The "Occurrence" Mechanism, Aesthetic Characteristics and Future Development of "Cutscenes" in Games

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Abstract: In recent years, the rapid advancement of computer animation technology and hardware storage has led to collaborative efforts between various industries and game IPs to create cultural consumer products, resulting in the widespread use of cutscenes in games. This merging of movies and games has become a prominent focus for game producers, serving as a new "experimental field" within the industry. This paper examines the significance of "cutscenes" as a crucial component in the business development process of the game industry. The mechanism behind the creation and integration of cutscenes not only drives the growth of the commercial and aesthetic value of the game, but also holds the potential for even greater impact in the future. Furthermore, as the trend of "integrating movies and games" continues, "cutscenes" are expected to develop into independent works, further enhancing the value of game intellectual property and promoting commercial success.

Keywords: Film-Game Integration; cutscenes; game aesthetic

1. Introduction

Under the trend of "media convergence" in today's society, "movies and video games are very similar in terms of media convergence. Driven by both digital technology and the market, the two are constantly converging and innovating. In the process of continuous integration of games and movies, the "occurrence" mechanism of game transitions and animations influences the development path of the integration of game art forms into movies. "[1]The first and most significant influence of movies on games is the "cutscene" that is interspersed from time to time during the game. Cutscenes usually refer to the part of the game where the user is not allowed to participate in the gameplay. Games play pre-recorded movies from level to level in the form of cutscenes that serve as narratives, pauses, rewards, and punishments. [2]

Nowadays, the formation of a large base of game users and the establishment of game communities make the communication between players and game manufacturers more convenient, and game manufacturers have to pay attention to improving the user experience of players. In addition to the development of the gameplay mechanism of the user participation part, the aesthetic demand of users for the non-participation part of the game makes game manufacturers emphasize the design of the transition animation. In 2019, the animated short film "Reunion" in the game "Overwatch" won the 66th American Society of Motion Picture Sound Editors (MPSE) Golden Scroll Award, and the level of CG production of game manufacturers is comparable to that of movie giants such as "Disney" and "Warner Brothers".

Driven by game manufacturers such as Ubisoft and Blizzard, more and more game manufacturers are paying attention to the design of "cutscenes". Whether it is popular console games such as "Zelda" and "Death Stranding" in recent years, or mobile games such as "Honor of Kings" and "Honkai: Star Orbit", the CG clips of in-game cutscenes have sparked phenomenal discussions. The "cutscene" not only plays a role in the user experience in the game, but also shows its exploration space for the aesthetic value and commercial value of the whole game.

2. The Necessity of the Mechanism of "cutscene"

When the structure of film and television narrative is integrated into the virtual world of the game, "cutscene" takes on the function of game narrative. Therefore, the accumulation of film and television experience of game works is a necessary way for IP cross-media communication under the background

of "Film-Game Integration". According to the 2022 China Game Industry Report, "in 2022, among the top 100 mobile game products in terms of revenue, role-playing games, card games, and strategy games mainly account for 24%, 12%, and 11%, respectively. The role-playing category has consistently been the most numerous game type among the top mobile game products in the past three years. "[3]

In role-playing games, the player controls the in-game character and interacts with the virtual game world, using the character as an entry point to explore the virtual world within the game. "Cutscenes" are often performed from the perspective of the in-game character, using the player's character as the meeting point between the player and the virtual world^[4], allowing the player to easily immerse themselves in the game world from the character's point of view and relate to the plot and story of the game. "Cutscene" is the collision point of the fusion of film and games. Game manufacturers can develop film and TV works based on it to further enhance the value of game IP. Popular games such as "Resident Evil", "Tomb Raider" and "Assassin's Creed" have been adapted into movies because of the narrative potential of the exquisite "cutscenes" in the game.

In the transition from short to long, short cutscenes have evolved into full-length film and television works. There are similar cases in the history of the development of other kinds of art. "Although a TV commercial takes very little time, about 15 to 60 seconds, from the perspective of the latest media in the field of TV and advertising at that time, the need for animation production was born by chance. "[5] In response to the needs of TV commercials at that time, Toei Animation, a representative Japanese animation company, produced 331 commercials in the early days of its establishment, which helped the company accumulate strength in the early stage of entrepreneurship and enter a stage of rapid development.

