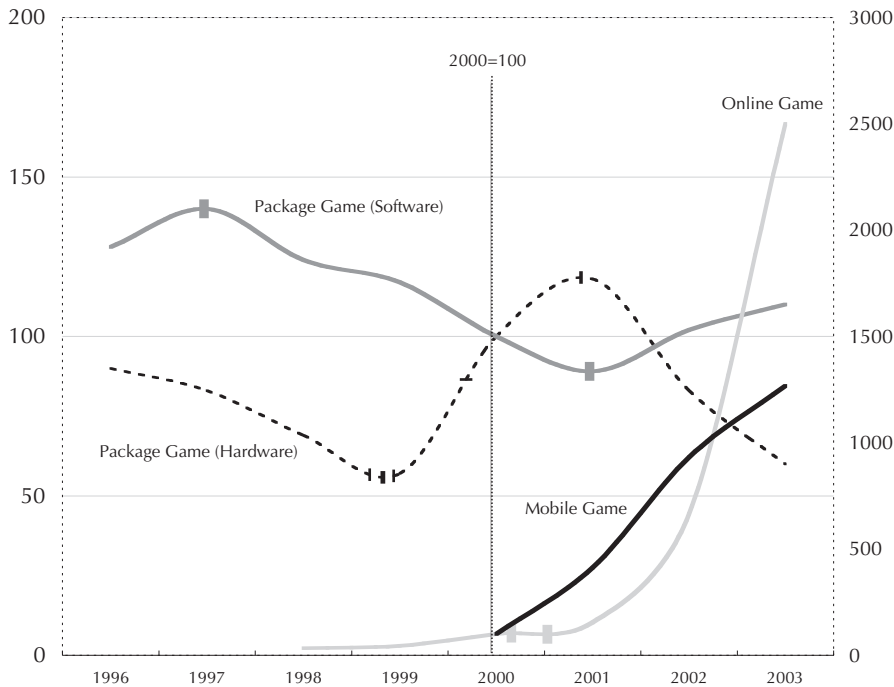


FIG. 2. Growth rates of Japanese game industries. Refer to the *left axis* for packaged games and the *right axis* for on-line games and mobile games

charging systems such as cellular phones and Internet cafes appear, they are incorporated into the game as the charging model. One reason why on-line games have not been successful in Japan is that the packaged game industry has switched to the on-line game industry with the packaged game business model. Therefore, it is necessary to fundamentally review the game design in consideration with the charging system of on-line gaming. Additionally, it is important to (1) charge users for providing them with added value generated by the community, and (2) proceed to create products that will have a long life, as well as creating horizontal industries of items and services derived from the long-term products created.

- 3 Moreover, MMORPG has had a strong influence on the gaming industry, and due to this strong influence, on-line games tend to be thought of as PRG. However, the number of ID in light or casual games has greatly increased in Japan, as well as in South Korea and China. The users of MMORPG are believed to have different preferences and budgets than the users of casual games, so when considering the design of an on-line game, it is important to develop MMORPG for the serious user differently from the casual games for the light user.

Business Aspects of On-Line Gaming

In Table 1, the production cost and profit ratio of an on-line game made by a major Japanese game manufacturer are compared with a packaged game for the same company. The numerical values are shown relative to those for the packaged game which are assumed to be 100. According to this information, the on-line game generates a larger profit, but the packaged game is still leading as a business product with respect to profit ratio. Furthermore, the on-line game is disadvantaged by the need of a running cost that is 120% of the production cost of the packaged game, which does not require a running cost. The development of the on-line game is very costly and requires considerable time. The running cost is also high, but the on-line game generates large revenue and profits. However, the on-line game has the characteristic that even if it becomes a success, the profit ratio will not be particularly high.

Promotional costs, employment costs, equipment costs (office, server, network, hosting, etc.), and the initial license fee are required for an initial investment, which is necessary when considering a concrete business frame. Running costs include marketing expenses, sales commissions (i.e., payment margins and sales incentives for the Internet cafe), employment costs, equipment costs, royalty payments, and so on. The business profit is what remains after the running costs are deducted from sales, but capital investment is difficult to judge. When open beta-testing is conducted, the number of users rapidly increases, and it is thus necessary to increase the capacity of the line and the server. However, in many cases, after the game begins to charge users, the number of users decreases. In other words, in consideration of the fluctuation of costs over time, there is a case wherein after charging users, the equipment reaches an extreme excess in capacity.

