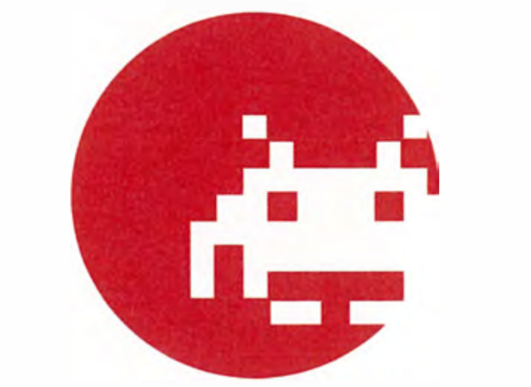
Replaying Japan 2018



20-22 August 2018
The National Videogame Arcade
www.thenva.com

REPLAYING JAPAN 2018

LOCAL ORGANISERS

Alice Roberts, Iain Simons, James Newman and the team at The National Videogame Arcade

CONFERENCE CO-ORGANISERS

Ritsumeikan Center for Game Studies, Ritsumeikan University

Philosophy and Humanities Computing, University of Alberta

Institute of East Asian Studies / Japanese Studies, Leipzig University

Digital Games Research Association (DiGRA) Japan

CONFERENCE CHAIRS

Geoffrey ROCKWELL, Philosophy and Humanities Computing, University of Alberta

Akinori NAKAMURA, College of Image Arts and Sciences, Ritsumeikan University

Jérémie PELLETIER-GAGNON, Comparative Literature and Humanities Computing, University of Alberta

Martin PICARD, Institute of East Asian Studies / Japanese Studies, Leipzig University

Martin ROTH, Institute of East Asian Studies / Japanese Studies, Leipzig University

PROGRAMME COMMITTEE

Koichi HOSOI, College of Image Arts and Sciences, Ritsumeikan University

Kazufumi FUKUDA, Ritsumeikan Global Innovation Research Organization, Ritsumeikan University

Rachel HUTCHINSON, Department of Languages, Literatures and Cultures, University of Delaware

Akito INOUE, Graduate School of Core Ethics and Frontier Sciences, Ritsumeikan University

Shuji WATANABE, College of Image Arts and Sciences, Ritsumeikan University

Tsugumi OKABE, Comparative Literature, University of Alberta

Mitsuyuki INABA, College of Policy Science, Ritsumeikan University

Hiroshi YOSHIDA, Graduate School of Core Ethics and Frontier Science, Ritsumeikan University

THE NATIONAL VIDEOGAME ARCADE

The National Videogame Arcade is a not-for-profit organisation that exists to develop the role of videogames in culture, education and society. It is funded by revenue generated by visitors, hospitality and events as well as generous patrons.

The National Videogame Arcade opened in March 2015 and welcomes tens of thousands of visitors a year. As well as the core visitor attraction, we also deliver education programmes to school visits and informal learners.

Our extensive exhibition programme has covered games including Sega/Sports Interactive's *Football Manager* series, UsTwo's *Monument Valley*, the pioneering work of the UK's Oliver Twins. We have staged exhibitions on aspects of gameplay and game design such as *Jump!* which focused on the design and experience of the jumping mechanic; and on the material cultures of gaming through our object collections. We recently published our first book *A History Of Videogames In 14 Consoles, 5 Computers, 2 Arcade Cabinets… And An Ocarina Of Time* (Carlton Books, 2018) which draws on our collection.

In recognition of our leading work in the field, we worked with the British Academy and Leverhulme Trust throughout 2017 to produce a White Paper on videogame preservation, curation and exhibition. The repot is available at https://thebgi.uk/gameoverwhitepaper/

The NVA exists to showcase and interpret videogames for as many audiences as possible. We think that everyone should be able to play videogames, but more importantly everyone should be able to make them.

We think that the future of videogames is in new people, making new kinds of games, for new players.