Analogous to the development of the Japanese animation industry, the accumulation of experience in "cutscenes" in the game industry is crucial to the incubation of game IP. In 2023, the box office of the animated film "The Super Mario Bros. Movie" launched by Nintendo exceeded 1. 2 billion US dollars. The box office is the highest box office in the history of game-adapted movies, and it has become a successful case of game-adapted movies. The success of "Nintendo" intermediary film and television relies on the company's decades of experience in game development. "Super Mario Bros." was a game launched in 1985. "Nintendo" has accumulated experience in "cutscenes" before making movies. "The Super Mario Bros. Movie" uses some of the same sound effects and music in the game to connect the past plots together, and finally produced a sentimental movie that satisfies game fans. [6]

"Cutscene" has the function of interrupting the player's game rhythm, and the reasonable arrangement mechanism can allow players to have a healthy game experience.

The addictive nature of the game is a morbid psychology that is easily produced after the game design mechanism is enlarged. This is also the controversial point of the game's entry into the mainstream consumer entertainment market. "The player's concern about the outcome of the game is a psychological feature of the game, which means that there is an agreement between the player and the outcome: if the players win, they will be happy"^[7]. In the face of the game's desire to win or lose, the player's own impulsiveness is the cause of gambling addiction, but there are also many designs in the game that attract players to continue.

"In recent years, more and more research evidence has shown that individual impulsivity plays a key role in the development mechanism of addictive disorders, and may become a potential vulnerability marker for addictive behavior and an important target for early detection and intervention. "[8] The degree to which players care about the outcome of the game will be magnified by individual impulsiveness, and then fall into the problem of gaming addiction. The non-player operation characteristics of "cutscenes" interrupt the player's impulsive operation to a certain extent, lower the player's impulsive threshold, and temporarily liberate the player from the game mechanism of individual operation to win.

While fragmenting the game operation process, the form of "cutscene" also replaces some player operations to promote the development of the game. In "Zelda Breath of the Wild", after players go to the designated place to watch and unlock all the memory clips, they can get the costumes and props with the highest defense value. After receiving the equipment, it is easier to complete the game, giving players a way to speed through the game. If the cutscenes are inserted into the game in a timely and appropriate manner, reducing the part of the game that requires the player to operate, combined with some rewards, it can reduce the player's impulsive threshold, balance the player's game rhythm, maintain the player's healthy game psychology, and improve the user experience.

3. Value for the development of game aesthetics

"Cutscene" enriches the narrative space of the game world and provides value for the development of game aestheticsAccording to Jesper Juul, "games have their roots in rules and playtime, which allow them to define their worlds more loosely and incoherently than other cultures accept. Because "[9]the rules of the game are hidden from the player, the player first pays attention to the appearance of the virtual world," and "the game world is immaterial, which makes it easier to create a virtual world," "the emphasis on the virtual world may be the greatest innovation of video games. With the upgrade of terminal storage, the game can tell the stories of different game characters from different perspectives through cutscenes, allowing players to have the experience of being in the whole virtual world. For example, the war chess game "Fire Emblem: Three Houses" covers the storyline of 299 game characters. The "cutscene" carries the background introduction of the world in the game and the task of plot direction of the characters, which enhances the overall value of the game and is of great significance to the development and innovation of video games. It uses its own narrative function to enrich the narrative background of the game and promote the development of narrative aesthetics in the game.

"A game is a rule-based system. Outcomes are variable and quantifiable, and different outcomes have different values. Players depend on game outcomes, and game outcomes are negotiable." Early card-type computer games, represented by cards, chess, and other chess and card games, had a single method of operation under the turn-based system, and players were prone to fatigue due to repetitive operations, and the outcome was only victory or failure. Players can quickly recover from the results of the previous game, and the playing experience is not significantly different from real board games. The fictional world created by modern video games based on "cutscenes" brings more visual and value impact to players. "Rules, randomness, and symbols are three independent units of meaning production in the game. When they interact with each other and correlate and echo with the meaning system in the real world in which the player lives, unique meaning is produced."

War Chess games are innovations based on traditional chess and card games. The characteristics of turn-based chess and card games are combined with role-playing, and the plot of cutscenes gives greater meaning to victory on the board. The "Fire Emblem" series is a game designed by Shozo Kaga under the influence of the fantasy novels popular in Japan at that time and combined with the traditional Japanese shogi game, with the fantasy theme of medieval swords and magic as a background. Released in 2019, the game background of "Fire Emblem: Three Houses" is very rich. As the teacher of the sergeant, players can choose to support one of the three countries in turn-based battles. Depending on the choice of camp, different cutscenes will unlock different storylines and lead to endings, making players want to complete the game multiple times to unlock different endings, which not only makes players dependent on the game results, but also increases the player's playing time. In the Fire Emblem game, each chess piece is transformed into a character. Whenever a chess piece is eliminated during a game, the game automatically displays a "cutscene" plot in which the game character is willing to sacrifice himself for the player, increasing the sense of tragedy in the game. Each time a player plays a game, an exclusive "cutscene" will pop up. The narrative covers everything from national politics to religious proselytizing to military investigations, perfecting the narrative system of the Virtual Century and creating its own "Fire Emblem" narrative aesthetic.

