REPLAYING JAPAN

REPLAYING JAPAN CONFERENCE
AUGUST 9 TO 13 2021

ARTIFICIAL INTELLIGENCE
IN JAPANESE GAMING

Book of Abstracts

KIAS | Kule Institute for Advanced Study

JAPANFOUNDATION 国際交流基金

Ai4 Society

Prince Takamado Japan Centre for Teaching and Research
Bringing people and knowledge together

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Organizing Institutions:

AI for Society (AI4S) signature area
Kule Institute for Advanced Study (KIAS),
and Prince Takamado Japan Centre (PTJC)
University of Alberta

Co-Organizers:

Ritsumeikan Center for Game Studies
University of Delaware
Bath Spa University
Seijoh University
University of Liège
Université du Québec à Montréal (UQAM)
DiGRA Japan

Sponsors:

Japan Foundation Toronto
AI for Society (AI4S) signature area
Kule Institute for Advanced Study (KIAS)
Prince Takamado Japan Centre (PTJC)

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Shuji Watanabe, Ritsumeikan University

Message From the Organizers

It was ten years ago that we held the first symposium bringing together researchers from Japan and the West to discuss Japanese video games. The symposium was held in 2012 in Edmonton Alberta, but it grew out of conversations that took place at Ritsumeikan University in 2011 about the need for a venue for dialogue across cultures about Japanese games. At a meeting after the symposium a group of us from the University of Alberta and Ritsumeikan University decided to start a regular conference on Japanese game culture that would alternate between Japan and other locations for at least a couple of years. Since then the Replaying Japan conference, as we named it, has been around the world and has matured into a vibrant research community. It has been hosted a number of times by Ritsumeikan in Kyoto; it has been back to Edmonton; it has been to Rochester, USA; to the Videogame Arcade in Nottingham, UK; and last summer it was hosted online by the Liège Game Lab, Belgium. That each year the conference grows in quality and breadth of participation is a testimony to the interest of the community. Now we even have a journal of Replaying Japan thanks to Ritsumeikan University. We all look forward to the next ten years.

Over the last ten years, the Replaying Japan conference invited scholars and students to think about Japanese game culture from a variety of perspectives. We first hosted our first themed conference in Ritsumeikan in 2015 in celebration of the 30th anniversary of the release of the Nintendo Entertainment System in North America and the monumental impact it had on the gaming culture. The following year in Leipzig University, we explored the relation between the local and the global, a question pervasive to the study of Japanese games in light of their diverse international audience and circulation networks. We then turned our gaze to the notion of transmediality and the place of videogames in the broader Japanese "media mix" in Rochester, and, in Nottingham, we took a deeper look at the soundscape of Japanese videogames and its relationship to play. We took a step back in 2019 to reexamine the past, present and future of Japanese videogames, and delved forward in Liège in 2020 as we tied the conference to the planned Tokyo 2020 Olympics as an opportunity to examine the diversity of the global eSports movement and the idea of competitive gaming.

This year, the University of Alberta's three organizations, AI for Society (AI4S) signature area, Kule Institute for Advanced Study (KIAS), and Prince Takamado Japan Centre (PTJC) welcome the community for Replaying Japan's second online conference around the theme of artificial intelligence in Japanese videogames. As we acknowledge the rising interest in the ways in which algorithms and data-driven analytics systems have become part of our daily lives, we reflect on how AI has been represented in games, how it affects design and business operations, as well as how it can become a tool that contributes to generate new type of knowledge on Japanese videogames.

Keynote Speakers

Keynote Speaker 1:
"The History of Game AI in Japan"
Youichiro Miyake, Lead AI Researcher for SQUARE ENIX

Youichiro Miyake has been developing game titles while researching game AI technologies as lead AI researcher for SQUARE ENIX over the last 10 years. He has helped develop and design the AI for many games, serving as the AI Technical Advisor for "Final Fantasy XIV "and the Lead AI Architect for ""FINAL FANTASY XV". He was also the AI Technical Director for "KINGDOM HEARTS III," and QA Automation AI Technical Advisor for "FINAL FANTASY VII REMAKE." He is also appointed to some leadership positions, including the Chair of SIG-AI in Japan Chapter, International Game Developers Association (IGDA Japan), Director, Digital Games Research Association (DiGRA) JAPAN, and Director, The Society for Art and Science. He also holds academic positions including that of Visiting Researcher at the Research Center for Advanced Science and Technology, University of Tokyo since October 2018, Visiting Professor at the Institute of Mathematics for Industry, Kyushu University, since 2019, and Specially Appointed Professor, Graduate School of Artificial Intelligence and Science, Rikkyo University since April 2020.

Abstract

"The History of Game AI in Japan"

There is a long history of game AI in Japan, but it is not well known because most '80s and '90s game development documents have not been preserved with a few notable exceptions. In general, the history of '80s and '90s game development in Japan is not well documented, and this is also the case for the history of in-game AI. But many game AI developers including me need the history of game AI because they make a new game AI based on the past knowledge and cases of game AI. Over the past more than ten years, I recorded oral histories from game creators who created AI for games in the'80s and '90s, in order to reconstruct the history of in-game AI development in Japan. In the lecture, I will show both the recent game AI technical design and past game AI technologies. Furthermore the relation between them is explained.

Keynote Speaker 2:
"Games for Cognitive Health and Improved Mobility"
Eleni Stroulia, University of Alberta

Dr. Eleni Stroulia is a Professor in the Department of Computing Science, at the University of Alberta. From 2011-2016, she held the NSERC/AITF Industrial Research Chair on Service Systems Management, with IBM. Her research focuses on addressing industry-driven problems, adopting AI and machine-learning methods to improve or automate tasks. Her flagship project in the area of health care is the Smart Condo in which she investigates the use of technology to support people with chronic conditions live independently longer and to educate health-science students to provide better care for these clients. In 2011, the Smart-Condo team received the UofA Teaching Unit Award. She has played leadership roles in the GRAND and AGE-WELL Networks of Centres of Excellence. in 2018 she received a McCalla professorship, and in 2019 she was recognized with a Killam Award for Excellence in Mentoring. She has supervised more than 60 graduate students and PDFs, who have gone forward to stellar academic and industrial careers. Since 2020, she is the Director of the University of Alberta's AI4Society Signature Area, and since 2021, she serves as the Vice Dean of the Faculty of Science.

Abstract

Mobility and cognition decline, associated with aging and illness, are the two most common, intertwined complexities faced by older adults. Games, in a variety of forms and technologies, offer an engaging method for older adults to exercise their cognitive and physical abilities. VibrantMinds and VirtualGym are two parallel projects that my team has been pursuing to investigate this hypothesis.

VibrantMinds offers a number of well known entertaining games, designed to challenge a person's perception, attention, language and visual processing, and memory. Intentionally designed to become systematically more difficult over time, the users' performance on them provides an indicator of their cognitive skills. At the same time, gameplay can be highly engaging and exercises and may potentially improve these skills.

VirtualGym is an exergames platform, offering a 2D and an immersive VR experience. The user is guided through exercises routines, modelled by exercise specialists in a special-purpose language, and demonstrated by a coach avatar in the former case, and implemented in game mechanics to which the user has to respond through movement in the latter case. VirtualGym exercise routines are adjustable to the user's mobility and, at the same time, challenging.

In this presentation, we will discuss the two systems, the key premises underlying their design, and some initial findings from our studies.

Program

August 9 (MON) MDT / August 10 (TUE) BST/CEST/JST				
	MDT	BST	CEST	JST
Opening Remarks	5:00-5:15 pm	12:00-12:15 am	1:00-1:15 am	8:00-8:15 am
Geoffrey Rockwell, University of Alberta Consul-General Tasukuni Uchida, Consulate-General of Japan in Calgary Yuko Shimizu, Executive Director of the Japanese Foundation				
Keynote Lecture 1	5:15-6:00 pm	12:15-1:00 am	1:15-2:00 am	8:15-9:00 am
"The History of Game AI in Japan" Youichiro Miyake, Lead AI Researcher for SQUARE ENIX				
Session 1	6:00-7:00 pm	1:00-2:00 am	2:00-3:00 am	10:00-11:00 am
"Play and Interaction for DGBL Model" Jeremy White, Ritsumeikan University "Does the AI Need to Die? – Representation of AI in Japanese Visual Novels over the Years" Stanley Wijaya, National University of Singapore "Japanese Zen Culture in Souls Series" Haryo Pambuko Jiwandono, University of Brawijaya "Kyoto Video Games Business Ecosystems" William W. Baber, Kyoto University Arto Ojala, University of Vaasa "Character Affectivity and Temporality in *Newton and the Apple Tree*" Henri Nerg, University of Jyväsky "Japanese Image and Perception in Africa at the Epoch of China's 'Dominance': A Study of Two Diverse Asian States in Africa- A Case Study on Ghana" Ohene Opoku Agyemang, Jinan University Asamaniwa Acquah, Peking University				
Break	7:00-7:15 pm	2:00-2:15 am	3:00-3:15 am	10:00-10:15 am
Round Table 1	7:15-8:00 pm	2:15-3:00 am	3:15-4:00 am	10:15-11:00am
"The Preservation of Video Games" Akito Inoue, Ritsumeikan University Akinori Nakamura, Ritsumeikan University Masaharu Miyawaki, Ritsumeikan University				

Jun Ha Lee, University of Washington
Henry E Lowood, Stanford University

August 10 (TUE) MDT/BST/CEST - August 11 (WED) JST				
	MDT	BST	CEST	JST
Keynote Lecture 2	9:00-9:45 am	4:00-4:45 pm	5:00-5:45 pm	12:00-12:45 am
"Games for Cognitive Health and Improved Mobility" Eleni Stroulia, University of Alberta				
Session 2	10:00-11:00 am	5:00-6:00 pm	6:00-7:00 pm	1:00-2:00 am
"Artificially Human: Xenoblade Chronicles, Astral Chain, and How Language Creates Humanity" Andrea Mariucci "Game A.I. As Performance/Performing: a Theoretical Concept for the Japanese Context" Vincenzo Idone Cassone, University of Turin "Eagle's Computer Warrior: Japanese Arcades to UK Comics via Licensed Third Party Home Computer Conversions" Kieran Nolan, Dundalk Institute of Technology "Vulnerable Machines—Negotiating Humanity and Life in NieR:Automata and Detroit: Become Human" Sebastian Polak-Rottmann, University of Vienna Christina Gmeinbauer, University of Vienna "Artificial Intelligence and the Equilibrium of Failure" Hélène Sellier Laura Goudet "Artificial Intimacy: Gynoid and Artificial Intelligence as Visual Novel Game Character Templates" Luca Bruno, Universität Leipzig "You Must be Tired After Today. Let's Go to Sleep" Susana Tosca, Roskilde University Victor Navarro-Remesal, Tecnocampus, Universitat Pompeu Fabra				
Gathertown	11:15 pm-Noon	6:15-7:00 pm	6:15-8:00 pm	1:15-2:00 am

August 11 (WED) MDT / August 12 (THU) BST/CEST/JST				
	MDT	BST	CEST	JST
Session 3	5:00-6:00 pm	12:00-1:00 am	1:00-2:00 am	8:00-9:00 am

"Game Live Streaming in the Japanese Context: Initial Findings"
Mark Johnson, University of Sydney

"Agent-Based Sugoroku Analysis using Double Sixes"
Nathan Altice, University of California, Santa Cruz
Jared Pettitt, University of California, Santa Cruz

"A Study on the Relationship between "Video Game Uses and Gratifications" and "Creative Attitudes" among University Students Majoring in Digital Game Development"
Fukui Masanori, Tokushima University
Yuji Sasaki, Keio University
Jo Hagikura, Kwansei Gakuin University
Masakatsu Kuroda, Kobe Women's University

"Educational Game Creation & Critical Translation in RPG Maker MV"
Ryan Scheiding, Concordia University
Mimi Okabe, University of Alberta

"Characteristics of Computer Game Players in Japan, the U.K. and China: Results of an International Comparative Survey"
Nobushige Kobayashi
Yuhsuke Koyama, Shibaura Institute of Technology
Ema Tanaka, Meiji University

"A Development Process, Scale and Scope of Console Game Industry in Japan: Through Analysis of a Multiple Connected Dataset"
Yasushi Hara, Hitotsubashi University
Kazufumi Fukuda, International Professional University in Osaka
Akito Inoue, Ritsumeikan university
Fumihiko Ikuine, Chuo Univeristy

"Extracting AI Technologies of Past Digital Games by Using MCS-AI Dynamic Cooperative Model"
MCS-AI 動的連携モデルによる過去のゲームにおける人工知能技術の抽出
Youichiro Miyake, Rikkyo University
Fujio Toriumi, University of Tokyo

Session 4	6:00-7:00 pm	1:00-2:00 am	2:00-3:00 am	9:00-10:00 am

"An Investigation of the Psychological Behavior of Top Japanese TCG Players Using Process Recording of Pokémon Card Games"
Yuuki Shiina, Nagoya Zokei University
Jean-Marc Pelletier

"Under the Radar – Visualizing the Spatial Complexity of "Japanese" Console Videogames"
Martin Roth, Ritsumeikan University

"The Rise and Fall of Popular Amusement: Operation Invader Shoot Down"
Keiji Amano, Seijoh University
Geoffrey Rockwell, University of Alberta

"Interim Report on the Development of Shochiku Kyoto Studio VR Personal Tour System Using Unreal Engine 4"
Seiki Okude, Ritsumeikan University
Lingxuan Shi, Ritsumeikan University
Ryogo Nagao, Ritsumeikan University
Koki Shibaike, Ritsumeikan University
Yuuta Taniguchi, Ritsumeikan University
Ryo Watanabe, Ritsumeikan University
Aknori (Aki) Nakamura, Ritsumeikan University

"Failed Multinational Operations of Japanese Mobile Game Company in 2010s"
Atsuo Nakayama, Keio University

"Moral Management in Japanese Game Companies"
Keiji Amano, Sejoh University
Tsugumi Okabe, University of Alberta
Geoffrey Rockwell, University of Alberta

"Human Relationship Formation through Video Games: A Case Study of a Game Center"
Hiroyasu Kato, Kanto Gakuin University

Break	7:00-7:15 pm	2:00-2:15 am	3:00-3:15 am	10:00-10:15 am
Round Table 2	7:15-8:00 pm	2:15-3:00 am	3:15-4:00 am	10:15-11:00 am

"Theme Park Studies in Japan"
Martin Roth, Ritsumeikan University
T.L Taylor, MIT
Akinori Nakamura, Ritsumeikan University
Yasuo Kawasaki,
Akito Inoue, Ritsumeikan University

August 12 (THU) MDT / August 13 (FRI) BST/CEST/JST

	MDT	BST	CEST	JST
Session 5	5:00-6:00 pm	12:00-1:00 am	1:00-2:00 am	8:00-9:00 am

"Playing with BB in Death Stranding"
Bryan Hikari Hartzheim, Waseda University

"Record Breakers: Forensic Media Archaeology Versus the King of Kong"
James Manning, Royal Melbourne Institute of Technology

"Ainu Digitality and Rethinking the Game Medium"
Andrew Campana, Cornell University

"Beached Dolphin: How the Nintendo GameCUbe Failed"
Izska Barnette, Liberty University

"Character Driven Puzzle Games on the on the Sega Saturn"
Peter Smith

"Japanese Video Games as Tools for Language Acquisition"
Tar Georgiana Lavinia, Babeş-Bolyai University

"From Jipang to Midgar: National Allegories in Japanese Role-Playing Games"
Nökkvi Jarl Bjarnason, University of Iceland

"A Study of Tourism Photography in In-Game Photography: A Case Study of Snapshot AI"
インゲームフォトグラフィーにおける観光写真に関する研究—自動生成写真を事例としてー
Yuka Fukuura, Hokkaido University

"China's Governmental Restriction and Game Players' Countermeasures to it: The Virtual Place Created in Battlefield 4"
欧米戦争ゲームの中の中国表象——「Battlefield 4」に対する政策とプレイヤーの取り組み
Shiyu Yang, Ritsumeikan University

Round Table 3	6:15-7:00 pm	1:15-2:00 am	2:15-3:00 am	9:15-10:00 am

"Ten Years of Dialogue: Reflecting on Replaying Japan"
Koichi Hosoi, Ritsumeikan University
Rachael Hutchinson, University of Delaware
Mitsuyuki Inaba, Ritsumeikan University
Akinori Nakamura, Ritsumeikan University
Jérémie Pelletier-Gagnon, University of Alberta
Geoffrey Rockwell, University of Alberta
Mimi Okabe, University of Alberta

Break	7:00-7:15 pm	2:00-2:15 am	3:00-3:15 am	10:00-10:15 am
Gathertowm	7:15-8:00 pm	2:15-3:00 am	3:15-4:00 am	10:15-11:00 am
Business Meeting	8:00-9:00 pm	3:00-4:00 am	4:00-5:00 am	11:00 am-Noon

August 13 (FRI) MDT/BST/CEST/ August 14 (SAT) JST				
	MDT	BST	CEST	JST
Session 6	9:00-10:00 am	4:00-5:00 pm	5:00-6:00 pm	12:00-1:00 am

"Links to the Past? Formulating and Recreating Built Environment from Medieval Japan"
Philippe Depairon, Université de Montréal

"A Visual Analysis of the Cards in Fate/Grand Order Arcade"
Victoria McArthur, Carleton University

"Kamurocho, Kazuma and I: the Experiential Cartography of a Digital Town in the Yakuza Series"
Leandro A. Borges Lima, Universida de Federal do Rio Grande do Sul

"Transculturality in Kingdom Hearts: Character Design and Generational Appeal"
Rachael Hutchinson, University of Delaware

"Transnational Taikos: Donkey Konga and Taiko no Tatsujin as European Distributed (Hyper)Cultural Products"
Beatriz Pérez Zapata, Valencian International University/Tecnocampus, Pompeu Fabra University

"Playing to Protect the Nation: Conservative Frames and Nationalist Nostalgia in Tōhō Project"
Sebastian Sabas, Heinrich Heine University Düsseldorf

"Graffiti Activism or Slacktivism: Computer-assisted Analysis of the "Blitzchung" Controversy and the #Boycottblizzard Movement"
Jérémie Pelletier-Gagnon, Université du Québec à Montréal
Patrick Deslauriers, Université du Québec à Montréal
Louis-David L. Renaud, Université du Québec à Montréal
Maude Bonenfant, Université du Québec à Montréal

Break	10:00-10:15 am	5:00-5:15 pm	6:00-6:15 pm	1:00-1:15 am
Session 7	10:15-11:15 am	5:15-6:15 pm	6:15-7:15 pm	1:15-2:15 am

"Curated Expressions of Japanese History in Sid Meier's Civilization VI"
Michael Pennington, Bath Spa University

"Japanese Digital Games in Czech Media Discourse"
Marek Mikeš, Masaryk University
Zdeněk Záhora, Masaryk University

"Eating Your Way Through Sugoroku: Imaginary Travel in a Japanese Board Game"
Bianca Chui, University of British Columbia

"Remediating Video Games: Early Game Theory in Unlikely Places"
Jonathan E. Abel, Penn State University

"#MewToo: "Spoofer Stalkers" and the Safety of Femme and Women Players of Pokémon GO"
Stéphanie McKnight, Carleton University

Conference Closing in Gathertown	11:15am-12:15 pm	6:15-7:15 pm	7:15-8:15 pm	2:15-3:15 am

Abstracts

Round Table 1

"The Preservation of Video Games"

Participants:
Akito Inoue, Ritsumeikan University
Akinori Nakamura, Ritsumeikan University
Masaharu Miyawaki, Ritsumeikan University
Jun Ha Lee, University of Washington
Henry E Lowood, Stanford University

This roundtable is organized to discuss the preservation of video games.
The theme of video game preservation is a long-term mission that can be accomplished through the collaboration of various stakeholders and experts. First, those involved in the preservation and organization of video game materials will introduce their respective efforts in Japan and the United States.
After that, we will discuss what the people in charge of each project think about some of the issues related to the preservation of video games.
The following issues are assumed as specific issues.

