

Games for Learning

学習ゲーム



Replaying Japan 10

August 2022, Ritsumeikan University (online) & on-site at Hotel Anteroom Kyoto

About Replaying Japan カンファレンスについて

Since 2012, when we held the first meeting in Edmonton, the Replaying Japan conference has hosted researchers from various fields conducting research on Japanese game culture. The tenth international conference will be hosted by Ritsumeikan University at the Osaka Ibaraki Campus. After a two year hiatus, we hope to have some aspects of this conference conducted on-site, with an online section for those unable to make it to Osaka. Through this conference we wish to continue to celebrate the rich and international research community interested in games and Japan that has evolved since 2012.

Replaying Japanは、各国の研究者、学生、ゲームクリエイターが一堂に会し、発表と交流を図ることを目的としています。

Replaying Japanは、2012年より、日本のゲーム文化を研究している様々な分野の研究者が参加する会議として開催されてきました。第10回目となる今回は、立命館大学大阪いばらきキャンパスとオンラインのハイブリッドで開催します。2012年以降、進化し続けてきた国際的に優れた研究者コミュニティが、この会議を通じて、より力強く発展していく機会になるものと考えています。

Conference Theme | テーマ

Games for Learning 学習ゲーム

This year's conference theme will be "Games for Learning". Games in various formats will always have a role in our society, we learn through them, about them, and in playing them. While some might see games as frivolous play, others can see the learning potential gaming can provide. In the right context, games can be a powerful learning tool for children and adults alike.

This theme has been selected to allow participants to demonstrate the broad range in which Japanese games can be used as an instrument for learning. Particular attention will therefore be paid to how learning is represented in Japanese games. Proposals that address games for learning in Japanese game culture are thus encouraged, but other topics are also welcome. This conference focuses broadly on Japanese game culture, education, and industry. It aims to bring academics, educators, and the Japanese game industry together. Academics from all perspectives are welcome, including the humanities, social sciences, business, and education. We encourage poster/demonstration proposals of games or interactive projects related to these themes.

今回のテーマは「学習ゲーム・Games for Learning」です。ゲームを通じて学び、ゲームについて学び、ゲームをする際にその内容を自然に覚えてしまうことが多い私たちにとって、ゲームは、社会の中で常に大切な役割を担ってきました。ゲームを不真面目な遊びとして評価する人もいれば、その学習における可能性に着目する人も多くいます。しかし、適切な文脈で活用すれば、ゲームは大人にとっても子供にとっても、学び(学習)のための強力なツールになります。

今回のテーマは、日本のゲームが学習ツールとして持つ多様な可能性を紹介・議論するために設定されました。もちろん、これまでと同様に、人文学・社会科学・ビジネス・教育の観点から、日本のゲーム文化・ゲーム産業など、学習とゲームに関わるもの以外にも日本とゲームの関係を扱う投稿を歓迎します。また、これらのテーマに関連したゲームやインタラクティブなプロジェクトのポスターやデモンストレーションの提案も募集します。

Organization

Replaying Japan 2022 is organized by the Ritsumeikan Center for Game Studies, in collaboration with University of Alberta (AI for Society (AI4S) signature area, the Prince Takamado Japan Centre (PTJC), and the Kule Institute for Advanced Study (KIAS)), University of Delaware, Bath Spa University, Seijoh University, University of Liège, Université du Québec à Montréal (UQAM) and DiGRA Japan.

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Keynotes

Thursday, August 25th, 9:15 – 10:15am (JST)

Clara Fernández-Vara

Associate Arts Professor at the NYU Game Center



The Tangled Roots of Japanese Detective Games

Detective games have a long tradition in Japan – from Microcabin’s Mystery House (1982), to the recent release in the west of the Famicom Detective Club titles, and the enduring appeal of the Ace Attorney series. At the core of these games remains a connection to works from North America and Europe from Agatha Christie to Erle Stanley Gardner’s Perry Mason’s novels. These games take these media texts and rework them in a Japanese context, much like honkaku novels follow the novelistic tradition of the puzzle-clue stories to find their own conventions, as well as inform the design of these games. This lecture will explore how these texts enter in dialogue with narrative design, challenging players to solve their mysteries within certain traditions of detective fiction.

Friday, August 26th, 8:00 – 9:00am (JST)

Dr. James York

Senior assistant professor, Meiji University

Games for learning (language) teaching

In this talk, I will introduce how I have taught with games over the last decade. However, in order to get there, he will first engage with the theme of the conference and look at “games for learning.” Such games will be introduced based on behaviourist and constructivist learning theories including how we may tap into community of practices for individualised learning. Games for learning are also criticised for being too reductionist. Following this, the talk will describe the research on games in language and literacy teaching contexts, the area of practice I am most familiar with. This leads to the argument that we do not really need more games for learning as we find ourselves in an “indiepocalypse.” Instead, then, I call for teacher education around games—specifically the bolstering of teachers’ ludic and pedagogical literacy. Finally, then, I show how I have taught various classes with games; from basic language skills to having an impact in society through game design.



Saturday, August 27th, 15:15 – 16:15 (JST) **On-Site and Online**

Yoshihiro Kishimoto

Level 98 gamification designer and sage-level representative of the Japan Gamification Association



Jゲーミフィケーション 日本の現状 - なぜゲーム 大国日本は、現実にはゲーム要素をもっと取り入 れないのか？

私が大学の授業にゲーミフィケーションを活用し始めたのは2011年頃からです。そして2019年からは日本ゲーミフィケーション協会の代表賢者として、広く対象を社会人に広げ、ゲーミフィケーションデザイナーの育成やゲーミフィケーション活用事例の収集を行ってる。我々は、ゲーミフィケーションを、「身の回りのことに、ゲーム要素を入れて、人を楽しくやる気にさせる」こと。身の回りのことには、仕事、勉強、家事、人生などが入る。特徴は、楽しいモチベーションメソッド。若い世代との親和性が高い。と定義した。

私は以前の29年間のゲームデザイナーの経験から、能動的な参加、達成可能な目標設定、称賛の演出など、ゲームを面白くする要素を、ゲーミフィケーションデザイン要素に転用した。

Jゲーミフィケーションとは、日本独自に進化したゲーミフィケーションとして造語した。ゲームにおいてレベル上げやコンプリート、ガチャを好む日本人には、Jゲーミフィケーションが有効である。それが活用された、ラジオ体操、回転ずしやのルーレット、お遍路、地域創生ゲームなどの事例を紹介する。

我々の目標は、「世界を神ゲー」にすることです。しかし、今までの所、日本ではゲーミフィケーションは期待したように広がらない。皆が幸せになる考え方、やり方だと考えるに、「なぜゲーム大国 日本は、現実にはゲーム要素をもっと取り入れれないのか？」について、海外の研究者の意見を聞き、議論したい。

J-Gamification and The State of Japan: Why doesn't Japan, a gaming superpower, incorporate more game elements into its reality?

I started to utilize gamification in my university classes around 2011. As of 2019, I am the representative sage of the Japan Gamification Association, and I am working to broaden the application of gamification outside of the classroom to impact people in the workforce, train gamification designers, and collect examples of gamification use. Gamification is defined as “putting game elements into everyday life such as work, study and housework to motivate people to have fun. Gamification emphasizes ‘fun’ as its primary motivational method and has a high affinity with the younger generation.”

As a former game designer with 29 years of experience, I have incorporated gamification elements, such as active participation, setting achievable goals, and rewarding effort through praise, into six elements of my gamification design. The term “J-Gamification” was coined as a distinct Japanese evolution of gamification. J-gamification is effective for Japanese people who love to play games by leveling up, completing a game, and earning gacha. We will introduce examples of games in which J-gamification has been used, such as radio gymnastics, roulette at kaiten zushi restaurants, pilgrimages, and games for regional development.

Our goal is to make the world a fun game! However, to date, gamification has not spread in Japan as we had hoped. There is a need to think about what makes people happy and how to make that happen. Why doesn't Japan, a gaming superpower, incorporate more game elements into its reality? I would like to hear the opinions of foreign researchers to discuss and explore the question of “Why doesn't Japan, a game superpower, incorporate more game elements in reality?”

Venues and interaction spaces

Aug. 25 - Aug. 27

Online (Zoom)

Aug. 27 afternoon sessions only

Online (Zoom) and Offline at

Hotel Anteroom Kyoto ホテルアンテルーム京都

Zoom (all days)

<https://ritsumeiaac-jp.zoom.us/j/91448803128?pwd=RkEzUkdHZDdRMEkvSzRzb1phNnlHOT09>

Meeting ID: 914 4880 3128

Passcode: 086260

Hotel Anteroom Kyoto | ホテルアンテルーム京都

Address

7 Aketa-cho, Higashi-Kujo,
Minami-ku, Kyoto

Access

15 minutes walk from Hachijo East
Exit of JR Kyoto Station,

8 minutes walk from Kujo Station
on Subway Karasuma Line,

18 minutes walk to Toji Temple



HOTEL
ANTEROOM
KYOTO

住所

京都府京都市南区東九条明田町7番

アクセス

JR京都駅八条東口より徒歩15分、

地下鉄烏丸線九条駅より徒歩8分、

東寺まで徒歩18分

Discord server

<https://discord.gg/sOxYfFaH>

Twitter

#replayingjapan

Schedule

| Thursday August 25th | Friday August 26th | Saturday August 27th |
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| https://ritsumei-ac-jp.zoom.us/j/91448803128?pwd=RkEzUkdHZDdRMEkvSzRzb1phNnlHQOT09 | https://ritsumei-ac-jp.zoom.us/j/91448803128?pwd=RkEzUkdHZDdRMEkvSzRzb1phNnlHQOT09 | https://ritsumei-ac-jp.zoom.us/j/91448803128?pwd=RkEzUkdHZDdRMEkvSzRzb1phNnlHQOT09 |
| Meeting ID: 914 4880 3128 Passcode: 086260 | Meeting ID: 914 4880 3128 Passcode: 086260 | Meeting ID: 914 4880 3128 Passcode: 086260 |
| JST 07:50 - 08:00 | | |
| Opening Address | | |
| JST 08:00 - 09:00 Session 1 Chair: Martin Roth | JST 08:00 - 09:00 Keynote Chair: Jeremy White | JST 08:00 - 09:00 Session 7 Chair: Ruck Thawonmas |
| 2 Antoine CHOLLET Learning the Trolley Problem Within Video Game - Case of Life is Strange 3 Mikhail FIADOTAU Between Stigma and Fetish: Gendered Portrayal of Mental Ill-Health in Menherafflesia 17 Nökkvi Jarl BJARNASON Must We Throw the Game Away? Japanese Video Games and the Tangential Learning Loop 12 James NEWMAN Fearful Harmonies: Composing (and Decomposing) the PlayStation Startup Chime | James YORK Games for learning (language) teaching | 13 Luca PANARO Modeling Medievalisms: The Medieval Video Game Reference Database 14 Lucas FRICHE Understanding and learning japanese's spatiality through video games : learning the semantic structures of Hakoniwas, or miniature gardens. 16 Kieran NOLAN Street Fighter II: Early 1990s Bootlegs and Contemporary Homebrews for Retro Platforms 1 Ingunn Sara ÍVARSDÓTTIR Productive Puzzles for (Game)Play: Discovering Japanese Survival Horror's Digital Jigsaw Puzzles and Fragmented Fiction in Capcom's Resident Evil 23 Liwei HAO (lightning) Text mining analysis of the public opinion storm formed in BBS when the Genshin Impact's playable character was weakened |

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| <p>JST 09:15 - 10:15 Keynote Chair: Jeremy White</p> <p>Clara FERNÁNDEZ-VARA The Tangled Roots of Japanese Detective Games</p> | <p>JST 09:15 - 10:15 Session 4 Chair: Akinori Nakamura</p> <p>4 Izsak BARNETTE Sex, Lies, and Video Games: Nintendo's Increasing Sexualization in the United States, 1996-2006</p> <p>5 Andrea MARIUCCI Just a bunch of nerds - a private/public history of hobby imports of Japanese digital games to Italy</p> <p>6 Edmond (Edo) ERNEST DIT ALBAN Unlearning Queerness in Japanese Games: The Space of LGBTQ+ Gaming as a Method</p> <p>7 Ryan SCHEIDING Learning About Yokai with Video Games : Nioh 2 as a Cross-Cultural Learning Tool for Japanese Folklor</p> | <p>JST 09:15 - 10:15 Session 8 Chair: Shuji Watanabe</p> <p>8 Geoffrey ROCKWELL, Keiji AMANO, Tsugumi OKABE Educational Initiatives and CSR in Japanese Game Companies</p> <p>9 Gregory BLOMQUIST Wild MEWTWO appeared! A Transmedia Character Study of Pokémon</p> <p>10 Gregory WHISTANCE-SMITH Framing American Space: Everyday Brutality in No More Heroes</p> <p>11 Elizabeth B. SAFRAN, Peter DRAKE, Erik NILSEN, Bryan SEBOK Rehearsing Disaster: Can Video Games Help Young Adults Prepare for Earthquakes?</p> |
| <p>JST 10:30 - 11:30 Session 2 Chair: Jeremy White</p> <p>25 Vincenzo IDONE CASSONE The game-place of games: the representation of Japanese game centres in fictional media</p> <p>26 Jessy ESCANDE Compiling, connecting, transforming: On the role of fantasy bestiaries in the transmedial diffusion and appropriation of foreign imaginaries in Japan</p> <p>28 Keita MOORE Youth and Consequences: Decoding the Politics of Domestic Space and Home Consoles in the early 1980s</p> <p>33 Masato OSORA Development and review of a game-based training program that contributes to the formation of a work-life balance for business people</p> | <p>JST 10:30 - 11:30 Session 5 Chair: Shinya Saito</p> <p>31 Mark R. BOOKMAN Empowerment and Exclusion: On Virtual Reality and Disability in Contemporary Japan</p> <p>36 Youichiro MIYAKE, Shinpei SAKATA A Project for Salvaging Game Development Materials in Game Industry</p> <p>24 Hiroyasu KATO (Lightning) Life Story of Game Disorder Experience</p> <p>19 Akira IGARASHI, Yuhstake KOYAMA, Ema TANAKA An Analysis of Factors Contributing to the Outflow of Game Players from Nico Nico Douga</p> | |
| | Participants Lunch | |

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|---|--|---|
| <p>JST 14:00 - 15:00 Session 3 Chair: Akito Inoue</p> <p>20 Atsuo NAKAYAMA Play to earn/Play to gain—How Blockchain game 2021's expansion synchronize with Social game 2010's expansion</p> <p>21 Leyi CHEN A Study on Customer Cost of Chinese Users in MOBA In-Game Social Behavior - Taking the Chinese smartphone game "Honor Of Kings" as an example</p> <p>27 Jh SHIN, Mitsuyuki INABA A study on promoting cross-cultural understanding among elementary school students through digital game-based learning using Minecraft</p> <p>30 Yishuang LI The Formation and Development of Nijigen Games in the Chinese Smartphone Game Market</p> | <p>JST 14:00 - 15:00 Session 6 Chair: Jeremy White</p> <p>32 Martin ROTH Learning to live with uncertainty. Animal Crossing related YouTube videos as a space of comfort in times of Covid</p> <p>35 Shunsuke MUKAE Don't Be Serious!—Towards Resurrection of Vice and Corruption of Gaming</p> <p>38 Seiki OKUDE, Ryogo NAGAO, Akinori (Aki) NAKAMURA (Lightning) Interim Report on the Development of VR Showa System Using Unreal Engine 4</p> <p>29 Kuan CHEN, Yusuke KOYAMA Investigation of Japanese Social Games Management on Twitter Account: Finding the Optimal Solution</p> | <p>JST 14:00 - 15:00 POSTER SESSION Chair: Martin Roth</p> <p>15 Sylwester MATKOWSKI Transformative learning through video games: constructing images about Japanese men by Western gamer audience</p> <p>18 Zhiqing YE An exploratory study on second language learning practices in Chinese gamers' narrative-based gaming activities</p> <p>22 Elina KOSKINEN, Joleen BLOM The Branding of Japanese Food in the Yakuza series</p> <p>34 Riku OKADA, Shinya SAITO 3DCG spatial representation with partial scaling in response to viewpoint movement operations</p> <p>39 Ayane HASEGAWA, Shinya SAITO An Exploratory Research on Game Design that Supports Operation with Sound: Considering Production Process Through the Development of Videogame for Investigation</p> |
| | | <p>JST 15:15 - 16:15 Keynote Chair: Akinori Nakamura</p> |
| 33 | | <p>Yoshihiro KISHIMOTO</p> <p>Jゲーミフィケーション 日本の現状 -なぜゲーム大国日本は、現実にはゲーム要素をもっと取り入れないのか？</p> <p>J-Gamification and The State of Japan: Why doesn't Japan, a gaming superpower, incorporate more game elements into its reality?</p> |
| | | <p>JST 16:15 - 16:25</p> |
| | | <p>Closing</p> |

Abstracts

Session 1

Learning the Trolley Problem Within Video Game: Case of Life is Strange

Antoine CHOLLET

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Abstract

Developed by a French company named Dontnod Entertainment and edited by Square Enix, the one of world leader company of Japanese video games in 2015, Life is Strange illustrate the Trolley Problem proposed by Philippa Foot in 1967. Before, in the 1950, the Prisoner's Dilemma represented an other and famous example of game theory formalized by Albert Tucker to observe the processes of decision-making and the rationality of the individual.