Cutscenes can add aesthetic value to a game. The game is characterized by the immersion of participation and has certain requirements for operation. However, inserting cutscenes can temporarily break out of the game mode and quickly understand the background of the game world through short and powerful short films. While showing the charm of game characters, it also allows players to directly face the values of the creator's virtual world. "Game aesthetics penetrate people's lives imperceptibly and influence people's consumption needs and values, making people love works with game aesthetics". In the "Death Stranding" game, famous movie actors such as Mads Mikkelsen and Norman Reedus are invited to participate in cutscenes using "motion capture" technology. The game's 13-hour cutscenes incorporate game creator Hideo Kojima's discussion of the philosophical level of "death," further integrating game narrative and film expression and developing it to an aesthetic level.

"Cutscene" contains commercial value and provides value for the development of game aesthetics. Cutscene is a strong feedback penetration strategy made by game manufacturers based on user entertainment methods under the trend of Film-Game Integration. According to the "Research Report on China's Internet Audiovisual Development (2023)", the number of short video users in 2022 is 1.012 billion, and the number of comprehensive video users in 2022, that is, those who have watched TV series, variety shows, and movies online in the past six months, reaches 719 million. According to the "2022 China Game Industry Report" compiled by the Game Working Committee (GPC) of the China Music

and Digital Association and the China Game Industry Research Institute, the number of game users in China is 664 million in 2022, and China's game users have officially entered the stock market era.

Due to the shrinking game market, the number of game users has left the period of rapid growth. In order to continue to expand the number of users, it is necessary to further penetrate other cultural consumption industries. As early as 2017, Wang Geng, chief operating officer and secretary of the board of directors of "Wei Ruisi Chuang", released a big data research report on "Movie Animation Game Linkage", which showed that the overlap between the game crowd and the film and television crowd was as high as 76. 7%. The "2020 Mobile Game Users Short Video Behavior Survey Report" released by Gamma Data shows that as of the second quarter of 2020, the overlap rate between mobile game users and short video users has reached 82. 5%. In addition to games, short videos have become the most important form of entertainment for mobile game users.

Based on the huge user scale of the game industry and the high overlap rate with video users, Chinese game manufacturers upload relevant independent in-game clips and complete cutscenes to major comprehensive video platforms for promotion. It is hoped that with the help of the integrated video platform, the exposure and popularity of the game will be increased. "Under the general trend of virtual and real integration, the relationship between games and society is becoming closer. The game technology born in the game industry is not only constantly innovating the form and research and development of game products, but is also expected to bring new technologies to more areas of production and life. "Combined with the independence of cutscenes, putting cutscenes on video platforms is very suitable for attracting new users to download the game. Users who have not played the game can watch the in-game cutscenes as independent animations. Take "Honor of Kings" produced by Tencent, a representative of popular domestic mobile games, as an example. In 2020, 15 "cutscenes" in the game "Honor of Kings" were released. Game manufacturers are increasingly using the form of cutscenes.

Cutscenes generally design the plot of related characters, which is attractive to video users. "Honor of Kings" introduces "cutscenes" to the video platform, and has accumulated more than ten million fans on Tiktok. The release of "cutscenes" has become an important breakthrough for games to enter the video platform, which is convenient for manufacturers to infiltrate the video platform under the background of integration of video and games, and achieve the purpose of expanding users. As of May 2023, "Honor of Kings", as a game released in 2015, still has tens of millions of downloads and hundreds of millions of dollars in revenue every year. According to data released by Appmagic, a mobile application market research company, the mobile game with the highest revenue in the world in 2022 is "Honor of Kings", with revenue exceeding US\$2. 2 billion in 2022. After the game mechanism and world have been determined, the new plot of the cutscenes meets the players' requirements for the freshness of the game. Therefore, making cutscenes is an important strategy for game manufacturers at this stage to attract overlapping audiences under the background of "integrating movies and games".