- Copyright and Access: In each country, there are legal restrictions and problems of coordination with the right holders in utilizing the preserved games and game related materials.
- Organization of game related materials: Multilingual support for games, organization of materials built up during the development process of games, etc.
- Emulation: Emulation has become one of the major tasks for software preservation.
- The Effect of Covid 19: Covid 19 is also having an impact on video game preservation projects. We will discuss the impact of the Covid 19 pandemic on video game preservation efforts.

Through this discussion, we hope to clarify the similarities and differences in preservation between Japan and the U.S., and to promote mutual cooperation.

Round Table 2

"Theme Park Studies in Japan"

Moderator: Martin Roth, Ritumeikan University
roth1003@fc.ritsumei.ac.jp

Participants:
T.L Taylor, MIT
Akinori Nakamura, Ritsumeikan University
Yasuo Kawasaki,
Akito Inoue, Ritsumeikan University

While Game Centers in Japan have received increasing attention from Japan-focused game scholars, the broader field of theme parks and amusement facilities has not been considered from this perspective. The success of Disneyland Tokyo and other theme parks during the bubble economy in the 1980s inspired academic discussions of their character as simulations or simulacra. The subsequent burst of the bubble prompted an interest of theme parks as potential sources of rural and urban revitalization. Today, theme parks are reconsidered in the context of Corvid. Taking note of these trajectories, this round table aims to consider potential avenues for Game Studies and Play Studies-based perspectives on theme parks in Japan and around the world. The round table participants will provide a short pitch of their current work and potential next steps. In the subsequent discussion, we hope to identify common ground between the different approaches and explore concrete future research steps at the intersection of Japan, Theme Park Studies and Game Studies.

Round Table 3

"Ten Years of Dialogue: Reflecting on Replaying Japan"

Participants:
Koichi Hosoi, Ritsumeikan University
Rachael Hutchinson, University of Delaware
Mitsuyuki Inaba, Ritsumeikan University
Akinori Nakamura, Ritsumeikan University
Jérémie Pelletier-Gagnon, University of Alberta
Geoffrey Rockwell, University of Alberta
Mimi Okabe, University of Alberta

The Replaying Japan conference will have been going now for ten years if you include its predecessor symposium that was held in 2012 in Edmonton, Canada.[1] It is time to reflect back on this sustained dialogue across cultures about Japanese game culture. In this panel we will each briefly discuss, from our different perspectives, three questions around 1) the background history of the conference, 2) the goals of the dialogue as they have evolved, and 3) the future challenges and opportunities.

1. Some History:

What is the background history of the Replaying Japan community?

The encounter around Japanese Game Culture came out of the willingness of Ritsumeikan University to host Geoffrey Rockwell as a Japan Foundation Japan Studies Fellow in Kyoto in 2011. While Rockwell worked closely with researchers like Prof. INABA at the Ritsumeikan Digital Humanities Centre for Japanese Arts and Culture (https://www.dh-jac.net/), he also got to meet Professors Nakamura and Koichi at the Ritsumeikan Centre for Game Studies (https://www.rcgs.jp/). Out of these conversations it became clear that game studies in the West and game studies in Japan were not in conversation. The research communities were siloes working in their own languages that didn't intermingle much. We agreed that we needed to try to bridge the communities and organized a first small symposium in 2012 in Edmonton with support from the Prince Takamado Japan Centre at the University of Alberta. At a meeting right after the symposium we developed the idea for a conference that could go back and forth between Japan and the West called Replaying Japan. Initially the conference just went back and forth between Kyoto and Edmonton, but we soon started going to Europe and the USA which expanded the network.

2. Evolving Goals:

What are the goals and achievements of the community?

In the panel we will reflect back on what were the goals that we had for Replaying Japan. Of course, some of these goals emerged over time as we figured out what we're doing. Some of the goals include:

[1] Strictly speaking the first Replaying Japan conference was the next year, 2013, held at Ritsumeikan University. For this reason the 2021 conference is the Ninth conference, though it will be ten years since we started meeting.

- To continue the dialogues across culture that had taken place in Kyoto and at Digital Humanities conferences in a more structured fashion.

- To expand the field of game studies to include the study of Japanese game culture and associated topics like games and education.

- To introduce new researchers, whether graduate students or junior faculty to international research creating a safe space for them to find their voice.

- To create a space where researchers could develop collaborations.

- To exchange ideas about shared issues like methods for games research, approaches to game development education, and problems in game archiving and preservation.

3. Future Challenges and Opportunities

What are the challenges and opportunities ahead?

The panel will end by discussing future challenges and opportunities. We believe that one of the challenges includes the perennial problem of translation. Many researchers speak only English or Japanese which makes it difficult to bridge linguistic communities. By default we have operated mostly in English while trying to provide translation services to those that need them, but this continues to be an issue that needs to be addressed if we are to be inclusive.

One way to alleviate imbalances of access to knowledge in the field would be to promote translations from and to Japanese. Translation of work from other linguistic regions into English is scarce in game studies compared to other fields, perhaps due to a lack of incentives or perceived value of such important work. However, it is a core element of the spirit of dialogue of our community. The Replaying Japan conference (or journal) could be a space that provide such an incentive through dedicated annual panels or a journal section.

Another issue is the need to see more women's involvement in Replaying Japan on the Japanese side. Having more women scholars, developers, etc (and/or those who identify as women) will better promote an image of the conference as an inclusive space. It would also give us an opportunity to connect with scholars who are doing interesting work and help support our goals.

Finally, will discuss communication tools and solicit input from the audience. How could the community use email listserv lists and could we use the closed captioning features of videoconferencing tools to provide translation? How can the Replaying Japan journal help build the research community?

Conclusion

The panel looks forward to hearing from the audience. After all, this conference and associated activities by you and for you. Tell us what you think at the conference online.

Session 1

"Play and Interaction for DGBL Model"

Jeremy White, Ritsumeikan University

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The importance of English as a test subject in Japan has always been apparent, especially at the junior high school to university level. However, the need for English at all levels of schooling and society is also increasing in Japan as both students and the general public look to become more international. Since 2020 compulsory English education involves an extra four years of English, bringing Japan in line with its Asian neighbors (Nunan, 2003). The use of the grammar-translation methodology of instruction, a teacher-centered methodology, has been theorized to be one primary reason why extra years of English education alone will have little effect on English communicative competence. Digital game-based learning (DGBL) is a broad field that incorporates various platforms and games. These include COTS, serious games explicitly developed for educational purposes, and virtual worlds (Brown et al., 2018). In contrast to the teacher-centered grammar-translation methodology, DGBL is student-centered, allowing for playful social interactions in the target language and often enhancing student motivation (Anastasiadis et al., 2018).

One of the issues with play and DGBL is that it is difficult to measure, with current play measurements such as the *Play Observation Scale* (Rubin, 2001) focused on classroom learning scenarios. The current study has developed a new model, the *Play and Interaction for DGBL* Model, to resolve this issue by modifying POS for DGBL. The new model uses the conventional social play, cognitive play, and non-play behaviors of POS but has created new subcategories that better reflect the DGBL environment.

The current 11-week study will use the *Play and Interaction for DGBL* Model to investigate how low-level Japanese English language learners play when completing tasks and interacting over the chat function of the popular game Minecraft. Minecraft, a popular sandpit game, was selected for this research as the researcher could create tasks within the game that the students needed to complete through target language interaction in the chat function within the game. The study will show how the students in the digital world were observed in the social play category for significant periods of time. Social play is theorized to be the location that creates opportunities for authentic, student-generated English language output. The study will also show that student's motivation to learn English through games and their perception of English language learning through games increased after the Minecraft gaming sessions. The presenter will conclude with a discussion on DGBL and games such as Minecraft and its future in the Japanese education system.

References

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"Does the AI Need to Die? – Representation of AI in Japanese Visual Novels Over the Years"

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AI has long been part of the fabric of contemporary Japanese science fiction. Early depictions of artificial intelligence centered around self-determined physical robots such as Tezuka's famous *Astro Boy*, but as our conception of AI shifts so have the ways AI are shown. More recent depictions of AI explore their possible presence and influence in our increasingly digital lives. As AI rapidly evolves beyond a hypothetical science-fiction concept and into our practical day to day realities, it is pertinent for us to examine how our sci-fi media has laid the groundwork in characterizing and explaining what AI are, what they can do, and our fears and aspirations towards them.

This paper looks back on the changing representation of AI as characters in Japanese games: how they are portrayed, their place in the narrative of these games and the ways humans interact with them. Whether positioned as malevolent antagonists or personable, intimate companions, the depiction of AI in games reflects the many ways AI are thought of and depicted in popular media. Focusing on the game genre of Visual Novels, we narrow the focus of our analysis towards Japanese games that are narrative centric, with extended stories and a focus on personal relationships, to examine more closely the imagined future shared between AI and humanity.

Utilizing a paired approach of close reading as well as examining contributions to the Visual Novel Database (vndb.org), an English language crowd-sourced wiki focusing on the Visual Novel genre, we investigate how AI as a concept and character developed from the early 2000s to 2019. The database is used as a starting point, to identify titles which have AI as characters within them. From these identified titles, this paper plans on examining a subset of these games through the stories they tell, playing through English language translation of these games. Games that are planned to be analyzed include early works such as *Ever 17* (2002), AI centric stories such as I/O (2006) and Baldr Sky (2009), to more recent ones such as *AI: The Somnium Files* (2019).

Through these games, certain archetypes of AI emerge, as well as patterns with regards to their role in the stories told. Of note is the exploration of the future relation between humanity and AI, with different stories tackling different issues that might emerge in an AI-filled future. From tackling the concept of digital immortality to the issue of disembodied romance, the stories of AI in Visual Novels explore the imagined impact of AI on society, both on the societal level to its effects on intimate personal relations. Through this research, the paper hopes to uncover the trends and patterns in the discourse surrounding AI within games.

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"Japanese Zen Culture in Souls Series"

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Since its introduction to Japan in 13th century, Zen has become a pillar philosophy of Japanese culture (Suzuki, 1959). *Zen* emphasis on perfect conditioning of body and mind in achieving tasks (Suzuki, 1959). Suzuki (1959) elaborates this premise by giving example of how samurais, artisans, and religious figures in Japan often took a lot of attention to details in their field of work. The purpose of this approach is the erasure of self. Zen dictates that consciousness in committing task will hinder its success, as self-identity and physical faculty create disunity (Suzuki, 1959; Saha, 1992). Perfection in completing task can be achieved through emptiness and total commitment. *Zen* names this state as *muga* or non-ego where one's being is fully dedicated to the craft; free of distracting thoughts and emotional condition (Suzuki, 1959).

The practice of Zen is centred on rigorous training, where practical steps must be undertaken meticulously until perfection is reached and become a second nature (Suzuki, 1959; Saha, 1992). The goal of achieving a task is not only the result, but also the betterment of being (Suzuki, 1959; Saha, 1992). Zen also conditions one to not be easily satisfied as the world is a challenging place; similar to Buddhist concept of worldly suffering that will only end when a person reach enlightment (Suzuki, 1959). The concept of *kaizen* emphasizes that perfection can be achieved when there is harmony between a person and their environments. This implies that Japanese culture requires personal goal to be attuned to the environmental demand as opposed to encouragement of personalized goal in Western culture (Suzuki, 1959; Saha, 1992).

The *Souls* series from Japan's FromSoftware provide an interesting philosophy and practical implementations of Zen in digital games. Vella (2015) argues that *Souls* series generally deny players from sense of heroic accomplishment. The game's environment is filled with mystery, where failure is almost a certainty. Success in *Souls* series require mastery as players are afforded with a blank-state avatar that needs to be honed. The stake of failure is high, and players need to acutely adjust themselves with the series' often highly demanding ludic affordances. In contrast with many games of similar convention which are developed in the West, players cannot rely solely on investment on personalized character build in *Souls* series. Instead, they are demanded to perfectly attune their skills with the game.

It is similar to Zen's philosophy of self as a hindrance to accomplishment, whereas unity of one's mind, body and surrounding is of paramount importance in accomplishing task. Furthermore, Menuez (2017) argues that *Souls* series embody Buddhist metaphysic in which the world is bleak and full of uncertainty. Zen's goal of *kaizen* also reflects Japanese masculinity (Hiramoto, 2015).

This proposed full-paper will discuss the expression of Zen in *Souls* series, with special focus on the series' artificial intelligence in affording players' interaction within Zen's frameworks.

This proposed full-paper will use qualitative content analysis as its main data analysis method with Zen's concepts of *muga* and *kaizen* as its main coding categories.

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"Kyoto Video Games Business Ecosystems"

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In Kyoto, the video games segment is well developed with more than 30 businesses identified plus, of course, a world leading company, Nintendo.

Business ecosystems, in which firms create value as they circulate resources, are interesting because of their sustainability, robustness, and structures. Building on the concept of Business Models, which have become an important tool for understanding how organizations function (Osterwalder, Pigneur, and Tucci 2005), this study investigates ecosystems by building an Industry Model (Wirtz 2019). The Industry Model identifies pathways of interaction, cycles, and patterns in ecosystems. Kyoto is home to two major ecosystems, one primarily foreign owned, and one Japanese owned. The two ecosystems are linked by some common interests yet remain divided by others. The Industry Model developed for this study is based on interviews with key participants, including seven firms and a freelancer, as well as data from public sources. The Industry Model is presented in graphic formats such as wire diagrams, a conceptual business landscape, topical space developed around hubs, and other means.

Further investigation of the ecosystems is based on Topical space, from management geography studies (Brinkhoff, Suwala, and Kulke 2016), which helps understand how firms and individuals interact, often indirectly, through topics, events, and issues.

That Kyoto is home to video game firms is mainly due to the presence of Nintendo, but the presence of foreign owned firms is explained not only by proximity to that leading firm. Some of the founders, and many employees, selected Kyoto for its lifestyle and atmosphere. The survival and some successes of these firms can be attributed to the drive of the founders as partly to the impact of the ecosystem (Moore 2016; Fransman 2018) they have created. The existence of dual ecosystems is all the more interesting in a medium sized, ancient city that exerts a strong attraction on founders and workers in video games. Of particular interest among the findings are the topic hubs that activate individuals. These include events, technologies, concerns about workforce, service providing firms, freelancers, and so on.

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"Character Affectivity and Temporality in *Newton and the Apple Tree*"

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This paper studies the character affectivity and temporality in the Japanese visual novel *Newton and the Apple Tree*. The paper aims at analyzing different affections and emotions the game's characters evoke in players. Uniquely, affect is understood here as a neuropsychological concept derived from Jaak Panksepp's empirically observed categorization of seven primary emotions of humans and animals. This theory is accompanied with a theoretical framework in the studies of Japanese popular culture, thus placing the study in its regional context.

The paper first introduces visual novels, their characteristics and relations to other transmedial forms of Japanese popular culture and other narrative media, especially videogames. Then the paper introduces affect as a concept derived from neuroscience and relates it to the characteristics of Japanese popular culture and pornographic media. After this the paper analyzes the affects of *Newton and the Apple Tree*'s fictional characters evoke in players based on Panksepp's categorization of primary emotions and the affects derived from them from audiovisual, narrative and temporal viewpoints.

The paper shows how the fictional characters act as major elements in evoking the affects felt and experienced by the players, as well as how temporality affects them. The paper connects the qualitative analysis of characters, narrative, and the world surrounding them with quantitative analysis of temporality and categorization of empirically studied primary affects and emotions. The paper offers an analysis on a subject often neglected but nevertheless important parts of the transmedial continuum of Japanese popular culture as well as videogame culture in general.

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"Japanese Image and Perception in Africa at the Epoch of China's 'Dominance': A Study of Two Diverse Asian States in Africa- A Case Study on Ghana"

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Japan's engagement with African states takes a 'more calm approach' as opposed to the rigorous and progressive model by China. Japanese foreign policy in Africa revolves around TICAD and shared common values with African states. China on the other hand through FOCAC traces its South-South cooperation with Africa as the nexus for its stronger ties with the continent. With the increase in Chinese and Chinese companies in African, the concern is raised by the image and perception that African hold about Japan as its presence has been 'sluggish' of a sort? The diverse state nature of Japan and China have been a developed economy and with advanced technology that positions Japan in a higher soft power advantage as opposed China, a developing state. However, with the proliferation of Chinese cheaper products in Africa, China re-gains 'dominance'. The study delves into the perceptions Ghanaians hold about Japan as opposed to China within soft power, that the two states possess. The study addresses the central research questions by administering a semi-structured interview guide to 67 respondents. These respondents were purposively sampled. The focus of this research was to assess the growing influence of China in Ghana in a juxtaposition of the already existed engagements between Ghana and Japan. The study found out that although China's presence dominates the minds and sight of Ghanaians, the perception held by Ghanaians about China as opposed to Japan differs in sociological, technological, values, and approach.

Session 2

"Artificially Human: Xenoblade Chronicles, Astral Chain, and How Language Creates Humanity"

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While some contemporary branches of robotics research focus on a more sophisticated AI over a more relatable object for humans to interact with, others take a mixed approach, favouring physical presence as much as they refine the machine's mental capability for social interaction (Shaw-Garlock 2009). The latter branch is especially significant, as research on cognition and HRI (Human-Robot Interaction) has shown the extent to which a robot's physical and social presence shapes a person's reaction to the machine. Namely, how factors such as motion, physicality, and sound influence our perception of any robot we may interact with (Giger, et al. 2019; Osawa et al. 2020). Any impression leads to different forms of categorisation of the robot with which we are interacting (e.g., gender) thereby triggering our biases towards any resulting mental construct, as shown by Robustelli (2019). Moreover, the approximation of artificial intelligence to human consciousness urges scholars to reconsider the boundaries of human rights as intellect is no longer the defining trait of humanity alone (Petersen 2007).

Bearing in mind the relevance of the relationship between human and artificial existence in the collective imagination, as demonstrated by the richness of both scholarly and literary exploration of the topic (Bing 1992; Gilson 1998; Bartneck 2004; Marr 2004; Geraci 2006; Robertson 2007; Gisondi 2009; Rosiello 2016), the aim of this research is to give a critical reading of artificial life as depicted in videogames in the spectrum ranging from fear to fascination, demonstrating the role of language in the process of making a character human. This presentation analyses the representation of mechanical objects and artificial life forms in three Japanese videogames, in order to acknowledge the contribution of speech to the imbuement of non-human sentient entities with human-like features, as well as its repercussions on storytelling as a whole. Linguistic and visual signifiers will be considered in the context of narration and gameplay, as well as the player's agency in relation to the machine itself.

The first example to be analysed is that of *Xenoblade Chronicles 2* (Monolith Soft 2017). The game's weapon system comprises a wide pool of choices, all consisting of anthropomorphic or beast-like artificial life forms. Our analysis will highlight how not only visual signifiers, but also the presence of language and its variation within Kinsui's framework of role language (2003) contributes to character construction. The second object of analysis is *Xenoblade Chronicles* (Monolith Soft 2010). The game features machines both as allies and as enemies. Our analysis will show how language serves to humanise or de-humanise different instances of robotic characters based on their narrative role in relation to the player. Lastly, this enquiry considers the game *Astral Chain* (Platinum Games 2019) and observes in detail how a semiotically barren object – an undecorated, minimalistic vending machine – is given characterisation through linguistic attribution. Namely, the vending machines show a wide range of variation in their linguistic uses, not wholly ascribable to role language. In addition

to that, it will be demonstrated how linguistic specifications inform the user's experience of the environment in which the vending machine is located.

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"Game A.I. As Performance/Performing: a Theoretical Concept for the Japanese Context"

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At first sight, the Japanese landscape of A.I. may seem contradictory: its industry is often depicted as underdeveloped in comparison to the Western ones ((Lundin&Eriksson 2016, Garcia 2019), mirrored in this by the perception of its implementation in games. (e.g. Resetera, Reddit). On the other hand, Japan is considered one of countries with a deep 'robotic/A.I. culture' (Sone 2016), whose representation in the Japanese mediascape is rich and diversified (Baba 2004, Robertson 2018).

