

Games for Cross-Generational Enjoyment

Children's play changed dramatically when the Nintendo Family Computer, popularly known as "Nintendo" or "Famicom," came on the market in 1983. Rather than flocking to parks and fields for outdoor games, children began increasingly to play alone or with only a few friends home. With the release of the portable game device "GameBoy" in 1989, diversions for children were increasingly dominated by digital games, which could now be played anywhere.



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"Tokyo Game Show" 2008 held in October 9-12. It set a new record with over 194,000 visitors and 209 exhibitors from Japan and overseas. The Tokyo Game Show has been held annually since 1996.

Digital games have long been considered something for children or young people, but the portable game console "Nintendo DS" and the home video game console "Wii" are greatly changing that image. When adult and family oriented games were released for these consoles, they attracted the attention of members of the older generation who had previously had no interest in digital games.

With the addition of wireless communication functions, digital games have been transformed into the means not only of solitary amusement, but of enjoyment with family and friends. Social interaction, in fact, has become one of the elements that make these games fun to play. Playing together, you can discover new sides of your friends you never noticed before; you can savor the joy of winning after developing new strategies driven by the



Games can now be played together quite easily even using cell phones.

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frustration of defeat, and you can enjoy the process of collaborating with friends to achieve some goal that goes with the game. These days, games that can be enjoyed by people of different generations playing together have been gaining popularity.

Digital games, once designed to be played mainly by young children, have expanded to a cross-generational, international phenomenon. People are beginning to discover new ways to use digital games for purposes other than play, such as for teaching and study. In this issue, we will report about the games enjoyed by people of different generations in Japan, including digital games.

Digital games are designed in ingenious ways that make them an absorbing pastime. Along with providing some excitement and thrills, they allow players to feel a sense of achievement. Developed by making use of these merits, many games for learning purposes are appearing and coming into wide use. These uses, indeed, have attracted attention for their potential applications in fields such as rehabilitation, medical care, government, and business.

Game Market Research in Japan – FY2007

Video game market for 2007

Software	65.86 million copies/335.8 billion yen (99.40% up from the previous year)
Consoles	15.64 million copies/ 332 billion yen (104.46% up from the previous year)

Number of console units sold in 2007

Nintendo DS	6.28 million units (100.5 billion yen in sales)
Wii	3.7 million units (88.3 billion yen in sales)
PSP	3.55 million units (69 billion yen in sales)

* Sales of both Wii and PSP rose more than 150% compared to the previous year

Number of game software copies sold in 2007

Nintendo DS software	33.12 million copies (145.4 billion yen in sales)
Wii software	13.22 million copies (78.7 billion yen in sales) up 300% from the previous year

Source: The Japanese video game market (survey by Media Create)



At this facility for the elderly, digital games are being used for rehabilitation.

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New Applications of Digital Game Technology

Cross-Generational Enjoyment

The home video game console “Wii,” released in December of 2006 by Nintendo, allows users to play games by simply pointing a remote control at the television. Even people who are not used to video games can play.

Many of the Wii games are family-oriented. Using “Wii Sports,” players can play tennis, baseball, or golf, or try their hand at bowling or boxing, manipulating the remote controller as a bat, racket, or gloves, as if they are playing the sport in real life. “Wii Fit” allows players to keep themselves fit as if it were a game, stepping on the “Balance Wii Board” to measure their weight and performing various exercises. “Mario Kart Wii” is a new kind of racing game in which players attach the “Wii Handle” to their remote control so that it turns into a steering wheel, allowing players to race as if driving real cars.

The 2007 sales rankings show the great popularity of cross-generational games and games in which players move their bodies to play. Even some of the games for PlayStation—a console known for its high definition graphics—are showing

increased popularity, such as the quiz game “Buzz!,” and the karaoke game “SingStar” that has sold over 13 million copies in Europe and the United States. These games too allow the players to play with each other through the computer network.



Practicing yoga while standing on the Wii Board. It can be used to improve the user's sense of balance.

