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The Diverse Advantage of Video Game

"Thanks to you, I will die like Jesus Christ." This was said by Seung-Hui Cho who killed 32 people and wounded many more before committing suicide in the Virginia Tech University. After a video he made was open to the public many people worried about aggressive tendencies video games encourage since he looked like exactly imitating a warrior in the video games. Also, Critics against playing a video game argue that the addiction of video game is completely strong so that it disrupts normal behavior, contributes to problems common to addicts including failure at school, leads to the complete destruction of a healthy lifestyle, and serves no useful purpose in society.

If video games have such big problems, why aren't they just banned? Considering this disadvantage of video games, there are many things that critics mislead in fact. Furthermore, playing video game has abundant benefits. Not only are video games able to be beneficial to people in the

physical, psychologic, and educational ways, but they also produces economical profits in the society.

To begin with, playing video games has a positive correlation with intelligence. We can find it in either complicated or simple games. To illustrate this point, Tetris would be a good example. Tetris consists of 7 kinds of blocks in the two dimensional world, and it was actually invented to improve children's concept of space. According to the research by Richard J. Haier, Tetris can result in more efficient brain activity during play; for example, while Tetris players are playing the game, they have to not only fit into blocks to get one score step by step, but also anticipate next blocks. During the process, cerebral energy consumption which is measured by glucose metabolic rate is motivated which indicates brain function and activity increases. Furthermore, as Tetris players are accustomed to it, a consumption of glucose decreases which means more activation for task. Interestingly, even when

the players are not doing it, brain activity is going on because the brain will automatically keep picturing the system of Tetris. As a result, even such a simple game like Tetris affects brain activity positively(1991).

Next, let's take a look at more complicated games such as StarCraft, which is a military science fiction real time strategy video game made by Blizzard entertainment. The game has played a pivotal role in making game industry boom, especially in Korea, and created StarCraft professional competition. Playing the game requires complex brain activity. In order to make strategy, players have to master every feature of characters and consider the following things: timing of building construction, upgrading units, using diverse units, and making the position and good timing for a battle. On top of that, the players have to anticipate the opponent's strategy too. To sum up, during playing, the interactive aspect of gaming requires players to solve problems quickly, multitask,

gauge risks and make fast decisions. Therefore, those abilities can be applied in real world.

As I mentioned, video games not only develop intelligence but also have benefit in the physical domain. Let's take a look at Dance Dance Revolution which makes player act physical motion and dance with an amusing. The DDR consists of dance platform and visual screen. Players listening to joyful music have to move their feet and step on the corresponding arrows on the platform. According to Chien, during play, players can learn automatically the real dancing such as cha-cha, break-dance, hip-hop, and etc in the simulated dancing of the abstract diagram. On top of that, as DDR is totally related to aerobic exercise, even playing DDR regularly help people avoid weight gain and keep physical healthy. There was an experiment to show the physical benefit from DDR. Among 50 obese children, aged 7 to 12, while one group played the game at home for at least 30 minutes five days per week, other group didn't. It

turned out that those who played the game reduced some risk factors for heart disease and diabetes with marinating their weight whereas others got about 6 pound (2006).

Next, keeping step with the diversification of video games, it became possible to enjoy outdoor sports in a house by using a special remote named Wii which is the primary controller using both built-in accelerometers and infrared detection to recognize its position in 3D space and encourage users to control the game with physical motion as well as traditional button presses (Wiggins, 2008). In other words, gamers don't need to go outside for sports such as baseball, bowling, and golf. Games involving Wii remote require gamers move and act to get a good score, just as DDR does. All in all, these kinds of video games could be deployed as an antidote to opponents' claim that video games would snatch the opportunity of doing outdoor activities and make players glued to the screen so that it is physically unhealthy.

In addition, video games can have educational benefits. It has been well-known that simulation games have been used in military domain. For example, games have been used to train pilots and measure learner's eye-to-hand abilities. (Squire 2003) Nevertheless, video games in a class room were not imaginable, and video games have been ignored by educators who focused on the social consequences of playing games in fact. On the other hand, because players usually get fantasy, control, challenge, curiosity, and competition from video games, video games could play a role of a powerful tool for educational media (Thomas, 1981). Let's take a look at Civilization 3 as the first example. According to Squire who has been studying educational uses of civilization 3, playing the game was a perfect method to learn history and geography when he brought the game into a class activity. Technically, the experience of plying civilization 3 would be a practice of planning, building, managing, and competing with other

civilizations. In Squire's study, many students who had resisted school-mandated history accepted the game-based curriculum, started paying attention, replayed history, and improved their vocabularies, and understood geography and difficult concepts of world history while they enjoyed building and managing virtual societies, using mathematics in game play (2005).