Today, within Life is Strange, a narrative video game, the player meets Maxine Caulfield, the main character of the history. The main mechanics of the game are based on the concept of choice and more precisely of dilemma. Indeed, throughout the video game, the player is confronted with choices that will put him in front of several possibilities, sometimes all of them detrimental, sometimes all of them advantageous. Unfortunately, only one choice can be made. Based on previous literature studies on video game like Julian Alvarez and Damien Djaouti, the choice is one of seven fundamentals mechanics to characterize a video game. Thus, Life is Strange was popularized by this simple but essential mechanic of the choice to the players. Moreover, the game gives some statistics about choices of all players at the end of each chapter for a comparison.

Therefore, If a player takes the time to analyze his choices, he will be able to become aware of the difficulty of decision-making, which represents a managerial skill found in the professional world. Several aspects can be analyzed such as the emotions felt by the player, the decision factors or the consequences expected after the choice. In addition, decision-making makes it possible to address problem solving, trust, emotional intelligence or empathy, the first four managerial skills identified by the World Economic Forum in the professions of the 21st century. So, Life is Strange can offer a playful environment to experience situations of uncertainty where only choice can move a situation forward. This communication proposes to identify the key factors of success resulting from the game design of Life is Strange bringing a situation of the Trolley Problem in comparison with professional situations which can be lived.

Between Stigma and Fetish: Gendered Portrayal of Mental Ill-Health in *Menherafflesia*

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Keywords: Mental health, menhera, popular culture, media studies

Abstract

Mental ill-health has often been subject to stigmatization in society — a reality which depictions of mentally unwell characters in popular culture both reflect and perpetuate. This is especially evident in the horror genre, where the horror element often derives from using mental institutions as settings and apparently mentally ill characters as villains, reinforcing the perception of mental ill-health as dangerous (Wilson et al. 1999).

In Japan, where discussing mental health remains something of a taboo (Ando et al. 2013), traits and consequences associated with mental ill-health, such as self-harm and suicide, have often found their way into manga, anime, and videogame narratives without the underlying issue of mental health being acknowledged. This has been gradually changing since *menhera* — a slang term denoting characters with mental illness — entered the popular imaginary around 2014 (Seko and Kikuchi 2022).

Research into the use of *menhera* characters in popular culture — and their implications for popular discourse around mental health in Japan — is still scarce, with no dedicated studies on videogames that the author has been able to identify. This is a lacuna the present paper aims to address based on a close reading (Bizzocchi and Tanenbaum 2011) of one of the earliest Japanese games to expressly feature *menhera* characters.

Menherafflesia is a 2017 horror dating sim by dōjin creator Charon. (The game was recently remastered and released on mainstream distribution platforms such as Steam and Nintendo Store.) In the game, the male protagonist can choose to pursue one of five female *menhera* characters, each with her own mental health struggles. Much like in other dating sims, player choices in pursuing each heroine may result in a bad ending (involving in her and/or the protagonist's death) or a “good ending,” which (in a subversion of genre conventions) is usually not much better.

While some issues raised by the game, such as trauma and self-harm, are legitimate concerns affecting those struggling with mental health; all of its female romantic interests fall into the “dangerous lunatic” trope, being ultimately revealed to be stalkers, serious killers, etc. The game's portrayal of the *menhera* archetype is also markedly gendered (as it is in most pop culture works), building on older tropes of female neuroticism and obsessiveness and reflecting cultural anxieties about female agency and sexuality (Zárate and Fontao 2021). Similarly to other *menhera*-themed works, *Menherafflesia* pathologizes its mentally unwell female characters as dangerous and violent, while at the same time fetishizing them as objects of desire. The horror element of the game derives from this ultimately irresolvable tension between repulsion and attraction, danger and desire.

Menherafflesia demonstrates that, while the fact that reflections on mental health are becoming more prominent in videogames is encouraging, the way mentally unwell characters are depicted and fetishized remains deeply problematic. The paper concludes by discussing the implications of the *menhera* phenomenon for horror games in Japan and reflecting on what interactive *menhera* portrayals may imply for the country's popular discourse around mental health.

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Must We Throw the Game Away? Japanese Video Games and the Tangential Learning Loop

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Keywords: Tangential learning, game-based learning, Japanese video games, video game education

Abstract

When it comes to video games and learning, there exists a growing body of literature dedicated to exploring the place of video games in education and what forms game-based learning might take (Gee, 2003; Plass, Mayer, & Homer, 2019); one prospective avenue of study being that of “tangential learning”. Tangential learning has been defined as the process by which learners self-educate on a given topic after having been exposed to it in a context they already enjoy (Floyd, D., and Portnow, J., 2008)—the learner going on a tangent by exploring materials external to the experience that inspired the original line of inquiry. One possible example of this might be players of the historically inspired Civilization series (1991–2016), turning to books or other sources to educate themselves on the cultures and leaders featured in the games. In doing so they increase their knowledge of something by virtue of having been exposed to it in a context they already found amicable. However, seeing as video games might readily be conceptualized as only a stepping stone in the tangential learning process; the question remains whether the tangential utility of video games is solely transitory, and whether they must be discarded, so to speak, after they have served their purpose.

Looking at tangential learning opportunities in relation to learning about Japan through Japanese video games, this paper examines how video games can serve as continual sources for tangential learning, as opposed to motivating yet ultimately misguided starting points the learner must overcome—effectively discrediting the implication of their tangential utility being wholly transitory. It proposes the “tangential learning loop” as a framework to describe how video games not only generate and maintain interest but also how they can facilitate further learning after tangential learning has commenced—the concept of the loop indicating a meaningful back and forth between video games and external study materials. The possibility of such a framework is preferable to a complete divide between tangential learning and other forms of game-based learning, since in such cases as it is applicable; game-based learning can be said to be informed by tangential concerns and vice versa.

By introducing the notion of the loop, this paper expands on the concept of tangential learning, contributing to the term’s conceptual matrix by helping to further define its epistemological boundaries. Moreover, it should be noted that the notion of the loop is particularly relevant to the study of Japan through video games since it challenges assumptions that have resulted in many learners having been actively discouraged from learning about Japan through popular media out of fear they might provide a distorted picture of Japan. Such concerns are not without merit, but as will be seen, they can be dispelled by a well-developed understanding of Japan and Japanese studies, that helps learners contextualize their experiences productively, and to situate video games within the country’s cultural landscape in a meaningful way.

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Fearful Harmonies: Composing (and Decomposing) the PlayStation Startup Chime

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Keywords :PlayStation, ludomusicology, platform studies, glitches

Abstract

There has been much scholarship concerned with videogame ‘platforms’ with important work such as Therrien (2019), Montfort and Bogost (2009) and especially Altice (2015) drawing attention to the role of hardware and software in shaping the distinctive sonic identity of systems. However, where this existing work tends to concentrate on the implementation of in-game sound, this paper seeks to move forward by rewinding in order to focus on perhaps the most iconic, identifiable and most oft-heard sound of a gaming platform – the system startup chime.

The particular focus here centres on the Sony PlayStation (1994) boot sound created by Takafumi Fujisawa (Cork 2019a). The paper begins with an analysis of the design and function of the sound. This might be presumed to stream from the CD-ROM drive so typically understood as a defining feature of the PlayStation platform. However, the sound is actually the product of a highly complex, highly efficient combination of code and composition that is performed in real time using a custom sequencer and three extremely short samples stored in the PlayStation’s BIOS[1]. In addition to providing the PlayStation with an immediately recognisable sonic fingerprint and acting as an anticipatory cue for the forthcoming gameplay, the sound also has important communicative and diagnostic functions that are signalled by the playback of different audio elements in specific sequences (Cork 2019b). Just as crucial is the potentially agonising pause as the PlayStation performs disc region, readability and compatibility checks and exercises its inestimable power as the gatekeeper of gameplay.

The paper concludes by exploring the ‘afterlife’ (Guins 2014) of the PlayStation startup sequence and how recent player/hacker practices have transformed it into an unexpectedly creative site of audiovisual expression and experimentation. With specific configurations of glitched startup sounds documented, codified and given hauntingly evocative names such as ‘Personified Fear’ and ‘Fearful Harmony’ (Laundry 2018) perhaps recalling the dreaded possibility of startup failure, these re/de- compositions are the result of the injection of malformed data into the PlayStation BIOS and the deliberate and playful use of incompatible or damaged discs.

Notes

[1] The BIOS (Basic Input/Output System) is firmware that, among other things, undertakes hardware checks and initialisations during system startup. The BIOS is stored in non-volatile memory on a chip on the console motherboard and is the first software to run when the system is powered on. Being part of the console BIOS, the PlayStation’s audiovisual startup sequence does not require a game disc and precedes gameplay temporally, computationally and procedurally.

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Session 2

The game-place of games: the representation of Japanese game centres in fictional media

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Keywords: Arcade Centers, *Shenmue*, *Yakuza*, remediation, cultural ludicisation.

Short Abstract

The paper focus on the representation of game centers in Japanese video games and other entertainment media, as part of a broader research project on the representation of the boundaries of play in the Japanese mediascape. It will compare and discuss the arcade centers depicted in popular videogame series (*Shenmue*, *Yakuza*) and manga/anime (*Game Center Arashi*, *hi-score Girl*).

Long Abstract

The inception and development of Japanese game centres can be considered a paradigmatic element of the global history of videogames (Ashcraft 2008), connected to the evolution of game systems (arcades, home consoles) and the transformation of play contexts (theme parks, entertainment districts, arcade venues) taking place since the '70s in Japan (Picard and Pelletier-Gagnon 2015).

Beyond their undeniable historical importance, game centres are at the crossroads of a process of *cultural ludicisation*, a complex transformation in the sociocultural frames of Play (Idone Cassone 2020), which involve not simply the change in play contexts, boundaries and technologies, but also its sociocultural rhetorics, evaluation and collective norms. At the crossroad between public and private, time-bounded and autonomous, solitaire and collective experiences, game centres reframe many of the traditional demarcation of ludic activities, shifting between what Turner (1982) calls *liminoid* function of play (confined and marginal) to a *liminal* one (recognised, transformative and autonomous spaces), in a preliminary form of cultural acceptance.

The proposal for Replaying Japan 2022 is part of a broader in-progress research funded by the Japanese Society for The Promotion of Science (JSPS), dedicated to the analysis of the Japanese dynamics that contributed to the global sociocultural reframing of Play. In the presentation, I will focus on a specific facet of game centres: their representation within other media, and the ways in which game centres are showed and depicted in manga, anime and videogames, in relation to the transforming boundaries of Play and to game-based media-mix practices (Steinberg 2015).

The selected case studies for the analysis include the manga/anime *Game Center Arashi* (1978-84, Coro Coro comics) and *Hi-Score girl* (2010-2018, Monthly Big Gangan), and the videogames *Shenmue* (1999, Sega Am2), *Yakuza* (2005, Sega NE R&D) and *Yakuza 0* (2015, Ryu ga Gotoku studio).

Through the analysis of the representation of game centres, I plan to investigate the representation of these spaces and their ludic activities, as well as their interaction with the urban landscape (Covatta 2017), peculiarities of these playscapes in Japanese culture (Daliot-bul 2009 and 2014, Hutchinson 2011), their spatial function as liminal/limonoid spaces (Turner 1982), and the emerging mindsets and rhetorics connected to the rise of autonomous spaces for play.

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Compiling, connecting, transforming: On the role of fantasy bestiaries in the transmedial diffusion and appropriation of foreign imaginaries in Japan

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Keywords: Fantasy, Character design, Cultural reception, Database consumption, Cultural transfers.

Abstract

In recent years, Japanese fantasy has enjoyed unprecedented popularity across media, domestically and globally. Fantasy worlds that use a simulacrum of the European Middle Ages as a base (although borrowing from many cultural areas and time periods) are the de facto standard for Japanese fantasy for depicting secondary worlds, be it in manga, novels, animation, or video games. Using distant foreign cultures mythologies, folklore, or religions as the basis for a country's own fantasy works to such an extent is idiosyncratic to Japan.

Taking an interest in the aforementioned phenomenon inevitably leads to a consideration of games, first foreign and then local, specifically those that belong to the role-playing genre, beginning with tabletop role-playing games (thereafter TRPGs) and then video games. While in the West TRPGs were first established on a substrate of fantasy literature (Peterson 2012, chap. 2.1 The Evolution of Fantasy), itself based on mythologies, folklores, religions, or anterior literary works close to the authors (Clute and Grant 1999), the specific trend of fantasy currently dominating Japanese popular culture was, in an inverse dynamic, established on the substrate of the aforementioned games (Kamm 2020, 50; Takahashi 2004, 33–34).

Although direct reception of foreign games (Western TRPGs and their digital offshoots—computer role-playing games), as well as the broader popularization of the RPG genre through the development of Japanese games has been the primary channel, another intermediary has been vital to the diffusion and transformation of the vast sum of knowledge transferred across cultural areas and time to feed contemporary Japanese fantasy until it grew into its current incarnation. These vehicles of cultural items are fantasy dictionaries, especially of the bestiary kind.

In this paper, I will focus on the history and lasting impact of these intermediaries, especially during the foundational period of the eighties. By locating the roots of Japanese fantasy dictionaries in both natural history from European antiquity onward and Western game design practices from the seventies onward, I will exemplify the importance of the complex network of transfers and transformations they are part of, and which spans the globe and near two thousand years¹.

Presently, Japanese creators and consumers are equipped with an impressive knowledge regarding foreign motifs rooted in various distant lores in the context of fantasy worlds; however, this has not always been the case. In recent years, the currently popular Japanese fantasy that relies on such a vast aggregate of worldwide motifs has been defined as database fantasy (Escande 2021), and the cultural reception of several said motifs were the subject of case studies even before the genre was defined (Date 2013; Shimokusu 2016). These studies points to games being central to the diffusion of the analysed foreign motifs diffusion and transformation but often fail to recognize the

¹ Pliny the Elder's *Naturalis historia* (AD 77) is one of such roots, and fed both directly and indirectly early Western TRPGs and Japanese games bestiaries.

role played by fantasy bestiaries. These cemented the budding database of knowledge that was originally foreign and which is now widely internalized and appropriated in Japanese popular culture.

Such bestiaries encompass not only foreign books that were often used by Western game creators, such as Borges's *Book of Imaginary Beings* (1974) or TRPG guidebooks—such as *Dungeons & Dragons's* various *Monster Manuals*²—but also Japanese fantasy dictionaries written directly in reaction to the TRPG and RPG booms of the 80s, such as *RPG Fantasy Encyclopedia* (Hayakawa 1986) or *Dwellers of Fantasy Worlds* (Takerube and Kaiheita 1988). These books, first written to compile knowledge on motifs used in RPGs, were subsequently used as reference material by many creators across media. This study will explore the foundational role of fantasy bestiaries in wider cultural reception processes that gave birth to unique Japanese fantasy genres.

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² At the time very few reference materials on the European Middle Ages and related topics were available in Japanese, and translated TRPG materials were often used instead by creators (Morise 2019, 129). This participated in the further removal from historicity of Japanese fantasy, even compared to Western neomedievalist titles.

Youth and Consequences: Decoding the Politics of Children's Domestic Time and the Nintendo Famicon in the 1980s

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Keywords: *Famicon*, parental and designer discourse, social criticism, social history

Short abstract

This paper explores the frictions around early domestic gaming through a discursive analysis of the Nintendo *Famicon* and its broader social reception in Japan. It argues that the platform entered the adult imaginary along *temporal* lines drawn by developmental psychology, education, and social criticism around the overdetermined conception of children's time. This temporal apprehension of domestic digital play became a site for discussions around the notion of play, the larger disciplinary network around children, and the disposition of children's subjectivities.

Long abstract

In the 1980s, what forms of friction ensued as digital games moved from the public space of arcades into domestic space? This paper explores this question through a discursive analysis of the Nintendo *Famicon* and its broader social reception in Japan. It argues that the platform entered the adult imaginary along *temporal* lines drawn by developmental psychology, education, and social criticism around the overdetermined conception of children's time. This temporal apprehension of domestic digital play thus became a site for discussions around the notion of play, the larger disciplinary network around children, and the disposition of children's subjectivities.

Time animated early designers' discussions around digital play. Itoi Shigesato (1987), for instance, praised *Dragon Quest* precisely because it did not demand the player's constant attention; rather, the classic RPG allowed the player to come and go. Tajiri Satoshi (1987), too, noted that the game design of *Super Mario Brothers*, with its short levels, fit the busy schedules of players, who could play for brief stints of several minutes without needing to clear their days. Uemura Masayuki (2013), designer of the *Famicon*, later argued that its ability to provide play on an on-demand basis explained its popularity to children in the 1980s. In a sense, then, these early designers associated with Nintendo publicly put forth a view of domestic digital play characterized by its ability to match the demands and busy schedules of everyday lifestyles; that is, a view of play in harmony with the disposition of everyday time.

However, social actors ranging from educational psychologists to educators and parents viewed the *Famicon* as desynchronizing children from their increasingly busy lifestyles. Building on Andea Gevurtz Arai's (2016) notion of the "strange child" in the Japanese 1990s as a locus for neoliberal anxiety, I argue that the *Famicon* gave birth to the discursive figure of the obsessively playing child. Much like in the following decade, this figure found itself lost within digital play that was far outside of normative children's developmental time; that is, the prescribed "stages" of their lives that would lead to academic and professional success (see Allison 2006; Edwards 2017). Popular psychology weighted analogue, outdoors, and social play with the responsibility of cultivating children's self-reliance and autonomy at an early point in this developmental chronology (Funabashi 1986, Fukaya 1986, Tominaga et. al 1987). From this perspective, *Famicon* play was viewed as a "dried up" form of play; that is, play that was incapable of instilling these values into young players.