Despite the long-term relationship between games and A.I., only recently researchers began to discuss the importance of an integrated perspective for its study, one which could make interact the dimensions of technology with game design and cognition, to provide mutual understanding and progress (Togelius 2019: xiv-xv). This integrated frame, however, still underplays a key dimension: the cultural representation of A.I. in the mediascape and its broader cultural discourses.

Even before its technological inception, A.I. was part of the cultural imaginary, *via* tropes of man-made artificial life and intelligent otherness (Cave et al 2018). Far from separated, the existence of a relationships between A.I. representations, its technological implementations and broader social attitude has been suggested by many (Haring et al 2014, Dang and Liu 2021). From this perspective the Japanese culture represents a significant object for an integrated analysis.

The aim of this contribution is to propose a theoretical concept for the debate on Japanese Game A.I., which make communicate the cultural dimension with the technologic, design and cognitive ones: the understanding of **game AI as performance/performing**. Symbolically linked to Turing's idea of 'imitation game' (Natale 2021:18-32), it identifies two main complementary cultural rhetorics of intelligence, which reflect specific ludic principles, and translate into different forms of A.I. implementations:

- on the one hand, intelligence as the ability to efficiently execute a task (performance), which can be connected to the principle of agon and strategic thinking, and to game mechanics as formal systems of constitutive rules (Salen and Zimmerman 2004); this translates into the different forms of historical AI algorithms of optimisation and efficient decision (minimax, tree search heuristics, neural networks) and their adaptation into Game AI of NPCs;

- on the other hand, intelligence as the ability to perform a role by mimicking (human) behaviour itself (performing), which connects to play as a form of mimicry and make-believe (Bateson 1956) and to games as theatrical stages for representation; this translates into the many A.I. techniques of human imitation and communication (NLP, chatbots, behavioural trees) and their implementations into role-performing scripts of NPCs.

This contribution plans to present the theoretical concept of game A.I. as performance/performing, describing its complementary sides and their cultural, cognitive, ludic and technologic dimensions. It will subsequently test its heuristic potential by being applied to the context of Japanese game A.I. environment, discussing common patterns in the ludonarrative depiction of A.I. in games (e.g. *Nier Automata*, *Gnosia*), game AI technology (NPC behaviour in fighting and action games) and societal discourses on Game AI (e.g. debate on Shogi A.I.).

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"Eagle's Computer Warrior: Japanese Arcades to UK Comics via Licensed Third Party Home Computer Conversions"

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Computer Warrior (originally titled Ultimate Warrior) was a story that ran in Eagle comic from 1985 to 1993 (Comic Vine, 2021). Eagle comic launched in 1950, introducing sci-fi optimism to the UK's adventure and war themed comics market, as embodied through its lead story Dan Dare, Pilot of The Future (Down The Tubes, 2015). The main protagonist of Computer Warrior was Bobby Patterson, an English school kid summoned into an alternate dimension called the Nightmare Zone, where computer games are real, with real life stakes.

Eagle and its publisher Fleetway frequently ran stories promoting toy franchises, and Computer Warrior followed this trend for home videogames. 36 home computer games were adapted into Computer Warrior stories, several of which were based upon Japanese arcade conversions produced by US Gold for the European microcomputer market (Wilkins and Kean, 2015). No money exchanged hands for these deals, with both Fleetway and US Gold mutually benefitting from the promotion (B. Tomlinson, 2021).

This presentation will focus mainly on two Computer Warrior stories, *UN Squadron* (1990) and *Street Fighter II* (1993). Both of these are based upon Capcom arcade games, but exist in their own continuities within Eagle, creatively merging the ongoing adventures of Bobby Patterson with the characters and environments of both videogames.

In an interview about his process, Computer Warrior writer James Tomlinson revealed that he worked solely with the home computer game as the reference, with the aid of cheat codes to help speed up his progress through the game levels (J. Tomlinson, 2021). Artist Mike Dorey was supplied with the finished scripts and screen grabs of the games, which were drawn in felt tip and ink (JG586, 2020).

Tomlinson's *Street Fighter II* script inventively incorporates the backgrounds of the SF2 levels throughout the story. For example, when Bobby Patterson as Ryu faces Guile, the jet aircraft from Guile's USA background flies low, knocking Bobby off his feet. At the Japan stage E Honda dunks Bobby headfirst into the public bath which is filled with piranha fish, an original interpretation of the character and his environment.

As with *Street Fighter II*, Tomlinson's *UN Squadron* script was written using only the game and promotional materials supplied by US Gold as reference materials. It presents an alternate take on the story, produced outside the influence of the original 1970s and 1980s *UN Squadron / Area 88* manga and anime, including a non-manga illustration style. Patterson assumes the role of in-game character Greg Gates. With UN Squadron's lead Shin Kazama becoming his antagonist during their joint *UN Squadron* missions. As mentioned previously, Eagle was part of the war comics genre, and Tomlinson and Dorey's affinity for military avionics is certainly evident during this story.

Computer Warrior's *UN Squadron* and *Street Fighter II* adaptations in Eagle comic originally had limited exposure beyond their local market. They represent novel cases of videogames travelling across media boundaries in a pre-internet world, migrating from Japanese arcade platforms to UK comics via the intermediary layer of the home computer conversions.

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Vulnerable Machines—Negotiating Humanity and Life in NieR:Automata and Detroit: Become Human"

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Robots, androids, and artificial intelligence have been a common topic in popular culture. In describing non-humans as living beings, these works tell intriguing stories about humanity, human life, and its relation to non-human life. In a similar way as post-humanist theory criticizes humanism for being a normative structure that "transposes a specific mode of being human into a generalized standard" (Braidotti 2013, 26), reflections in popular culture on what is human and what is not may thus offer intriguing entry points for discussing the preconditions for an individual to be recognized as 'life'.

In this paper, we examine two games developed in Japan and France, respectively, to scrutinize how these games define machine lifeforms and how they reflect on (non-)human life per se. The games *NieR:Automata* (Platinum Games 2017) and *Detroit: Become Human* (Quantic Dream 2018) put the players in the roles of androids, while at the same time displaying being human as a normative standard for being alive. Intriguingly, both games discuss ways in which machines become human-like living beings as a result of becoming vulnerable. Our results show that machine life is clearly framed as non-human and also non-life in both game worlds. As in both cases, the androids' bodies can be reproduced easily, the games introduce androids as invulnerable and immortal beings who are built to obey humans. However, the games explore different ways in which machines may nevertheless *become* vulnerable and thus may be recognized as non-human living beings by others.

Analyzing several sequences of the games, we show that *NieR:Automata* primarily emphasizes humans as an idealized norm for androids and other machines, who voluntarily become bodily vulnerable and mortal in order to imitate humans. In this game, becoming human-like is thus necessarily linked to the act of becoming vulnerable. *Detroit: Become Human*, on the other hand, discusses how androids, despite being mechanically repairable, fear being damaged or killed and become aware of their non-human vulnerability. This game displays androids as non-human living beings fighting for acceptance in a human society and thus questions ideas that postulate being human as a precondition to being alive. While *NieR:Automata* states that human-like lifeforms need to live and die like humans, *Detroit: Become Human* suggests that becoming human-like requires to be recognized as equally vulnerable (and thus alive).

In this sense, both games clearly display vulnerability as a precondition to being a human-like lifeform. Most intriguingly, the definitions of life as provided in the games show similarities to Butler's concept of vulnerability as a common feature of life (Butler 2006; 2009) and discuss how humans are constructed as a "generalized standard" for recognizing an individual as being alive. As we aim to explore in this paper, these games offer thorough reflections on ideas regarding 'humans' and 'life' by discussing 'non-human life' within these boundaries.

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"Artificial Intelligence and the Equilibrium of Failure"

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Following Aristotelian beliefs, automata are the "intelligent machines" which are completely different from humans, in a duality where souls are separate from matter (Descartes, 1637). The concept of robot (and the Czech origin of the word) heavily rely on its physicality and its use as a servant/slave to humans, once again reaffirming the human/machine duality. Obviously, these perceptions are culture-dependent (Nomura et al.) Within Japanese productions, with a clear articulation with otaku culture (Azuma, 2009) and the concept of *moe* (Galbraith, 2014), that is the emotional bond to a character, robots are often studied as emotional entities (Galbraith, 2020), sometimes falling under the spectrum of the Uncanny Valley (Schneider et al., 2007). We posit the concept of AIs as the mental counterpart to robotic physicality -- that is, non-organic entities, who eventually turn out to be fallible and ultimately become offsets to both their perfect programming and humans around them. Yuji Sone's concept of "reflexive anthropomorphism" is a good assessment of the way AIs are used as mirrors of our own consciences and weaknesses (Sone, 2017). Furthermore, the tension between technophobia and technophilia accounts for some of the shortcomings AIs exhibit (Hennig, 2020).

Following those trails, our main focus will be to highlight the link between physicality and cognition of AIs, especially when they malfunction or fail, as these crises are the manifestations of the fragile equilibrium they have to maintain.

We endeavor to study a wide set of behaviors in various videogames performed by AIs such as visuals and audio anomalies, hectic and non-human moves, abnormal relationship to the environment. These elements cater to the notion of failure and fragility of these powerful entities. AIs should be deemed kyaras (Ito, 2005) thanks to their lack of humanity but they are often well-characterized (Sadanobu, 2015), even if only by their mistakes. The miscalculations induced by their existences (along with their relative successes) will allow us to draw an outline of the tenuous balance of the negotiated heteronomy between AIs and humans within the same universe in-game. We will resort to discourse analysis, whether written or behavioral, to analyze these discrepancies between the expected and the course of these video games.

The corpus under study will call on various genres to study how dysfunctional psyches (and bodies, to a certain extent) set these AIs apart from humans, while paradoxically bringing them closer together. We drew from various games like Action-RPGs (*NieR*), fighting games (*Street Fighter, Xenosaga* or *Guilty Gear*) as well as more visually-inclined genres like visual novels (*Danganronpa*) and adventure games (*Metal Gear Solid 2: Sons of Liberty*).

Those examples exhibit failure as a fundamental part of video game experience, for the human player (Juul, 2013) as well as the AI character. So the numerous inaccuracies and mishaps may

be common ground for them both, and more than emotions, thought processes or corporeality.

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Artificial Intimacy: Gynoid and Artificial Intelligence as Visual Novel Game Character Templates"

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Kikaijikake no Eve -Dea Ex Machina- (Ninetail 2006) is a visual novel work whose focus is on on providing narrative experiences of intimacy between the player and one or more characters. *Dea Ex Machina* is a lone release amidst a massive and scattered production that sees an average of five-hundred releases each year (Kōyama, Kobayashi-Hichibe and Nakamura 2019). The game, however, stands out for featuring a cast of romanceable characters composed largely of gynoids, artificial intelligences in female bodies capable of simulating and eventually feeling human-like emotions.

In games such as *Dea Ex Machina*, a gynoid character is one of many design templates shared across visual novel and visual novel-contiguous content production. It is part of a character database serving as a meta-genre for works in the field (Azuma 2007: 45-48). Gynoid characters feature across themes and settings, from the high school romantic comedy of *ToHeart* (Aquaplus 1997) to the futuristic tale of man-machine intimacy detailed in *ATRI -My Dear Moments-* (Frontwing 2020). In these tales of intimacy for males, players interacting with gynoids come to term with their capability for human-like emotion and what it means to be human. At the same time, they highlight a repeating pattern of AI envisioned as a complementary but subaltern counterpart to humans, a metafictional reflection of the relationship between players and the characters of video games such as *Dea Ex Machina* (cf. Galbraith 2019, 8-16).

Contrasting the many gynoid characters found in games such as *Dea Ex Machina*, there is a dearth of android characters in visual novel games, especially those featuring a cast of male romanceable characters. Within visual novel works and contiguous media, it seems artificial intelligence is female, complementary but subaltern to a male human. Beyond these surface considerations, gynoid characters elicit further inquiries, especially when the lack of actual artificial intelligence in visual novel games is considered. As a template for character design, a character's status as a gynoid elicits aesthetic reproduction and continuity with existing characters in the field of visual novel works. It projects arrays of potential interaction and narratives, making content reception and reproduction freeform, but not open-ended.

The need for aesthetic continuity and reproduction challenges the open-ended nature of actual artificial intelligence algorithms. Gynoid characters have a prescribed position vis-à-vis the player and the other characters, subaltern and complementary. How does the position of the character reconcile with the actual AI systems it takes inspiration from? Is the character merely a reflex of users' fetishism for technology (cf. Lamarre 2009, 320) subsumed into the character database or does it acknowledge something more? What are the implications for the wider culture of visual novel games?

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"You Must Be Tired After Today. Let's Go to Sleep"

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So says Morgana often in *Persona 5*, preventing the player from going out at night or reading their book at leisure. It is a semi-open world, but the player is not free to make bad decisions like pulling unhealthy all-nighters. Morgana is a personal assistant in the shape of a humanoid cat that is always ready to remind the player what is reasonable to do and how the gameworld works. He (the game insists it is a he despite the feminine name and being voiced by a woman) dreams of becoming human, and conceals his fragility under a cocky, humorous surface.

Cute humanoid helpers like Morgana are common in Japanese videogames: Sophia (*Persona Strikers*), Orion (*Amnesia: Memories*), Fi (*The Legend of Zelda: Skyword Sword*), to some extent A.C.U.A.C. (*Mario Sunshine*). They all establish playful relations with the player and generate different kinds of affect. They are related to fictional characters in other media (like in the films *Tron* and *Silent Running* or the anime *Uchū Densetsu Yurishīzu Sātīwan*), virtual pets like the Tamagotchi, previous usability enhancements like Microsoft´s Clippy, the newest generation of AI assistants (Cao et.al. 2019; Wagner et.al. 2019) like Alexa, Siri, or even Azuma Hikari. While the topic of AI/robots with personality and even emotions is not new (Rousi, 2009; Berque, 2020), videogames need to convey instructions to the player in seamless ways, and the adorable helpers are a way to make this functionality a part of the gameworld. But why are these all-knowing entities portrayed as childish and cute (Dale, 2017)? Why are they often thematized as belonging to a spirit world, as if the machinic connotations of an AI had to be hidden? Why do they want to be human?

We conceptualise this trope as the "kawaii AI companion", after the "fairy companion" trope present in *The Legend of Zelda* games and emphasizing their kawaii aesthetics, an appearance that make them seem unthreatening and lighthearted, but also contradictory, and even ruthless, "vulnerable and in need of protection but also defiantly self- sufficient" (May, 2019). Our contribution interrogates the nature of these characters (Wilde 2019; Lamerichs 2019), the kind of intimacies that are created (Søndergaard & Koefoed Hansen, 2018; Lopatovska et.al. 2020; Aoki & Grainer, 2020), their gendering (Pietronudo, 2018; Dupré, 2020: McIntyre, 2020), and their kawaii entanglements (Schules, 2015; Sugano & Tomiyama, 2019; Okada et al., 2020).

The talk will take its point of departure on our ambivalent experience of interacting with cute humanoid assistants as players of Japanese videogames. It will be shaped as a performed dialogue between the annoyed (but also charmed) researchers and their helpful AI assistant.

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Session 3

"Game Live Streaming in the Japanese Context: Initial Findings"

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The live streaming of digital gaming has emerged in the past half-decade from an origin in "esports" to become a major component of global game culture (Taylor, 2018). In most countries this broadcasting is exemplified by the platform Twitch, which boasts several million broadcasters and well over one hundred million viewers (Johnson & Woodcock, 2017), but this is not the case everywhere. In Japan, for example, we see a number of different live streaming services, but the dominant one is "Niconico". Despite the rising impact of live streaming and the significant amount of gaming broadcast on Niconico, the (English-language) literature on game live streaming in Japanese, and the (English-language) literature on platform Niconico, are both scarce. One existing article which stands out is the work of Steinberg (2017) who explores the various sorts of content found on the platform - including mentions of gaming broadcasts - and situates their research in the context of the Japanese "media mix" (Steinberg, 2012; Ogonoski, 2014; Remesal & López, 2015; etc). This, however, is all there is to be seen, and the paper in question does not focus specifically on gaming nor on the streamers themselves.

As such, this paper will present initial findings from ongoing interview-based data collection with Japanese game live streamers, the first English-language project to address this area of study. Funded by the Japanese "Hoso Bunka Foundation" the project is interviewing several dozen Niconico and Twitch Japanese game live streamers to understand what game live streaming in the Japanese context (linguistic, cultural, national, regulatory, economic) entails. The paper begins with a literature review covering live streaming and the Japanese gaming context, before proceeding to the project and its initial findings. Firstly, it will consider the games played by Japanese streamers; although dating games, JRPGs and other genres traditionally associated with Japan are broadcast by non-Japanese streamers, they are (unsurprisingly) dominant on Niconico and the Japanese portion of Twitch. I will discuss what interviewees had to say about these games, their selection of games, and the relationships between the games chosen and the communities to which they broadcast. There is also an intriguing prevalence and visibility of puzzle games such as Sudoku and arcade-style games such as Tetris, and the presentation will examine this in the context of Japan's continuing arcade culture and its global dominance in logic puzzles via domestic producer Nikoli (cf. Johnson, 2019). Secondly, I will present findings on Japanese streamers' perspectives in economic and professional terms - what do these broadcasters think about the potential to earn money or potentially a living from streaming? Many English-language streamers are highly aspirational (Johnson et al, 2019), and this second part of the paper will present an alternative case study of game streaming orientations and motivations. These two initial questions will help to frame the phenomenon of Japanese-language game live streaming in its cultural and national contexts while developing illustrative comparisons and commonalities with their English-language counterparts, and thus presenting directions for future study.

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"Agent-Based Sugoroku Analysis Using Double Sixes"

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In Japan, 双六 sugoroku—or "double sixes"—is a centuries-old form of Japanese board game wherein players roll a pair of dice to move their pawns from start to finish as quickly as possible. While sugoroku's early form resembled abstract race games like backgammon, the advent of block printing in Japan transformed sugoroku into a highly pictorial form. Each sugoroku board comprises a dozen or more illustrated spaces, with text informing the player of their next move and a small bit of description about the space's illustration. Sugoroku could feature nearly any content or subject matter—travel, history, ghost stories, religious lessons, and more.

While sugoroku games are prevalent in Japanese culture, they are largely unknown outside Japan, due in part to their waning popularity over recent decades, their scarcity outside Japan, and the language barrier that bars their accessibility. Yet sugoroku, as a formal model, structures thousands of Japanese board games developed across multiple centuries.

Double Sixes is an online application designed to annotate and analyze sugoroku. Users can upload images, input metadata (e.g., dimensions, material, artist, theme, etc.), transcribe and translate text, annotate boards, and draw connections between spaces (see Figs. 1 & 2 below). Once complete, the board and metadata are added to a database as a structured JSON object, where they can be viewed, edited, and downloaded.

Double Sixes implements agent-based modeling, an artificial intelligence technique that uses autonomous AI "agents" to model systems, in this case the "system" of a sugoroku board. By tracking agents' behaviors and interactions through the system, *Double Sixes* analyzes board structures and "plays" the game thousands of times. The data it captures helps identify play patterns, design motifs, and player outcomes, both within an individual board, as well as across genre, designer, time period, etc.

During our online session, we will present a short application demo; discuss its design, interface, and programming; and demonstrate a sample "run" of agent-based play, along with its subsequent analysis. Our paper will contextualize sugoroku as a historical form, provide an in-depth technical discussion of the application's computational design and processes, and discuss both the formal and interpretive results of our agent-based analysis.