Cutscenes are of great importance in attracting players to materialize derivative cultural circles. The game uses the form of cutscenes to focus on the creation of characters in the game, which resonates with players. Cutscenes complement the world view, enhance the IP characteristics of the game, and are conducive to the formation of game derivative culture. "[10]Massively multiplayer online role-playing games (MMORPG), the mainstream online game of the 2000s, emerged as a transcendent form of online virtual communities. Strictly speaking, an MMORPG is not a type of game, but rather a metagame that can incorporate different types of games, or a virtual world that has "evolved" from an online virtual community. If we shift the focus from the video game setting of killing monsters and upgrading to the social structure in MMORPGs, such as interpersonal transactions, friendships, marriages, and associations, it is easy to find that instead of thinking of MMORPGs as games, they actually materialize people's romantic imagination of "digital existence" in the form of games."[11].

"JX Online", a game released in 2009, has created more than a hundred cutscenes telling the stories of grievances of more than ten sects, which has had a profound impact on players. Gathering places, etc. have formed a circle culture. Players have created many fan songs such as "Shangshang" and "Yehuo Cangyun Song" based on the plot of the game. At the Shanghai Comicup 29 in 2023, "JX Online" players wore costumes of in-game characters and gathered according to in-game sects. As a game IP that has been popular for ten years, players are influenced by the game's plot and look forward to the materialized romantic imagination, and thus derive more concrete forms of expression, such as human works, offline parties, and so on. The substantive derivative culture will also increase the influence of game IP and increase the number of game users and income. The game will produce more cutscenes and introduce new characters and new content in the virtual game world, which will once again stimulate players' enthusiasm for derivative creation. The combination of online and offline models ensures that the game

IP will continue to maintain its vitality.

4. Prospects for the future development of cutscenes

Cutscene plays the role of game narrative function, stimulating players' imagination consumption. Cutscenes are a bridge between the virtual world and real players, increasing the player's dependency on the game world. For example, in otome games that have emerged since 2017, in the process of quasisocial interaction, players experience different plots by manipulating the "first personality" character and the characters in the game to enhance their sense of participation in the game world. "Players gradually form a relatively stable relationship with virtual characters during game interaction. This relationship is different from the interpersonal relationship in social interaction. It is an alternative relationship to the real intimate relationship formed on the basis of the imaginary interaction structure"[12]. Otome game players complete the plot development in the game by playing "I" and several male characters. Taking "Mr. Love: Queen's Choice" as an example, the identity of "I" in the game has gradually changed under the impetus of the cutscenes. From the very beginning, "I" as a company employee and a game character dealing with business issues to "I" and game characters saving humanity in multiple worlds. Players experience various emotional bonds such as love and friendship with game characters in the cutscenes from the first perspective. The game world unfolds from real and ordinary workplace stories, and the plot design is infinitely close to real life, allowing players to have a deeper sense of immersion. In the future, cutscenes will continue to serve the in-game narrative and promote the three-dimensional storytelling of game characters.

In addition to serving the plot, the cutscenes focus on satisfying players' imagination consumption, so as to meet the needs of different groups of people for the game world and promote the diversified development of the game.

At this stage, the classification of game types is more specific, such as strategy, card game, role-playing game, multiplayer online tactical competition, etc., and the game types are becoming more diverse. Cutscenes will be an integral part of the development of the game industry. My Time at Portia, a Chinese simulation management RPG game released in 2019, is one of the representatives. Compared with traditional farming and management games, "My Time at Portia" sets the world view in the post-apocalyptic era after the world has been set back by technology and war. While the player runs the workshop, the tasks with the NPC will trigger cutscenes, allowing the player to experience the traditional business tasks while watching the sunset and exploring technological ruins with the NPC characters.

The cutscenes support the world view of the game plot and realize the consumption of the player's imagination. However, cutscenes are somewhat different from open storylines because they are presented as independent segments, which will affect the player's imagination of the storyline. In other words, the inserted cutscenes are not the more detailed the better. "The receiving subject (audience) has a crucial position and role in the art-production link. The player attribute of the audience is reflected in its manipulative power". In "My Time at Portia", the in-game character "Ginger" originally was set to die of an illness in the fifth year, which made it difficult for some players who chose "Angel" as their wife to accept the established ending. The producer was forced to accept pressure from the main body to modify the plot. While the cutscenes explain the plot, they also limit the development of the plot. How to balance the imagination space between the production team and the players in the cutscenes is the key to the game between game manufacturers and players in the future.

Cutscene enhances the spiritual value of game products, and will release more commercial potential of IP.