For more information, visit www.thenva.com



SCHEDULE

DAY ONE: 20 AUGUST 2018	
9.00	Welcome
9.30-11:00	**PANEL: MUSIC 1** **Alex Wade** Accelerate Your Mind: The Soundscapes of Pac-Man **Timothy Summers** The Music of Mother (1989) and the Powerful Aesthetic of Naiveté **Martin Picard** The media ecology of video game music in Japan (Moderator: James Newman)
11:00-12:30	**PANEL: COMPARATIVE STUDIES** **Aki Nakamura** Comparative Case Studies on China's Pan-Entertainment practices and its adaptation of Japanese entertainment companies **Stefan Bruckner** Examining Differences in German and Japanese Player Experience: A Grounded Theory Approach **Tomás Grau** Mukokuseki and ludic traditions: a problematization of the interpretation processes of Japanese videogames (Moderator: Geoffrey Rockwell)
12:30-14:00	**LUNCH**
14:00-15:30	**PANEL: DEVELOPMENT** **Shuji Watanabe** The Design technique to misunderstand as self-creation and self-growth for questions **Juhyung Shin, Yehang Jiang, Mitsuyuki Inaba** Constructing Multicultural Learning Environment and Collaborative Serious Games in Metaverse (Moderator: Aki Nakamura)
15:30-17:00	**PANEL: PLATFORMS** **Kieran Nolan** JAMMA Arcade Platform: Interface Constraints and Aesthetic Affordances **Mikhail Fiadotau** Digging into the Game Engine: A Selective Archaeology of Hobbyist Game Development in Japan (Moderator: Martin Roth)
17:00	**Keynote: Masaya Matsuura**

DAY TWO: 21 AUGUST 2018	
9:00-10:30	**PANEL: MUSIC 2** **Jason Bradshaw** The Golden Age of JRPG Music: MIDI Masterpieces **Hiroshi Yoshida** Early History of Epistemic Sounds in Digital Games **Konstantin Freybe** The Singing Chat Of “OuterHeaven”
10.30-12:00	**PANEL: WAYS OF PLAYING** **Nathan Altice** Four Ways to Play in Hell: Makaimura Board Games in Translation **Keiji Amano, Geoffrey Rockwell** Gambling as Play: the Case of Pachinko **Fanny Barnabe** Twitch Plays Pokémon: Reappropriation as a Fictional and Playful Matrix (Moderator: Martin Picard)
12:00-13:30	**PANEL: GAME HISTORIES** **Peter Mühleder, Tracy Hoffmann, Konstantin Freybe, André Lahmann, Florian Rämisch, Martin Roth and Leander Seige** Tales of doing Research with Video Game Fan Databases: A data-driven Approach **Yuhsuke Koyama** The birth of JRPG and its own evolution **Martin Roth** The spatiality of videogame production in Japan **Akito Inoue** Making Local video game history index (Moderator: Kazufumi Fukuda)
13:30-14:30	LUNCH
14:30…	Tour of The National Videogame Arcade
16:00	**Keynote: David Wise**
18:00	**Conference Dinner** *Note: Please ensure you have booked your place on the conference dinner when you register your attendance at the conference.* *Please contact* alice@thenva.com *for further details, late booking arrangements or any dietary needs.*

DAY THREE: 22 AUGUST 2018	
9:30-11:00	**GAME EDUCATION AND RESOURCES** **Akinori Ito, Koji Mikami, Ken-ichiro Ito** A Practice Report on Development of Game Audio Research Method at Tokyo University of Technology **Hitomi Mohri, Kazufumi Fukuda, Koichi Hosoi** Research on User's Information Needs of Video Game Resources for Subject Access (Moderator: Mitsuyuki Inaba)
11:00-13:00	**NARRATIVE AND CHARACTER** **Laura Iseut L. St-Martin** Dark Souls: Narrative, players, interpretations **Philipp Klueglein** The Design and Reception of Characters in Japanese Free-to-Play Games **Rachael Hutchinson** From Karate Champ to Tekken: Nation and Narration in Fighting Games (Moderator: Aki Nakamura)
13:00	**LUNCH**
14:00	**Demos and Posters** **Sayaka Yoshida, Shuji Watanabe** Proposal of gamification to make tidy up happily **Shosaku Takeda** Level design learning by the story **Takahiro Tsuda, Shuji Watanabe** Game Play Middleware "Park Computer" for create a new experience of playing digital games integrating inputs **Shinya Saito, Shuji Watanabe, Shosaku Takeda, Kazutoshi Iida, Seiki Okude** Development on the Authoring and Playable Platform Based on Omnidirectional Image Data **Yutaka Makabe** A Practice of Creative Music Making Education Using Synthesizer Software on Handheld Game Console
15:00	**Closing remarks and thank you!**