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Software sales ranking for 2007

Source: The Japanese video game market (survey by Media Create)

	Console	Title	Maker	Number of copies sold
1	Wii	Wii Fit	Nintendo	1,794,148
2	DS	Mario Party DS	Nintendo	1,691,298
3	Wii	Wii Sports	Nintendo	1,601,656
4	Wii	Super Smash Bros. Brawl	Nintendo	1,524,146
5	Wii	Mario Party 8	Nintendo	1,232,438
6	DS	Dragon Quest IV	Square Enix	1,221,940
7	Wii	Wii Play	Nintendo	1,197,471
8	Wii	Super Mario Galaxy	Nintendo	892,187
9	DS	Legend of Zelda: Phantom Hourglass	Nintendo	889,239
10	PSP	Monster Hunter Portable 2nd G	Capcom	880,468

*Popular games are developed and sold for multiple platforms.



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The Light and the Dark Sides

Video games are for children today a tremendous source of fun and relaxation, a means of expanding friendships, and a tool for communication with others. On the other hand, some say becoming hooked on video games and playing them for long hours could result in an unbalanced lifestyle. Others express concern about some of the video games that include graphic violence, which could have bad influence upon children.

Whether digital games that captivate people's attention show their light or the dark side depends on how the games are being played. Professor Baba Akira of the Interfaculty Initiative in Information Studies at the University of Tokyo studies the positive effects on education that digital games can have, and also develops games that can be useful for the society (known as “serious games”). At the website of the Digital Games Research Association Japan where he serves as presi-

dent, he says that, in order for the potential of video games to be expanded, players must improve their “game literacy” by educating themselves about how to handle various kinds of games.



Learning and Having Fun at the Same Time

On commuter trains in Japan's big cities, the sight of men in suits and well-dressed women playing "Nintendo DS" is no longer rare. Released in December 2004, this portable video game handset equipped with two LCD (liquid crystal display) screens, where all the player has to do is to touch or write words on the screen, is a big hit.

The first game that caught attention was *Brain Age: Train Your Brain in Minutes a Day!* (*No o kitaeru otona no DS toreningu*), released in May 2005. This game, produced in collaboration with a medical doctor who is an authority on the brain, invites players to rejuvenate their brains by performing simple reading, writing, and calculation exercises. It has proved to have wide appeal among people in their forties and older. The Nintendo DS Lite released in March 2006, with its compact design that does not look out of place even in the handbag of a fashionably dressed woman, is so popular that it was a long time before production began to keep up with demand. The Nintendo DS thus fueled a new digital game boom, expanding the market from children and young men to women and members of the older generations who previously had no interest in video games. The number of Nintendo DS units sold in Japan as of the end of September 2008 has reached 23.71 million.

The popularity of *Brain Age* (sold over 26 million copies worldwide as of the end of September 2008) spawned a variety of games in which players can learn and have fun at the same time, featuring recipes for cooking, English vocabulary, kanji, social etiquette, calligraphy, and literature. These games have established a new genre of video games known as "gakushu gemu," or educational games.

Schools and educators are giving special attention to these

educational games. In May 2008 it was reported that third-year students at a junior high school in the Kyoto suburb of Yawata had been given a Nintendo DS to study English vocabulary for ten minutes at the beginning of each English class. After five months it was found that the students' vocabulary had improved by around 40 percent. The city's board of education decided that it was effective in basic English language education, and purchased 600 Nintendo DS consoles, which they distributed to the four municipal junior high schools in the city for all the second year students to use in their classrooms.

This movement is not limited to Nintendo DS, but can be seen in other game consoles, games for computers, and games for cell phones. A wide variety of educational games has been released in recent years, and they help players to think about environmental issues and learn economic know-how in the process of playing.



Using Nintendo DS in English class. Students can have fun while learning and going over new words and phrases.

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Digital Games: Treasure Chests of Advanced Technology

Today digital games can be played using various platforms—on TV game devices, portable game consoles, computers, and even on cell phones. Game-playing devices are continuously evolving into smaller, lighter, more graphically precise, and multi-functional forms. Some of their functions go beyond those of video game consoles, such as Internet connection and wireless communications. Many different kinds of games are appearing, and image technologies such as for 3D graphics are also advancing. Digital games are packed full of the latest technology.



Popular Board Games and Card Games in Japan

While digital games are gaining popularity, board games and card games still show strong popularity, giving pleasure to people of every generation.