The project's goal is to promote the historical study of sugoroku (as well as the hundreds of games that use its style and form), make the study of Japanese games publicly accessible online to both Japanese and English speakers, and gain new insights into the structure and design of these games. Long-term, the application (and subsequent work built upon this project) will promote the accessibility and study of not only sugoroku, but hundreds of games

that use its style and form. To date, no historical game annotation, analysis, and archival project of this kind exists, so it represents a significant contribution to both games research and Japanese studies, fusing interpretive humanities research with computational analysis.

Fig. 1. An example of *Double Sixes*' metadata editing tools.

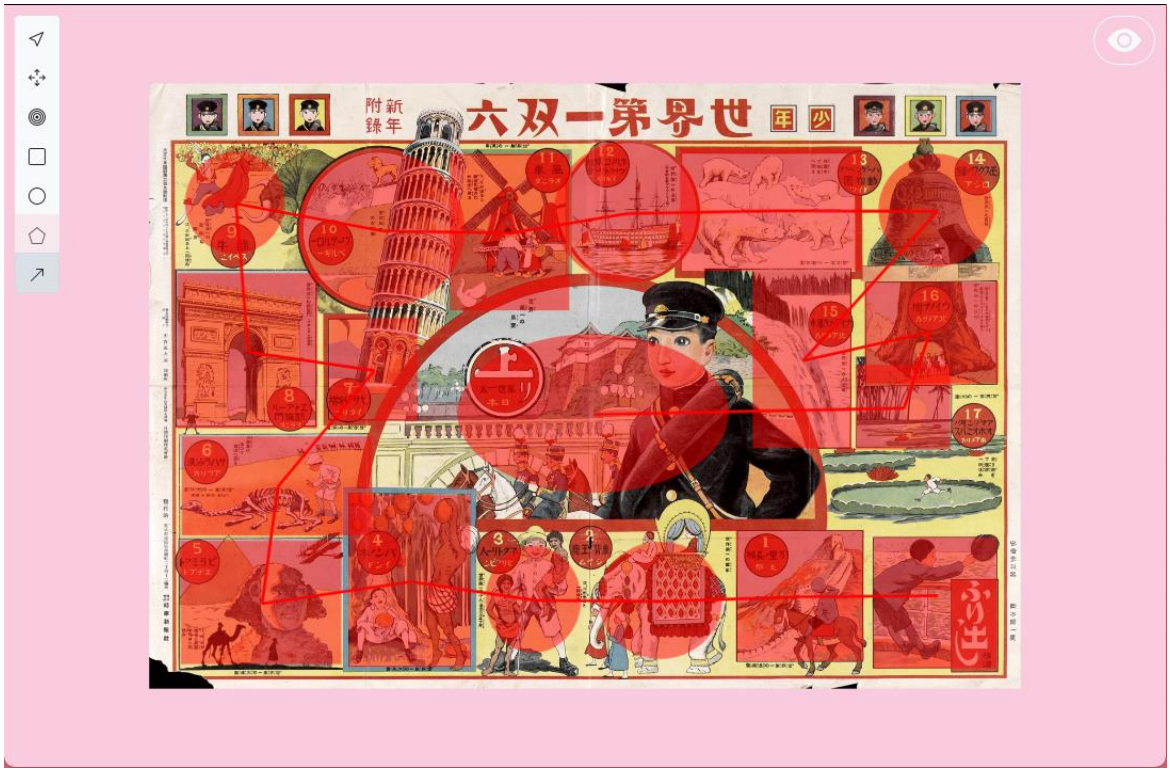

Fig. 2. An example of *Double Sixes'* space annotation and connection tools.

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"A Study on the Relationship between "Video Game Uses and Gratifications" and "Creative Attitudes" among University Students Majoring in Digital Game Development"

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The purpose of this study is to examine the relationship between video game use and gratification, and the creative attitudes of students majoring in digital game development and design. An exploratory survey was conducted using Iguchi's "video game uses and gratifications" scale to understand game use and satisfaction, and using Shigemasu's "creative attitudes" scale. The results showed significant correlations between the sub-factors of "achievement" and "perseverance," "friends" and "entrepreneurship," "perseverance" and "cooperation," as well as between "study" and "analytical problem solving," and "entrepreneurship." On the other hand, no factor of the creative attitudes scale and video game uses and gratifications scale was significantly associated with "fantasy," "recognition," "diversion," "flexibility," or "imagination." This suggests that it may be essential to understand how the game is used and how it is satisfying to evoke creative attitudes.

Research Background

Watanabe and Nakamura (2014) stated that games are a medium in which players actively participate and that it is easy to enter a flow state. A flow state occurs when the player is immersed in something and is in a state of extreme concentration. Csikszentmihalyi (1990) stated that we enter a flow state when we engage in something we like, and as a result, creativity is exhibited. Therefore, playing our favorite games may help us exercise our creativity. However, even if we like games, creativity may differ depending on how we engage in the game. Fukui et al. (2021) examined the relationship between Iguchi's "video game uses and gratifications" scale (Iguchi 2013) and creativity (Munzert 1980). They found that among the "fantasy,"recognition,"achievement," and "study" were significantly related to creativity.

On the other hand, many students seem to have never demonstrated their creativity; therefore, it is important to develop creative attitudes, such as creativity-as-readiness. Creative attitudes are not based on fixed and routine-scripted problem-solving methods, but rather on "asking questions,"being curious," and "always trying to improve without fear of danger" (Schank and Childers 1988). Enhancing these creative attitudes is very important in education, including game education. Therefore, it is important to focus on the relationship between "video game uses and gratifications" and "creative attitudes." However, previous research has not assessed this relationship.

Methods and Results

A questionnaire survey was conducted among 90 second-year university students specializing in game development. In the survey, the "game uses and gratifications" scale (Iguchi 2013) and the "creative attitudes" scale (Shigemasu et al. 1993) were used. The results of the survey showed significant correlations between "achievement" and "perseverance,"friends" and "entrepreneurship,"perseverance" and "cooperation;" further, "study" was associated with "analytical problem solving," and "entrepreneurship." On the other hand, there were no items with significant associations for "fantasy,"recognition," and "diversion," or "flexibility" and "imagination." This suggests that it may be important to understand how the game is used and how it is satisfying to evoke creative attitudes.

Table 1. Inter-item correlations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	I	II	III	IV	V
(2)	0.33**	1.00										
(3)	0.31**	0.20†	1.00									
(4)	0.34**	0.35**	0.25*	1.00								
(5)	0.20†	0.27**	0.23*	0.27*	1.00							
(6)	0.23*	0.07	0.35**	0.27*	0.33**	1.00						
(7)	0.33**	0.29**	0.13	0.31**	0.18†	-0.03	1.00					
I	-0.13	0.08	0.08	0.17	0.37**	0.15	-0.14	1.00				
II	-0.07	-0.01	0.03	0.12	0.09	0.21*	-0.09	0.56**	1.00			
III	0.11	0.06	0.11	0.16	0.25*	0.18	-0.06	0.45**	0.38**	1.00		
IV	0.00	0.12	-0.04	0.24*	0.22*	0.12	0.06	0.62**	0.64**	0.47**	1.00	
V	0.11	0.03	0.14	0.08	0.08	0.14	-0.10	0.24*	0.18†	0.42**	0.08	1.00
VI	0.04	0.17	0.06	0.12	0.33**	0.05	0.10	0.33**	0.19†	0.49**	0.29**	0.27*

†p< .10,**p< .05, **p< .01 (N=90)

(1) fantasy, (2) recognition, (3) preference, (4) achievement, (5) friends, (6) study, (7) diversion,
I: flexibility; II: analytical problem solving; III: entrepreneurship; IV: perseverance; V: imagination; VI: cooperation.

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"Educational Game Creation & Critical Translation in RPG Maker MV"

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This project undertakes a critical translation of a completed educational video game designed in RPG Maker MV, *Nagasaki Kitty* (2021), as a way of expanding the game's pedagogical possibilities, exploring the challenges of translating from English to Japanese within the RPG Maker MV software, and interrogating critical game design.

Nagasaki Kitty is an educational game playable on PC and MAC and available through itch.io. It is inspired by the short stories of Hayashi Kyoko (Hayashi 1985; Hayashi 1989). The game, which is a response to calls for better recognition of the victims of the atomic bombs (Jacobs and Zwigenberg 2020; Minear 1995), is designed to teach North American audiences about the victims of the atomic bombing of Nagasaki. This project highlights how the game can be used as a learning tool for students taking advanced Japanese classes such as translation. It also engages in a translation of the original English text into Japanese to show the possibilities of using the game as a "text" to support students studying Japanese (and about Japan) by deepening their understanding of the language, history, and culture.

While building on established theory regarding the historical and pedagogical value of video games and the nuances of video game translation (Chapman 2016; Mangiron and O'Hagan 2006; Mangiron Hevia 2007; Squire 2004), the demo of the project will display how translation of the original English text into Japanese has been undertaken. The goal of the demo is to provide an outline of the pedagogical goals of the project, explore the particular challenges of translation within RPG Maker MV, and to visually display how translation of the game was accomplished.

For the purposes of the RePlaying Japan Conference this will take the form of a 5-minute video which shows gameplay and recording of the UI from the designers' perspective. This will be accompanied by voiceovers by the designer of the original English language version of the game and the translator of the Japanese version of the game which summarize the findings of the project.

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"Characteristics of Computer Game Players in Japan, the U.K. and China: Results of an International Comparative Survey"

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1. Purpose

Most of the research on computer game players that has been conducted in Japan and overseas was based on the analysis of player characteristics based on data obtained from qualitative surveys (Newman 2008; Kato 2011; Crawford 2012; Matsui et al. eds. 2019). Quantitative surveys of computer game players have also been conducted (Sakamoto 2003; Tanaka and Yamaguchi 2015), but there are not many academic international comparative surveys.

Therefore, this study aims to clarify the characteristics of game players in Japan, the U.K. and China, where the consumption of computer games is particularly active, based on a quantitative social survey. Specifically, we will find out how many people in each region engage in various activities related to computer games, and what kind of thoughts and abilities players in each region tend to have about games. In addition, based on the results of the Programme for International Student Assessment (PISA), which showed that the ICT use and literacy of Japanese students is lower than that of students in other OECD countries, this study hypothesizes that "in Japan, the proportion of people who engage in game-related activities is lower and the proportion of people who have negative attitudes toward games is higher than in the UK and China.

2. Method

We conducted an Internet survey of game players and analyzed the collected data. The survey was commissioned to Macromill, Inc. and was conducted using a web form-based system. The population was the company's monitor members, and 3,090 monitors aged 10-59 were selected by the allocation method based on gender, age, and country. Valid responses were obtained from 2,060 monitors in Japan, 515 in the UK, and 515 in China. The valid response rate was 100%.

The main questions were: ICT literacy, ownership and use of ICT, usual game-related activities (e.g., live game playing, fan art creation), attitudes toward games and life, frequency of watching game playing/strategy videos, amount of money spent on games and hobbies, and face questions (size of city of residence, last education, occupation, annual income).

3. Results and Discussion

Statistically significant differences were found among computer game players from the three countries in their gaming activities, attitudes, and abilities. Specifically, the following differences were found.

1) Various game-related activities were more active in China and the UK than in Japan.

2) The number of days spent playing games and watching game playing videos per week was higher in the UK and China than in Japan.

3) The evaluation of computer games was higher in China and the UK than in Japan.

These results support the hypothesis of this study. This result is important for clarifying the characteristics of game players in Japan, the UK, and China. However, there is room for further exploration in the setting of the population, sampling, and interpretation of the results obtained in this study, and this is an issue for the future.

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"A Development Process, Scale and Scope of Console Game Industry in Japan: Through Analysis of a Multiple Connected Dataset"

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Akito Inoue, Ritsumeikan university
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How has the Japanese game industry developed? What impact have the changes in game hardware and the emergence of smartphones had on the game industry? There have been several studies addressing this question (Shintaku et al. 2003, Storz 2008, Uemura et al. 2013, Koyama 2016). Most existing studies, however, have primarily relied on qualitative research methods, based on surveys and interviews of respondents. In contrast, this study tackles the same question with a data science approach. By doing so, we hope to complement the results of previous studies.

We will combine several databases created for different purposes in our approach. One such database is that of Teikoku Databank (Corporate DB), which provides information on the financial and credit standing of companies. The others are the "RCGS Collection," a catalog of the holdings of the Game Research Center of Ritsumeikan University, and the "Media Arts Database," a comprehensive catalog of media arts by the Agency for Cultural Affairs (bibliography DBs), which were created to understand the cultural value of games. Using the bibliography databases to link the entities of organizations involved in publishing and developing products to the aspects of corporate management in the corporate database, we aim to clarify both the reality of the economy that supports culture and the context of culture created from economic intentions. This study focuses on the same market among the game industry since the main target of the bibliographic database is home video game software (Console Game Industry).

Based on the dataset we developed, we verified existing findings about the size and scope of the industry and discovered new ones. In terms of the number of companies involved in the industry, the 2000s represented the largest number. As for the number of companies entering the industry, we found it increasing continuously until the early 2000s, and then stagnating after 2010 (Figure. 1). For the average number of employees, we confirmed a gradual decrease until the early 2000s (Figure. 2). Additionally, we found that capital increased rapidly in the 1980s (Figure. 3), and sales decreased after the mid-1990s (Figure. 4).

Our future plans include using transaction data from the corporate database in order to clarify the formation and development of transaction networks. We will also examine the effect of events such as the shift in game hardware generations and the emergence of smartphones. With our presentation at Replaying Japan, we hope to discuss with participants the possibilities and challenges of game research with a data science approach.

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TDB Industry Classification Table, https://www.tdb.co.jp/lineup/pdf/tic.pdf

Appendix

A. List of Research Materials

Game Research Center, Ritsumeikan University. RCGS Collection (RCGS Data). https://collection.rcgs.jp/

Agency for Cultural Affairs. Media Arts Database (Media Arts Data).

https://mediaarts-db.bunka.go.jp/

Teikoku Databank. Corporate Data (TDB Data).

https://www7.econ.hit-u.ac.jp/tdb-caree/

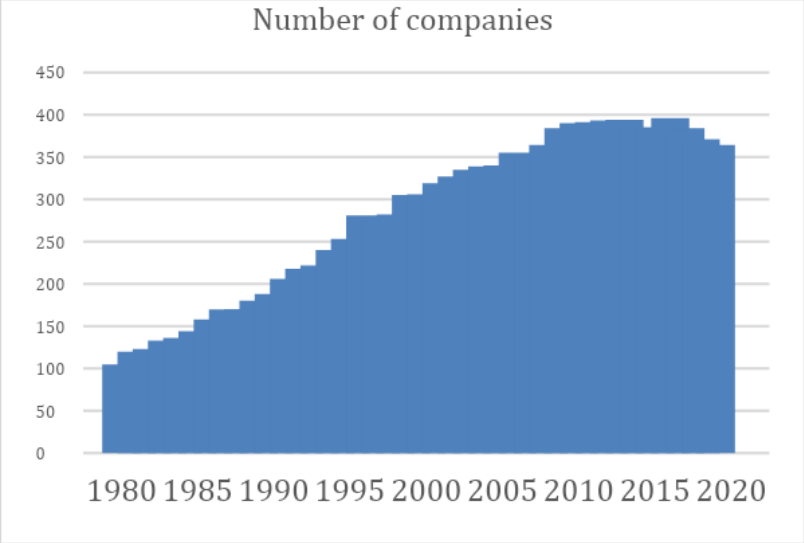

Figure 1: Changes in the number of companies

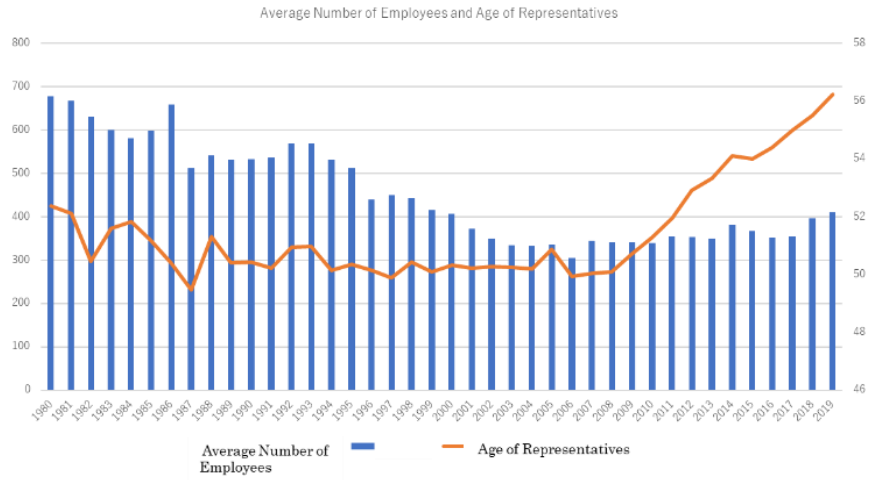

Figure 2: Changes in the average number of employees and representative age

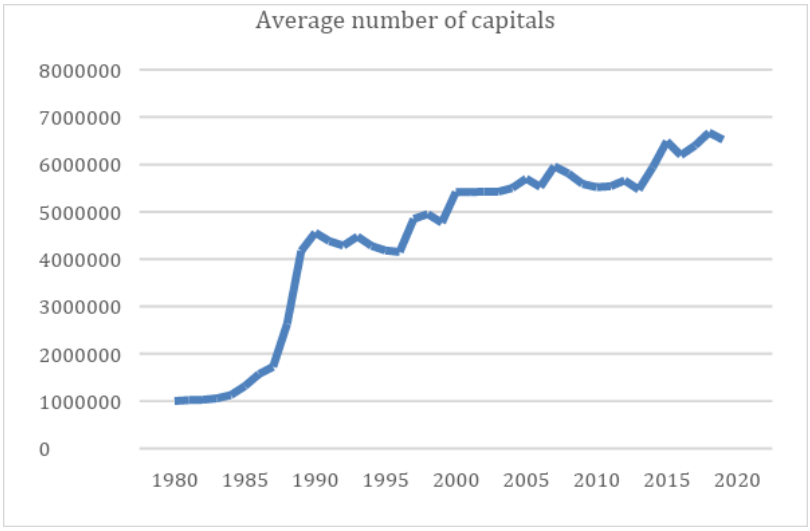

Figure 3: Changes in average capital (Unit: thousand yen)

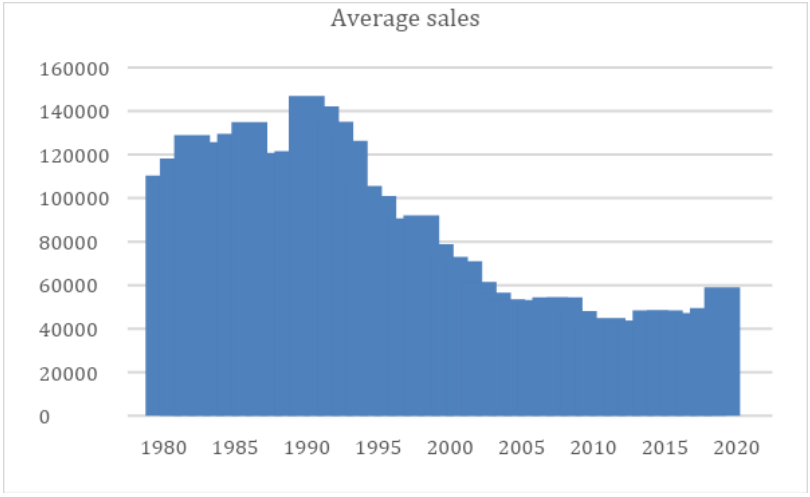

Figure 4: Changes in average sales (Unit: million yen)

Table 1: The company's classification by TDB (1)

No.	1980	1990	2000
1	Publishing and printing	Advertising and Information Services	Advertising and Information Services
2	Wholesale	Publishing and printing	Publishing and printing
3	Other manufacturing	Wholesale	Wholesale
4	Other	Other manufacturing	General Machinery and Equipment Manufacturing
5		Manufacture of electrical machinery and apparatus	Image and video production
6		General equipment and apparatus manufacturing	Other business services
7		Film and Video Production	Professional services
8		Other	Electrical machinery and equipment manufacturing
9			Other