KEYNOTE SPEAKERS

MASAYA MATSUURA Through Music and Words, legendary composer Masaya Matsuura will explore his work as one of the pioneers of the rhythm action genre (creating works such as Parappa the Rapper, Vib Ribbon and others.) This will build upon the fantastically successful and inspirational sessions he gave at the All Your Bass Music Festival in January 2018 and the GameCity festival in 2009.



DAVID WISE Donkey Kong Country and The Snake Pass composer David Wise provides a composer commentary on these titles, featuring Yamaha Electronic Toms, EWI and a range of other electronic instruments. David Wise is famous for his association with Nintendo, via Rare, The Donkey Kong Country Series, Diddy Kong Racing and Starfox Adventures. David Wise Sound Studios and Music Publishing is David's latest venture, allowing him to continue to compose music and create sound design, primarily for videogames and Digital Media.



ABSTRACTS

DAY ONE: 20 AUGUST 2018
9:30-11:00 Panel: MUSIC 1

Alex Wade
Accelerate Your Mind: The Soundscapes of Pac-Man

In her study of the use sound in early home computers, Karen Collins (2008) finds that it is a lack of technology which is key to the creative process in initial videogame music. This technical sparseness leads to Space Invaders simple four note bass-line being widely perceived as one of the first examples of in-game music and certainly the first to evidence a dynamic soundtrack: as the alien invasion comes ever closer, the music speeds up, panicking the player into more frantic and less accurate blasting.

This propensity to panic is given further urgency by the source of the soundtrack. As Gary Western (2011) writes, both Space Invaders and Asteroids used heartbeat-like rhythms as their inspiration. Both soundtracks start slowly, more languid than the player's own biorhythms, coaxing and relaxing. As the game progresses the rhythmic thrumming increases: fewer enemies on screen mean the game should become easier, but the inverse occurs, the game – and the music – speeds up. With less processing power required, the sparseness of technology and enemies accelerates through the medium of music.

Taking the legacy of Asteroids and Space Invaders as its start button, this paper brings the biorhythms and manic panic button thrills to bear on the pills, fruit and dots of Iwatani's 21st century iteration of Pac-Man: Championship Edition, where the similarities are striking and revealing in equal measure. The soundtrack to Pac-Man CE's 'Highway II' course starts at the five minute marker of time attack mode, a slow heartbeat permeated by echoes of water dropping through a cavern, or a Game Centre, or an arcade.

As the music increases in tempo a counter kicks up the speed of the game while a timer ticks down; as more points are amassed, the potential amount of points available increases in an acceleration of the present/future risk and reward schedule (Loftus and Loftus 1982). Note the player of Pac-Man. Their face an anguished mirror to the zero-hour of the timer: they do not look at where Pac is on the screen, but are focussed somewhere ahead and beyond it, in a future space and time that Pac-Man will occupy.

Through the use of audio and visual examples, this paper unfolds the accelerated mind of the title. From the caverns of Highway II back to Power Pill's 1992 music single 'Pac-Man', where the player is encouraged to 'Insert Coin', buy pills from the dealer and 'Eat them up yum yum', synthetic drugs and music place the body in throes of speed and ecstasy meaning it can operate beyond its natural boundaries. With the body adapted to the rhythm of the machine the race face is on and eyes are on the prize. The mind and body's constant focus on the imminent is the hallmark of capital accumulation, the music of and around Pac-Man the soundtrack to these increased demands. This paper takes a trip through these soundscapes beyond the sparse tech biorhythms of the heartbeats of Space Invaders and Asteroids, and into the caverns, game centres and arcades of the past, present and future of videogame music.