What's more, an interesting domestic experiment about educational effect in video game also caught attention from educators and game industry not so long ago. One of Korean professor, named Junghyun Wye tried to cover English regular text book in high school as the Goonzu which is simulation and strategy online game under the historical background. The contents of the game were changed to match the contents of a regular English text book, and the player could chat with other players from all over the world in English. As a result, the experimenters showed about 5 point incline in the test which consists of vocabulary,

reading, and conversation. Mr. Wye stated that even the students, who hadn't been able to take a class well because of low concentration, could enjoy a class by the online game. Furthermore, through chatting with foreigners in English, they could overcome their psychological distance from foreigners and English (2005). Therefore, it's not unreasonable and unbelievable any more that video games could be educationally effective as the Goonzu were finally adapted as a teaching material in Joong-ang University (Lee suck, 2005).

The most interesting advantage of video games is that they are used as a tool for "successful cancer treatment." Hoffman said the nonprofit HopeLab on April 3, 2006 opened the new door of meditainment which is a compound word with medical and entertainment by the Re-Mission video game created for cancer treatment. Although the Re-Mission video game looks like a sort of shooting game, it was designed by diverse experts such as video game developers, animation

experts, doctors and researchers about the cancer, biologists, psychologists, and even patients suffering from chronic diseases. Therefore, nano-robot called Roxxi which the players manage in the game uses "medicine, radiotherapy, dietetic treatment, and etc" in order to figure out virus, cancerous cells, side effects in 3D situation which represents the inside of a human body(2006). Before the game was released, there was a study to verify the game's effect on cancer treatment. According to Kato, the study saw 375 cancer patients aged from 13 to 29 at 24 medical centers in the United States, Canada, and Australia from 2004 October to 2005 July. It showed that playing Re-Mission results in enhancing patients' understanding about the diseases. Furthermore, those patients who played the game showed medical factors in their blood became high, and it also strengthened a positive mind and behavior toward chronic illness (2008). What's more, the nonprofit HopeLab is planning to develop

various program using video games in order to apply for another diseases.

Behind those advantages of video games I mentioned, the most significant reason why video games have to be encouraged is because of economical effect on a variety of fields. Considering the fact that video game industry takes in about 7.4 billion dollars only in the U.S in 1999, Williams claimed the potential of game industry might be enormous and immeasurable, and the industry continues to grow dramatically (2002). Also, profit from video games still leads to technological advancement which then affects other industries. Keeping step with such a fast growth in the entertainment industry, the game industry employs thousands of people worldwide including game programmers, designers, producers, artists, testers, writers, sellers, and etc. In particular, the Korean game industry succeeded by bringing up the game league for entertainment. This not only created new sorts of jobs like a gamer, but also added

popularization of games, so more people ended up enjoying games and destroying the stereotype of games. On top of that, people started realizing a game can play a pivotal role of both earning foreign currency and renewing the image of nation.

In spite of those significant benefits from video games, many opponents feel uneasy about addiction and violence of video games. As I mentioned in introduction, they claim many people, especially kids are suffering from the addiction. The symptoms of withdrawal are similar to those of other addictions, such as compulsive behavior, loss of interest in other activities (Tracey McNerney, 2007). Considering this perspective, although people spend a lot of time playing, let's look at the figures. According to Tracey, people spend about 13 hours per a week playing video games, but 25 hours watching TV. By these standards, anything we enjoy is addictive like TV, reading, or skiing. However, this is not criticized, so video games are

unfairly accused of being addictive.

As far as violence goes, if the violent crime rate is considered, the opponents' assertion is wrong. According to Gee, the 19th century was definitely more violent than the 20th, but no one played video games. Also, Americans play less than the Japanese do whereas their society is much more violent than Japan's. Interestingly, since gaming has become popular, the violent crime rate generally is getting lower (2005). If gaming encouraged people to act aggressively, those should be getting higher. In this sense, it is not an exaggeration to say that video games might play a role of an outlet for aggression.

To sum up, without the slightest hesitation, I welcome the prosperity and diversity of video games because there are numerous benefits from video games. Also, I believe positive effects of video games would be more developed. However, we have to think the fact that every thing has possibility of affecting in a good way or bad

way; for instance, when it comes to television, if people watch, think, and talk about what they are watching, it is good because they can have deep perspective. On the other hand, if they sit there and just passively watch, it's not good. Reading which most of people consider meaningful is the same. Reading carefully, asking oneself questions, and taking or discussing with others is better than just reading. In this sense, to maximize the advantage of video games, workers in the game industry should anticipate how the game affects people except for only thinking about profit. Not only that, when players play video games with thought, reflection, and engagement with the world around them, the positive effect could be maximized.

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