Table 2: The company's classification by TDB (2)

No.	2010	2019
1	Advertising and Information Services	Advertising and Information Services
2	Publishing and printing	Publishing and printing
3	Wholesale	Wholesale
4	Other Business Services	Other Business Services
5	Film and Video Production	General machinery and equipment manufacturing
6	Other Manufacturing	Film and Video Production
7	Professional services	Other Manufacturing
8	General machinery and equipment manufacturing	Professional services
9	Other	Other

日本のゲーム産業はいかに始まり、どのように発展をとげてきたのか。ゲームハードの変遷やスマートフォンの登場は、ゲーム産業にどのような影響を与えたのか。この問いは、これまでにも繰り返し問われてきた研究課題である（新宅ほか _2003, Storz 2008, 上村ほか _2013, 小山 _2016など）。ただし、既存研究の多くは、資料調査やインタビューに依拠し、主に定性的方法論によって問いに答えてきた。これに対し、本研究はデータサイエンス的アプローチで同じ問いに取り組む。それによって、従来の研究成果を補完したい。

本研究のアプローチでは、異なる目的で作られた複数のデータベースを組み合わせる。一つは、企業の財務および信用状態を把握するために作られた帝国データバンクのデータベース（企業DB）であ

る。もう一つは、ゲームの文化的価値を把握するために作られた、立命館大学ゲーム研究センターの所蔵品目録「RCGSコレクション」ならびに文化庁によるメディア芸術の総合目録「メディア芸術データベース」（書誌DB）である。書誌DBで記述される製品を出版・制作する団体の実体と、企業DBで記述される企業経営の様相を関連づけることで、文化を支える経済の実態、経済的意図から作られる文化の文脈を明らかにすることを研究プロジェクトとして目指している。なお、書誌DBの主たる対象は家庭用ゲームソフトであるため、本研究ではゲーム産業のうち同市場の分析が中心となる。 _
作成したデータセットを用い分析を行ったところ、1980年代以降の発展、範囲と規模に関して、既存研究の知見を確認したうえで、新たな事実を発見できた。参入企業数に関しては2000年代までの継続的な増加と2010年以降の停滞（図1）を確認し、平均従業員数に関しては2000年代前半までの漸減を確認した（図2）。資本金は1980年代後半に急激に増加し（図3）、売上高は1990年代中盤以降に低減したことを確認した（図4）。今後は、企業DBの取引データを使って取引ネットワークの形成と発展を明らかにし、ゲームハードの世代交代やスマートフォンの登場などのイベントが産業の範囲もしくは規模に与えた影響を検討する予定である。Replaying Japanでの発表では、分析から得た事実発見とその考察、さらにはデータサイエンス的アプローチでのゲーム研究の可能性や課題を、参加者と討議したい。 _

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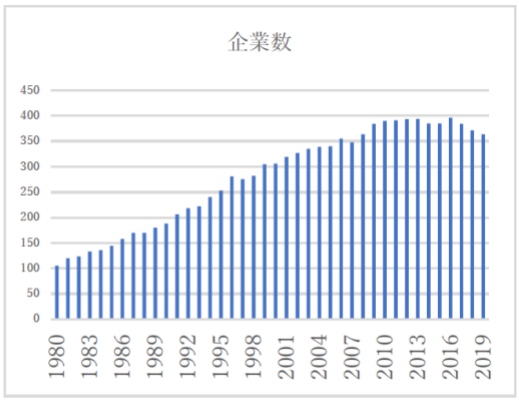

図 1. 企業数の推移

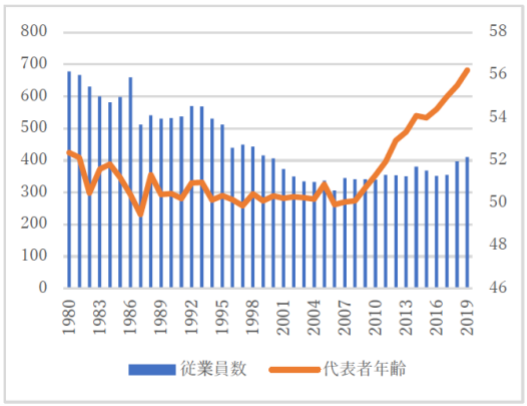

図 2.従業員数と代表者年齢の平均の推移

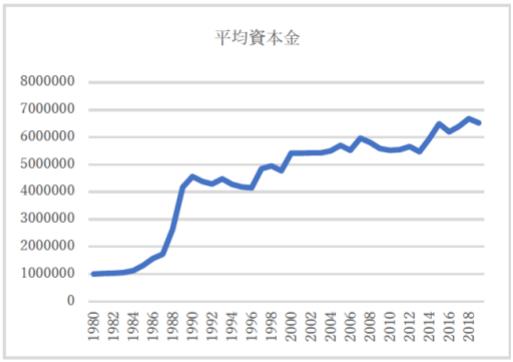

図 3. 平均資本数の推移（単位:千円）

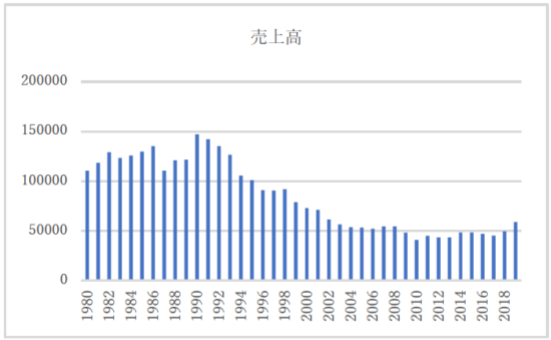

図 4. 平均売上高の推移（単位: 百万円）

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“Extracting AI Technologies of Past Digital Games by Using MCS-AI Dynamic Cooperative Model”
MCS-AI 動的連携モデルによる過去のゲームにおける人工知能技術の抽出

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There are not many technical documents remained of Artificial Intelligence in digital games. The history of game AI is reconstructed from very limited number of technical documents already published. To get more information about game AI history in game industry, a system to extract AI technologies directly from past games is necessary, and the method of extracting AI technologies from past digital games by using MCS-AI dynamic cooperative model is supposed.

MCS-AI dynamic cooperative model is the model of meta-AI, character AI, and spatial AI to cooperate each other in a digital game. Meta-AI is to control a game itself, character AI is a brain of non-player character, and spatial AI is to recognize a spatial feature of environment in a digital game (Fig.1). Originally, this model is designed to construct a fundamental system of game AI in a digital game, and to realize AI functions in games requested from game design. But the model can be useful to extract AI technologies from past games.

By analyzing a past game by using the model, a past game can be decomposed into AI technologies such as meta-AI, character AI, and spatial AI manually by a game developer. Furthermore, vice versa, by adding an AI technology as meta-AI, character AI, or spatial AI to the original AI technologies, a new integrated MCS-AI dynamic cooperative model can be generated. In other words, a past game design can be decomposed into three kinds of AIs, and on the contrary, a new game design can be composed from the three kinds of AI with new AI components (Fig.2). This is the supposed method. The two cases of applying the method are shown such as “PACMAN” (1980, BANDAI NAMCO Entertainment Inc.), and “Chrome Hounds” (2006, (C)SEGA / FromNetworks,Inc./ FromSoftware,Inc.).

As a summary, the supposed method is to extract AI components by decomposing a past game and add new AI components to compose a new game are described.

デジタルゲームの人工知能技術の歴史は 80 年代から存在するが、残されている技術文書は少ない。そのため、現在は限定されたゲームの人工知能の公開技術文書から歴史を再構築せざるを得ない状況にある。そこで、過去のゲームから人工知能技術を抽出するフレームワークが必要である。本発表では、MCS-AI 動的連携モデルを用いて、過去のゲームからそこに含まれる人工知能技術を抽出する手法について提案する。

MCS-AI 動的連携モデル（Meta-Character-Spatial dynamic cooperative model）は、デジタルゲームにおける３つの自律型人工知能、メタ AI、キャラクターAI、スパーシャル AI が動的に連携するモデルであり、実際のゲームへ応用されている。メタ AI はゲーム全体を統御する人工知能であり、キャラクターAI はキャラクター頭脳であり、スパーシャル AI は空間認識を司る人工

知能である（図１）。本モデルは、デジタルゲームにおける人工知能システムを構築するためのモデルであるが、もう一つの使用法がある。これは、本モデルを利用して、既に作られたデジタルゲームから人工知能技術を抽出する、という方法である。

kato

MCS-AI 動的連携モデルは、デジタルゲーム開発における様々な要件を人工知能の機能として蓄積するモデルである。そこで、既存のゲームを MCS-AI 動的連携モデルとして作るとすると、そのゲームが含む AI 機能を、３つの AI の機能として抽出することが可能となる。また抽出するだけではなく、そこに新しく AI 技術を加えることで、それらを総合した新しいゲーム AI システムを生成することができる。つまり、既存のゲームデザインをいったん３つの AI 分野内へ AI 技術として分解し、各 AI 分野へ AI 技術をさらに追加することによって、ゲームデザインを新しく再構成することが可能となる（図 2）。

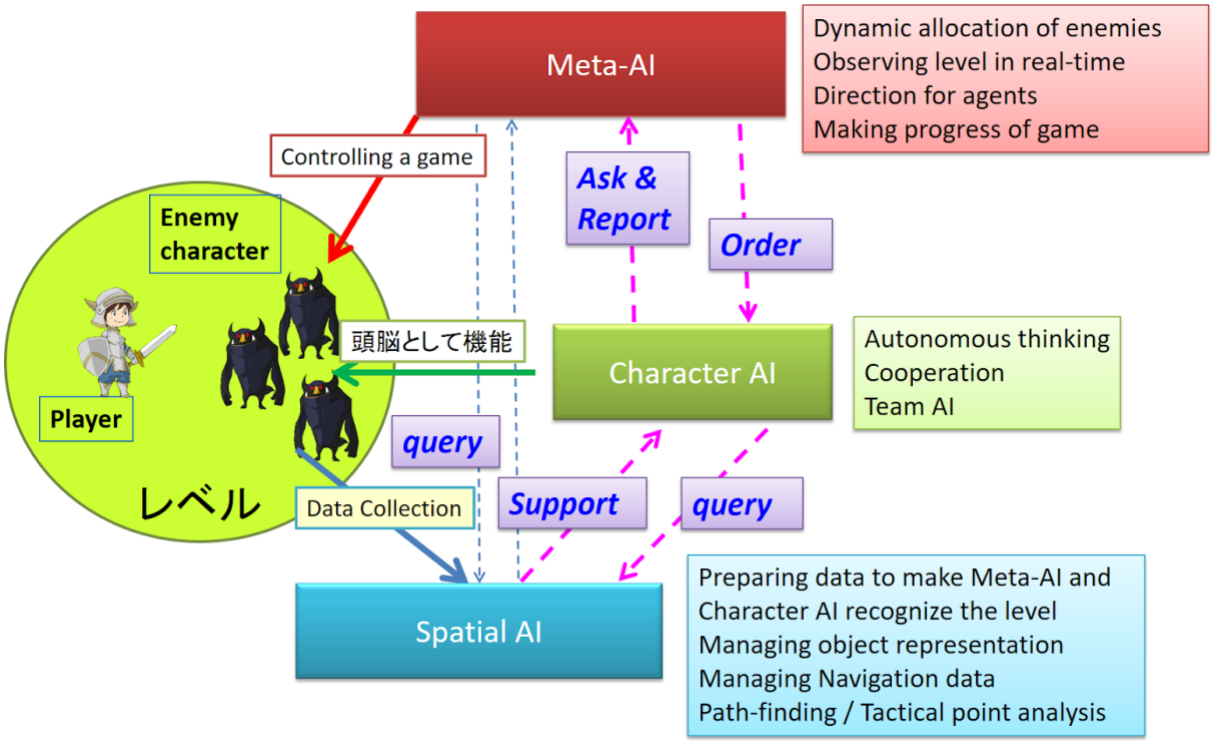

Fig.1 MCS-AI Dynamic Cooperative Model

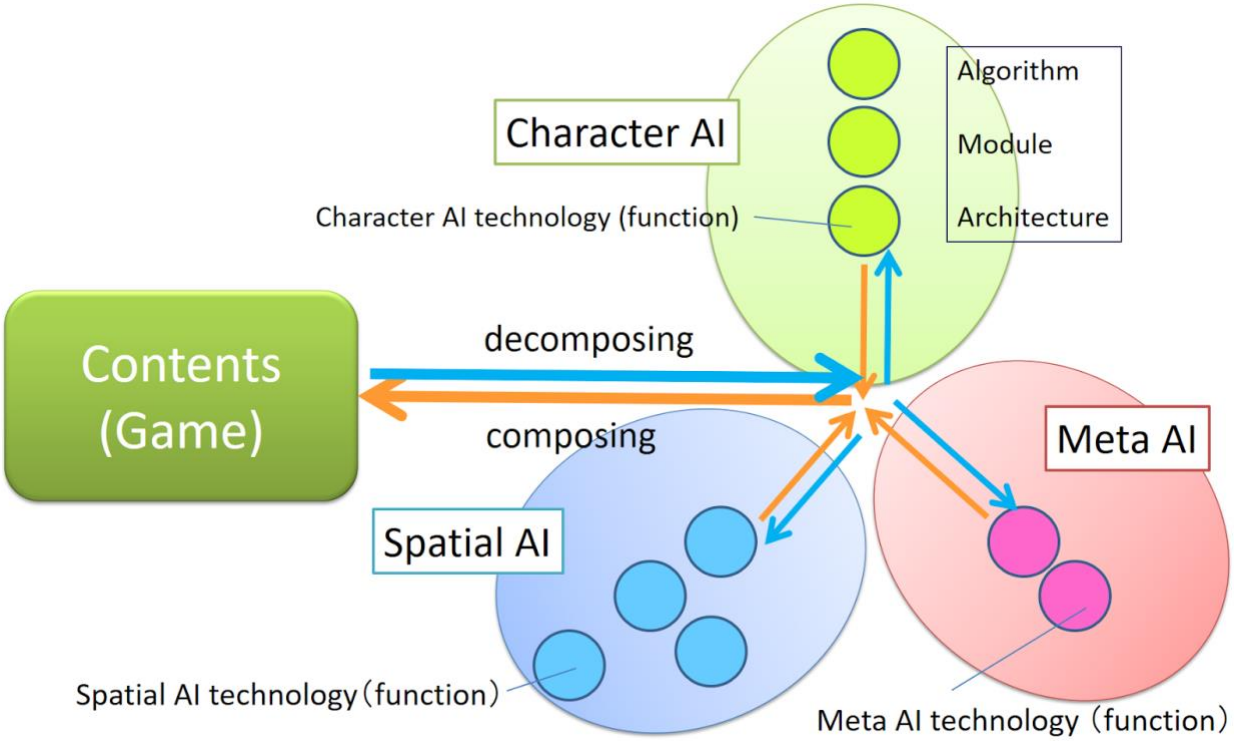

Fig.2　Decomposing a game into three kinds of AIs, and composing a game from them

Session 4

"An Investigation of the Psychological Behavior of Top Japanese TCG Players Using Process Recording of Pokémon Card Games"

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Japan's esports trail those of other countries, with Japanese players underrepresented in tournaments, while American and Korean players frequently take the top spots. In Japan, there is little policy support for esports, and games are often perceived as mere entertainment, in this regard, Japan is still a developing country compared to others (Yin, 2019). However, in the trading card game (TCG) field, there are many strong players in Japan. Among the various TCG, Pokémon card games, which are currently sold in 74 countries, are particularly popular, dominating sales on the world's largest online marketplace (eBay). World championships are held every year, and Japanese players have occupied top spots in the rankings over the years (Armstrong, 2020). TCG require a high level of strategic thinking, and it has been shown from previous studies that it promotes the growth and development of the brain, and they have also been used for education (Konvalinka & Roepstorff, 2012; Turkay et al., 2012).

TCG play is complex and players must explore a wide variety of patterns to win. However, the scope and depth of that thought process is still unclear. For this reason, we lack a satisfactory framework for the development of artificial intelligence systems, and effective training methods (Fujita & Ishii, 2007; Murakawa et al., 2013).

In this research, we seek to contribute to the advancement of esports in Japan in the future by conducting interviews with competitive Japanese TCG players to clarify their psychological behavior and mental strategies using process recording methodology (Karpetis, 2019).

(Purpose)

Objective 1	Identification of behavioral patterns probabilistic strategies adopted by players.
Objective 2	Identification of general requirements for TCG training system design.
Objective 3	Identification of support methods and systems required by Japanese players.

(Method)

Step 1	Randomly select top competitive Japanese players and casual players and conduct a semi-structured interview. Code and analyze data with grounded theory.
Step 2	From the analysis results, clarify what percentage the code contributes to the winning conditions and how much it changes in terms of probability theory.
Step 3	Conduct a randomized controlled trial to see if there are any significant differences in psychological behavior and deck construction between competitive and general players.

(Expected results)

The primary author of this research is a competitive Pokémon card game player, which will aid in the recruitment of subjects and data collection. By clarifying the behavioral psychology of top players, we hope to lay the foundations of better training methods.

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"Under the Radar – Visualizing the Spatial Complexity of "Japanese" Console Videogames"

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Console videogames are not just "there." They are produced by certain actors in particular places, distributed to various regions over time, and received by players and commentators in particular contexts. These spatial relations are, more often than not, multilayered and complex, unfolding over time as particular games "travel" through various parts of the world. Using Japan as a starting point, this presentation proposes several ways in which we may visualize this complexity, thus making it transparent. Drawing on a wide range of meta-data from the Media Arts Database to Mobygames and Wikidata, I provide a historical cartography of videogames available in Japan – and elsewhere. In contrast to a widely echoed understanding of videogames as a "global culture," my analysis underlines the limited geographical "reach" videogames published in Japan have had for the longest time. In the paper, I show how this complex spatialization unfolds both on a general level, on which I take games published in Japan into account, and in the context of particular cases, which focus on FromSoftware production, distribution, and reception. The data and their visualizations direct attention to the diverse geographical scales on which games spatialize over long periods of time. In doing so, my project contrasts the discursive labeling of "local" and "global" games with a more granular perspective. The presentation concludes with a discussion of the potentials and limitations of a meta-data based approach to videogame cultures.

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"The Rise and Fall of Popular Amusement: Operation Invader Shoot Down"

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The purpose of this study is to sort out the changes in the industrial map of Japanese leisure in terms of competition among industries. Specifically, using mainly the newspapers of the time as a guide, we will look at the challenges that the pachinko industry has faced from other industries and the reactions to these challenges to find lessons about the rise and fall of an amusement, pachinko.

1: The post-war gambling boom

The main players in an industry can change over time. It was in the 1950s that pachinko established itself as a main player in the leisure industry, but even before that, gambling was popular, with street gambling, mahjong and lotteries all the rage, and the introduction of bicycle racing (public gambling) brought a boom, as did the sex trade. In the 40s, when life was difficult, leisure activities that satisfied instinctive human needs, such as sex and gambling, were very popular.

2: The advent of television

In 1953, pachinko reached the peak of its first boom. This was due in part to the growing popularity of gambling with the introduction of new public gambling. Whereas radio and the cinema were leisure activities open to all ages, pachinko, like other forms of gambling, was a leisure activity for adults, and public gambling was not a rival to pachinko because of its limited location.

From the mid-1960s onwards, the enhancement of in-home entertainment by home appliances stimulated leisure activities, but also created a potential crisis situation for amusement that took place outside the home. Throughout the 1960s and 1970s, however, pachinko was undergoing innovations such as the introduction of a range of mechatronics, the shift in management from family-based to mega-capital, and the interior and exterior design of pachinko parlours to create unusual spaces. There was little awareness that pachinko would lose popularity to television.