References

Collins, K. (2008) Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design, Massachusetts: MIT Press

Loftus, G.R. and Loftus E.F. Mind at Play: Psychology of Video Games, New York: Basic Books

Western, G. (2011) 'Top Score: The evolution and significance of videogame music' Paper presented at CSU Montery Bay, 26th February 2011, available at https://garywestern.files.wordpress.com/2011/04/garywestern_topscore.pdf accessed 1st February 2017

Tim Summers
The Music of Mother (1989) and the Powerful Aesthetic of Naiveté

This paper discusses a JRPG released by Nintendo for the Famicom during the first blossoming of the genre in the mid-to-late 1980s. Mother (1989) was the brainchild of Shigesato Itoi, a well-known media personality. While the game replicates the game mechanics from its genre kin of the Dragon Quest (Chunsoft/Enix, 1986+) and Final Fantasy (Square, 1987+) series, Mother sets the gameplay in a radically different environment: modern day America. More than anything else, Itoi wanted the experience of playing Mother to be an emotionally significant one. Mother's appeal lies not in its gameplay mechanics, which represent no great development from the Dragon Quest model, but instead in the striking and unusual aesthetics of the game. Foremost among Itoi's arsenal for achieving this affecting style is the game's music, composed by Keiichi Suzuki and Hirokazu Tanaka.

This paper argues that Mother uses music, and particular musical stylistic qualities, to exert emotional-affective influence over the player. The game's plot is centred around music and its power; one of the central conceits involves collecting musical fragments to assemble a melody that ultimately holds the secret to defeating the final boss. The game also foregrounds music in the numerous sequences that approach a staged performance. Mother explicitly depicts music as extraordinarily potent. In a world of psychokinetic abilities, giant robots and Earth-threatening aliens, it is music that is shown to be the ultimate source of power. Beyond the narrative, the game also wields this same force over its players, using music (in tandem with other aspects of the game's style) to induce the kind of affecting experience Itoi sought to generate. Analytical discussion will explore how the game's music achieves these goals by departing from genre precedent to forge a 'naïve' style that deploys signifiers of childhood and simplicity.

The paper additionally draws upon two paratextual sources. The paper will discuss the 1989 soundtrack album of the game, which includes an arrangement of the game's standout cue as a choral-orchestral piece, arranged by Michael Nyman for St Paul's Cathedral Choir and a small orchestra. It also investigates the same piece's appearance in a Japanese school textbook, where it is presented for a flexible children's ensemble.

Mother is placed within broader musical trends of the JRPG by drawing on video game histories and, in particular, the scholarship of William Gibbons (2017), Jessica Kizzire (2014) and William Cheng (2014). It is argued that many of the modern musical traditions central to the JRPG genre are evident in Mother, in a more pronounced fashion than in preceding games.

Mother is a testament to the power of music, within and outside games. The game also argues that musical profundity is not tied to specific notions of musical complexity. By developing the arguments of Ben Winters (2014), originally made with respect to film music, the paper suggests that Mother uses music to enrapture players and provide them with a way of sharing subjectivity with the characters, which is central to the project of a JRPG.

Martin Picard
The media ecology of video game music in Japan

This paper seeks to examine the manifestation and significance of video game music in Japan, not only in games, but in popular culture in general. As such, to understand the functions and pleasures of video game music in Japan, we need to situate the phenomenon in a larger context of cultural and media ecologies.

In video games developed in Japan, music is not only used for diegetic or gameplay purposes, but it is also linked to larger consumption and cultural practices that have helped video games to be culturally significant and reached groups larger than only gamers, such as music lovers, television viewers, underground musicians (via chiptunes), and so on.