The discursive situation of digital play within developmental time, however, was not only a tactic among *Famicon* detractors. Rather, a number of commentators saw the *Famicon*'s inclusion in children's early life as cultivating their computer literacy, an essential skill in the coming information age. Moreover, contemporary social critics also lauded digital play precisely because it lay outside of the adult engineering of children's time. Serizawa Shunsuke (1991), for example, saw the *Famicon* as a final bastion of children's agency within a "control society" (*kanri shakai*). Saito Jiro (1987), likewise, viewed digital games as invigorating children's collective imagination beyond the disciplinary gaze of adults. Moreover, Saito suggests that children's play practices of *subverting* adult authority in fact underscored the autonomy that educators, psychologists, and parents worried their offspring lacked.

These debates ultimately demonstrate that digital play as a function of time drew together designers' sense of keeping to schedules, parental and educational concern over children's proper development, and social critics' concerns over the increasing adult intervention into children's lifestyles. Within this matrix, the obsessive playing child became a different symbol to each discursive position: a strange player, a social problem, and a social symptom, respectively. Thus, this research suggests that temporality itself played a central role within the larger politics around early digital play in Japan.

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Development and review of a game-based training program that contributes to the formation of a work-life balance for business people

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Abstract

Death from overwork is a major social problem in modern Japan. To solve this problem, it is essential to improve long working hours and promote work-life balance, but there are limits to approaches at the institutional and legal levels. Therefore, as an individual-level approach, Hoshino (2019) conducted work with the "Life Career Rainbow (Super, 1951)", a holistic frame of reference for life, and found that it had a certain effect on subjects' awareness of their future and self, self-affirmation, and self-acceptance. However, this is only a monolithic view of the past, present, and future, and does not consider complex and unpredictable real-life events. In other words, it remains in the category of unrealistic frameworks. Therefore, this study attempted to create new learning opportunities for businesspeople to think about their own work-life balance. More specifically, it refers to career design training in corporate education. This study describes the creation and examination of "Career Maker", a career design training program aimed at building a life plan based on work-life balance.

《Overview of Career Maker》

"Career Maker" is a game in which players compete against each other to achieve a goal they set by themselves. In the game, players spend five years in an alternate world that closely resembles reality. First, the player creates career parameters for each of his/her life roles (work, family, leisure, and health) in relation to the current situation and five years from now. Then, to bridge the gap between the two parameters, the participants make decisions among three or two options for a total of 15 events and fluctuate the parameters at hand in order to achieve the ideal state they initially set out to achieve. The program also includes lectures. It is a game-type training program that provides practical learning opportunities.



Figure 1

Six male and female first-year graduates were then administered this program. Questionnaire surveys and interviews were conducted to empirically analyze "changes in career views due to the training and the factors contributing to these changes" and "satisfaction with the game itself". The results showed that career interest, autonomy, and planning increased, and that the game provided a good opportunity for each person to consider the relationship and priorities of his or her own life role. Furthermore, the game itself was highly satisfying, proving to some extent its effectiveness as a training program.

On the other hand, in this experiment, the game faced difficulties in being conducted due to the "Covid-19" pandemic. Originally, this game is a solo game to achieve one's own goals, and therefore, there are fewer opportunities to communicate with others unless the game is played face-to-face. While there is fun and interactivity that only face-to-face play can provide, it would still be necessary to bring the game online to live with "Covid-19" in the future. In order to proceed with this, two main issues need to be considered: how the game is presented and how the rules are changed, and these issues will be addressed in the future.

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Session 3

Play to earn/Play to gain—How Blockchain game 2021's expansion synchronize with Social game 2010's expansion

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Abstract

This paper is for analyzing how global blockchain game evolves from “My Crypto Heros” in 2018 to “Axie Infinity” in 2021, which has shown skyrocketed growth in the number of users and also the investments, finally resulted in +10000% market size grown in 1 year from 2020 to 2021. This analysis will give us deeper insights when I, who actually engaged in social game penetration boom of 2010 as a marketer in DeNA mobage platform, compare those with the recent blockchain trend.

The analysis should be based on the multiple angles; users perception toward new “play”, number of users actually engaged, market size absorbed users’ consumption, suppliers perspective to prospect their each own profit, existed tradition game market players who wavered to engage in the new market, the balance between users’ satisfaction and suppliers’ investment, so on and so forth.

As it used to be when social game emerged, the new trending phenomenon have never been studied properly from academic researchers because the data and the materials to study won’t be accessible for those outsiders in early stages. This is the very reason why I need to study and share this field because I have been one of the industrial players in social game 10 years ago and also in block chain game recently.

To state the conclusion in short here, initial users joined social game market and block chain game market are similar in the some part and different in another part. Advanced users, who always want to take advantage to the others, have often taken the “driver” role in early stage game industry and we can find those type of users in the both market. However, the distinctive difference of those two markets’ users are their goals. Initial users in social game market in 2010 pursued winning, taking upper position, and finally the sense of self-esteem. Those in block chain game, however, divides to two tribes; the one to fill those social desire and the another to pursue further ROI regardless of whether they themselves play the game or let others to play the game.

The findings of the commonality and the differences between social games’ growth and block chain games’ growth will lead us to assess how gaming industry evolves to the future.

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A Study on Customer Cost of Chinese Users in MOBA In-Game Social Behavior - Taking the Chinese smartphone game "Honor Of Kings" as an example

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Keywords: Customer cost, Chinese users, MOBA game, Social behavior

Abstract

Taking "Honor of Kings", a rare and shocking smartphone game in China, as an example, this study aims at the problem of its weakening user viscosity and wants to identify each of the costs that were critically affected by continuous use behavior for users at each stage of the game. We would also like to explore the position of the costs in the in-game social behavior in particular.

1. Context

Now, social media has changed our social methods, with lower costs compared to real life and users gaining a wider network of contacts. That said, the costs that come with the Internet are still a major issue for users and should not be underestimated.

1.1 The state quo of Chinese SNS market

China now has a huge social networking market: according to Datareportal's article "DIGITAL 2021: CHINA" published in February 2021, mobile phone use of social media is 930.4 million people, a percentage of 100%.

In China, various SNS applications have become popular in recent years, and "social games," which are online games using SNS as a platform, have also become a hot topic. MOBA games are among these, and as group cooperation games, the development of in-game social behavior is attracting attention.

1.1.1 The social game called "Honor Of Kings"

"Honor Of Kings" is a free-to-play basic smartphone game developed by Tencent Timi Studio and provided to Tencent Games, which was released in the Chinese market on November 26, 2015. It refers to a style of game in which players are divided into two teams and aim to win by destroying the enemy team's stronghold while cooperating with allied players. The game is a multiplayer online battle arena (MOBA), a team strategy game.

There are differences between the Japanese version of "Densetu Taiketu -ARENA OF VALOR-" or the overseas version of "ARENA OF VALOR" in terms of hero design/class gold format and the local Chinese version. This study is centered on "WANGZHERONGYAO", which is a phenomenal mobile game in China, so the English name of the Chinese version of "WANGZHERONGYAO", "HONOR OF KINGS", will be used in the following.

Although "Honor Of Kings" still ranks first in China's game rankings in terms of total downloads at this time, the search index on Baidu, one of China's largest search engines, peaked in June-July 2017, and has been trending downward overall since then. In other words, the outlook is for user stickiness to weaken.

2 Customer Cost for In-game Social Activities

2.1 Kotler's "customer perceived value" formula

Kotler (2001) proposed the theory that "customer perceived value" = "total customer value" - "total customer cost". The concept of "total customer cost" in this context is the total cost estimated by customers in the process of evaluating, acquiring, using, and disposing of the goods and services offered. Generally, "cost" refers to the cost of producing a thing, but "customer cost" in Kotler's formula includes additional time cost, psychological cost, and energy cost in addition to monetary cost. Kotler states that the greater the difference between total customer value

minus total customer cost, the greater the value perceived by the customer. In other words, the greater the customer's willingness to purchase.(see figure 1)

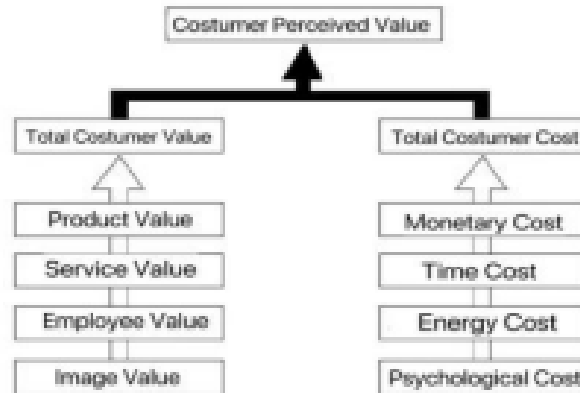


Figure 1: The content of Kotler's "customer perceived value" formula

2.2 Research Objectives

Using Kotler's "customer perceived value" formula to the category of social games, we would like to show that what exactly we mean by costs that affect users' willingness to use the game at each stage in this paper. Furthermore, we would like to explore in this study whether the costs created by in-game social behavior can be a decisive factor that negatively affected users' continued usage behavior.

By clarifying the position of the customer costs born from social behavior in the user's continuous use behavior, we will strive to provide developers with a more multidimensional viewpoint when other MOBA games are developed and maintained in the future.

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A study on promoting cross-cultural understanding among elementary school students through digital game-based learning using Minecraft

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Keywords: Digital game-based learning, Minecraft, traditional Japanese culture, elementary school students

Abstract

In this study, we explore digital game-based learning practices that enable South Korean elementary school students to actively acquire and implement knowledge to create traditional Japanese cultural objects while playing a game. We used the game Minecraft (Mojang 2011) to offer a sandbox-type game environment that allows students to actively participate in developing personal creations. In order to facilitate their acquisition of cultural knowledge and their creative engagement, Ukiyo-e paintings were utilized as starting and reference points. Through this research, we investigated how students gained experience and knowledge in the virtual environment. Furthermore, we wanted to observe how they interacted with Minecraft to develop their ideas and skills while constructing their objects. Overall, we found that using Minecraft as a learning environment shows great potential in helping students develop knowledge of new and/or unfamiliar content.

1. Introduction

Digital game-based learning (DGBL) has been attracting attention from researchers. Exploring methods to offer new learning environment opportunities has inspired researchers to use digital games in education (Gee, 2007; Prensky, 2007; Øygardslia et al., 2020; Wi et al., 2009). Furthermore, based on other extant studies, there is a strong possibility of promoting multicultural learning, visuospatial awareness, and situational analysis among players mediated by the virtual world or the 3D metaverse (Inaba et al., 2015; Kim and Kim, 2022; Shadiev, Wang, and Huang, 2021).

We hypothesized that active learning about diverse cultural knowledge would occur in the process of creating a sandbox-type virtual world. Consequently, in this study, we clarify the kind of cultural learning that occurs while constructing content related to a culture different from one's own culture in the virtual world.

Therefore, we elucidate the results of a study using Minecraft, one of the most popular sandbox virtual world games often used for learning and education. While DGBL using Minecraft has been discussed in school education, including science, language, and math, its application in other fields, such as culture, should be explored. In this research, we mainly employed a qualitative approach for data collection and analysis to investigate how players learn about and engage with the process of creating historical objects with respect to traditional Japanese culture in *Minecraft*.

2. Background

2.1 Minecraft and learning

As previously mentioned, *Minecraft* is a popular game among young players, even among other widely used smartphone games or handheld console games, such as Roblox (Roblox Corporation 2012). The main appeal of *Minecraft* is that it features an open world and a creative mode that allows players to explore and create objects without limitations. *Minecraft* has been recognized by parents and educators because of its demonstrated potential in the educational field for formal and informal learning. From a DGBL perspective, *Minecraft* presents many opportunities for research, as the software can be used across various subjects in many countries. Ramón and Saez-Lopez (2015) demonstrated that using *Minecraft* could promote player creativity and help players develop critical thinking skills, such as problem-solving. Kening and Heun (2017) suggested using *Minecraft* in history

education to promote students' interest and engagement in traditional culture and history. Furthermore, *Minecraft* offers a constructive learning environment where users can dynamically interact with the game's world and enhance their creativity and learning processes (Brand et al., 2014; Schifter and Cipollone, 2015). Using games such as *Minecraft* would be the ideal environment for young students to acquire knowledge about historical and cultural topics that may not be actively taught in school while developing their cognitive skills. Finding a learning environment, such as an open-world sandbox environment where users are allowed to exercise their creativity and build personal worlds, would be ideal for cultivating this type of knowledge.

2.2 Japanese traditional culture and “Ukiyo-e”

Japanese and South Korean popular culture have spread and been widely accepted over the past two decades. They have interacted and influenced each other through games, music, animations, manga, and other content. Consequently, young generations in Japan and South Korea are familiar with each other's cultural media. These bidirectional influences found in both cultures are not limited to contemporary culture alone. However, as far back as traditional Japanese culture goes, the young South Korean population are not as familiar with it. One example is “Ukiyo-e,” a renowned Japanese traditional painting that shows similar characteristics with South Korean traditional paintings done in the “Minhwa” (Korean folk painting) style. Through “Ukiyo-e,” we can observe the quintessential lifestyle, traditional manners, and architectural traits of the Edo era. All these aspects represent traditional Japanese culture and are valuable components for cultivating learners' knowledge. As such, we decided to introduce the characteristics and aspects of “Ukiyo-e” using *Minecraft* to help young students learn about Japanese traditional culture and bolster their creativity. Particularly, the scope of the current iteration of this project features South Korean elementary students, as our target learners, working in *Minecraft* to actively engage with “Ukiyo-e” and traditional Japanese style architecture.

3. Method and Participants

The study was conducted with five elementary school students from South Korea. The participants included fifth- and sixth-grade students (two boys and three girls) who all had experience playing *Minecraft*. Two students reported that they often played PC games, such as *Minecraft*, but the other three preferred playing mobile games over PC games. Overall, all the students gamed regularly at home to communicate with other friends and often used a computer or smartphone to do homework.

For our experiment, all processes were conducted through Zoom and recorded. The experiment spanned from January 14 to February 13, 2022. Each student was given instructions and guidelines and guided through the Zoom setup and *Minecraft*'s basic controls using keyboard shortcuts. One participant reported that she often played different platforms' versions of *Minecraft* but was unfamiliar with the PC version. However, it took only a few minutes for her to get used to the process and gameplay. Once we began the experiment, we introduced the topic to all the students. Subsequently, we showed them a painting (Ukiyo-e) from the Edo era featuring traditional Japanese imagery, such as the architectural style and landscape from that era. In our research, four paintings, all featuring buildings, were selected as references to show the students, who were then asked to create their versions of the figures shown in these paintings (Figure 1). Brief explanations for each painting were provided before students began their construction in *Minecraft*'s create mode.

During the creation process, students were allowed to search for relevant information, including images, illustrations, and photographs, of the object in question using the internet. Students were allowed 1.5 hours to research and build their objects of choice before presenting their work to the researchers. Once they finished or time was up, all the participants were then asked to present their creations within 10 minutes. In addition, they were asked why they chose their specific model and to indicate the external information they needed to complete their projects. Following their presentations, we conducted a 20-minute interview to measure their level of engagement, knowledge acquisition, and creative reconciliation.

4. Data Analysis

Using the recorded data, student-created objects, and interviews, a qualitative analysis was conducted to analyze what they learned about Japanese traditional culture and how they developed this knowledge. The students used Google, NAVER, and Wikipedia to find and gather information relevant to their creations, which we requested they fashion in a traditional Japanese architectural style while incorporating other elements of Japanese culture. The students then fused this information with their imagination to create objects reflecting these characteristics in *Minecraft*. Although we did not require any prerequisites or homework, some self-motivated students researched information about the topic in advance to use for their creation. One student even brought his object, which he made

before the experiment, to show us. After the experiment was concluded, the students discussed the textures and colors of Japanese architecture and pointed out that there were differences between Japanese and South Korean architectural styles, especially in the colors and shapes of roofs. Instead, of completely imitating the images shown at the start of the experiment, the students created and built the objects mainly using their creative interpretation. For example, some students created a house based on the knowledge they obtained. They also designed and constructed their houses by adding their perceptions of what life might have been like in that era. Afterward, they presented their creations and the external information they needed to complete their objects. Overall, it was an effective way for students to learn about different cultures. Extant DGBL research has indicated that games provide rich environments that facilitate knowledge acquisition. Using *Minecraft* as a learning environment where learners are granted freedom to build and use their creativity to develop knowledge of unfamiliar content presents many opportunities for educators and students alike.

5. Limitations and Future Work

As a first step, we focused on only a small sample of South Korean elementary students and Japanese culture. However, to further investigate our research question regarding how cross-cultural learning occurs among different people and cultures, we would like to continue our work with more diverse parameters. That is, we hope to conduct experiments with participants from various backgrounds to observe cross-cultural and DGBL phenomena. Particularly, we would like to compare our sample's results with a sample of Japanese elementary school students to investigate the potential differences or similarities between the populations. There is a lot of potential for future studies, so we would like to explore whether there are cultural nuances when young students are asked to learn about and interact with traditional Japanese culture content while using *Minecraft* as a learning environment.