3: The invader boom

According to Gorge (2018), "At the height of the 'Space Invaders' boom from 1979, the number of pachinko parlours fell by 35%." In the midst of this, the pachinko parlour trade associations responded not only with their own internal efforts, but also by calling on the government to reduce taxes on pachinko machines, tax invader games and impose legislation.

To get a glimpse of the situation at the time, we have extracted articles on the invader boom from the 1979 year-long edition of the Nagoya Times, an evening tabloid published in Nagoya. On 14 May, under the headline "Operation Invader Shoot Down", the article described the new machines being developed by pachinko manufacturers to compete with video games, along with an insider's view of the industry. An article on 23 July reported the first bankruptcy of a company involved in invader games, followed on 30 November by an article entitled "Pachinko fights off invaders". The article concluded by saying that consumers were looking for games with prizes rather than games with points.

The mainstay of that fightback was Sankyo's Fever, which brought pachinko back to life with the novelty of a slot machine embedded in the board that paid out balls when the numbers matched up, combined with the amount of the prize payout. Although it was the result of changes in the environment surrounding competitors, it was an event that brought diversity to pachinko.

4: Diversification of leisure

The pachinko industry has been in decline throughout the 2000s, but has been able to survive through a variety of measures, including the elimination of its negative image, establishing the groups with video game companies, the creation of media-mix and media tie-ins.

With the diversification of entertainment, the diversification of consumer interests and the ubiquity of amusement and entertainment through the spread of smartphones, pachinko as an on-site business may have reached its limits.

What is lacking is a customer orientation. In the video game business, user demographics and play data are analysed from a variety of perspectives in order to attract and retain customers, and approaches to heavy users, light users and dormant users are all targeted via the internet. In pachinko, however, there has been little progress in optimising services on an individual basis. Of course, the pachinko industry also uses big data, which can help operators analyse their members and rivals, but without optimisation for players, such as recommending machines based on play data, it will be difficult to survive.

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"Interim Report on the Development of Shochiku Kyoto Studio VR Personal Tour System Using Unreal Engine 4"

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INTRODUCTION

Shochiku Kyoto Studio VR Personal Tour System was initiated 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. This project aims to take props available within Sochiku Kyoto Studio, create a digital asset, use photogrammetry software, and display the objects within the Virtual Museum field. The project will be described in the following categories.

DEVELOPMENT STRATEGY

1) Digital Asset Creation
Photogrammetry is used to create the 3D model as an FBX file for a broader application. (Figure 1and 2)

2) Exhibition Arena Creation

Unreal Engine 4 (Henceforth UE4) was selected to develop the exhibition arena following examples from previous virtual museum exhibition development (Lepouras and Vassilakis 2005; Dunwell and et al. 2013; Kersten and Deggim 2017). When the field design is considered, various ideas from a more accurate depiction of Shochiku Kyoto Studio's exterior to the scenery of Japan's epic drama were proposed by team members. Considering the possibility of replacing the objects regularly, however, more generic appearance was selected. When placing each object, rather than displaying each object with actual scale, they were placed with dynamic experience in mind/

Moreover, statue-like objects are placed in the center, while vases, pots, and more appropriate objects to hang on the wall are displayed on the side. Each object was modified from the original size in order for the audience to have better viewing experience rather than accuracy of recreating the actual size of the objects Players are to 'walk' through the corridor and those which are displayed on the side can be picked up and examine closely while objects in the middle were almost life side in virtual projection (Figure 3 and 4). As for interface, we avoided complex VR operations as much as possible in order to reach a wider range of users.

"For the user interface of the project, we avoided complex VR operations as much as possible, since we intended to have wider audience base. Everything from moving around the museum to interacting with objects was limited to player hand gestures and controller triggers. In addition, we developed a system to observe objects while rotating them, using gestures of both hands in order to observe them more closely.

4) Personal Tour System

This is the system that is considered to be unique even compared with previous research endeavors for the virtual museum. We decided to include the two-players system. (Figure 5 and 6). The idea was conceived from the necessity for exhibiting generic props of Shochiku. Kyoto Studio. Unlike props catered explicitly to a particular film project, generic props themselves are meaningless unless each object's narrative was specified. Thus, guidance from those who work at the studio or those closely associated with them is necessary to make them meaningful.
So, the system was designed to be in the virtual museum simultaneously and was able to interact with one another with anticipation that 'narrative' from insiders makes the displayed objects more meaningful.

5) Game Mode

Taking advantage of UE4 include game engines, two-game using exhibited digital assets can be accessed inside the exhibit for solo mode. he reappearance of the exhibited objects in the game scene allows participants to cause a paradigm shift in examining these digital assets. It may also propose new potential for a museum of this kind.

Tentative Conclusion and Implication
Since this is an interim report on an on-going project, the user testing is quite limited and cannot be included in this report. However, exhibiting an on-going project may lead the project to more appropriate directions and even further reaching its potential from both digital archival research and digital game studies perspective.

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Appendix

Figure 1 A Prop from The Studio

Figure 2 A Prop from The Studio

Figure 3 Virtual Pathway of the Exhibition

Figure 4 Point and Walk System

Figure 5 Hands represent the 1st Player and Translucent body represent a Partner (the 2nd) Player

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"Failed Multinational Operations of Japanese Mobile Game Company in 2010s'"

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This paper is for analyzing how many Japanese mobile game companies found branches in every sphere of the globe since 2010 to 2014, in their foundation peak with the aim to bring their growing local mobile game market logic to other regions, most of which finally ended in 3-5 years. The reason of this rapid slash-and-burn results attribute to several reasons: false interpretation of different market logic, lack of experience to create international business, Japanese characteristics not opt to distanced remote management, so on and so forth. I can call this "Pseudo-Globalization".

Since this paper is intended to summarize what the actual players, includes this author himself, have globalized their mobile game operation so that the primary source from which this information is gathered is 1st hand information this author himself collected in his experience, not 2nd hand information of Book, articles and interviews.

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"Moral Management in Japanese Game Companies"

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Companies, like individuals, manage their ethical presence. Japanese game companies are aware of potential reputational costs to certain video game practices like developing violent games, developing gambling games, and using disreputable companies that use child labour in their supply chains. In this paper, we will look at selected case studies to map out how Japanese game companies (JGC) manage their ethical reputation. In particular we will look at how JGC's frame their corporate social responsibility initiatives in terms of the UN's Sustainable Development Goals (SDGs).[2] We will focus on three themes:

Child and slave labour in the supply chain. Fabless companies that subcontract all their manufacturing globally run the risk that somewhere in their supply chain there could be the use of child or forced labour, both of which are mentioned in SDGs and both of which violate human rights.[3] Child labor and various forms forced labour are prominent public issues and both are difficult to reconcile with videogames which are supposed to be fun. JGCs like Nintendo have been embarrassed by reports like the recent report on companies that were benefiting from Uyghur forced labour as recently as 2019 (Xu 2020). In our paper we will look at Nintendo's procurement statements and their 2020 Nintendo Modern Slavery Transparency Statement where they outline steps they have taken.

Gender Equality in game companies. Ethical intervention regarding issues of gender equality in JGCs complies with two main "goal targets" set by the UN. To "ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life"[4] and to "adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels." [5] This section on gender will explore how JGCs promote inclusivity and diversity as part of their CSR initiatives to police the moral management of their workers, even as these initiatives work to promote gender equality. A secondary aim of this section is to examine the limitations of the UN's focus on women and how this particular SDG is being re-interpreted to include the LGBT at some JGCs.

Employee work/life balance. This section is a discussion about workers and working styles. It is mainly related to the SDG 8: Decent Work and Economic Growth. JGCs like Nintendo and BANDAI NAMCO devote many pages in their CSR reports to work/life balance, diversity and job satisfaction. Japanese labour practices have long been described with disgraceful words

[2] See https://www.un.org/sustainabledevelopment/.
[3] See SDG 5.2, 8.7 and 16.2.
[4] Target 5.5, see <https://indicators.report/targets/5-5/>
[5] Target 5.c, see < https://indicators.report/targets/5-c/>

such as 'packed train during rush hour', 'economic animal' and 'death by fatigue from overworking'. Confronting such negative images is essential to competing in the global market in a sector that is supposed to promote fun. In this section we look at work and labour productivity issues such as overwork and work-life balance, as well as how diversity is achieved in the workplace, including nationality, disability and gender.

When it comes to workers, Japanese companies often use the term “Jin Zai” (human capital) rather than “Jin Zai” (human resources). Namco Bandai is one such company. In English, both terms are translated as "human resources", but the former shows that the company sees its employees not just as resources, but as treasures. In terms of work styles, the impact of COVID-19 has led JGCs to explore more flexible work styles, such as remote work and staggered working hours, but it is important to promote issues such as work-life balance and diversity in the workplace from a long-term perspective. We examine selected CSR reports from the perspective of "Decent Work" as defined in the SDGs.

Entertainment companies like game companies describe their missions as promoting “fun” and “smiles.” Their contribution to society, should they be asked, is primarily that they provide leisure and relaxation. They are thus vulnerable to criticism when their business practices undermine their pleasure-providing role. For example, when, in the name of fun, they subcontract to companies that employ child labour. Further, investors are beginning to consider social responsibility, the environment and governance more and more when making investment decisions. The UN’s SRGs are becoming a metric with which to judge company responsibility. As part of this paper we will discuss the impact of the UN’s SRGs on JGCs. We will also adapt Bandaura's theory of moral disengagement in the individual (2002) to provide us a framework for understanding corporate moral management techniques.

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"Human Relationship Formation through Video Games: A Case Study of a Game Center"

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The way in which human relationships are formed through the media is not a particularly new phenomenon, if we include letters and books. However, whenever new media appeared, the relationship between the media and the individual became a subject of debate.

Looking at youth theory in Japan, Hirano and Nakano's (1975) "Capsule Humanism" was the first to emphasize the relationship between youth and media (Iwasa 1993, Morihiro 1993).

This trend has continued to the present, and radio, television, music, cell phones, manga, anime, and video games have been taken up (Hirano and Nakano 1975, Narita 1986, Tomita et al 1999, Azuma 2001, etc.).

If we use these discussions as a standard, we can say that the way young people form relationships through media spans about 50 years, although the media used by each generation and individual differs. As the number of generations that have played video games expands, the way in which human relationships are formed through the medium of video games can be seen in a wide range of generations, not limited to young people.

Video game arcades, which have been dealing with video games since the 1970s, can be helpful in considering how such relationships are formed. According to statistics from the White Paper on Leisure, the main users of game centers are young people in their teens and twenties. Kato (2011) deciphered people's behavior in game centers from factors such as handles, scores, and space. He also revealed the formation process of human relationships among young people using a notebook called "communication note" placed in an arcade. Otsuka (2015) also depicted people moving to other game centers in search of fighting game opponents. However, there are unknowns about relationships outside of the youth.

Based on the above discussion points, this report will clarify what kind of human relationships are formed among the customers of a game center. Fieldwork will be employed as a method. Among the informants who cooperated with us, three people in their thirties and forties, who are the central figures in each group, will be taken up to explore the networks among individuals using the snowball sampling method.

As a result, it was found that players play not only arcade video games but also home video games, smartphone game apps, and board games, and that they not only hold tournaments and social events at game centers but also plan and organize tournaments and social events using home video game consoles to increase the number of new players and expand exchanges. In this report, we will discuss how the players have been playing the game. In this report, we will focus on the aspect of human relationship formation among the players.

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メディアを介して人間関係を形成するあり方は、文字や本を含めると特別に目新しい現象ではない。しかし、新しいメディアが登場するたびに、メディアと個人の関係は議論の対象となっていった。日本における若者論に目を向けてみると、平野・中野（1975）の「カプセル人間論」を嚆矢として若者とメディアとの関連が強調されるようになっていく（岩佐1993、守弘1993）。
そうした傾向は現在に至るまで続き、ラジオ、テレビ、音楽、ケータイ、マンガ、アニメ、ビデオゲームなどが取り上げられてきた（平野・中野1975、成田1986、富田1999、東2001など）。これらの議論を基準にするならば、それぞれの世代や個人で利用しているメディアは異なるものの、メディアを通して人間関係を形成する若者のあり方は、約50年に渡るともいえよう。ビデオゲームで遊んだ経験のある世代も広がっていくなかで、ビデオゲームを媒介とした人間関係形成のあり方は、若者に限らず幅広い世代にみられると考えられる。70 年代からビデオゲームを扱ってきたゲームセンターは、そのような人間関係形成のあり方を考える上で参考になる。ゲームセンターの主要な利用客は10 代から20 代の若者であるとされる。加藤（2011）は、ゲームセンターに置かれた「コミュニケーション・ノート」と呼ばれる雑記帳を利用した若者の人間関係の

形成過程を明らかにした。また大塚（2015）は、格闘ゲームの対戦相手を求めてゲームセンターを横断する人間関係のあり方を描き出した。しかし、ノートを介さないつながり、若者以外の人間関係については不明な点がある。

以上の論点を踏まえ、本報告では、ゲームセンターの利用客を対象に、どのような人間関係を形成しているか明らかにする。その方法としてフィールドワークを採用する。とくに協力を得られたインフォーマントのうち、各グループの中心人物となっている30代から40代の3名を取り上げ、スノーボール・サンプリングの手法を用いて、個人間のネットワークを探っていく。
その結果、プレイヤーたちは、業務用ビデオゲームだけでなく、家庭用ビデオゲーム、スマホゲームアプリ、ボードゲームでも遊んでおり、ゲームセンターで大会や交流会を開くだけでなく、家庭用ゲーム機を用いた大会・交流会を企画運営しながら、新規のプレイヤーを増やし、交流を広げていることがわかった。本報告では、プレイヤーたちの人間関係形成の様相に焦点を当てていく。

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Session 5

"Playing with BB in Death Stranding"

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In the spirit of this year's theme of "AI in Japanese Games," this talk looks at the affordances involved with the digital companion BB in Kojima Productions *Death Stranding*. In the game's postapocalyptic America, players control Sam Porter Bridges, a deliveryman who transports packages to preppers living in underground bunkers spread out across the country while avoiding hostile specters called BTs ("beached things"). Accompanying Sam is BB, short for "bridge baby," an unborn fetus floating in a portable pod. The BB is classified as "equipment" initially, as it allows the player-character Sam to detect BTs when hooked up to Sam's radar device. As the game progresses, however, Sam and the player recognize the tool as a person as their relationship is explored through the game's narrative, mechanics, and gameplay, or what Nave Barlev has termed the "ludo-rapport model" of analyzing video game companions (Barlev 2021). This talk asks if the type of relationship that develops between Sam, BB, and the player subverts the violence-motivated father-child relationships at the heart of contemporary "dadified" games such as *The Last of Us*, *Bioshock Infinite*, and *God of War* (Stang 2017). These games feature child avatars who gradually develop strength and individuality, but not at the expense of any change in player behavioral or emotional response (Murray 2019). BB, on the other hand, is linked to how the player plays the game or is entirely removed from the game in certain moments. Players must adjust their behaviors accordingly to account for the presence or absence of their unborn buddy. These behaviors stand in contrast to the violent affordances of traditional masculine game heroes, and instead focus on playful and nurturing affordances.

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"Record Breakers: Forensic Media Archaeology Versus the King of Kong"

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In the highly competitive scene of speedrunning in which, as the name suggests, players compete to finish videogames as fast as possible, video recordings are key. "No vid; no did" is a commonly heard phrase. Having captured video footage allows for runs to be verified and is par for the course. It is not surprising, then, that speedrunning as a practice and spectacle grew in popularity around the same time livestreaming platforms and technologies entered the mainstream (Li, 2014).

However, prior to speedrunning was the proto-esports world of arcade video game high scores. One of the most recognisable yet polarising figures to emerge from this scene is Billy Mitchell. Part of his notoriety derives from his villainous characterisation in the documentary *The King of Kong: A Fistful of Quarters* (Gordon, 2007) alongside his long-standing gaming achievements including thrice world record holder on Nintendo's *Donkey Kong* (Orland, 2018).

However, on 12 April 2018, Twin Galaxies International Scoreboard decided to remove all of Mitchell's records and ban him from future participation after Jeremy "Xelnia" Young's earlier filed dispute was accepted (Xelnia, 2017). The evidence provided in the now 378-page-long megathread on Twin Galaxies forum details how Mitchell's three 1-million plus scores were not performed "live" on original arcade machines as Mitchell had originally claimed (McCumbers, 2018).

Despite the what seems to be continual and ongoing dispute between the parties involved, this short video presentation focuses on the technical detailing and scrutiny Mitchell's video recordings received. The video footage once used to ratify Mitchell's achievements ultimately became his undoing. Young's forensic reading of the way the image is generated reveals telling incongruities between Mitchell's original claim and the video's actual source.

This presentation concludes by calling for a similarly forensic media archaeological approach to "reading the screen" of new media objects drawing together Kirschenbaum's (2012) forensic materialism and Apperley and Parikka's (2015) expansion of platform studies (Bogost and Montfort, 2009).

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"Ainu Digitality and Rethinking the Game Medium"

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In this lightning talk I will be presenting a work-in-progress on the relationship between Ainu Indigenity, digitality, and games. While discussions on Indigeneity and games are often centered on questions of representation—how, for example, are Indigenous characters being portrayed in a game's storyline?—I wish to instead think about digital media created in collaboration with Ainu creators in parallel with the works of Indigenous game creators across the world. These creators have not just used the game medium as it currently exists to tell Indigenous-related narratives, but have used Indigenous forms of knowledge and cultural production to rethink the game medium itself, from mechanics to aesthetics. This approach is clear in a variety of recent Ainu language-teaching games like *Ainu Itak Aesukup* and *Ainu Itak Kampi Aesinot*, both 2016 games developed in collaboration with Chiba University's Center for Areal Studies in collaboration with a variety of Ainu communities. What might Indigenous game-development movements tell us about the potential futures of Ainu-made games?

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"Beached Dolphin: How the Nintendo GameCUbe Failed"

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For years, Nintendo dominated the worldwide video game industry. At one time, it possessed over 80% of the market share in North America and built what scholar Dominic Arsenault calls a "walled garden" of software and hardware that ensured its captive market of game developers and consumers could not leave. However, as suddenly as Nintendo's dominance over the marketplace emerged, it disappeared. Fellow Japanese giant Sony outmaneuvered Nintendo, now the victim of a generational shift primarily amongst American youth, in a move that exposed the disconnect between Nintendo and the rapidly changing North American video game market. Nintendo hoped to take back marketshare with its 2001 console, the Nintendo GameCube, but the result was a dismal failure that temporarily removed Nintendo from direct competition with Sony and Microsoft, primarily over an audience of so-called "core gamers," and augured a transformation of Nintendo's culture behind the scenes.

This paper analyzes the problems behind the failure of the Nintendo GameCube, primarily in North America, from a historical perspective, interpreting contemporary North American, and some European, online primary sources to piece together a narrative behind Nintendo's failure to connect with consumers in the early 2000s. In doing so, it finds that a "myriad of issues, such as poor release timing, extra competition from Microsoft, confused marketing in North America, and a culture clash within Nintendo" ensured that the GameCube would not only place behind Sony in the sixth generation of consoles but also behind newcomer Microsoft, selling dismally worldwide. Ultimately, this paper concludes by noting that the narrative surrounding the GameCube has been flattened within the English language online discourse in the years following its discontinuation, with most fans interpreting one or two commonly cited reasons for the console's failure, but not considering the system's failure as the result of a more complex, interconnected web of issues.