For this presentation, the author will investigate the cultural, industrial, technological and generic factors that explain the significance of video game music in Japan. After introducing the importance of music in Japanese (popular) culture in general, the author will contextualize the development of video game music from the end of the 1970s to the 1990s, when it became an important popular cultural genre in itself in Japan. This popularization is strongly linked to the close relationship between the music industry and other contents industry in Japan (radio, television, anime) as well as to the transmedial nature of video games and its place in the youth subcultures at the time. Moreover, some major music companies, such as Pony Canyon, Victor, and Sony decided to enter the video game industry during the 1980s and 1990s, pushing further the strong affinities between media that will developed into a (sub)culture of its own. Technology was also a defining factor as the 1980s saw the popularization of synthesized and electronic music in which video game composers participated strongly in its development due to the technical limitations of the gaming hardware. This resulted in mutual influences, from 1970's music emphasizing the use of keyboards and synthesizers (progressive rock, the birth of electronic music) that had a big impact on video game composers to the emergence of the techno-pop in the 1980s, sampling video game music and sounds (such as in the most popular group of the time, Yellow Magic Orchestra). Therefore, many musical genres, such as rock, metal, electronica, jazz, classical or even world music (Celtic or Irish music for example) became the artistic base for video game composers to experiment with.

All these factors participated in the development of a strong industry in itself, the geemu ongaku, which can be observed today as much in its dedicated sections in record stores as in its grandiose concerts in famous Japanese concert halls or on the most viewed television channels.

DAY ONE: 20 AUGUST 2018

11:00-12:30 PANEL: Comparative Studies

Aki Nakamura

Comparative Case Studies on China's Pan-Entertainment practices and its adaptation of Japanese entertainment companies

The present studies attempt to describe recent development of media mix efforts taking place in the Chinese regions, called "Pan-Entertainment" and the efforts of Japanese companies in placing their works in the Chinese market.

The studies shows the conceptual development of 'pan-entertainment' in China and can be categorized roughly into four phases. As comparative case studies, each phase is described, using specific examples. The chaotic phases is represented by the modern martial arts novels by Jinyong and following related works expanding to other medium including digital games. This case show how the Chinese people embraced the works of Jinyong and how various producers across various media attempted to adapt Jinyong's works with passion but uncoordinated efforts, often neglecting the nature of licensing business. The next case is from the Chinese Paladin, the intellectual property created in Taiwan. The case is expounded to show how the management of this IP is attempting to closely follow the media mix strategy often used by the Japanese companies, thus can be categorized into the media mix imitation phase. The case of the Qin's moon, can be considered as the early phase of pan-entertainment as in spite of the fact that the world was first created by Taiwanese author, it was then reinterpreted and expanded by the Chinese creative entrepreneur and producer. Then finally, Ghost Blows Out the Light's case is expounded to show today's China's pan-entertainment as it was initiated from online novels and strategically expanded to multiple works across various media.

The studies then show how Japanese companies operating in China try to adapt pan-entertainment like strategy by working in collaboration with Chinese companies. Three cases is shown, one if BandaiNamco Shanghai and its work on Naruto series, next one is Square-Enix and its work on Million Arthur series, and then final cases of that of SNK and its strategically with the King of Fighters series. Each of company had been taking their intellectually properties for their ways of media mix strategy; but through this cases, the study attempt to show how each of the firm attempt to adapt into pan-entertainment strategy currently practices in China.

Various limitations apply to the present studies. First, so called pan-entetainment strategies taken by various firms in China is still at formation stages and thus are subjects of conceptual testing and changes, thus very definition of pan-entertainment may change over time. Thus, for the present studies, the definition based on the practices up until 2017 is examined. The purpose of the present studies is to scrutinize the practices of both Chinese companies and Japanese companies based in China and not determining the effectiveness of such practices; the effectives of how pan-entertainment should be designed would be another subject of research for the future endeavors. With limitation aside, the studies attempt to unravel the recent trend of Chinese company's attempt in taking their IPs across media as well as how Japanese digital game publishers are attempting to coop with such ongoing trend.