Cutscenes are an important part of the business development process, and it is necessary to make rational use of cutscenes, video games and background integration. At present, games are mainly based on player consumption. Compared with direct implantation, cutscenes are in the form of "soft implantation", and players are more likely to be attracted by the plot and values of cutscenes. Take the popular game "Honor of Kings" as an example. "Honor of Kings" successively introduced cutscenes based on traditional culture, such as "Dunhuang Flying Apsaras", "Liang Zhu", and "Tengwang Pavilion Preface", which exaggerated the game's concept and IP value, and made players feel the sincerity of the manufacturer. In November 2022, "Honor of Kings" cooperated with Xinhua News Agency to release a cutscene paying tribute to China's aerospace industry, which touched the deep feelings of home and country in players' hearts. The values contained in the cutscenes give spiritual value to the direct sales products in the game and realize the spiritual satisfaction of consumers.

Cutscene is a process cultural product created by the fusion of film and games. In the future, the combination of "game IP +" will also be used for reference by other art forms, and more cultural consumer products will be derived. "The integration of movies and games has gradually become a common phenomenon in the world. From "Resident Evil", "Tomb Raider", "Marvel Spider-Man" to "Gemini Killer", from "Ready Player One" to "Death Stranding", the creative concept of integrating film and games has become the media consciousness of film and video game producers, and has also become a new "experimental field" for the film industry. "[13]

The success of the film industry has allowed game makers to replicate the experience in other art forms. In recent years, the formation of game communities has facilitated player communication and promoted the formation of game player circles. The appeal of the game itself is enough to create consumer groups. More and more game IPs and various industries are jointly developing cultural consumer products. Taking ACG games as an example, the popular game IP "Genshin Impact" under miHoYo co-branded online skins with "Alipay" and offline co-branded physical products such as "Pizza Hut" and "OnePlus Mobile" by combining the cultural and social characteristics of this type of game. The successful cases of online and offline IP operation make game manufacturers want to further diversify and develop IP value. "ACG culture is moving from subculture to mass culture. From the perspective of content production, around ACG IP, products and products, products and consumers form an interactive relationship. "Representative manufacturers such as miHoYo and HyperGryph have combined IP with art forms such as animation, film, and drama to produce a variety of cultural consumer products such as photo albums, music albums, and screenplays. In the future, consumers will have more choices in consuming cultural products based on their favorite game IP, and other art forms will also learn from the characteristics of games in the fusion.

Cutscenes form their own aesthetics in the blending and development, affecting players' thinking about individuals and society.

Cutscenes are segments of non-player interaction in a game that play a role beyond the mechanics of the game rules, and are the closest thing to an independent film in terms of art form. Early games had only the stimulation of completing the level, and lacked the continuous touch of the player's heart. Cutscenes can make the game have the same narrative function as the movie, increase the depth of the game, and is an important way to promote the game to form its own aesthetic and develop into mainstream art. In 2017, the game "What Remains of Edith Finch" won the Best Narrative Award issued by the TGA. The cutscene consists of 15 independent stories of characters. Players can experience the lives of 15 characters at once in one game. The excellent narrative and similar plots make players compare it with "One Hundred Years of Solitude" and classify it into the category of art.

In the context of the integration of film and games, game manufacturers have absorbed the essence of film narrative language and used it in cutscenes, allowing players to experience the "movie-level" visual feast in the game while intuitively feeling the game's internal operating mechanism and the rules in the virtual world. The simulation development game "Chinese Parents" because of its close to realistic game scene setting, "truly replicates the common growth experience and educational environment of young people in contemporary Chinese society. "From the outside, symbols such as "spicy sticks", "martial arts novels" and "Huang Gang test papers" are represented, gradually delving into characters such as Altman, Jay Chou and Jack Ma, as well as ceremonies represented by events such as class cadre elections, red envelope battles and face-to-face duels, and finally touching the inner core of abstract culture. ""Chinese Parents" aroused the emotional resonance of many "post-90s" and triggered the public's thinking about the family education system. Under the "Schiller-Spencer theory", the player's operational behavior during the game can be summarized as an individual aesthetic activity of "internal imitation" during the game can be summarized as an individual aesthetic activity of "internal imitation" the description of the game world and characters in some cutscenes is close to reality, and it is extremely easy to arouse players' thinking about their own behavior and society in reality.

5. Conclusions

As part of game development, "cutscenes" not only enhance the game mechanism, entertainment value and commercial appeal, but also have the potential to become independent works in the future. This will not only enhance the value of the game's intellectual property (IP), but also promote the development of game "aesthetics". "Cutscenes" will convey the spirit and values of "game" and have a certain impact on players.

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