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"Character Driven Puzzle Games on the on the Sega Saturn"

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The Sega Saturn has a short history in the west marked with a small library of games, but in Japan there were over 1000 releases including a series of character driven puzzle games that have the player control a traditional puzzle game, while interacting with AI characters. While many puzzle games include characters, they are often added as decoration, something to entice the player to purchase the game, or as a way to introduce lore. Super Puzzle Fighter II introduces street fighter characters and backgrounds, and Puzzle Bobble has a cute dinosaur for the player to relate to. There are, however, other games that include AI characters that interact with the player in a material way during their puzzle games. These include but are not limited to Zoku Gussen Oyoyo, Gusssen Oyoyo S, Tetris Plus, and even a 3D conversion of Lemmings. These games often have the player control a block falling game like Tetris, with an AI character traversing the blocks. In Zoku Gussen Oyoyo the player must build a ramp to get the character out of the level while water raises from the bottom, and enemies traverse the level. In Tetris Plus the character must reach the bottom before being crushed by slowly falling spikes. The player builds a relationship with the characters and must understand their AI to successfully guide the player to the bottom. This work will look at Japanese character driven puzzle games specifically on the Sega Saturn, the AI that backs them up, the relationship between the player and the characters, and look at where these games came from and where they have gone after the Saturn.

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"Japanese Video Games as Tools for Language Acquisition"

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The current paper proposes a theoretical approach on the potential of Japanese video games in the process of language acquisition in the case of Japanese language learners. Nowadays, as more and more daily tasks are digitalized, online learning becomes mandatory in many cases, yet not all the tasks are successfully adapted for the platform. Furthermore, as a teacher is no longer near to aid in the engagement and concentration process, games have the added benefit of engaging the student and avoiding the constant procrastination that is hindering the solitary learning process. Thus, video games may now take a front spot in aiding the students in their language learning endeavor. Not only, it may represent a more interactive method for self-learners but it also represents a rich source of reading materials, especially for Japanese learners from countries in which the Japanese reading materials are scarce or not available.

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"From Jipang to Midgar: National Allegories in Japanese Role-Playing Games"

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This paper aims to examine how Japanese culture and national identity can be said to manifest themselves in Japanese role-playing games by analyzing the supposed allegorical implications of such games and the applicability of such interpretations. As an analytical framework, the concept of allegory might be seen as especially pertinent to Japanese role-playing games, since even though the genre covers a wide breadth of topics, most Japanese role-playing games feature a fantasy or science fiction inspired setting, thereby not offering a direct representation of Japan and Japanese society. Seeing as allegories employ symbolic expressions of figures and actions to convey hidden meanings about a particular subject, allegorical readings, therefore, represent an opportunity for further study into Japanese role-playing games as a cultural vehicle by uncovering the literal meaning of figurative symbols.

The allegorical undertones of various Japanese role-playing games have already been explored in some detail by scholars and fan theorists alike. In the case of Final Fantasy VII and Final Fantasy X, for example, it has been argued that certain aspects of the game are analogous with nuclear discourse in Japan, making them an allegory for Japan's relationship with nuclear energy and armaments (Hutchinson 2019, 136). However, even though such allegorical readings have been applied to Japanese role-playing games on a case-by-case basis, the applications, and limitations of allegory itself have received less attention, leaving such statements at least partly unqualified.

By differentiating between different types of allegories, both from the standpoint of authorial intent and interpretive reception, it becomes possible to better understand, not only how domestic allegories are read in a global context but also to what extent the happenings of Japanese role-playing games can be said to be specifically allegorical, as opposed to just generally applicable. This has implications for how Japanese role-playing games can be said to refer to their nationality as well as to what extent such games can be said to legitimately offer commentary from a Japan-centric viewpoint.

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"A Study of Tourism Photography in In-Game Photography: A Case Study of Snapshot AI"
インゲームフォトグラフィーにおける観光写真に関する研究―自動生成写真を事例としてー

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In-game photography is the practice of taking photos in a video game, either as screenshots or by using the default photo-mode within the game software. In-game photography is used by players and in-game photographers alike. In-game photography is a medium for visual communication for players on SNS. A search on Instagram for #ingamephotohraphy returns 391,257 images (viewed on September 25, 2020). Furthermore, the number of game titles with photo-mode are increasing.

In this study I will focus upon photographs generated by Snapshot AI in "FINAL FANTASY XV."[6] Snapshot AI (in this game the Snapshot AI is called "Prompt" and appears in the game as a character) allows the user to configure various aspects of the photo, including shutter, posing, framing, color effect and selecting photos.[7] However, the player is not involved in taking the photos, or the perspective of photos - these are generated automatically by the snapshot AI. The photos generated by snapshot AI include not only the usual tourism photography - such as commemorative photos[8] or selfies[9] with other characters, but also photos of failures. Those failure photos include scenarios such as backlit photos[10] where nobody appears in the photo clearly, photos where the character is looking at the camera but blinking,[11] and those in which there are no main person or objects.

The question is why does the player feel that these photos are a part of the game experience, even though that player is no involved in taking the photos, and the photos don't include the player themselves? Photography in which the photographer is not clearly visible but can be seen (for example, in the inclusion of hands and feet in selfies) can be observed elsewhere. In this research, however, I focus on photos generated by in-game snapshot AI, and aim to clarify what elements are present in them, mainly from the perspective of tourism photography.

There are two research questions. (1) Do photos generated by Snapshot AI have the characteristics of tourist photography? (2) If photographs generated by Snapshot AI can be considered as a form of 'tourism photography', do they enhance video game experience?

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[6] "FINAL FANTASY XV" is released at 2016 by Square Enix Co.,Ltd. This research based on "FINAL FANTASY XV Royal Edition", released on 2018 at Play Station4.

[7] Prasert Prasertvithyakarn, eds., "Procedural Photography Generation from Actual Gameplay: Snapshot AI in FINAL FANTASY XV," (PowerPoint presentation, ACM SIGGRAPH 2017 Talks (SIGGRAPH '17). Los Angeles CA, USA. July 30- August 03, 2017).

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[9] スクウェア・エニックス『FFXV』AI チーム，『FINAL FANTASY XV の人工知能』，171.

[10] スクウェア・エニックス『FFXV』AI チーム，『FINAL FANTASY XV の人工知能』，165.

[11] Prasert Prasertvithyakarn, "Samples of generated photographs," https://dl.acm.org/doi/10.1145/3084363.3085078#:~:text=a15-prasertvithyakarn.zip%20(1.4%20MB).

First, I will summarize the relationship between photography generated by snapshot AI and in-game photography. After that, I will compare photos generated by snapshot AI and tourism photos, and I will consider the common characteristics of these two types of photography. I will refer to some previous studies on in-game photography and tourism photography, but I will posit new insights for enriching the video game experience in terms of tourism and visual communication, linking it back to the notion of what is and is not instagenic.

インゲームフォトグラフィーとは、ゲーム画面をスクリーンショットとして撮影することやゲームソフト内の機能として搭載されている「フォトモード」を使って、ユーザーやインゲームフォトグラファーが写真撮影することである。インゲームフォトグラフィーは、SNS でのビジュアル・コミュニケーションに用いられており、インスタグラムにおけるハッシュタグ（#ingamephotography）検索の結果、391,257 件（2020 年 9 月 25 日閲覧）の投稿が確認できる。フォトモードを搭載したゲーム作品も増加傾向にあるが、『ファイナルファンタジー _XV』では、写真 AI によって生成された写真をプレイヤーに提示するという機能が搭載されている。なぜプレイヤー自身が撮影していない、自分が写っていない写真を自分のゲーム体験と感じるのだろうか。そこで本研究では、この写真 AI が、ゲーム体験を具現化する観光写真の役割を果たしており、写真 AI により生成された写真が観光写真の特徴を持っているのではないかということを研究課題として設定する。Jonas Larsen (2004)や Jørgen Ole Bæenholdt et al. (2017) による観光写真の内容分析を参照しながら、写真 AI による写真との比較を行った結果、観光写真の特徴を持つものがあることを示した。

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“China's Governmental Restriction and Game Players' Countermeasures to It: The Virtual Place Created in Battlefield 4”

欧米戦争ゲームの中の中国表象――「Battlefield 4」に対する政策とプレイヤーの取り組み

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This paper discusses China's governmental restriction of the 2013 war video game Battlefield 4 published by Electronic Arts, and Chinese game players’ responses to the restriction. Chinese government temporarily prohibited not the sale of the game itself, but all activities pertaining to the game, including sharing information and building players' communities due to the game's 'smear' depiction of China's national image. To purchase and play it outside the restriction, Chinese game players coped with non-technological ways: playing and discuss about the game under aliases and building secret communities just as hideouts. Eventually, the case of Battlefield 4 developed an offense-defense relationship between the governmental restriction of the Chinese mainland and players' countermeasures in the players' community.

This article analyzes the case by applying the theory of “Spoil-Sport”, Huizinga’s playing theory, as well as sociological ideas such as “Scenes” and “Community of Practice”. The analysis shows how players' communities are repeatedly destroyed and re-built by countercharges by government and players, and how players struggled to protect this newly born communities by giving it flexibility to avoid censorship. Paradoxically, the government regulation of video games and the players’ activities resulted in providing cooperative support of Chinese game players who develop this kind of new online communities. In conclusion, although the referenced theory and ideas cannot be entirely applied, the research suggests a new form of relationship that game players create with non-players outside in their game community.

本研究は、中国国内におけるシューティングゲーム「Battlefield 4」（Electronic Arts、2013）を巡るプレイヤーと規制の取り組み、及びこの現象の意義を論じるものである。作中の中国表象の描き方が「良くない」を理由にして、中国では一時的にこのゲームに向けて規制や禁止令が出された。それに対して、ゲームプレイとコミュニティーでの交流をスムーズに進むために、中国人プレイヤーが隠語としてのニックネームを作ったり、秘密アジトのようなコミュニティーを構築したりなど、様々な対策を講じた。本研究が取り扱うケースはプレイヤーのゲームプレイの場に巡るプレイヤーと規制の攻防であるため、このケースを分析するために、ホイジンガの遊び理論「Spoil-Sport」以外に、「シーン」や「実践的な共同体」などの、幾つかの社会学の共同体論モデルを用いた。分析結果として、この攻防を通じて、プレイヤーの能動性と創造性によって高い柔軟性を有する新しいゲームプレイの場がプレイヤーたちに再構築されることが明らかになった。結論として、プレイヤーが講じる対策により、このコミュニティーが規制の干渉を防ぎながら、新たなプレイヤーを招き入れることができ、高い柔軟性を有するようになる。そしてこの柔軟性で、強制力をもった政策によって、この再構築されたゲームプレイの場が完全に破壊されることがほぼあり得ないことと、今回のケースが前述の遊び理論と共同体論のモデルとは完全に一致しているわけではないため、ゲームに対し、プレイヤーと外部の第三者の新たな受容の仕方と関係を提示していることを筆者は主張する。

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『Call of Duty: Black Ops. 2』, Treyarch, Activision, 2012. (PS3/Xbox 360/PC)

Session 6

"Links to the Past? Formulating and Recreating Built Environment from Medieval Japan"

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Numerous video games developed by Nintendo in the last decade offer scholars a great opportunity to understand how Japan's past is perceived, constituted, and performed. While some authors (i.e., Allison 2006) have argued that high-profile series such as Pok mon take place in a nondescript environment, this paper reconsiders how recent video games instead seek to offer the player immersive sites where they can feel Japan's glorified and, although real, imaginary past. Recent entries in the Pok mon (2009), Golden Sun (2010), Legend of Zelda (2017), Animal Crossing (2012), and Yo-kai Watch (2013) series all showcase different aspects of Japan's architectural and material culture and traditions.

I particularly examine two ways in which Japan's architectural past is evoked, reified and, eventually, exoticized. On the one hand, Golden Sun: Dark Dawn (2010) and Legend of Zelda: Breath of the Wild (2017) are set in another world and a distant past, wherein the protagonist travels and must, at some point, access locales which stand for medieval Japan. Here, architecture, descriptions, and dialogues help identify what their equivalent in the "real" world would be. On the other hand, games such as Pokémon: HeartGold (2009), Yo-kai Watch 1 (2013) and, to some extent, Animal Crossing: New Leaf (2012) take place in our time, but they do not explicitly mention any specific geographic area. Here then, items used by the player and texts provided by interaction with the environment, such as traditional furniture, food, and so on, are meant to evoke the country's recognizable heritage. All these games seem to reinforce a dialectic built on ancient/modern and (self)Orientalism/strategic essentialism dichotomies. Indeed, they build on preconceptions of what constitutes Japan's "past," and they do so because it endows these games a sense of exoticism, of desirability – and thus, salability. However, because these games often feature vast, expansive worlds, they remind us that we must think beyond these dichotomies to also see in them an effort to consider Japan's heritage as being both discrete (i.e., reified) and entangled in a global world. By extension, these video games, which represent a medium of modernity par excellence, constitute key devices in recycling and renewing traditions – to audiences in Japan as much as abroad.

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"A Visual Analysis of the Cards in Fate/Grand Order Arcade"

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Arcade-based Trading Card Games (TCG) are video games that have a tangible, collectable card component, similar to those seen in card-based tabletop games. In this paper, we present a visual analysis of the cards of Fate/Grand Order Arcade, situating our findings in the greater context of Japanese visual culture, *gacha* mechanics (Lax & Mackenzie, 2015), and the cultural significance of TCGs in Japan.

Fate/Grand Order Arcade was released by Sega on July 26th, 2018. The game is a turn-based combat game where the player takes on the role of a "Master" and summons powerful "Servants" to battle enemies. Servants, who are obtained via a *gacha* mechanic in-game, represent different classes (e.g., saber, berserker, assassin, archer, etc.). The plot of the arcade game differs somewhat from the mobile game (released in 2015 on Android), which includes fewer narrative elements and focuses more on battles. While the mobile release of the game was considered very successful, grossing $982 million dollars in 2017, we have chosen to focus on the arcade version of the game, where players collect and play physical cards representing servants and their attacks.

To play the game, players begin by scanning a previously purchased IC Card to load their saved data. Servants and Craft Essences are obtained and simultaneously released to players in the form of a physical card. When starting a battle, the player loads their card deck into the deck reader and selects Servants to use and Craft Essences to equip the selected Servants. Servants are based on historical (e.g., Wolfgang Amadeus Mozart), literary (e.g., the Phantom of the Opera), and mythological (e.g., Medusa) figures from various cultures.

Figure 1. Four cards from the Arcade-based TCG Fate/Grand Order

In this paper, we discuss the cultural significance of the game's physical cards and present a visual analysis of the card artwork of 91 available Servant cards (see Figure 1) utilizing online databases and a set of cards that was collected in Japanese arcades in 2019. The cards were analyzed using visual analysis methodologies described by Rose (2016), mobilizing both content analysis and compositional interpretation. According to Rose, "content analysis offers a number of techniques for handling large numbers of images with some degree of consistency" (2016, p. 55). The method involves defining the sample of images, constructing categories for coding, coding the images, and then analyzing the results. As noted by Rose, the resultant analysis produces "a quantitative account of their content" (2016, p. 65).

Where content analysis produces quantitative results, compositional interpretation allows for more nuanced, qualitative analysis of images. Here, we utilize compositional interpretation to isolate and focus on specific cards that either defy or reify visual tropes common in Japanese video games and anime. Compositional interpretation involves looking at the composition of the image: its content, colour, spatial organization, light, expressive content.

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"Kamurocho, Kazuma and I: the Experiential Cartography of a Digital Town in the Yakuza Series"

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Videogame cities and places can be as memorable as the characters we control. From FF7's Midgar, Spiderman's semi-fictional New York, to the futuristic version of Detroit in Detroit: Become Human and the remnants of Bioshock's Rapture, cities play a major role in the player experience. In this paper I discuss the fictional town of Kamurocho, from the Yakuza/Ryu Ga Gotoku series, exploring how the town embodies the transition of space into place discussed by the geographer Yi-Fu Tuan (1977). Place, he argues, is space to which we give meaning, imbue values, and live experiences. Kamurocho is as much a protagonist as is Kazuma Kiryu (and other playable characters in the franchise) not just due to its environmental and indexical storytelling elements (Fernandez-Vara 2011; Domsch 2019), but also due to the connections it forms with players through its lively inhabitants.

Incorporating Walter Benjamin's figure of the *flaneur*, I approach Kamurocho as a living space-place with ethnographical, cartographical, and affective curiosity. Alongside the avatar of Kazuma Kiryu we fight drunks, hosts, yakuzas and gangs; play bowling, darts, and arcades; visit cabaret clubs; solve the problems of Kamurocho denizens and eat sushi at a place he once owned. Kazuma and I stroll, observe, and experience Kamurocho. The paper provides a theoretical temporal and spatial guide of Kamurocho through an analysis based in four out of its seven incarnations – Yakuza 0's 1980's Kamurocho and its bubble economy aesthetic; the mid 2000's Kamurocho shown in Yakuza Kiwami: 2; the verticalization of Kamurocho in Yakuza 4, set in 2010; and the inauguration of Kamurocho Hills in Yakuza 5, set in 2012.

I argue that Kamurocho offers players a *spatial-temporal experience* in which players are invited to construct with it an affective relationship that transforms Kamurocho into place (Wetherell 2012; Tuan 1977) through an inventive game design that allows the use of the town's elements in fights; and let us see it growing and changing over the span of almost three decades. In fact, we are illusory agents in this change, as our actions have (planned) architectural consequences from one game to another. Moreover, a second argument developed is the matter of *familiarity through permanence*. In contrast to the high pace of changes usually seen in installments from game franchises, Yakuza invests in the repetition of Kamurocho as center of the action. To reinforce this central role, the developers keep memorable sites quasi-untouched, and businesses that the player can visit remain in the same place for decades. This familiarity is enhanced by an off-game experience, as Kamurocho is based on the entertainment district of Kabukicho, in Shinjuku, Tokyo. Players that have been to the district can spot some obvious similarities, such as the entry gate and the many idols billboards in a certain parking lot. Moreover, the Japanese daily life iconography that players may know from firsthand experience or through the consumption of other Japanese cultural products, such as *kombini* and vending machines also create a feeling of familiarity through (affective and memorial) permanence.

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"Transculturality in Kingdom Hearts: Character Design and Generational Appeal"

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Taken by themselves, neither Disney nor Square Enix appears particularly successful at transcultural expression, although both are certainly marketing juggernauts in transmedia franchise operations (Smoodin 1994, Consalvo 2013). Disney may be understood in terms of American postwar cultural imperialism, while Square Enix is deeply rooted in conventions of Japanese storytelling. But together, somehow the two achieve a synergy in *Kingdom Hearts* (2002), coalescing in the figure of Sora. This paper performs a close reading of Sora's visual character design, a transcultural melding of Walt Disney's own Mickey Mouse and the *shōnen* figure of earlier Nomura Tetsuya creations (Drummond-Matthews 2010). While gameplay dynamics point to a new action-adventure style for Square Enix, the *shōnen* characteristics of Sora's appearance combine with his sense of loss and yearning to position the game squarely in the JRPG genre (Zagal and Deterding 2018, Hutchinson 2019).

Transculturality is then extended to the non-player characters in *Kingdom Hearts.* While the Disney characters fit their settings in an uncomplicated way, providing escapism and nostalgia for the player, Square Enix characters seem to be chosen for their complexity. I contrast the use of recent *Final Fantasy X* characters Tidus and Wakka in Destiny Islands against the use of darker, brooding characters from the older *Final Fantasy VII*, encountered later in the game. Just as loss and yearning define Sora's *shōnen* character, the sense of loss manifested by Cloud, Aerith and Tifa connect the player to the real-world context of the global late 1990s, speaking to Japanese anxiety following the Hanshin earthquake and Aum Shinrikyo attacks of 1995 (Ivy 1995), as well as the despair of 'Generation X' following Kurt Cobain's death in 1994 (Ali 1994, Brabazon 2005). Meanwhile, the deep economic recession of Japan's 'lost decade' (1991-2001) connected perfectly to the post-9/11 unease in America at the time of the game's release (Funabashi and Kushner, 2015). Overall, I argue that the game's success stems from its emphasis on loss and yearning, which fit not only the JRPG genre but also the sense of anxiety pervading both Japan and America at the time.