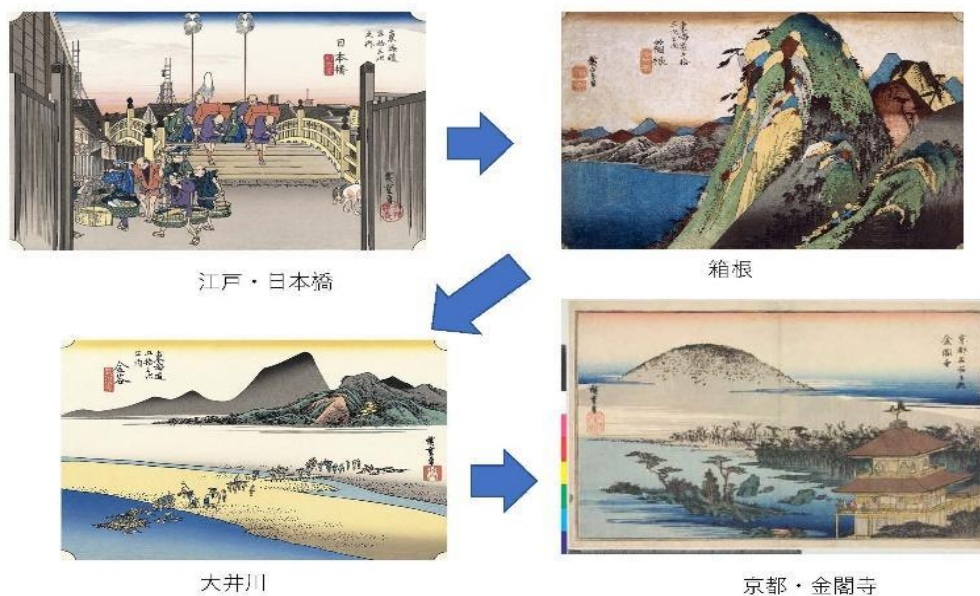


Figure 1: Japanese traditional paintings shown to students



Figure 2: The objects (e.g., temple, bridge, and house) created by the students in *Minecraft*

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The Formation and Development of Nijigen Games in the Chinese Smartphone Game Market

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Keywords: Nijigen, Nijigen games, anime, game market.

Abstract

This study first introduces how "Nijigen games" are interpreted and recognized in China as a genre unique to China. I will also study the formation and development of Nijigen games, focusing on official data and secondary sources such as iResearch to examine how Nijigen games have developed in conjunction with changes in China's animation environment, based on the relationship between Nijigen games and animation.

1. Research Background

According to the "2021 Chinese Game Industry Report" released by the Game Publishing Committee of China's Audio-Video and Digital Publishing Association (GPC), the Chinese smartphone game market accounts for 76.06% of the total game market, and continues to occupy a dominant leadership position in the Chinese game market. Among them, "Nijigen Games," a unique Chinese genre newly created by the smartphone game market segmentation, attracted much attention. According to data from the GPC (2020), the number of users of Nijigen games is growing year by year, and by 2020 it had already reached 116 million, accounting for nearly 20% of the total number of smartphone game users. In addition, in recent years, Chinese Nijigen Games, such as "Genshin Impact" and "Ark Knights," have been successful in expanding overseas. Unlike

this success, however, academic research on Nijigen games is still scarce, according to the results of searches in the CNKI. Therefore, it is of constructive significance to study Nijigen Games through an academic approach.

2 About Nijigen Games Definition

At the beginning of the 21st century, Japanese anime became popular in China, creating a Nijigen boom among Chinese youth. Nijigen games are another new genre that emerged to meet the Nijigen needs of the growing scale of Nijigen users. However, although China's Nijigen culture was formed to some extent under the great influence of Japanese anime, Japanese people may not immediately understand what specific impression Nijigen and "Nijigen games" refer to when they are mentioned.

Liu (2011) stated that the new Japanese-foreign language is a fusion of Chinese and Japanese cultural values. Due to the influence of TV anime broadcasts since the 80s of the 20th century, Japanese anime quickly became popular in China. The Japanese term "Nijigen complex" was also introduced to China. The word "Nijigen" was also cut from that term and used to refer to Nijigen culture.

According to search index data from Baidu, China's largest search engine, the term "Nijigen" became common in late 2007; before that, words such as "Donghua" and "Dongman" were used. After 2007, the usage of "Nijigen" to refer to ACG culture became mainstream in China. The term "Nijigen" was given a cultural meaning rather than referring to the 2D, flat world.

In addition, Quest Mobile (2019) and iResearch (2016) reports define "Nijigen games" as having a Japanese anime-like graphic taste. This also indicates that "Nijigen games" is a new genre created by the market segmentation of the Chinese smartphone game market, and despite being a genre unique to China, it is inseparable from Japanese anime.

3. The Relevance of Nijigen Games to Anime

As a preliminary study, I conducted semi-structured interviews with a total of seven survey respondents who play or have played Nijigen games, with questions such as why people are addicted to Nijigen games and whether people who develop Nijigen DNA from anime have an affinity for Nijigen games, and how they became interested in Nijigen games, how they came to start playing, and why they continue playing.

The results revealed a deep connection between Nijigen and anime. (All of the respondents who started playing Nijigen games, became addicted to them, and continued to play them were people whose Nijigen DNA was nurtured by anime and who became interested in Nijigen content.

Conversely, those who had lived their lives without ever watching or liking anime much tended not to like or have much interest in playing Nijigen games. (Or if they do play, they find it difficult to keep playing.)

Furthermore, I discovered an interesting phenomenon. That is, when interviewees talk about their impressions of playing various Nijigen games and what they like about Nijigen games, they often mention the visuals/art style of the game, story, and character design (appearance, personality, CV, etc.). These comments on art style, story, music, etc. often overlap with the criteria used when discussing anime works. Thus, the criteria for evaluating anime works may be applicable to some extent to Nijigen games as well.

In my future research, I would like to trace the history of the Chinese animation industry, analyze how the Chinese animation environment and Nijigen games have been specifically influenced by Japanese animation, analyze external factors using the PEST analysis method developed by Kotler, and discuss the formation and development of Nijigen games.

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Session 4

Sex, Lies, and Video Games: Nintendo's Aberrative Marketing in the United States, 1996-2006

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Abstract

The late 1990s were a transitional period for the video games industry. With the rise of 3D game development, greater graphical fidelity, and increasingly expansive game experiences, the games industry received a boost of popularity, soaring to heights that would have been unimaginable in the halcyon Nintendo-dominated 1980s. As part of this transition, though, games began to take on elements of the wider cultural milieu including a greater focus on the sexualization of female characters. This commoditization of female bodies as marketing material within a shared online male sexual fantasy created conditions that were not favorable to Nintendo's cadre of franchises. As a result, Nintendo of America eventually shifted its market strategy toward embracing this aspect of sexualized game marketing, leaning heavily on sexualized ploys, like so-called Cube Clubs, to bolster their image in a rapidly-aging market.

This paper analyzes the problems behind Nintendo of America's adaptation to an increasingly-sexualized marketplace, noting the difference between Nintendo's marketing (featuring scantily-clad women at Cube Clubs and ads in Maxim) and its game output, namely family-friendly titles like Pikmin. It discusses issues in management, noting how Nintendo of America executives during this critical time period, such as George Harrison, prioritized a family-friendly image while marketers ostensibly under his supervision countermanded that vision. In doing so, it constructs a history of Nintendo of America's marketing during this era that calls to mind this incredible cognitive dissonance. Additionally, it deconstructs Reggie Fils-Aimé's and Satoru Iwata's journeys to the pinnacle at their respective branches of Nintendo and their roles in crafting a new marketing ideal at Nintendo that played to casual consumers and led to rapid success with the DS and Wii.

The paper concludes by analyzing the results of this transition within Nintendo, demonstrating that, far from a flash in the pan, it proved to be a return to normal for Nintendo's marketing, the importance of casual gaming important long after Iwata's passing in 2015 and Fils-Aimé's departure in 2019. In doing so, demonstrates that, in the end, Nintendo's marketing from 1996-2006 was an aberration that showed the strain of a changing market more than a change of Nintendo's core values.

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“Just a bunch of nerds” – A private/public history of hobby imports of Japanese digital games to Italy

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Abstract

Despite the earliest history of videogames being inextricably tied with the North American socioeconomic landscape, the diffusion and success of the medium owe greatly to the developments in the Japanese market in the 1980s (Uemura, Hosoi & Nakamura 2013). At the same time, existing scholarship has often highlighted the relevance of secondary markets, hobbyists' activities, and informal fan operations in the development of the medium (Fiadotau 2019; Kobayashi & Koyama, 2020; Nakazawa 2015), in its social framing (Pelletier-Gagnon 2018), and in the self-perception of the community. This is true for both digital and analog games (Kamm 2020).

On these premises, this research compiles the experiences of a small community of early Italian fans of Japanese pop cultural material, with a focus on their interest towards digital games and hardware. Beginning from the late 1980s, members of this group have imported games and consoles from Japan, as well as a wide array of paraphernalia linked to the 'Cool Japan' cultural imaginary. While some have kept this activity largely private, in the case of others it spilled over to the public sphere as a profession, with significant repercussions on the Italian pop cultural landscape. The best example of this is the involvement of part of the community in the initial proposal for the 'Area Japan' at the Lucca Comics&Games convention, which was put into practice in 2007.

This study records the group's experiences in the form of reasons, methods, and obstacles in importing Japanese gadgets and hardware to Italy in the absence of well-established commercial intermediaries. Data for this research has been gathered mainly by means of unstructured and semi-structured interviews, complemented by silent observation, analysis of collected gadgets, and examination of independent creative enterprises. What emerges is more than an echo of Japanese media distribution practices in spite of the displacement of their products, given the comparatively small fraction of the Japanese media-mixed material (Steinberg 2012) present in Italy at the time. In fact, an equally important factor appears to be the coexistence of said material with other media artifacts (e.g., Italian fanzines and U.S.-branded home computers). Additionally, appreciating the results of years of fan activities by contrasting the group's projects to some of the member's current standing in the contemporary Italian pop cultural landscape provides further insight to the role of fandom in the production and consumption of cultures.

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Unlearning Queerness in Japanese Games: The Space of LGBTQ+ Gaming as a Method

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Abstract

In recent years, debates about the need for more diverse representation has fostered discussions, controversies, and even award-winning games in North America's AAA game market. Meanwhile, academic inquiries about queer games in Japan have stayed relatively stagnant. Following the current development of so-called LGBT mobile gaming in East Asia, this presentation interrogates research methodologies to unravel the past, present, and future of Japanese queer games studies. Here, the goal is to approach the current sociocultural stakes of Japanese LGBT gaming through the notion of queer spaces.

The reasons behind a spatial development of Japanese queer gaming lies in the complex history of queer representations in Japan's video game industry. While the general public may be more familiar with specific LGBTQ+ characters in Atlus, Cygames, or Square Enix games, the general consensus that queer gaming stops at character design has been questioned by the pioneering works of queer and feminist scholars including Adrienne Shaw, Shira Chess, and Bo Ruberg. My reason for introducing the notion of space into the emerging field of queer games studies is to unlearn stereotypical definitions of queerness in Japanese games by drawing interdisciplinary parallels with queer animation (Jack Halberstam), queer comics (Ishida Minori), and queer media mix studies (Ernest dit Alban). When looking not at the potentially queer content of the game, but the media milieu of queer Japanese games, we can extend our definitions of queerness to game design, programming, community management, and other perspectives transcending the apparent surface of queerness on the screen.

To illustrate space-based methods' potential to unlearn discourses about queerness in Japanese games, the presentation will shortly develop the spatial entanglement of three examples: the port of *Hotaru 2* (2002) on ps2 (2003), *Life Wonders' Tokyo Afterschool Summoners* (2016), and *Kiwifruit's Gyee* (2019). As the first gay game published on a mainstream console, *Hotaru 2's* Ps2 port questions the frictions between the gaming history Tokyo's gay villages and the barriers created by Sony to prevent certain types of content to appear on their hardware. While *Tokyo Afterschool Summoners* is not the first LGBT mobile game in Japan, its reliance on grassroots artists to code, create the content, and develop the game points towards another philosophy of queer gaming, one that pushes the evolutions of regional LGBT *dôjin* games in Kantô and Kansai areas towards a certain professionalization. *Gyee* continues to teach us more about the relation between queer gaming and queer spaces, but on a transnational scale; this Taiwan-based mobile game features the work of artists and programmers from all over East and Southeast Asia, including famous Japanese artists. In sum, focusing on queer spaces as a method to study queer Japanese games contributes to our understanding of the emergent LGBTQ+ game industry by mapping national and transnational geographies of queer gaming. This perspective extends to a historical one, framing the emergence and development of LGBTQ+ games from the grassroots spaces of gay villages in the late 1990s, to the online expansion of queer spaces in the 2010s.

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Learning About Yōkai with Video Games: Nioh 2 as a Cross-Cultural Learning Tool for Japanese Folklore

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Keywords: Yōkai, Folklore, History, Education

Abstract

Nioh 2 (Team Ninja and Kou Shibusawa, 2020) is an action role-playing game that blends Japanese history and mythology. The game retells the history of the Sengoku period (1467-1615) with the addition of folkloric elements as it utilizes traditional depictions of yōkai as enemies. Yōkai, though difficult to define, can be understood as the supernatural entities or mysterious creatures found within Japanese folklore (Foster 2015; Komatsu 2019). They have become an almost ubiquitous presence in media that have been constantly altered, adapted, and updated to fit into new fictional worlds. However, as a consequence of these recreations and remediations, the traditional representations of yōkai can become lost or indistinguishable to the uninitiated. Nioh 2 sets itself apart by using depictions of yōkai that retain the names, appearances, and attributes from their folkloric roots and, as a result, becomes an example of a game that can be used cross-culturally to teach players about Japanese culture, folklore, and representations of the past.

This video essay capitalizes on established literature in the field of game studies that argues that games and gameplay can be used to teach history while also utilizing works that study how Japanese video games have represented history, mythology, and the past. It is well established that video games can be used as tools for teaching players or students about history and the past. This has been theorized as occurring through the “historical possibility space”, “historioludicity”, or the idea of video games as modern myth (Chapman 2016; Kapell and Elliot 2013; Squire 2004). In general, the field argues that video games represent the past and create history in game-specific, ludic ways. Other works have focused on how Japanese video games represent the past through the use of folklore and myth in games like Okami (Clover Studio 2006) or within Koei Tecmo’s Fatal Frame series (Consalvo 2016; Hutchinson 2019; Pruett 2010). These works acknowledge the usage of folklore as culturally relevant while also arguing that developers represent the past through a distinct lens when using that folklore.

Capitalizing on these distinct threads, this video essay argues that Nioh 2’s use of traditional depictions of yōkai, which are heavily based on those found in folktales, encyclopedias, ukiyo-e paintings, and numerous other media dating back to the 18th century, represents a valuable and accessible point of contact for players interested in learning about yōkai (Hearn 1971; Mitford 2019; Mizuki 2021; Toriyama 2016; Utagawa 2020; Yamamoto 2016; Yumoto 2019; Yumoto and Sastre 2021). The game is an accessible way to learn about yōkai for non-Japanese players in that it does not presuppose prior knowledge of yōkai, is available in their native language due to localization, is easily acquired through digital storefronts, and represents a much smaller financial investment than alternate methods of learning about yōkai (such as difficult to find specialist books/monographs). In addition, the general difficulty of the game that requires players to study their enemies, frequently repeat battles, and to constantly consult the game’s “illustrations” (i.e., bestiary) blends together to make the game a space for non-Japanese players to learn about yōkai specifically and, more broadly, about Japanese history, mythology, and culture as they progress through the game.

Through a combination of accessibility, traditional representation of yōkai, and gameplay, Nioh 2 provides its players with a wealth of information and tools to learn about yōkai as it subverts expectations of what an “educational” game is and where historical educational value can be found in the larger landscape of video games as a medium.

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Session 5

Empowerment and Exclusion: On Virtual Reality and Disability in Contemporary Japan

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Abstract

In recent years, scholars and practitioners in different fields have investigated virtual reality as a way to resolve barriers to accessibility and inclusion issues faced by disabled persons in Japan. While games involving environmental excursions, educational exercises, employment simulators, and related tasks have helped to raise awareness about disability among members of the public and empowered some impaired individuals, they have excluded many others due to various constraints. In this presentation, I trace the development and implementation of disability-related virtual reality projects in Japan using theories and methods derived from history, sociology, and media studies to illustrate some of those constraints and suggest how the medium might become more inclusive.

The last twenty years or so have been incredibly eventful for disabled communities in Japan, with the passage of the Barrier-Free Transportation Law, New Barrier-Free Law, and Law for the Elimination of Discrimination Against Persons with Disabilities helping to regulate access to the island nation's built environments, education, employment, entertainment, and healthcare systems. Stakeholders in the public and private sector have been incentivized to enact and enforce such laws because of a wide array of domestic and international developments, including, but not limited to, increased scrutiny of Japan's rapidly ageing society, botched responses to the 3/11 'triple disaster,' ratification of United Nations' conventions, and the Tokyo 2020 Olympic and Paralympic Games. Still, many obstacles to inclusion remain for disabled persons, and there is much work to be done.

One area that stakeholders have investigated to improve conditions for disabled individuals in Japan is technological innovation and, more specifically, the pursuit of virtual reality projects. Consider virtual reality games that emphasize aspects of accessible tourism and vocational training, or programs designed to teach nondisabled persons about challenges faced by disabled populations. While promising in theory, such 'VR' projects have proved to be difficult to implement in practice as many interested parties cannot use them because of physical, social, and economic constraints. In fact, disabled communities have expressed concerns that if virtual reality projects are adopted, many other accessibility efforts such as renovation of public facilities may significantly slow down.