Server technology and management expertise of the user community necessary for the production of on-line games and the necessary beta-testing process differ from the production of standalone games. In consideration of the above-

TABLE 1. Business considerations for package games and on-line games

	Package game	On-line game
Development cost	100	200
Development term	100	167
Retail price	100	100
Sales figures	100	100
Running cost	—	120 ^a
Income	100	266
Profit	100	230
Profit rate	60%/2 years	44%/3.5 years

^aThe value of the running cost is compared with development cost of package game.

mentioned, the production of on-line games is not mere game making, as there are aspects of it that resemble city planning and real estate development businesses.

Conclusions and Perspective

The game industry started on a large scale about 20 years ago. It is a rare case historically that a player only plays with a computer. Traditional games have always been with real humans, so we can explain that gaming goes back to the traditional style. On-line games overcome the barriers of distance between users, and keep any required complexity and pliability via a computer. These make the new standard of value in the industry. In on-line games, gaming design and business models are often indivisibly related, because of network characteristics. Now the game industry is shifting from the package model to the community model. On-line gaming expands the meaning of a game as not only a work of art but also a service. Video games have been sold by the package by retailers; however, on-line games introduce different possibilities for distribution, download selling, prepaid cards, fee systems, and advertising models, etc. The point that the on-line game differs from the package game deterministically is time. The role of developer and publisher are not only in selling packages, but also in keeping quality by updating content. Game design should contain many features and expanded features are necessary to ensure that players do not tire of the game.

4

It is most important for successful on-line gaming to develop a player community. If many players play a game and join the community voluntarily, added value would come into existence. Players make their events, meeting in the game, and develop contents, websites, BBS, and mailing list, all based on the game. Players find new unexpected entertainment by themselves. Players are usually limited to using original content in the package games. However, a developer should recommend communities to players of the on-line game, because the number of players enhances value. Once developed, a game community provides benefits for a long time. Successful games are still in service and returning benefit, although some of these are over 5 years old and are showing their age. These phenomena occur in the console game, but not on-line. Developers have to plan the formation of a user community. Strong player communities may also become an ally to an enemy for a developer. Good reputation helps circulation between players, but bad reputation may subvert the game, and small problems tend to engulf the game. For example, if a cheater or a cracker increases his money drastically, heavy inflation in the game would happen out of developer management.

In a sense, the management of on-line games is like the management of the nation. Therefore, to change rules is similar to revising the law. Players will have the identity like people of the nation for the game and the developer must act as the Government. On-line games have the special feature that each country has a different type of community that is influenced by nationality. It is difficult to fix all characters of on-line games, because the industry is in a wave that is

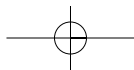
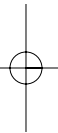
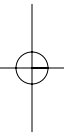
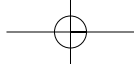
changing the whole world. We can, however, discuss how on-line games change our future with regard to life, business, culture, and politics.

Acknowledgments. The author thanks the people listed below, who were speakers of the Plenary Session and related Parallel Session (On-line Game Design and Business): Kiyoshi Shin (IGDA, Tokyo), Jong-Hyun Wi (Chung-Ang University), Edward Z. Huang (Shanda Network Japan Office), Kenji Matsubara (KOEI Co., Ltd.), Taizo Son (BB Serve Inc.), Yoichi Wada (Square Enix Co., Ltd.), Rui Sato (CyberStep Inc.).

References

5

- Burnham V (2001) Supercade: a visual history of the videogame age 1971–1984. MIT Press
- China Internet Network Information Center (2003) 12th Statistical Survey Report on the Internet Development in China
- Digital Content Association of Japan (2003) Digital Content White Paper 2003
- Friedl M (2002) Online game interactivity theory. Charles River Media
- Herman L (1997) Phoenix: the fall and rise of videogames, 2nd edn. Rolenta
- International Data Corporation (2003) Korea Online Gaming Forecast, 2002–2007
- IGDA On-Line Game Committee (2003) On-line game white paper 2003. International Game Developers Association
- Kent SL (2001) The ultimate history of video games. Prima
- King B, Borland J (2003) Dungeons and dreamers. McGraw-Hill



AUTHOR QUERY FORM

Dear Author,

During the preparation of your manuscript for publication, the questions listed below have arisen. Please attend to these matters and return this form with your proof.

Many thanks for your assistance.

Query References	Query	Remarks
1	PE: Figure here is not visible in this file.	
2	PE: Figure not visible.	
3	AU: Please define PRG.	
4	AU: Please consider rephrasing this sentence. Its meaning is unclear as given.	
5	AU: Please note that the references are not cited in the text. Please cite at suitable points in the text or remove from the reference list. If retained, references should show city/location for book publishers.	