Phase	Chaotics	Media Mixi Imitation	pan-etertainment (Stage One)	pan-entertainment (Stage Two)
Time Period	1970-2000	Early 1990s - 2010s	Late 2000-current	Late 2000- current
Core Strategy	Adapt the original (or its motif) to specific media products to take advantage of its popularity	Attempt to adopt the media mix strategy in the Chinese market	Take established original works, interprete the universe and expand	Take the IP created online and strategically expand the universe by launching products in mutlie media
Coordination	Uncoordinated and Uncontr	coordinated but slow in expanding the IP	coordinated and simutaneouls release of various products	coordinated and simutaneouls release of various products
Remarks	Often ended up having unofficial (or illegal)products	Fan events supported, some illegal products	User Generated Contents strategicially supported for non-commercial purpose	User Generated Contents strategically supported for non-commercial purpose

Chart : Typology on pan-entertainment in the Chinese region

References

蘇宇庭 (2016)「網路文學IP大爆發：泛娛樂生態戰略全面啟動」『数位時代Busness Nex』<https://www.bnext.com.tw/article/40546/BN-2016-08-09-175143-178> (2018/02/26 Access)

中村彰憲（2005）「中国オリジナルコンテンツを研究する」『中国ゲームビジネス徹底研究2006』pp. 65-90

_____ (2015)「2014年中国ゲーム産業成功の法則キーマンに聞く」『ファミ通ゲーム白書2015』pp. 394-395

_____ (2015)「中国-海外動向」『デジタルコンテンツ白書2015』pp. 191-200

_____ (2016)「3 中国:第6章海外動向」『デジタルコンテンツ白書2016』pp. 199-210

冷泉弘隆（2016）「中国市場に切り込む日本のゲーム産業」『ファミ通ゲーム白書2016』pp. 400-401

山田大輔 (2017)「中国で花開く日系エンターテインメント企業」『ファミ通ゲーム白書2017』pp. 400-401

Stefan Bruckner

Examining Differences in German and Japanese Player Experience: A Grounded Theory Approach

The way players interpret and experience video games is inextricably linked to their cultural backgrounds (Consalvo 2006, 127). In broader gaming discourses, this is often linked to a perceived dichotomy of Japan, and "the West", with emphasis being put on supposed differences between Japanese and Western games, as well as Japanese and Western players. This "binary perspective" (Pelletier-Gagnon 2011, 84), based on a notion of the uniqueness (i.e. "Japaneseness") of Japanese games has repeatedly been objected to scholarly scrutiny (e.g. Consalvo 2006, Navarro-Remesal and Loriguillo-López 2015). Mia Consalvo (2016, 178), while admitting that "player expectations and preferences can differ from one culture or region to another", criticizes such a discourse of "Japaneseness" as being used as a rhetoric mechanism, enabling game developers to shift the blame of an unsuccessful release on unbridgeable cultural differences. However, it is still deeply ingrained in many players and deeply affects the way Western players interact with Japanese games.

This paper aims to contribute to a better understanding of how player experience differs, based on the players cultural background, by examining and comparing the German and Japanese user reception of a diverse range of Japanese video games published since 2012. Focusing on Japanese games (i.e. developed by a Japanese company) we also wish to examine the German perception of what constitutes "Japaneseness" and contrast it with the Japanese views on the same game titles. Our dataset includes user reviews (amazon.de/co.jp, Steam, Famitsu), German and Japanese gaming related YouTube videos and Twitch.TV streams, as well as user comments to online gaming media articles. Contrary to Zagal and Tomuro, (2013) we proceed with a qualitative analysis of the content, combining a grounded theory approach with a qualitative content analysis aided by QDA software (Schreier 2014, Strübing 2014).

References

Consalvo, Mia. 2006. "Console video games and global corporations: Creating a hybrid culture." New Media & Society 8 (1):117-137.

Consalvo, Mia. 2016. Atari to Zelda: Japan's videogames in global contexts: MIT Press.

Navarro-Remesal, Victor, and Antonio Loriguillo-López. 2015. "What Makes Gêmu Different? A Look at the Distinctive Design Traits of Japanese Video Games and Their Place in the Japanese Media Mix." Journal of Games Criticism 2 (1):1-18.

Pelletier-Gagnon, Jérémie. 2011. Video Games and Japaneseness: An analysis of localization and circulation of Japanese video games in North America: McGill University (Canada).