Who exactly has been involved in the creation of disability-related 'VR' projects in Japan? What social, political, economic, and cultural factors have allowed them to achieve their positions? If some demographics of disabled people have been excluded from design processes, what can we do to eliminate barriers that prevented their participation and establish more equal opportunities? And why should we work towards such opportunities in the first place: who could possibly benefit? I argue that we must seriously consider such questions because of Japan's geopolitical importance. Indeed, the island nation boasts the world's third largest economy and fastest ageing population. Interested parties routinely export Japan's assistive technologies overseas, and its disability-related projects have served, and will continue to serve, as models to emulate and avoid for other countries.

A Project for Salvaging Game Development Materials in Game Industry

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Keywords: Game Development Materials, Game Preservation, Game Industry

Abstract

There is a long history of digital game development in Japanese game industry, and also there are many documents and materials of them. But many materials are not compiled and left in the box as there were. SQUARE ENIX has a long history in game industry about 40 years, and has much game development materials in the company. The number of boxes of them is about 10,000 (Fig.1). SQUARE ENIX began the new project “SAVE” to salvage old game development materials from 2019 spring to organize all materials to make them available in the company. But the SAVE project is a long project with many works in SQUARE ENIX, and it has been ongoing. In the paper, the process of salvaging and results in the SAVE project are explained.



Figure 1: Some old boxes in SQUARE ENIX and the insides

1. SAVE Project

In the SAVE project, the process of salvaging is an important topic of research. There are a lot of kinds of materials such as paper documents, digital discs, tapes, goods, posters, and cassette ROMs (Fig.2). The process must cover all materials. In the early stage of the project, how to record and index materials for each box are researched and tested, and the all steps in the process for preserving them are fixed and described precisely in the manual after several months research.

For each box, a list of all materials included in the box is written, some pictures for all materials are taken, and these are uploaded on the web inside of the company. It will be realized by the project that anyone can search by seeing the list and pictures, and find which box include the materials one want to find.



Figure 2: Materials in a box (SAVE project)

2. Background

There are two kinds of game preservation. One is to preserve past game packages, game machines, and magazines. In Japan, Ritsumeikan Center for Game Studies (RCGS) has activities of game preservation, and Game Preservation Society preserved many games and magazines [レドン 2019]. The other is to preserve game development materials and take interviews with game developers [Kutaragi 2018, Kishimoto 2018, Uemura 2018, Kobayashi 2020]. And method of preservation was researched [McDonald 2021]. Furthermore, past technologies for game development were preserved by extracting them from old documents [Miyake 2020, 2021].

2 Materials found by salvaging

In the project, game development materials of published games in 90's such as "Wonder Project J"(SQUARE ENIX 1994) and "Wonder Project J2"(SQUARE ENIX 1996) were found. The documents are important and useful to rebuild the history of SQUARE ENIX game development. Even in one project, the game design change continuously. The transition of game design can be seen by searching planning documents. In the case of Wonder Project J and Wonder Project J2, all specification documents were salvaged (Fig.3). From them, the whole image of development of them from the start to the end were obtained.

It is also effective for game design education by showing old materials of SQUARE ENIX games. In many cases, initial game design plan changed. Ever it was difficult to understand how game design changed in game development. But the steps of change in game design can be understood by reading game design documents salvaged in the SAVE project.

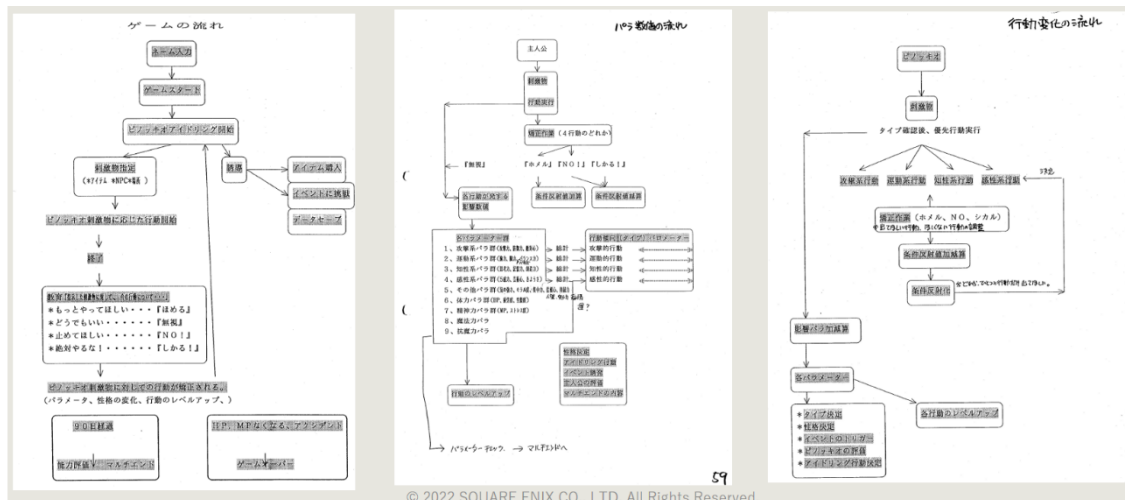


Figure 3: A transition of game design in Wonder Project J (1994)

3. The future of SAVE project

There are many technical documents, design documents (Fig.4), planning documents, scheduling documents, and game packages which were salvaged in the SAVE project. By comparing them, the transition of game development in the company in a long history can be described. The history of game development in SQUARE ENIX can be explained by using materials salvaged in SAVE project. Even from a modern point of view, the retrospective game development information in game industry are suggestive and important not only to game developers but also to researchers because these are the origin of interactive contents.

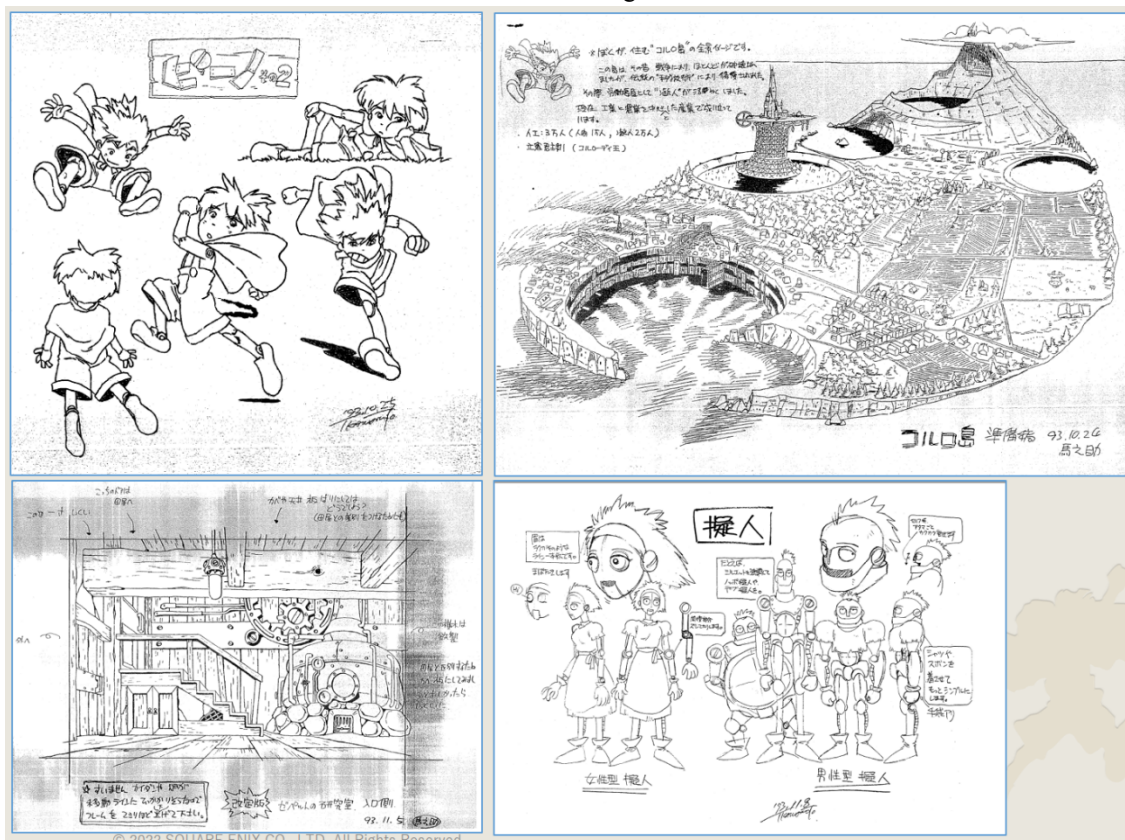


Figure 4: Designs of Wonder Project J (SQUARE ENIX 1994)

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Life Story of Game Disorder Experience

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Abstract

The World Health Organization (WHO) has included “gaming disorder” in the International Statistical Classification of Diseases and Related Health Problems (ICD). The impact of this has been so great that Kagawa Prefecture in Japan has established an ordinance to prevent internet and video game addiction.

Gaming disorder is defined as a condition in which excessive game playing interferes with daily life for 12 months or longer. The term “gaming disorder” has long been referred to as “game addiction” and has been problematic in association with substance and behavioral addiction. There is a sense that gaming disorder has been named in a way that blurs the meaning of the term addiction.

In fact, the findings have been inconsistent in studies of game addiction, particularly in medicine. There is criticism of research methods and attitudes, and some studies have questioned the gaming disorder as a mental illness

In this report, I move away from the interest and methods of game addiction research, which has been centered on medicine, which assumes treatment and attempts to reveal the presence or absence of the disease through experimentation. I will then attempt to explore the social context of gaming disorder through the narratives of informants who self-identify as having experienced gaming dependence. As a method for this, I employ life story interviews and base my analysis on sociological concerns.

The informant was a male college student in his 20s who had been addicted to online games as a teenager. I conducted three formal (semi-structured) interviews (about 1 hour each) in 2015. In addition, I conducted informal interviews over the course of more than a year of involvement.

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An Analysis of Factors Contributing to the Outflow of Game Players from Nico Nico Douga

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Abstract

This study examines inter-platform competition in the game video content market through an analysis of factors contributing to the outflow of game users from Nico Nico Douga. Launched in December 2006, Nico Nico Douga at one point became one of the largest platforms in Japan, with its main source of revenue, paying subscribers, reaching 2.56 million in 2016. However, in the following year, 2017, the number of paying subscribers, which had always been expanding, began to decline, and although it has stopped falling, it will have declined by more than 1 million by 2021.

In response to the decline in Nico Nico Douga's paying members, many have pointed out Nico Nico Douga's stagnation as a platform. Shiba (2019) pointed out in a blog post that the decline in the number of paying subscribers to Nico Nico Douga may be largely due to game video content. Figure 1 shows the number of video views on Nico Nico Douga. As pointed out, the number of views in the game category has started to decline since the previous year of 2016, when the total number of views started to decline. Compared to other genres, the decline in game video content has contributed significantly to the decline in Nico Nico Douga views, and in turn, the growth of game video content has been a major factor in the growth of Nico Nico Douga.

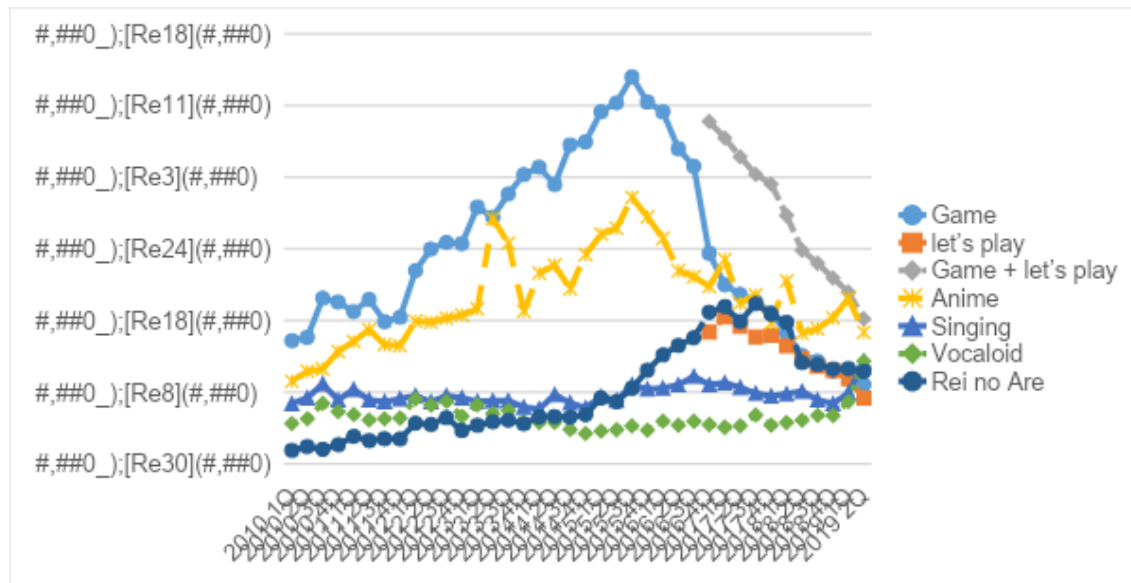


Figure 1:

Number of video views in Nico Nico Douga

We conducted an online survey of Japanese users. Table 1 shows the sample size of this survey.

*Period: August 24, 2021 - September 7, 2021

*Target group: Men and women in their 10s to 30s who have at least once watched game video content.

*Place of residence: Japan

| | Primary survey | Secondary survey |
|-------------|----------------|------------------|
| Male 10's | 305 | 183 |
| Male 20's | 472 | 250 |
| Male 30's | 508 | 249 |
| Female 10's | 544 | 218 |
| Female 20's | 677 | 227 |
| Female 30's | 822 | 229 |
| Total | 3328 | 1356 |

Table 1: Sample size.

Figure 2 summarizes the usage rate of each platform among game video content viewers by year. The usage rate for Nico Nico Douga stopped increasing around 2015 and has been stagnant, while the usage rate for YouTube started rising around 2011, when the YouTube partner program was opened to general users, surpassing Nico Nico Douga. Although game video content grew up on Nico Nico Douga, they have left Nico Nico Douga and are now mainly viewed on YouTube. We asked viewers who stopped using Nico Nico Douga why they stopped using the service. The reasons given by many respondents were "creators moving to other services," "fewer videos in the genre I watch," "low maximum picture quality and slow speed to view," and "disparity between paid and free membership. Teenagers also cited "difficulty in using the application" as a reason.

The above results indicate that the stagnation of Nico Nico Douga was caused by the outflow of creators and the subsequent migration of game video content (especially Let's play) viewers, as well as a decline in new viewers.

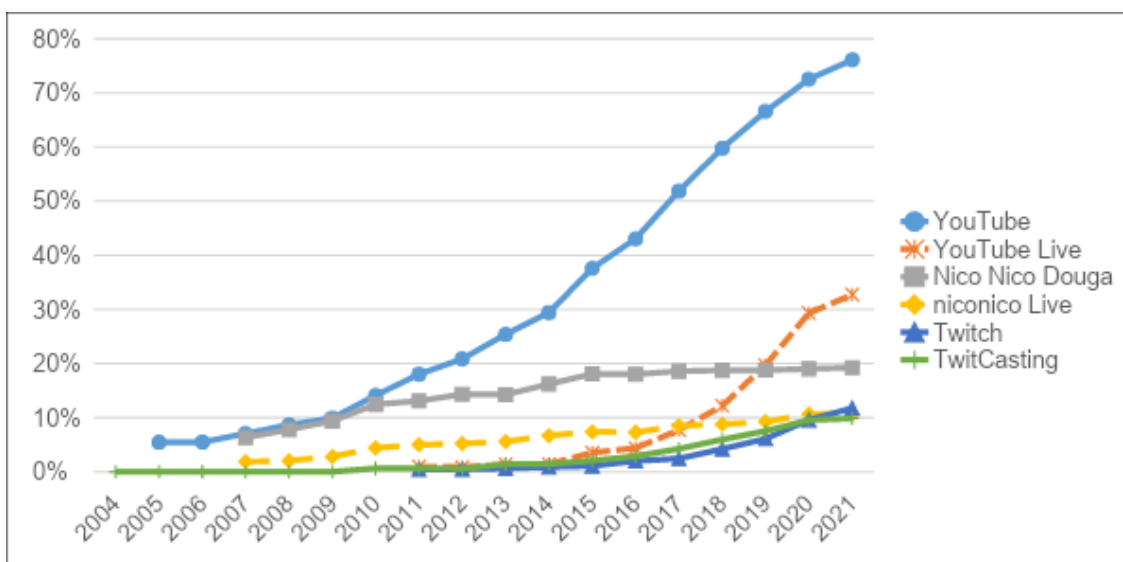


Figure 2: Frequently used game video distribution platforms.

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Session 6

Learning to live with uncertainty. Animal Crossing related YouTube videos as a space of comfort in times of Covid

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Keywords: YouTube, Animal Crossing, everydayness, Covid

Summary

In this presentation, I discuss the ways in which players of Animal Crossing: New Horizons (Nintendo, 2020) and users engaging with the game on YouTube interweave the game space and the YouTube space in various practices of recasting cultural customs and seasonal events during the COVID-19 pandemic. Examining the interactions on YouTube further reveals the degree to which Let's play seriality is used as a way of reclaiming a sense of everydayness. As such, the analysis highlights the important role both the game and commercial digital spaces play in terms of stability and as discursive spaces for negotiating crisis.