Board games

Jinsei Gemu, the Japanese version of *The Game of Life*, an American board game released in 1960, sold over 12 million sets since its first release in Japan in 1968. Players spin the dial to determine how many steps to move their pieces towards the goal, encountering the various excitements and upsets of life as the game proceeds. Released in 2008, the newest version of the game, entitled *Watashi no Jinsei Gemu, for Bridal* (*My Life's Game: For Newlyweds*) has caught attention as players can order personalized versions of the game featuring real life experiences.



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The born-in-Japan board game *Othello* (*Reversi* in English) is played with two people using coin-like pieces with black and white sides. Players first choose their color, and take turns placing pieces on the board. Any piece enclosed by pieces of the other player must be flipped to the color of the other player's pieces, and the player with the most pieces on the board at the end becomes the winner. Because of its simple rules, anyone young and old can enjoy playing. It is said that there are 40 million avid *Othello* players around the world, with over 30 world tournaments held so far.

Another game originating in Japan, called *Yakyuban*

(Baseball Pinball), is a game where players use levers to throw metallic balls and hit the ball on a board that simulates a baseball field. The game was released in 1958 by Epoch Co., and became a sensational hit during the 1970s. Sales sank to only a few thousands during the 1990s due to the popularity of video games and the soccer boom, but recently it has begun to make a comeback, selling 300,000 units a year.



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Card games

Card games allow people of all ages to gather and play in any number they wish. Popular cards include standard playing cards (*toranpu*) and *Uno*, which can be played when there are many guests in the house, such as during home parties and at New Year's, or in hotel rooms during school trips or at club training camps.

During the Meiji era (1868-1912), playing cards were imported from the United States and Britain, and manufacturing in Japan began shortly afterwards. The plastic playing cards were developed by Nintendo in 1953.

Uno, made in the United States in 1971, is a card game popular all over the world. A national tournament of *Uno* has been held in Japan since 2006, and over 1,000 elementary and junior high school students took part in the 2008 tournament.



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1980

The world's first handheld game console "Game & Watch." It was originally targeted at businessmen as a game console with a clock, as its name suggests, but it became widely popular among elementary and junior high school children.

Portable game console



"Nintendo DSi." It has a camera function newly added to the popular "Nintendo DS," along with a feature that allows users to listen to music.

2008



1989

"Game Boy." Users can exchange information between consoles via cables. It became a worldwide success, selling over 100 million units.

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Keywords of this issue!

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テレビゲーム video game

ゲームソフト game software

先端技術 advanced technology

無線通信 wireless communication

コミュニケーション communication

ボードゲーム board game

カードゲーム card game

Dreams of Creating Video Games

In this issue, we introduce four second-year students at a high school in Osaka prefecture who are taking a course of study specializing in digital game development under the electronic engineering program at their school. In addition to regular classes at the school, this course teaches the essential knowledge for developing digital games through seminars provided in collaboration with the electronic engineering department of a university with which the high school is organizationally affiliated and with a software development company.



Hiroshi
I began playing video games when I was in kindergarten. I like to play action games. My other hobbies include listening to music and drawing.



Atsushi
Influenced by my older brother, I, too, began playing video games when I was in kindergarten. I particularly like action RPGs (role playing games). My other hobbies include sports. I belong to the rugby club.

Here the four students, Hiroshi, Atsushi, Isami, and Kita, devoted digital game players since they were little, talk about what it is like taking their first steps into the real world of digital game development.

Q: What are your favorite classes at school?

Hiroshi: English and electronic information. I especially like the electronic information class, in which we are learning how to do programming.

Atsushi: I like electronic information and practical training in electronics. In the latter we do things like send Morse code and build circuit boards. I am looking forward to the class we'll soon have in which we build a computer.

Kita: Electronic information and Japanese. Right now we are studying haiku, which is great because I like haiku.

Games Require Study of All Kinds of Things

Q: You also receive various special seminars, including one by a game developer from the software maker Konami Corporation.* Did your image of game development change after that experience?

Hiroshi: I felt I got a step closer to what I want to do. Before the seminar, all I could think about was programming, but now I understand that there are other essentials for making video games, such as setting and plot, and the special gimmicks and tricks included, and that the music and qualities

that give the game a sense of reality are also very important.

I also learned that the methods for developing games are quite different from what I had thought. Before, I had the image of developers working alone, but what they actually do is to construct a team and divide up the tasks among the team members to create a single video game. That seems really interesting to me. I am even more eager to become a video game developer than before.