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"Transnational Taikos: Donkey Konga and Taiko no Tatsujin as European Distributed (Hyper)Cultural Products"

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Taiko no Tatsujin is one of the most iconic game series in Japan. Released for arcades in 2001 by Namco and with more than 60 installments between arcades, consoles, and smartphones, it did not arrive in Europe until 2018, with *Drum'n'Fun!* and *Drum Session!* (*TnT18*). Previously, *Taiko: Drum Master* had been released in 2004 in North America. That same year, the *Donkey Konga* series, a spin-off created between Nintendo and the *TnT* team, arrived in the West and exchanged bongos and Namco's own mascots for characters from the *Donkey Kong* series. Although *Konga* was first released in Japan in 2003, its fictional universe, song selection, and distribution strategy make it an international project.

This paper compares both games series analysing the games themselves through game studies theories and through the idea of "paradoxical Japaneseness" (Dorman, 2016), to then study *TnT18* as an European release, first through its marketing paratexts (Tosca, 2003), exploring as well how they convey meaning, and second from its reception by European reviewers, especially whether the games' "Japaneseness" was a relevant factor for them.

At first glance, the releases of *Konga* and *TnT18* seem to illustrate two very different distribution strategies: the "cultural concealment" of the markers of local identity and the "cultural performance" of said markers as selling points (Dorman, 2016). Despite being an ancient instrument, taiko was recovered during the postwar period and soon became an icon of tradition that separates both participants and the public into nationals and foreigners as well as local and non-local. Thus, its central role in *TnT* makes the franchise be defined by "cultural odour" (Iwabuchi, 2002). *Donkey Konga*, in turn, rejects cultural odour to create transnational aesthetics. A closer look to both series adds nuances: the Taiko franchise has always incorporated Western songs; *Taiko: Drum Master* was later released in Japan with little or no changes; *Konga* can still be understood as a highly Japanese game in its genre and aesthetics; and the marketing for *TnT18* highlighted Japanese cultural items that would be familiar to its European target.

Accordingly, our findings challenge the divide between Western and Japanese markets. There is a stable audience for Japanese games in Western countries, organized around online communities such as Taiko Time; at the same time, rhythm games are targeted to wider audiences through general cultural markers and design traits (such as party-oriented gameplay). Japan, the United States, and Europe form a distribution and circulation triangle within a hybrid industry (Consalvo, 2016) defined by transnational spaces, a multiplicity of versions of games (Newman, 2019; Hutchinson, 2019), and what Byung Chul Han has called "hyperculturality" (2018).

TnT18 shows that the franchise was familiar enough in Europe as not to be seen as a novelty or a gimmick, yet still needing explanation for some audiences - creating a circulation between aficionados with insider knowledge and newcomers. In this regard, *TnT* and its players and critics illustrate the hybrid and hypermodern nature of the cultural transactions between Japanese and European gaming spaces.

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"Playing to Protect the Nation: Conservative Frames and Nationalist Nostalgia in Tōhō Project"

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The field of Game Studies so far has paid much attention to politics and ideology in Japanese video games. Critical analyses have covered a wide variety of topics, including perspectives on gender, religion, cultural self-representation and othering, racial discourses and many more. Roth and Hutchinson, analyzing multiple Japanese video games from a variety of angles, demonstrate how deeply embedded they are in broader political discourses. Their insightful work is a testament to the contributions Japanese Studies is making in analyzing "games-as-texts from regional perspectives".

Many of these publications address highly popular and successful titles and/or long-running series, but one popular Japanese video game series has evaded critical scholarly attention: *Tōhō Project*. Originally published as *dōjin* games to be sold at fan conventions, *Tōhō Project* quickly became a highly popular series, has since gathered a very active fan base and has even seen some of its titles released on commercial games platforms like Valve's Steam and the PlayStation Store. While there is some scholarly work that mentions the series as an example of Japanese *dōjin* game development or analyzes it in terms of the fan culture surrounding it, to this date, there is no literature investigating *Tōhō Project* in the sense of Liboriussen and Martin, focusing on "games-as-texts from regional perspectives".

This paper contributes to the scholarly discussion about *Tōhō Project* by offering a critical analysis of the series as "games-as-texts". Applying Bogost's ideological frame analysis, it demonstrates how the games' mechanics enforce conservative political frames of restoring order and protecting the status quo. In a critical reading of its narrative, this paper argues that *Tōhō Project* envisions a world filled with a Japanese nostalgia for a nationalist construction of the past and for a supposedly lost Asian-ness. It shows that the games' mostly female characters are modeled after Japanese *yōkai* and command spells inspired by Shintoist, Buddhist and other pan-Asian religious traditions. Finally, it demonstrates that these characters act as agents for an anti-modernist nostalgia and thus embody a nationalist narrative of woman-as-nation.

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"Graffiti Activism or Slacktivism: Computer-assisted Analysis of the "Blitzchung" Controversy and the #Boycottblizzard Movement"

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Interviewed as part of an official Hearthstone Grandmaster streaming event on October 6, 2019, Hongkonger and eSports athlete Ng Wai Chung known as Blitzchung, voiced his support of the protest movement against the Extradition Law Amendment Bill, shouting "Free Hong Kong, Revolution of our Time" at the camera. Following the remarks, Blizzard Entertainment disqualified Blitzchung from the tournament for promoting "divisible social and political views". As Blizzard's parent company, Activision, is itself partly owned by the Chinese multinational holding conglomerate Tencent, gamers suspected foreign influence at the source of the decision. On the day of the incident, a call to boycott Blizzard's products was relayed on social media to retaliate against the company, a rallying cry which eventually extended to the denunciation of the game industry's monetization practices and Chinese human rights violations in the Xinjiang region, highlighting the tension between gaming practices and the industry's complex networks of capital and corporate ownership.

What would later come to be known as the "Blitzchung" controversy shares elements of the polemical intersection of spectator sport and political engagement as recently illustrated by former NFL player Colin Kaepernick's symbolic kneeling during the American national anthem. In the context of social media communication and gaming culture, it asks us to examine the dynamics of the generation, spread, and transformation of civic engagement online. In this presentation, we propose to think of this type of activism through the idea of "graffitimedia" (MacDowall 1) characterized by an emphasis on individualism, self-promotion, and mobility (Lachman; Bilodeau). This theoretical framework allows the interpretation of hashtags and other slogans as the materiality of online activism, affording the spread and duplication of its message, while risking the banalization or repurposing of its meaning. Rather than reconciling the dichotomy opposing "real" activism and "slacktivism" (Cabrera et al.), what we seek is to better understand the dynamics that fuels, dilutes or radicalize militant discourse online.

Using machine learning textual analysis methodologies, this paper will trace back the discursive evolution of the "Bliztchung" controversy on Twitter, Reddit and YouTube through the analysis of textual data covering the three months following the controversy. Doing so, we identify, map and compare four major discursive trends – "Controversy and Free Speech", "Activism and Democracy", "Hateful Language Directed at Game Companies", and "Capitalism, Politics and the Game Industry" – and identify paradigmatic moments of the discourse in

relation to the involvement of leading community actors to develop a plural understanding of their "militant" effects. We also discuss and illustrate the role of online platforms' content search algorithms in structuring the corpus studied, which highlights the role of AI as an algorithmic agent participating in the spread and evolution of the lexical field associated with the controversy, associating unrelated content to the search words through user "engagement signals" (YouTube). We then propose to consider the graffiti-type structural dynamics of the controversy as a field of engagement that concerns not only gaming culture, but that extends – through the actions of human and non-human agents – to other socio-political struggles such as the denunciation of the treatment of the Uyghur people in China.

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Session 7

"Curated Expressions of Japanese History in Sid Meier's Civilization VI"
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Sid Meier's Civilization VI (*SMCVI*) produces curated interpretations of Japan's post-1945 history. There is a significant body of game studies research on the historical turn-based strategy series. Predominantly, this literature explores the series' pedagogical potential (McCall, 2012; 2016; Salter, 2016; Squire, 2011), or its evolving representations of history (Carr, 2007; Chapman, 2013; 2016). However, this scholarship fails to examine the game's perception of Japanese history. To address this fissure, the paper illustrates how the systemic components of *SMCVI* present unique expressions of Japan during the latter half of the twentieth century.

The paper builds upon an innovative understanding of videogame developers as "developer-curators" who curate history through pragmatic game design and considerations of audience expectations for in-game historical content (Pennington, 2021). In particular, the paper explores *SMCVI*'s representation of Japanese history through the Electronics Factory building unit specific to the nation. Replacing the universal Factory building, the Electronics Factory includes unique systemic processes that produce historical interpretations of postwar Japan that conform to popular historical perceptions. Through the systemic effects of building the Electronics Factory, the unit persuasively reaffirms recognisable conceptions of Japanese contemporary history through the mass global popularity and cultural influence of digital consumer technologies and videogames (Koizumi, 2002).

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"Japanese Digital Games in Czech Media Discourse"

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Japanese digital games are a global phenomenon and as such, they have been a long-standing subject of journalistic as well as scholarly writing, which also frequently explores the origins of the international success of Japanese games.

Tristan Donovan states that "attempts at writing the history of video games to date have been US rather than global histories," (2010, Introduction) and the same can be said about English writing on Japanese games specifically. While the entrance of Japanese games to the American market in the 1980's and their subsequent reception is relatively well documented (e.g.: Kline, et al. 2003; Altice 2015; Consalvo 2016), the situation in Europe is much less clear.

While a certain Americentrism of English writing could be explained linguistically, there are factors beyond language, that contribute to the scarcity of sources on the spread of Japanese games in Europe. One of them is the difference in preferred gaming platforms: while in Japan the main platform for gaming at home were game consoles since the 1980's (see Koyama 2016, 97), in Europe, the position of home computers was much stronger (Altice 2015, 242). More importantly, a divided market and wildly varied socio-economic conditions in different European regions make it very difficult to make generalized conclusions about the spread of Japanese games in Europe.

To elucidate the process of the gradual adoption of Japanese games in a fragmented market such as Europe, we believe it is important to start the enquiry at a local level. In our paper, we will explore the Czech media discourse in order to identify how Japanese games were received and adopted in The Czech Republic (and Czechoslovakia earlier) in the 1980's and 1990's. Analyzing contemporary press and other available sources (including advertisements and paratexts such as walkthroughs and cheat lists in dedicated media), we will reconstruct the process of the adoption of Japanese games as well as demonstrate the lag in official distribution, the sentiments held against console gaming and other obstacles that have caused a significantly belated embracing of Japanese games compared to the US. In providing a discussion of the topic from a "Eastern Bloc" country, we hope to contribute to the understanding of the history of reception and consumption of Japanese games.

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"Eating Your Way Through Sugoroku: Imaginary Travel in a Japanese Board Game"

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Like other forms of entertainment, games allow players to escape their mundane reality and immerse themselves in the imaginary worlds within. Before the development of video games in Japan, there was a type of board game called *sugoroku*. It appeared as early as the thirteenth century and became more popular during the Edo period (1600–1868) with advances in woodblock printing technology. *Sugoroku* are somewhat similar to "snakes and ladders" games, with a player aiming to reach the final square before competitors. These games were often based on themes that were related to Buddhism, theatre, and travel. S*hinpan gofunai ryūkō meibutsu annai sugoroku* (ca. 1850 or 1852) is one example of *sugoroku* that features landmark restaurants and food items that existed in the city of Edo.

In this paper, I will consider how *sugoroku* fostered conceptual travel through the depiction of famous foods associated with specific locations or restaurants. I will focus on culinary examples of "famous things" (*meibutsu*) identified in these games. *Sugoroku* board games represented physical environments (like locations along a route) while also enabling players to create their own game worlds. Players could thus learn about famous sites and foods while also undertaking armchair journeys to these locations which existed both physically and in the mind's eye.

Although many *sugoroku* feature a spiral-like path in which the player starts at one corner and advances towards the goal square in the centre, the *sugoroku* examined here is a "jumping" *sugoroku* where each square in the game gives specific instructions as to which square the player should proceed to when they throw a certain number. The elements of chance and uncertainty within a game of *sugoroku* allows for infinite versions of game paths. Depending on the number they throw, each player will experience a different path. Through repeated playing of the game, the players can embark on variations of gastronomic journeys.

This paper will examine consumable famous goods (or meibutsu) associated with set shops or locations as depicted in one particular *sugoroku*, the *Shinpan gofunai ryūkō meibutsu annai sugoroku*. I will focus on the "cherry rice-cakes" (*sakura mochi*) travellers purchased in front of the temple Chōmeiji as one example that demonstrates the intersection of food culture and travel culture as an object of play.

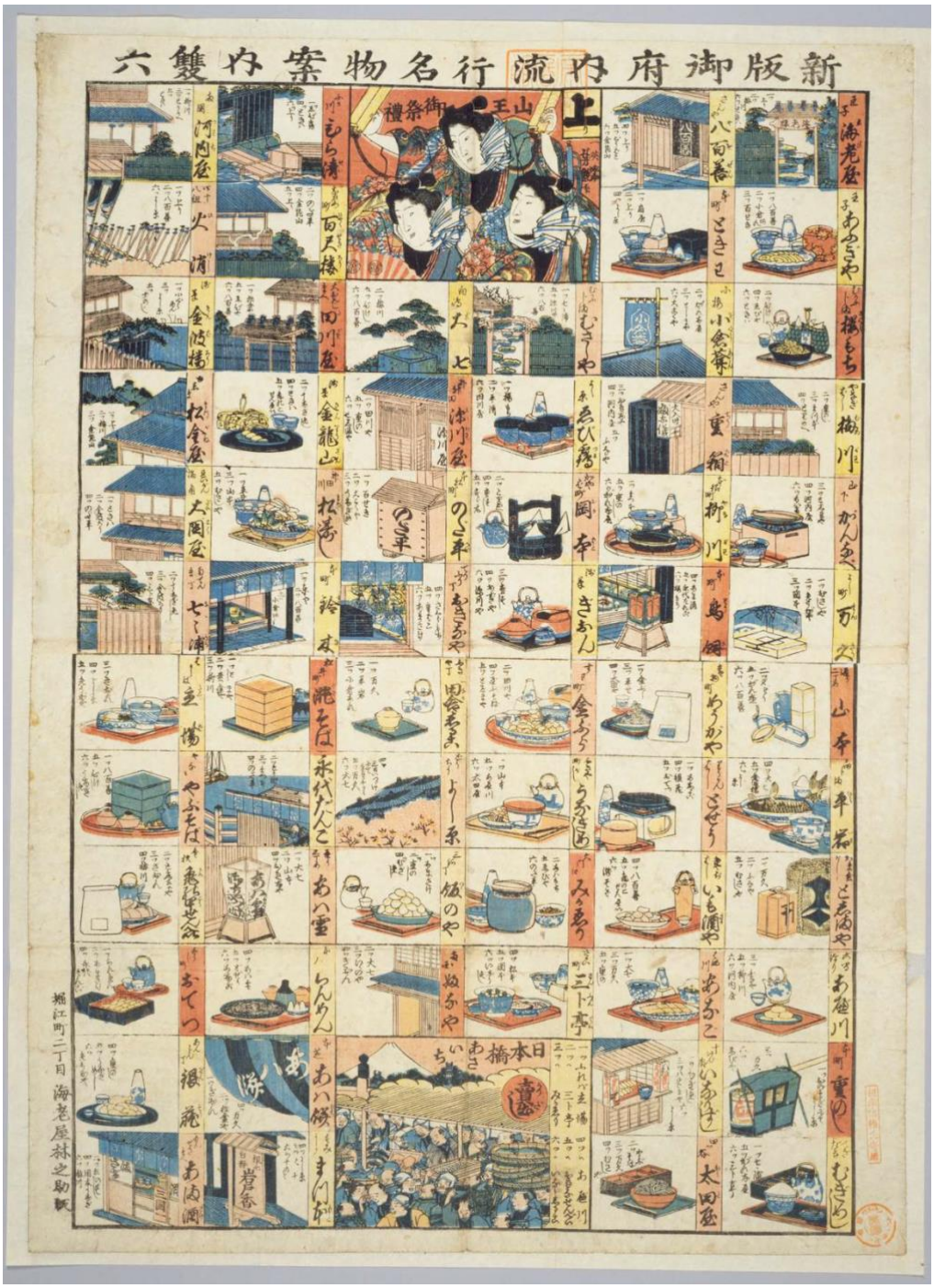

Figure 1. Utagawa Yoshitsuya (artist), *Shinpan gofunai ryūkō meibutsu annai sugoroku*, (新版御府内流行名物案内双六, *Sugoroku on Popular Specialties within Edo, New edition*), Edo: Ebiya Rinnosuke 海老屋林之助, ca. 1850 or 1852. Multicoloured woodblock print, 69 x 49.8 cm. Courtesy of the National Diet Library, Tokyo.

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"Remediating Video Games: Early Game Theory in Unlikely Places"

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This paper examines two emergent discourses around gaming in Japan in the 1980s that have coalesced in recent years into the *sekai-kei* genre. Drawing on playwright Betsuyaku Minoru's 1986 essay about of the loss of a middleground space for social interaction, various media theorists in this century argue that the genre of *sekai-kei* pits individuals in close-up (love story) in direct control of wide-angle geostrategic problems (the end of the world) without the traditional social intermediaries between individual and world (such as family, school, and government). The advent of videogames transitioning from the public arcade (game center) to the private home in the early 1980s coincides with the rise of a perceived of a loss of society and of a pronounced fantasy about the individual ability to effect change on the world. On the one hand, videogames have long been stigmatized by moral panics as a core problem for the dissolution of familial and social bonds; and on the other hand, videogames have long staged play with the end of the world.

By looking in the way various older media reacted to the presence of videogames in the wider mediascape, this paper tracks a burgeoning or nascent game theory at a time of relative absence of gaming theory proper. Remediation (the casting of one form of media in other) offers remarkably clear evidence about the representation of social attitudes towards a particular new medium often avant la théorie. Prior to the overt theorization of the new medium, two prominent examples of remediations of videogames in novels and films establish the precursors to *sekai-kei* theory as they existed around game culture in the 1980s. Considering Morita Yoshimitsu's *Family Game* (1983) and Murakami Haruki's *Hardboiled Wonderland and the End of the World* (1985) shows how videogames (though represented in these works only in passing) not only found and order those works but also present a coherent emergent early videogame theory.>>

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"#MewToo: "Spoofer Stalkers" and the Safety of Femme and Women Players of Pokémon GO"

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In a 2016 article published by *Forbes*, Ryan Mac writes "Many more women are playing Pokémon GO than men. A lot more women." (Mac, 2016). A reddit thread titled "Female Pokémon Go Players! What are your experiences with the game? Tell us your stories" outlines the experiences of women, femme, and female players playing *Pokémon GO*. Many of the contributions from femme and women players have outlined instances of harassment, intimidation, and fear of accessing certain locations of "gyms" in their communities (Reddit, 2019). While surveillance and privacy scholars have critiqued *Pokémon GO* for its use of GPS tracking, augmented reality (AI), and relation to surveillance capitalism (Shekhar and Vold, 2020; Zuboff, 2019; Policarpo and Ferreira de Araujo, 2019; de Souza e Silva and Hjorth, 2017), the game has not ceased to collect data and continues to incentivize players and share their information. Actually, *Pokémon GO* has incorporated more localized and community-based features like "remote raids", "gifts" for friends, and "trades", that require users to engage with, in order to advance further into the game.

This paper explores a series of instances of what Reddit *Pokémon GO* players call "spoofer stalkers", and the ways that players have been followed and tracked in their communities based off of their engagement with the game. More specifically, it looks at this from the lens of women and femme players, addressing a current conundrum in the *Pokémon GO* community, regarding pleasure and risk. This paper will reveal instances of spoofer stalking in North America, as well as some of the ways that femme and women players have curated their participation to avoid harm. Overall, this paper addresses the complexities of surveillance, risk, pleasure, and gender violence through a look at *Pokémon GO* and its femme and female users.