Abstract

Upsetting familiar daily routines, cultural traditions and seasonal events, the COVID-19 pandemic has disrupted social and cultural life in many places around the world. In Japan, the absence of cultural and seasonal events, which play a central role in the annual calendar and serve as an important source of cultural identity, was painfully noticed. In search for adequate substitutes, many people have turned to digital spaces. Recent research has reflected on this trend, suggesting that digital spaces in general and videogames in particular have had a positive effect on well-being and mental health in times of COVID-19 (Cowan et al. 2021; Nunes and Ozog 2021; Lewis, Trojovsky, and Jameson 2021; Johannes, Vuorre, and Przybylski 2021; Anschütz 2022, Boldi, Rapp, and Tirassa 2022). Nintendo's widely successful Animal Crossing: New Horizons (2020) has been among the games discussed in this regard, with several articles and discussions focusing specifically on the game's use during the pandemic (Barr and Copeland-Stewart 2021; Bogost and Yoshida 2020; Matsui 2021). However, much of the existing scholarship focuses on the ways in which gaming has been important in structuring everyday life and has provided an escape from the disruption caused by COVID-19. In contrast, little has been said about the ways in which specific game contents cater to the needs of their players during the pandemic.

How do these spaces cater to the need for familiar routines in general and cultural customs in particular? And how did users appropriate these spaces to reclaim everydayness? In this presentation, I consider these questions in the context of Animal Crossing: New Horizons and its related YouTube videos. Drawing on metadata and user comments for 282 Japanese language YouTube videos referencing the game (see Table 1), I specifically show how players and users interweave the game space and the YouTube space in various practices of recasting cultural customs and seasonal events.

The interactions on YouTube further show the degree to which Let's play seriality is used as a way of reclaiming a sense of everydayness. As such, the analysis highlights the important role commercial digital spaces play in terms of stability and as discursive spaces for negotiating crisis. The results suggest that privately run platforms like YouTube may provide stability in times of disruption – instead of the state, to which this task has largely been ascribed in modernity. In the conclusion to my presentation, I discuss the methodological challenges of this research and provide an outlook on future tasks.

| dataset | n | total views | total likes | total comments | Covid | healing |
|--------------|-----|-------------|-------------|----------------|-------|---------|
| kodomonohi | 20 | 1903197 | 10238 | 1234 | 1 | 3 |
| mayday | 20 | 8700305 | 104298 | 8726 | 14 | 17 |
| setsubun | 20 | 3424098 | 33645 | 2564 | 1 | 10 |
| countdown | 20 | 3532881 | 61128 | 4029 | 32 | 19 |
| tanabata | 20 | 2180476 | 26956 | 3356 | 126 | 13 |
| halloween | 20 | 17632716 | 147030 | 6547 | 6 | 9 |
| hinamatsuri | 20 | 1656369 | 13518 | 1448 | 0 | 4 |
| shōgatsu | 20 | 6966329 | 74784 | 4543 | 5 | 3 |
| christmas | 20 | 15627566 | 140128 | 5934 | 6 | 14 |
| hanabitaikai | 20 | 20492146 | 198181 | 10074 | 15 | 29 |
| valentine | 20 | 7323512 | 69700 | 5802 | 8 | 5 |
| tsukimi | 20 | 2283352 | 34293 | 3072 | 3 | 12 |
| obon | 20 | 2769870 | 31285 | 1878 | 1 | 6 |
| total | 260 | 94492817 | 945184 | 59207 | 218 | 144 |
| top100 | 100 | 273874814 | 2868839 | 150452 | 215 | 361 |
| corona | 22 | 40991298 | 304265 | 20549 | 37 | 44 |

Table 1: Statistics on Metadata and Comments, dataset names are transcribed (simplified) Japanese event names or English names where appropriate.

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Don't Be Serious!: Towards Resurrection of Vice and Corruption of Gaming

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Keywords: Dark play, Gamification, Immoral game, Serious game

Abstract

There was a time in Japan when gaming was considered a vice, as in the 1980s when game arcades were regarded as hotbeds of juvenile delinquency and their operation was eventually restricted by law (Nakagawa 2016). Subsequently, because game arcades themselves worked on dissipating their negative image and criticisms of the negative effect of games have been reexamined by game scholars, there is a growing movement to re-evaluate the game since around the middle of the 2000s (Kato 2005). Such shifts in evaluation are not uncommon in the history of the media. In 18th century France, for example, women reading was condemned as corrupting (Unoki 2017), and in early 20th century Chicago, white youth's interest in jazz was also attacked as corrupting (Hardesty 2016). Today, both have gained a firm place in education and the arts, and their enthusiasts are no longer regarded as dangerous but even favorable. However, if we try to accept a medium as harmless, it may also inhibit the possibility for us to break free from or resist certain forms of oppression.

Video games are heading in the same direction. The relationship between games and violence and the 'game brain' proposed by Mori (2002) are today considered questionable arguments; rather, Japanese society is increasingly praising the educational and practical aspects of games such as 'serious games' (e.g., Fujimoto 2007). It may have a positive impact in terms of sustained industry growth. However, as education and almost jobs require a specific ethical framework and evaluation criteria, it also means that games must be under stronger control of supervisors or companies at the same time. Should gamers welcome that only works that fit into that framework are recognized as excellent and recommended?

This study focuses on the amoral aspects of games that deviate from such norms and sheds light on the possibility of two alternatives: 'fukinshin gēmu' (immoral game) and dark play. The former is games with an immoral theme, e.g., becoming an Aum Shinrikyo guru and committing terrorist attacks (Barubora 2005) while the latter is playing immorally in games (Mortensen et al. 2015; Sicart 2014). At least in Japan, these attempts went downhill at the end of the 2000s. Now we need to be more corrupt and draw rich experiences out of gaming again to reconsider what 'serious' means.

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Interim Report on the Development of VR Showa System Using Unreal Engine 4

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Introduction

In 2021, we developed a VR experience using various assets created as a part of the collaboration between the College of Image Arts of Ritsumeikan University and Shochiku Kyoto Studio to strengthen our collaborative pedagogical and research endeavors. The focus of this project is to create two-player interaction modes. Although no complex interactivity is designed other than verbal discussion, this system allows one person to explain the various assets exhibited in the virtual space. In contrast, the other participant would listen and engage in the conversation (Okude et al., 2021).

Due to the current COVID-19 situation, testing can only be conducted internally. While the further examination is scheduled after the pandemic, we realized that the two-players mode could be adapted to the virtual space designed for reminiscence sessions for the use of the elderly home in which we were engaged in previous endeavors (see Okude and Nakamura 2018). Following the initial finding in examining digital game use at the elderly home (Nakamura et al. 2011), the game mechanics is minimum. However, we ensure that when the system is played, we realize that someone needs to support the elderly player at all times to trigger their memories associated with the Showa era (Nakamura, Okude, and Igaki 2015). However, due to the game design limitation, the supporter was participating in the session outside of the game itself.

Development Strategy

In order to enhance showa virtual house (non-VR) to modern VR experience, we aim to bring the supporter inside the magic circle (Salen and Zimmerman 2003) of the VR experience by adapting the two-player mode developed for VR Personal tour guiding system to Showa project while enhancing and adding new graphics to the past system.

1) Digital Asset Creation

Since past projects for Showa virtual house was developed for the unity game engine, all the assets used for the previous project was ported to Unreal Engine 4, the game system we decided to use since Shochiku Kyoto Studio VR Personal Tour System. Additionally, Family Computer system model and one issue of Japanese manga magazine were digitally scanned and created in 3D, using photogrammetry technologies.

2) Two Player System

Unlike our endeavors, the two-player mode of Showa-house is simpler. Aiming for the role of supporter to be a guide through an elderly player to remember the memory by looking into various objects within the VR environment, both main participant and guide are fixed in Chabudai-a Japanese a low table, which are often located in front of a television set in an ordinally Japanese home. A casual family conversation while sitting at a Chabudai is quite common in Japan; this will simulate a family chitchat-like environment. Thus, the learning curve for this experience is at a minimum, allowing the participants to jump into a reminiscence session immediately after placing the HMD.

Tentative Conclusion and Implication

Due to the pandemic, we continue to test the device only internally. Thus, we are yet to evaluate the validity of our intention. However, we intend to explain our ongoing project so that we might be able to receive more productive feedback for future studies.

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Appendix



Figure 1 a typical object of Showroom



Figure 2 Overall view of VR Showa-room



Figure 3 A family computer 3D model

Figure 4 A typical Japanese wall decoration material



Figure 6 *Chabudai* (a low table) in front of TV-a typical Japanese home in the 60s-the 90s.

Investigation of Japanese Social Games Management on Twitter Account: Finding the Optimal Solution

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Keywords: Social game, Application game, Game management, SNS, Twitter.

Abstract

The first social game in Japan appeared in the year 2000s, and in less than 20 years, the numbers of social game titles are growing rapidly, along with the playing population. The growth of the social game market have brought the attention of many video game producers, as more video game producing companies are joining the social game market.

Although social games could be classified as a type of video game, there are some major differences between social games from “traditional” video games, which are making pre-existing video game companies hard to “succeed” in social game business. One major difference is the addition of “sustainability” to the evaluation axis of “successful games”. In the case of traditional video games, players purchase games at a fixed price. But the majority of social games adopt a “free to play” business model. Players can start playing social games without App purchases, but instead will be asked for “in-game purchases” to gain advantage in game playing. Also, most social games have frequent “updates”, such as adding new stories and characters. Thus, it is important for game producers to continuously “manage” the game correctly, for users to “pay for this game” and “play the game for a longer period of time”.

This research investigates and compares the quality of game management of recent social games, in order to find any possible patterns for good and bad actions regarding social game management. Seven recent game titles are chosen for this research, among the many existing games. For a fair comparison of the game titles to be investigated, several conditions were set. The conditions includes: the start of service of the game within 4 years from the start of the survey, the genre of the game will be limited to RPGs, the game is an original content (not being part of any pre-existing franchise), and the game management is done on social media platform (specifically, twitter). Although not all social games have its own account, many of the major social games in Japan have its own twitter account to keep the players up to date.

The research will be based on three methods. The first method will be analyzing the tweets by the official twitter accounts, to find any differences in the tweeting behavior. The second method is by survey conduction. The survey was conducted on the web from December 10th to 15th, 2021, to men and women between the age ranges of 20s to 40s, living in the Tokyo metropolitan area. The number of valid responses was 3046 in the screening survey and 900 in the main survey, conducted on people with experience in social games. The third method is by interviewing social game players. From those who responded to the main survey, a depth interview was conducted for more detailed stories. Nine individuals (men and women from the age ranges of 20s to 40s), and one-hour interview were conducted for each individual, in a rental conference room in Tokyo, from January 9th to 10th, 2022.

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Session 7

Modeling Medievalisms:

The Medieval Video Game Reference Database

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Keywords: Medieval Literature, Digital Humanities, Tangential Learning, Old Norse Studies, Reception Studies

Abstract

In this paper, references to medieval literature and material culture in the Japanese fantasy games *Dark Souls* and *Elden Ring* will be discussed in the context of their presentation in an open access online database that is currently being developed as a tangential learning tool. Tangential learning is “the idea that some portion of your audience will self educate if you can facilitate their introduction to topics they might like in a context they already find exciting and engaging” (Portnow 2008; Rath 2015). These are preliminary findings from an ongoing doctoral project cataloguing Old Norse-Icelandic literary references, motifs, and tropes found in medieval fantasy themed video games, especially those set in or strongly influenced by the medieval north or the Viking Age. This website database will thus act as a channel for the dissemination of academic knowledge in game studies and medieval studies out into the public (especially players of video games), a phenomenon which is stunted by the inaccessibility of scholarly journals and dense academic writing. The database privileges rhizomatic exploration through polymorphic tagging to allow users to navigate freely and discover the historical literary origins of their favorite medieval high fantasy video games.

Games and their pedagogical potential can take on a variety of forms, whether they are being used in explicitly educational contexts or played for entertainment in one’s own home. The experiential and immersive qualities of video game texts stimulate a feeling of presence and, therefore, the creation of memories of having ‘been there’ in virtual worlds. In the case of medieval fantasy games, these virtual worlds are heavily referential of and inspired by ideas and images of the European Middle Ages (though certainly not only this era). Although these perceptions are constructions and social projections of the present onto the medieval past for various ends (both consciously and unconsciously), game developers often model medievalist game environments and plot elements on medieval visual culture and literature and their various receptions, respectively. According to Breuer and Bente (2010, p. 16), speaking of games meant purely for commercial entertainment, “it is not uncommon that a game makes players curious about references and their sources so they look them up and voluntarily start reading books or watching documentaries on these topics.” Spending many hours in medieval-inspired digital worlds such as those created for games like *Dark Souls* and *Elden Ring* can easily become the precondition for such tangential learning.

Many historical games scholars have discussed the problematic nature of historical accuracy and authenticity in games as sources of misconceptions and sometimes harmful ideological appropriations, which often unknowingly reinforce power structures like whiteness and hegemonic masculinity (Wolterink 2017; Young 2021). However, the medievalism of fantasy video games can also foster curiosity and a motivation to learn about the ‘real’ Middle Ages which inspire them through avenues such

as historical game streams and video essays on social media platforms such as Twitch, produced by both academics and enthusiastic amateurs alike, as well as through projects like my database website.

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Understanding and learning japanese's spatiality through video games : learning the semantic structures of Hakoniwas, or miniature gardens

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Abstract

This article aims at analysing the spatial navigation in japanese games, and to break down how the level design recreates the way space is semantized in Japanese's gardens and throughout japanese's culture.

Drawing from the work of various authors in academic fields (Matsugi, 2020 ; Berthier, 2000, 2015 ; Berque, 1999), gardens in japanese's culture have a specific history and evolution, that tie their shapes and design to various significations - whether it's linked to religious concepts, or ceremonies. Nothing is at random, as everything has a profound and deeply rooted meaning.

In video games, designers such as Shigeru Miyamoto pointed out in various interviews how they developed their works drawing from the cultural and geographical environment they grew in : fields, forests, and a specific type of gardens : hakoniwas, defined as miniature gardens. The designer pointed in various interviews that the design of these specific gardens was a source of inspiration for the overall level design in the licence Super Mario (Brosse and Lassinat-Foubert, 2018) or The Legend of Zelda (Moisan, 2021). We thus intend to examine how the specific spatial semantics of hakoniwas is transcribed in video games.

To do so, we use various academic researchs in social sciences as well as communication and cultural studies that focus on video game's space, and how game's space communicate with us (Grandjean, 2019, 2020, 2022 ; Bonenfant, 2008, Bonenfant and Trepanier-Jobin and Iseut, 2020 ; Fernandez-Vara et. Al., 2008; Jenkins, 2004 ; Pearce, 2008). These various researchs explored how video game's space construct a specific meaning by their design, and how level design must convey a clear organisation. More specific researchs, such as Hutchinson's (2019) shows how it is necessary to take "account of the japanese context in studying Japanese games" (ibid.), which some authors (De Grau, 2014; Ramirez-Moreno, 2019) explored, leading to a more accurate understanding of japanese video games, and how their culture is transcribed within it. Grandjean's thesis, for instance, explored how The Legend of Zelda drawn from japanese's counts and culture to create meaningful quests and spaces, and how the level design conveyed and was used as a mediation between a specific cultural motive and game's objectives.

Our research will analyse the construction of hakoniwas, including space and how they convey meaning, by reading specific literature that analyses these types of gardens, and by understanding their specific patterns. Those will then be used to analyse spatial structures in video games. Using communicational and structural approach, paired with cultural analysis, we will focus on exploring the relationship between the miniature gardens and games from Miyamoto such as games from The Legend of Zelda or Mario's licence, to create a framework of analysis. We will then try to apply this framework of analysis to strategic games, such as Final Fantasy Tactics or Advance Wars.

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Street Fighter II: Early 1990s Bootlegs and Contemporary Homebrews for Retro Platforms

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Keywords: Retro Gaming, Homebrew Games, Arcade, Ports, Platforms.

Abstract

This research presentation explores fan-produced bootlegs and hacks of *Street Fighter II* for retro platforms. The freeware game *SF2IBM* (Young-Deok 1992), brought *SFII* to MS-DOS based PC platforms a year before the official IBM PC release. 30 years after the original Commodore 64 conversion of *Street Fighter II*, *SF2 Champion Edition* (Hererra64 2022) delivers a hacked upgrade of the 1992 C64 code, unconstrained by the time and budget constraints faced by the original development team. While *SFII*'s original arcade bootlegs were financially motivated, the fan-made *SFII* home ports are simultaneously tributes to Capcom's game design and their target retro platforms.

1. Introduction

Nintendo and the Super Mario Bros franchise is synonymous worldwide with Japan's cultural production, with statues of Miyamoto's game characters greeting visitors to Osaka International airport. Similarly, the characters of Capcom's Street Fighter franchise are recognised worldwide, and in July 2022 a playable preview Street Fighter 6 was featured at the Japan Expo in Paris as a showcase of Japan's cultural production. This research explores how the popularity of Street Fighter II has led to it been unofficially ported to retro gaming platforms internationally through homebrew ports and hacks as well as the motivations behind these unsanctioned SFII adaptations.

2.1 Early SFII Arcade Bootlegs

Capcom's Street Fighter II: The World Warrior (1991) was such a phenomenon in arcades worldwide that demand exceeded availability, with the resulting market gap readily filled by bootleggers (Leone 2014). The bootleg SF2 arcade games ran without any custom chips, and bypassed Capcom's kick-harness control wiring (Nolan, 2019). SF2's bootleg arcade editions also added gameplay tweaks including increased speed, mirror matches and new fireball projectiles. These in-game changes resonated with players, with several adapted by Capcom into the design of Street Fighter II: Championship Edition (Snape 2014).