Atsushi: When playing video games, having fun is all there is to it, and I learned that in game development it can't just be all fun. Video game development offers a whole new kind of fascination. When everyone brings in ideas, works together, and creates a single piece of work—that process is in itself absorbing.

Isami: I've never really liked to study, so I enrolled in this school thinking being involved with video games would be fun, but then video games became nothing but study! What I had always enjoyed became something not fun. Then, after taking this seminar, I realized that what I am studying right now is linked to creating fun video games.

Kita: Originally I just wanted to make programs, but after the lecture I soon became interested in game planning. The process of coming up with a title, deciding its content, and narrowing down the ideas through discussion with members of a team is really appealing to me.

Q: You made game development plans in groups for the seminar. How did that go?

Hiroshi: It was fun to get together with everyone and come up with the idea. There's still a long way to go in actually making the game: the program has to be written, the music decided on, and we have to work out how to make it seem realistic. I also felt that teamwork was as important as



Lecture by Mr. Namba, the game developer from Konami. The seminar strengthened the students' commitment to game development.

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* In this two-day seminar students learned about the process of digital game development and what the job is actually like. The instructors gave comments on game development plans the students, divided up before the seminar into teams of six or seven, had worked out in advance. The students then further refined their plans and gave presentations about them on the second day.

technical skills. We have to be thoughtful of other team members.

Atsushi: At first I was unable to understand what my teammates were saying. I couldn't understand at all why they wanted to do such and such, and how they came to think that way. Their explanations—and I guess it was true of mine, too—were not well articulated. You need to talk coherently when explaining your ideas, so others can understand you, and also listen carefully to others when they are talking. I felt the need to communicate with others more often.

Isami: It was exciting to see our own ideas take shape. The seminar gave us a taste of that experience.



The group of which Isami and Kita were members came up with a game in which cyborgs wearing roller skates play dodgeball while skating on a car racing circuit. It is titled "Cyberball Circuit."

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Q: We have heard that the special seminar at Takarazuka University of Art and Design was for improving sketching and imaginative skills. What was the seminar like?

Hiroshi: We were given a blank A4-size sheet of paper, and told to sketch the same A4-size paper on it. I was stumped at first, but I drew the paper tilted a little bit, and with its shadow.

Atsushi: I sketched the paper placed vertically. The paper began to wrinkle from my sweat as I was holding it, so I drew that in detail, too.

Isami: I sketched the paper after I folded it in half and made it stand up.

Kita: I sketched one paper folded in four and another lying down. One classmate sketched the sketch of his paper, which I thought was a great idea.

We Need More Knowledge

Q: What would you like to do in the future?

Hiroshi: I want to study video game development in university, too, and work for a video

game software company where I can make games in teams. I want to be involved in the integrated planning of games, providing good music, for example, so that players can even enjoy just listening to the music alone. And then it would be nice if I could go independent and develop a game by myself. I am attracted to the idea of working in teams to develop a single game, but I also want to take up the challenge of making a single game all by myself.

Atsushi: I will probably study video games in university, too. But I also would like to pursue a sport. And then I would like to make a game that I would want to play, even if it didn't sell.

Isami: It would be ideal to have a job relating to video games, but even if that doesn't work out, I still want to continue making games as a hobby. I don't have any specific ideas about what kind of games I want to make yet, but I want to do everything myself; planning, programming, the whole thing. In order to do that, I need much more knowledge and more advanced skills.

Kita: It is quite a challenge to make games solo, so I want to do it as part of a team. I'm willing to do anything, whether it is planning or programming; I just want to be involved in making video games.



Students solder wires on a home-made circuit board.

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In a special lesson at the university. The process of digitizing human movement through motion capture is demonstrated.

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Isami

I started playing video games before I knew it with the influence from my grandfather, who lived in the neighborhood. I love not only digital games, but anything with the word "game" in it, like board games and card games. I also like reading books.



Kita

Influenced by my father, I began playing video games around the time I was a kindergartener. I like playing "interactive fiction."** My other hobbies include *shogi*. I belong to the *shogi* club.

** "Interactive fiction" are games where text appears on the screen for the player to read as if reading a book, with images appearing on the background. Players resolve the situations that arise as the story unfolds. Here and there the game presents options for the characters, which the player must decide, and depending on the option chosen, the storyline changes.

The names of four students are nicknames.