2.2 Master Fighter and SF2IBM

Similarly early gaps in the home market for the Street Fighter II experience on computers and consoles were met by unofficial versions, both commercial and freeware. 1992 saw the release of Hummer Team's 8-bit Famicom release of Street Fighter II in Taiwan (also titled Master Fighter) (BootlegGames Wiki 2022). Master Fighter's region-specific cartridge format, grey market distribution and the nascent state of NES emulation in the early 90s meant this game initially stayed largely within its local region.

1992 also saw the release of the homebrew game SF2IBM for MS-DOS PC compatibles by Chung Young-Deok (namu.wiki 2021), predating US Gold's officially licensed PC release by a year (MobyGames 2002). SF2IBM's graphics were captured from the Super Famicom version with an analog TV capture card, and the game's gameplay, music and sound effects were manually recreated (Katala 2010). The game spread worldwide through online bulletin boards and the internet. Young-Deok also released a games programming tutorial book (1994) that included the SF2IBM source code on floppy disk (Saebaryo 2006). As with Hummer Team's Master Fighter, SF2IBM didn't accurately recreate the gameplay balance and AI of the source material, but there was still close enough of an approximation to evoke the original.

Both Master Fighter and SF2IBM are notable not just because they took on the task of bringing Street Fighter II to two officially unsupported platforms in 1992 but also in how they've both been upgraded and modified by third parties in the years since (Liu 2001) (Warman 1994). Indeed the modification friendly nature of SF2IBM's relatively un-obfuscated code and graphics files can also be seen as a forebear of the freeware fighting game engine MUGEN (1999).

2.3 Modern SFII Remakes and Hacks for Retro Platforms

Three decades on, the work of bringing Street Fighter II to all retro systems continues in the hands of the fan community worldwide. Spanish developer Herrera64's Street Fighter II: CE (2022) is a hacked upgrade of the original C64 SF2 release that seeks to showcase how Commodore's 8-bit machine can run a better version of SF2 than it originally received (Saberman 2022). Mighty Street Fighter (Amstrad GGP 2022) takes graphical cues from Capcom's Mighty Final Fight (1993) through its chibi visuals, and addresses US Gold's promised but never released Amstrad CPC version of SF2 (Golder 1994).

3 Conclusion: SFII Amateur Ports as Tributes and Creative Benchmarks

This intrinsic technical and creative challenge involved in fitting Street Fighter II to legacy 8-bit and 16-bit systems is comparable to the ongoing multi-platform ports of the Bad Apple!! audio-visual demo and id Software's DOOM, both of which are driven by the challenge of fitting the original design experience into significant platform constraints. While the original SFII arcade bootlegs were primarily financially motivated, the unofficial home computer ports are simultaneously tributes to Capcom's original and their target retro platforms.

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Productive Puzzles for (Game)Play: Discovering Japanese Survival Horror's Digital Jigsaw Puzzles and Fragmented Fiction in Capcom's Resident Evil

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Keywords: Cybertext theory, postmodern theory, Resident Evil, survival horror, jigsaw puzzles.

Abstract

Underlining the cerebral advantages of video games, R. F. Mackay (2013) notes that adults “have very little notion of how humans learn,” but “[k]ids know: [t]hey play games.” In this paper, survival horror game mechanics in Capcom's Resident Evil (1996–) multimedia franchise—originally released as Biohazard in Japan—and their focus on puzzle-solving will be likened to non-digital jigsaw puzzles, so that the games can be viewed as a possible cognitive asset. Highlighting the piece-by-piece progression in Resident Evil 0 (Capcom 2002) and Resident Evil 3 (Capcom 2020), the game-stories and gameplay in the series will be described as fragmented through cybertext theory and postmodern theories on fragmentation, with the goal of displaying the games as digital jigsaw puzzles and associating Japanese survival horror with the more “socially accepted” brain stimulation of non-digital jigsaw puzzles.

In the past decade, several studies have emphasized the efficacy of long-term non-digital jigsaw-puzzle experiences as developmental tools for children (Levine et al. 2012; Young et al. 2014; Doherty et al. 2021) and potential protective measures against neurological decline in adults (Fissler et al. 2018). Comparably, Jill Riley (2020) states that the “act of putting the pieces of a puzzle together requires concentration and improves short-term memory and problem-solving,” along with influencing creativity and productivity. Similar to non-digital jigsaw puzzles, the back-and-forth and memory-guided gameplay—such as item collection, number management, and strategic button-pressing—of Resident Evil 0 and Resident Evil 3 presents a need to arrange coded options successfully to produce the solutions of their puzzles and proceed to the next.

Non-digital jigsaw puzzles allow for interaction, as in an engager is presented with a solid problem that requires a solution and can move around pieces to assemble a picture, completing both the puzzle's purpose and providing the engager with the satisfaction of results. However, when a non-digital jigsaw puzzle is solved, there is no relish other than being “right” and that the singular static picture is whole again. Adding another puzzle layer, video games offer an extended experience of satisfaction in the piece-by-piece fulfilment of a developing game-story; a Resident Evil game-story only continues if a player can decipher the puzzles in its gameplay. Utilizing cybertext theory's “non-trivial effort” (Aarseth 1997, pg. 1) and featuring a dynamic extension of Self, video games supply players with an interactive reward system for solving a puzzle, fostering “intrinsic motivation while giving extrinsic rewards” (Wang and Sun 2011) and begging for prolonged engagement. Moreover, as a series with multiple installments that impact the franchise's overarching narrative and game-universe, players may be more inclined to stick with Resident Evil puzzle-solving, leading to long-term experiences with Japanese survival horror video games. Survival horror in the Resident Evil games especially allows for amplified visual progression effortfully propelled forward by the player, as achieving milestones, for example, unlocking a new area, winning a well-planned boss fight, or gathering informative documents and cutscenes, in the gameplay and the game-story contributes to the overall resolution of the game—an even bigger puzzle.

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Text mining analysis of the public opinion storm formed in BBS when the Genshin Impact's playable character was weakened

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Keywords: 1 Game community, 2 khcoder, 3textmining, 4public opinion storm.

Abstract

In this paper, we examine the public opinion of the world's most popular multi-platform free-to-play game " Genshin Impact" during a game update in a BBS forum in mainland China: Genshin Impact section of NGA (NGA is an anonymous Chinese-language imageboard website.The site hosts boards dedicated to a wide variety of topics, from anime and manga to video games), and observe the public opinion storms generated by the version update.

This public opinion storm originated from a player-available character of the Genshin Impact:Yae Miko , who was available in version 2.5, and then when 2.5 was upgraded to version 2.6, its skills were weakened due to an official bug fix about Yae Miko's skills, which caused dissatisfaction among players, thus leading to this public opinion storm.

The object of this observation was selected from the BBS forum in mainland China: NGA, and a quantitative analysis of the text was conducted in the form of khcoder.

According to Hiroki Tanaka and Yusuke Koyama's research, forum activity increases when a game is updated .By counting the number of posts . We saw a significant increase in forum activity was obtained on the day of the game version update, but it quickly subsided in the following two days, thanks to miHoYo's quick response.

A word network analysis using headlines Compared the pre and mid and post 2.6 game version updates. There was not much discussion about this update before the update, but a large number of related topics appeared in both the middle and late stages of the update, as well as the observation that words of dissatisfaction with Yae Miko appeared in the middle of the update.

Using the code, the center of public opinion was observed. When observing the topics, it was not obvious that the two sides were in opposition to each other regarding the weakening of Yae Miko's skills, but a clear opposition was found in the derived topic of nationalism, proving that the center of the topic had been shifted to some extent. The opposite situation of this group, as in Kuwabata, Yoichiro's study. And the changes in public opinion are very consistent with Fang Fujian's model of public opinion construction.

As a result, two results on BBS forum activity were obtained: "forum activity increases when the game is updated" and "forum activity increases when the game is in a public opinion storm". In addition, we found the phenomenon that "public opinion topics tend to change towards nationalism" in the process of observing public opinion storms.

FIGURES

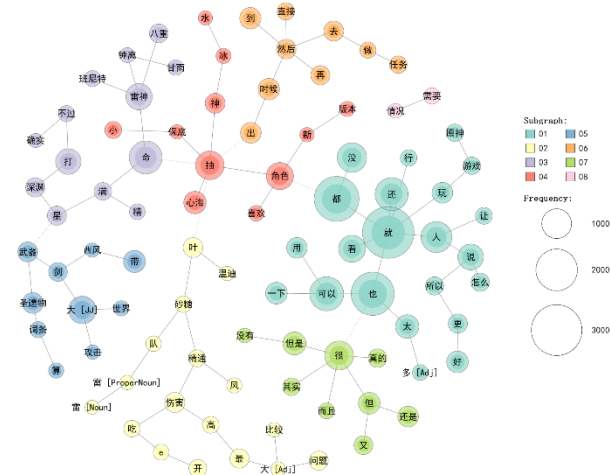


Figure 1: before stages of the update

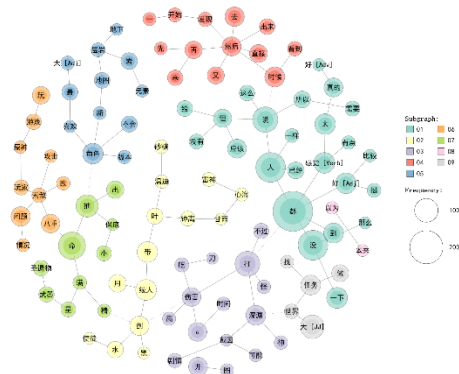


Figure 2: middle stages of the update

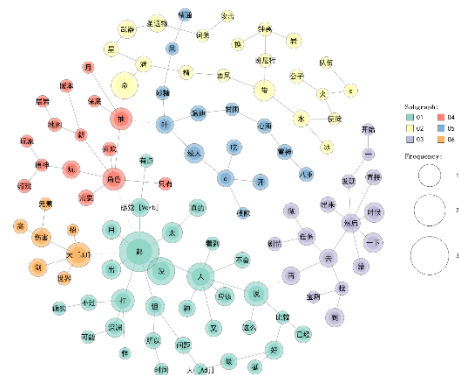


Figure 3: late stages of the update



Figure 4: the hot thermodynamic chart, The graph below represents the proportion of nationalist topics in Yae Miko's topics

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Hiroki Tanaka and Yusuke Koyama 2014 "A Study of Net Game Communities by Text Mining," *The Society of Instrument and Control Engineers, Systems and Information Division, The 5th Social System Section Meeting*, March 5, at Ohama Nobusen Memorial Hall. <https://journals.socsys.org/symposium005/pdf/005-005.pdf>
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Session 8

Educational Initiatives and CSR in Japanese Game Companies

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Abstracts

Japanese companies that develop video games, especially the larger international companies, take care to manage perceptions of their corporate social responsibility (CSR). (Vogel 2005) One of the major venues used is, of course, annual reports or specific annual CSR reports. Nintendo, for example, has a detailed web site and issues a glossy annual digest report (<https://www.nintendo.com/about/csr/>). But where does education fit within CSR for Japanese companies? What sort of educational initiatives do companies promote through their annual CSR reports, if at all. Comparing different companies from Nintendo to Sony presents a nuanced picture of how these companies engage in public educational initiatives. Some companies like Nintendo describe numerous initiatives around the world, others like Sony don't. This paper will present a content analysis of the reported educational initiatives of selected companies and a review of their software catalogues to understand the range of educational engagement.

Nintendo is very engaged in education as befits a company that has cultivated a reputation for being family-friendly (Whitehead 2013). In their 2021 CSR Report online they have a number of types of initiatives under the major heading of "Putting Smiles on the Faces of our Consumers":

- "Pursuit of New Entertainment Possibilities" which includes projects to develop exercise games that promote fitness including the Jump Rope Challenge designed for this period of mandatory isolation.
- "Fostering the Future Generation" which includes explicit learning initiatives like Mario Maker Mondays – a program through Australian libraries.
- "Making Things Easier to Understand and Use"

What stands out about these initiatives is their breadth and the investment of Nintendo in educational initiatives. One sign of this is the number of educational games they have developed from the Labo series (2018+) to the Super Mario Maker series (2015+) to the Game Builder Garage (2021). By contrast Sony has nothing like the focus on education; instead Sony releases a Sustainability Report (<https://www.sony.com/en/SonyInfo/csr/library/reports/>) that focuses more on environmental issues. That is not to say that they don't support educational initiatives, but these are less tied to games, as befits a company that has a broader portfolio of products.

In this paper we will introduce our rubric for assessing the educational initiatives of game companies, whether they fall under CSR or are focused in other ways. We will then report on our content analysis of a selection of the larger important JGCs, including Bandai Namco Holdings Inc.[M1], Capcom Co., Ltd., KOEI TECMO Holdings Co., Ltd., Konami Co., Ltd., Nintendo Co. Ltd., SQUARE ENIX Holdings Co., Ltd., SEGA SAMMY Holdings Inc. and Sony Group Corporation. Finally, we will conclude with reflections about educational initiatives as a form of corporate virtue signaling.

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Wild MEWTWO appeared! A Transmedia Character Study of Non-Human Ethics and Monstrosity in Pokémon

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Abstract

The Pokémon franchise teaches us many things: the importance of friendship, achievement, and tenacity; however, Pokémon has also battled with issues around ethics of capture, consent, and fighting, creating what Miguel Sicart (2013, p. 102) calls a “wicked problem” for players: a problem “that is difficult or impossible to resolve.” Capturing and forcing creatures unable to offer widely recognized consent into fights with one another force players to “face worlds and narratives in which their presence invokes moral dilemmas” (2013, p. 104). Indeed, this wicked problem—with their very goal to master these Pokémon—makes players, as Sicart would argue, “complicit in the experience of the game” (2013, p. 106). At the centre of this ethical mire is Mewtwo. While existing in Pokémon’s media mix (Steinberg 2012), Mewtwo is not a “kyara” (Wilde 2019; Blom 2020) like its fellow Pokémon and franchise mascot Pikachu. Mewtwo as a “transmedia character” (Bertetti 2014; Pearson 2019; Blomquist 2019) is mainly consistent across media, and this consistency only further emphasizes the horror of its reality as “digital Frankenstein” (Varis 2019, p. 111) that players must contend with as they “hunt down and gather” its story across media (Jenkins 2006, p. 21). While the games bring this wicked problem to bear, the films frame Mewtwo’s identity with backstory and dialogue as a lens to examine how the non-human ethics of consent and control play out in the series at large.

As examined in Pokémon’s franchise, with particular emphasis on the games *Pokémon Red* and *Blue* (Game Freak 1998) and the films *Pokémon: The First Movie* (1999), *Pokémon: Detective Pikachu* (2019), and *Pokémon: Mewtwo Strikes Back—Evolution* (2020), Mewtwo poses as a hybrid—caught between human and non-human, Pokémon and trainer—and in its hybrid state functions as Jacques Derrida’s “animot” occupying “a liminal space to understand the abyss between creatures because this new word is neither a species nor a gender nor an individual, ...and rather than a double clone or a portmanteau word, a sort of monstrous hybrid” (2008, p. 41). Mewtwo can thus bridge the human and non-human binary to empower itself as the Other upon which trainers and Pokémon fans must face their wicked problem. Able to speak on behalf of itself and for other Pokémon, Mewtwo’s origin and position in the franchise exposes Pokémon’s wicked problem of player complacency with the series’ ethics of consent and glorification of animal fighting. In short, Mewtwo forces us to learn about our actions and ideals within the games and across its media. Indeed, these movies offer a crucial dialogue—literally and metaphorically—with the games as media paratexts (Gray 2010) by offering Mewtwo a voice often silenced or ignored in the video game series. In this paper, I will explore how we learn of Pokémon’s wicked problem regarding non-human ethics and responsibility through Mewtwo’s transmedia character.

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Framing American Space: Everyday Brutality in No More Heroes

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Abstract

Video games take place in virtual spaces, ones that contextualize player activities while often evoking the qualities of real-world environments, be they lush forests, dense urban settings, or quaint villages among countless possibilities. This recalls the charged relationship between “place” and “occasion” identified by the architect Aldo van Eyck (2008, 61), and it speaks to how a video game’s environment frames the events taking place within it, contributing to its narrative and inviting players to read meaning out of the game’s world (Nitsche 2008; Whistance-Smith 2022). This paper will introduce framing theory as a tool for analyzing how players experience virtual spaces, exploring how the Japanese game *No More Heroes* (Grasshopper Manufacture 2007) uses its banal environment to critique everyday urban space in North America.

The idea of framing has taken on different meanings in fields such as sociology and communication studies, and this paper adopts the cognitive perspective that frames are mental schemas that people use to reason about the world (Barsalou 1999; Goffman 1974; Stockwell 2005, 77-79). Everyday life is full of repetition, and over time we build up patterns of information that help us quickly understand common situations and how to behave within them. Lakoff (2008, 22) explains that:

The neural circuitry needed to create frame structures is relatively simple, and so frames tend to structure a huge amount of our thought. Each frame has roles ... relations between the roles, and scenarios carried out by those playing the roles. ... A hospital, for example, has roles like doctors, nurses, patients, operating rooms, X-ray machines, and so on, with scenarios like checking in, being examined, having an operation, being visited, and so on.

The objects in an environment help signal what frames we should use to understand it, offering a potent form of spatial communication (Miller 2010, 50); if we enter a room with dining tables and a kitchen in the back, we may assume it is a restaurant. Frames also differ between individuals and cultures, and one’s frame for a type of space can change with new experiences. For example, the ticket machines for ordering in many Japanese restaurants require foreigners to adjust their “restaurant” frame to include this ordering scenario.

Players bring real-world frames into video games, using them to make sense of their virtual surroundings and how these contextualize gameplay activities. *No More Heroes* uses its world to reinforce a darkly comic critique of American society, casting players as Travis Touchdown, an otaku fighting his way up the assassin rankings in the fictional city of Santa Destroy. This gameworld reproduces the everyday places of postwar American cities: suburban neighbourhoods, shopping streets, industrial areas, a motel, a gym, a highschool, and a baseball arena among others. Reflecting the banality of this sort of city, players are limited in what they can do: drive around, work menial jobs, visit the gym, buy clothes, or relax at home. Spending money to enter ranked fights and rise to the top adds excitement to the world, and by having players kill swarms of enemies in these everyday locations, *No More Heroes* allegorically frames American life as a violent struggle.

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Rehearsing Disaster: Can Video Games Help Young Adults Prepare for Earthquakes?

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Keywords: Disaster studies, Earthquake preparedness, Role-playing game, Risk communication.

Abstract

The Pacific Northwest (PNW) of the United States experiences the same type of devastating earthquake and tsunami that struck eastern Japan in 2011. But unlike Japan or even California, the PNW lacks a strong “earthquake culture” due partly to a relative lack of moderate-sized earthquakes and long intervals between Big Ones. Influential vicarious learning must substitute for first-hand experience in this environment. Video games offer mediated enacted experiences of rare phenomena like earthquakes, can reach mass audiences, and resonate with the media consumption habits of hard-to-reach target audiences like 18-29-year-olds. Recent reviews of disaster-related games highlight the dearth of studies on game effectiveness. We conducted an experiment with 125 18-29 year-old residents of Portland, Oregon to compare learning and motivation to prepare for earthquakes following up to 45 minutes of video game play vs. web searching. Our game was developed by undergraduate programmers and informed by consultation with regional emergency managers, playtesting, and two focus group discussions. Acting as three different characters over four levels, the player deals with earthquake-related challenges during the period immediately surrounding the earthquake, one day later, and one week later. The game includes at least three approaches each to avoiding injury, finding safe shelter, obtaining clean water, and managing human waste. Participants in the web search condition could browse at will and were also offered three “starter” links to emergency management websites that included the information embedded in the game and more. Surveys were administered before and after the experiment task as well as three months later to assess learning and self-reported levels of cognitive (self-efficacy, outcome expectation), pre-behavioral (intent to act), and behavioral outcomes related to earthquake preparedness. Participants in the game condition played for significantly longer than those in the web condition browsed (31 vs. 19 minutes, $p = 0.001$) and found it significantly more enjoyable, challenging, and frustrating ($p = 0.01$, 0.001 , and 0.03 , respectively). Game players perceived encountering a much higher percentage of new information than did web searchers (64% vs 45%, $p = 0.001$), with equal levels of trust in, and perceived reliability and applicability of, the information learned. Game players were significantly more likely to download resources about obtaining water, managing sanitation, and finding emergency communication sites after an earthquake than web searchers. Short-term increases in self-efficacy around obtaining clean water and managing bodily waste were significantly higher ($p = 0.05$, and 0.001 respectively) among game players than web searchers. Game players offered significantly more, and more diverse, solutions for purifying water than web searchers but

similar numbers of solutions for obtaining water and for coping with earthquakes generally. After three months, between-condition learning differences waned, and mitigation or response strategies recalled dropped from close to 5 to 3.5 per participant. The experiment suggests that video games can be more engaging than relevant web content and similarly effective at moving young adults toward earthquake preparedness. We welcome communication from anyone interested in researching the impacts of mainstream disaster games on preparedness in Japan.

Poster Session

Transformative learning through video games: constructing images about Japanese men by Western gamer audience.

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Abstract

Much of past research focused on short-term aggressive behavior induced by video games and omitted the fact, that games can also facilitate positive changes in three dimensions: psychological (changes in understanding of the self), convictional (revision of belief systems), and behavioral (changes in lifestyle). Employing a critical discourse analysis, this study provides information regarding intersection of adolescents, Japanese video games, masculinities and transformative learning. Studies show that video games serve as sites of learning, providing semiotic referents for gamers to use in constructing their definitions of masculinity. Analyzing the Western, Polish gamers encounters with Japanese masculinity images in video games provides unique insights into meaning making processes, learning and identity forming processes of gamers. Inquiry into whether Japanese games are perceived by Western gamers as truly stateless (*mukokuseki*) or contentful in terms of Japaneseness can serve to clarify how Western gamers perceive, deconstruct, and possibly might contest Western hegemonic masculinity. Experiences Results of the study can also serve the industry by explaining how to expand the market for gender inclusive game design and community, based on diversified cultural repertoire of often unfamiliar masculinities images in video games.

An exploratory study on second language learning practices in Chinese gamers' narrative-based gaming activities

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Keywords: Second language learning, Game-based learning, Game-mediated L2 learning, Narrative-based game, Japanese learning

Abstract

This research seeks to identify how the second language (L2) gaming experience of the players of COT Narrative-based game (NBG) relate to their L2 learning experience. Mainly focused on Japanese as the L2, the researcher is conducting an ethnography on first language (L1) Chinese speakers who had experience playing Japanese NBG. It includes interviews on gamers' previous experience, observation, an online data collection and data analysis using M-GTA. The research is still in progress. With 8 interviews conducted, concepts, categories, and a hypothesized diagram was generated to show how the game-mediated activities are intertwined with the player's L2 learning experience.

1. Introduction

1.1 Research Background

The educational potential of video games has become clear to date (Steinkuehler and Squire 2014). The potential of game-mediated learning is especially promising in the field of L2 learning because L2 gaming naturally provides an exolingual environment (Young et al. 2012). Among all the game genres, the Narrative-based Game (NBG) shows comparatively more potential in research about game-mediated. Usually identified as a kind of single-player adventure game, NBG in this research refers to games whose main feature is storytelling and whose interface is based on text. Examples of NGBs are *Ace Attorney* (Capcom 2001) and *Lifeline* (3 Minute Games 2015).

NBG gamers mainly gain enjoyment from reading the stories, so when gamers have sufficient language ability to play, they are more eager to choose L2 gaming and thus more likely to be involved in L2 learning practices. Moreover, some researchers have also identified high in-game interactivity as a hindrance to language learning (Chen and Yang 2013). Therefore, NBG shows great research value because it provides abundant, meaningful and contextual L2 input with comparatively fewer in-game interactions.

China is one of the countries where increasing numbers of gamers demonstrate L2 gaming practices (Chik 2014), especially NBG playing experience in Japanese. However, recent research on game-mediated L2 learning mostly focuses on English and rarely mentions Japanese learning. Furthermore, there is insufficient research on the details of players' L2 learning activities and learning effects associated with L2 NBG gaming.

1.2 Purposes and questions

Aiming to further investigate game-mediated Japanese learning, this research seeks to answer the following research questions: (1) How does playing NBG in an L2 (Japanese) compare to L1 (Chinese)? (2) How do game-mediated behaviors that influence players' Japanese acquisition occur? (3) What factors influence game-mediated Japanese acquisition?

2. methods and Result

In order to delve deeply into players' game activities, an ethnography on native Chinese speakers who have experience playing NGB in Japanese is being conducted. The study is still in progress, with eight 2-hour-interviews conducted so far. Interviewees are acquaintances of the researcher or were accessed via snowball sampling methods. Questions are mainly asked surrounding player' NGB experience, Japanese learning experience, Japanese acquisition using NGB games and factors influencing game-mediated Japanese acquisition. The Modified Grounded Theory Approach (M-GTA) proposed by Kinoshita (2020) is applied for analysis. Rooted in interview data, concepts and categories are generated, and at his stage a preliminary model (Figure 1) has been proposed to show the process of game-mediated L2 learning.

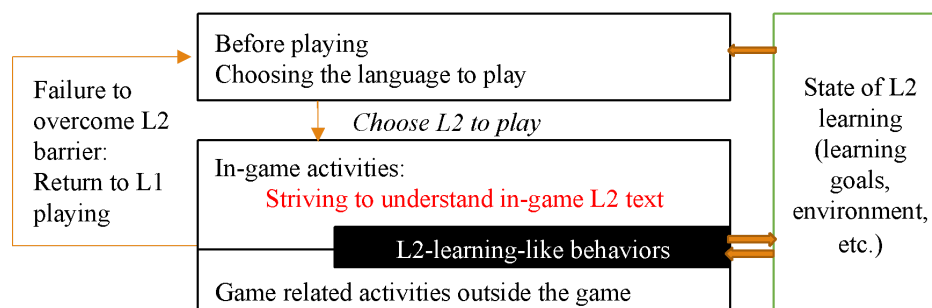


Figure 1 A preliminary model process of game-mediated L2 learning

Future Research Plan

More data will continuously be collected from the interviews, observation and the internet and be analyzed to make the model more specific and representative. The research will finally provide implications for game-mediated L2 pedagogy, for providing guidance for L2 learners on how to use L2 NGB to learn autonomously and effectively, and for future development of games for L2 learning purposes.

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The Branding of Japanese Food in the Yakuza series

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Keywords: Branding, Japanese culture, food in games, food studies, Yakuza

Abstract

This is a work-in-progress (WIP) study on the branding of Japanese food in video games. The research is planned to be conducted during the authors' research stay in Japan (approx. August 2022 – January 2023). The method, inspired by Lamerichs' article on game food and fandom (2021), will be a combination of a touristic food ethnography and a close-reading of the food in the Yakuza series (Sega 2005–2020). The case study for the conference in particular will be the Sotenbori area in Yakuza Kiwami 2 (Sega 2017) that is based on Osaka's Dotonbori area. The study will be further developed during the research and writing of the final article. The research question of the study will be: how is Japanese food branded in video games?

The topic of food occupies a surprisingly small part in game scholarship with only few sources on the topic of food and fandom (eds. Reinhard, Largent, and Chin 2021) or as an exhibition in The Finnish Museum of Games (Ojanen and Wiik 2021). Most notably the recently published book *Delicious Pixels* (Waszkiewicz 2022) shows how video games use food as a complex means of communication and meaning-making.

At the same time, there exists a tenacious and archaic historical practice that dichotomizes entire fields of cultural production between Japanese and Western versions (Tobin 1992), which says nothing about the Japanese-ness or Western-ness of the objects themselves (van Ommen 2018). Video games from Japan, especially those under the denominator of Japanese role-playing games (JPRGs), are one of the many cultural objects negotiated as a foreign object against Western video games – often Western RPGs (see Pelletier-Gagnon 2018). Their cultural distinction is even used by the Japanese game industry to sell their products overseas as distinct from other game genres (Consalvo 2016, 110).

This dichotomy between Japanese and Western cultural products applies to the cultural production and consumption of food as well. In their extensive work on the branding of Japanese food, Cwiertka and Miho (2020) reveal that during the modernization policies of the early Meiji period (1868–1912), lives of the Japanese elite were separated into two social spheres: *yō* (Western) and *wa* (Japanese). This in turn led to a distinction in *yōshoku* (Western-style dining) and *washoku* (Japanese-style dining) that remains vividly present in the current day (30). Cwiertka and Miho argue that the heritage of *washoku* is “a modern construct that reveals more about Japan's twentieth-century transformations than about age-old culinary traditions”, and a “contemporary continuation of the long-standing practice of the configuration, and reconfiguration, of foods for commercial purposes” (9 – 10).

Given the Japanese industry's strategy to brand their game products overseas as Japanese as a selling point, we therefore assume the position that the virtual Japanese food in our case study continues the longstanding practice of foods for commercial purpose to sell Japanese video games as ‘Japanese’, perpetuating the dichotomy in the process. This way, our research intends to contribute to the growing critical food studies in game scholarship through the representation and utilization of Japanese food in video games and how they construct a sense of Japanese-ness to its players.

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3DCG spatial representation with partial scaling in response to viewpoint movement operations

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Keywords: 3DCG, Scaling, Multiscale traveling, Rakuchu Rakugai Zu

Abstract

Scaling space is effective when traveling long distances in 3DCG. However, finding smaller and far destinations is difficult in Over-scaling. Based on features of “Rakuchu Rakugai Zu”, a representative in the history of Japanese art, we created an expression model buildings farther away are displayed in a larger size with fewer extracted. This model can be expected to find interest object by chance and make it a new destination during a stroll.

1. Introduction

3DCG spaces are good at accurately representing distances and object sizes. However, even in 3DCG, there are cases when the apparent distance or object size should be changed by temporarily changing the world scale. For example, Multiscale traveling, which moves after interactively scaling of space, is used when traveling long distances. Multiscale traveling is valuable for exploration navigation in “donot know the coordinates of a particular destination” (Zhang 2009, p.111). However, finding smaller and far destinations is difficult because Over-scaling makes building details indiscernible. It is also hard to expect to find interest object by chance and make it a new destination during a stroll with no fixed destination in Over-scaling. “Eye-Level Scaling”(Abtahi et al. 2019) , the center of scaling at the user’s eyes, is a solution for smaller objects, but is powerless for far objects, “GulliVR”(Krekhev et al. 2018), certain points of interest enhance with bounding boxes and pull toward the point when returning to scale, allows easy access to small and distant objects, but discovery and destination decisions are not left by chance. Therefore, in this study, we designed a scale change that can induce travel by chance focusing attention on a far object and using that object as a destination.

2 Idea

As long as accurate perspective is concerned, far objects are difficult to find because they appear small. Therefore, we took an idea from classical paintings before perspective projection, especially “Rakuchu Rakugai Zu” a representative folding screen painting in the history of Japanese art. “Rakuchu Rakugai Zu” is a bird's-eye view of 16th century Kyoto, but it does not depict all the buildings visible from the viewpoint. Since only representative buildings are extracted and drawn, resulting in a surplus of space. Those extracted buildings are emphasized to larger than actual appearance by using the surplus of space. To maintain a constant drawing size even for far buildings, the farther away from the viewpoint, the less is extracted. This allows we to see the whole of Kyoto, while at the same time grasping and focusing attention some of individual far building details.

3 implementation

Based on these features of “Rakuchu Rakugai Zu” we created an expression model that uses multiple scales. This model loads ordinary 3DCG map and displays a scaled copy of that map. Buildings near the user's current location are displayed in the original size, and buildings farther away are displayed in a larger size with fewer extracted. It looks a little like a “Rakuchu Rakugai Zu” when viewed from the

bird's-eye view. In this model, extracted far buildings are displayed in large sizes, so it is possible to find something by chance and use it as a destination for a travel(see Figure 1). As the user moves the viewpoint to reach the destination and the current location changes, the scale continues to partially change to match the current state. So there is potential for further discover by chance. The building extraction criteria can be completely random, predetermined, directional random by building parameters, or combined with user movement operations.



Figure 1: Comparison of the visibility of far buildings between the original 3DCG map and our Rakuchu Rakugai Zu like model

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An Exploratory Research on Game Design that Supports Operation with Sound: Considering Production Process Through the Development of Videogame for Investigation

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Keywords: Video Game, Visually impaired, Accessibility, Accessible games

Abstract

Recent video games are assumptions of using vision and are difficult for the visually impaired to play. Therefore, this paper discusses the methods and effects to conveying visual information on the game to the player as sound. The factors were investigated that make it difficult for visually impaired people to play video games, and games designed to prevent these factors from occurring were created. The results of a questionnaire surveys and semi-structured interviews with people who played this game showed that providing decision criteria as sounds can assist operation even when the player does not have access to visual information.

1. Introduction

In recent years, most video games are based on the premise of using vision. Therefore, playing those games and sharing the gaming experience with others is not easy, especially for the visually impaired. As a previous studies, there are some examples of developing new games that play only with sound. However, the purpose of those studies is not to improve the accessibility of video games. Therefore, this study analyzes the main factors that visually impaired people find it difficult to play video games using a review site on the Web and considers a method of transmitting video game's visual information to the player by sound so that the factor can be solved.

2 methods

Firstly, we analyzed the factors that make it difficult for the visually impaired to play video games. This analysis was conducted by referring to Internet review sites for visual accessibility of commercially available video games. Secondly, the video game "Lively Cosmos" was created for verification (see Figure 1). That video game was designed the game was designed so that the factors listed do not occur. Finally, 38 people who played "Lively Cosmos" were surveyed and semi-structured interviews were conducted.



Figure 1: The screenshot of "Lively Cosmos" which the video game for verification. The genre of this game is "rhythm game".

3 results

An analysis of review sites shows that visually impaired people find it difficult to play video games because they do not have a basis for decision making due to the lack of sound feedback, such as sound effects and character voices. Therefore, the game used for the verification was designed to be able to determine from the sound whether the player's input was successful and what button the player should press next. The results of a questionnaire surveys and semi-structured interviews with people who played this game showed that when the game is enhanced with sound effects and character voices, players are more likely to grasp their situation from the sounds. Therefore, it was found that providing decision criteria in video games through sound helps players who are unable to use visual information to operate the game.

4 conclusions

For these results suggest that lack of audio feedback and therefore no basis for operational decisions is a factor that makes it difficult for the visually impaired to play video games. In addition, Games designed to allow players to judge their own situation in the game from sound proved effective in solving the problem. This study provides new knowledge about analysis of factors that make it difficult for visually impaired people to play video games and Proposal and Effectiveness of a Method Providing information from sound to make decisions about operating video games.

In recent years, video games have been used not only for entertainment, but also for educational purposes, such as learning programming, and "serious games," which main purpose is to solve social problems, are becoming more common. Improving the accessibility of games will be important to increase the number of situations in which games are used in society.

Further study will be needed to verify whether the results obtained in this study are equally useful for any genre of game.

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