Schreier, Margrit. 2014. "Varianten qualitativer Inhaltsanalyse: Ein Wegweiser im Dickicht der Begrifflichkeiten." Forum Qualitative Sozialforschung/Forum: Qualitative Social Research.

Strübing, Jörg. 2014. Grounded Theory: Zur sozialtheoretischen und epistemologischen Fundierung eines pragmatistischen Forschungsstils: Springer-Verlag.

Zagal, José Pablo, and Noriko Tomuro. 2013. "Cultural differences in game appreciation: A study of player game reviews." FDG, Chania, Greece.

Tomás Grau

mukokuseki and ludic traditions: a problematization of the interpretation processes of Japanese videogames

In recent years, a huge amount of research has been undertaken to properly assess the development of the videogame medium on both a global and a local scale, with works that attempt to frame its history as a transnational process first and as a set of locally distinct frameworks of production and consumption second. A huge portion of that work has been dedicated to assessing the proper impact of Japanese videogames in the world, both as culturally neutral (or mukokuseki) products and as pieces of a particular media environment that is unique to Japanese pop culture. With this goal in mind, authors like Picard (2013), Pelletier-Gagnon (2015) and Navarro-Remesal and Loriguillo-López (2015) propose the usage of local terminologies to describe the elements that set apart Japanese gēmu from the rest of their counterparts. These works are useful to approach Japanese videogames as multi-faceted commodities, but also open new questions pertaining to their behavior and reception depending on the context that they operate on. Moreover, it highlights the importance that interpretation has whenever Japaneseness is brought up as a significant component of a videogame's character.

This proposal will tackle these new enquiries by suggesting that interpretation from both players and producers alike is highly influenced by the segmentation of gameplay preferences as well as the sociological hierarchization that it's at play in the medium. These forces (which are determined by both market pressures as well as sociocultural and political expectations) determine the sense of foreignness that certain Japanese games develop when they begin to circulate. From this distinguishing process, a sense of belonging to a ludic tradition emerge within communities and becomes the main instrument through which certain elements (from tiny design factors to entire game genres) get to be assigned as part of a specific culture or media environment. Throughout this presentation, I will outline the way in which this sense of tradition is brought upon in discussions around the medium, and attempt to identify its roots in the story of the industry and in the unequal dialectic existing between the Japanese design scene and the supposedly all-encompassing Western scene.

References:

Allison, Anne (2006) Millennial Monsters: Japanese Toys and the Global Imagination. Berkeley: University of California Press.

Aoyama, Yuko & Izushi, Hiro (2006) "Industry evolution and cross-sectoral skill transfers: a comparative analysis of the video game industry in Japan, the United States, and the United Kingdom." Environment and Planning A 2006, Volume 38, pp. 1843-1861.

Consalvo, Mia (2006) "Console video games and global corporations: Creating a hybrid culture". New Media Society, 8(1), pp. 117-137.

Genette, Gérard (1997) Paratexts: Thresholds of interpretation. Cambridge: Cambridge University Press. Kline, Stephen; Dyer-Whiteford, Nick & de Peuter, Greig (2003) Digital Play: the interactive of technology, culture and marketing. Montreal & Kingston: McGill-Queen's University Press.

Loriguillo-López, Antonio & Navarro-Remesal, Víctor (2015) "What makes Gêmu different? A look at the distinctive design traits of Japanese video games and their place in the Japanese media mix." Journal of Games Criticism, Volume 2, Issue 1. URL: http://gamescriticism.org/articles/navarro-remesalloriguillo- lopez-2-1/

Picard, Martin (2013) "The Foundation of Geemu: A Brief History of Early Japanese video games." Game studies 13:02. URL: http://gamestudies.org/1302/articles/picard

Wolf, Mark J. P. (2015) Video Games around the World. Cambridge: MIT Press.

Development on the Authoring and Playable Platform Based on Omnidirectional Image Data

Shinya SAITO
Associate professor, College of image arts and sciences, Ritsumeikan University, Kyoto, Japan
saito.shinya@gmail.com

Shuji WATANABE
Associate professor, College of image arts and sciences, Ritsumeikan University, Kyoto, Japan
wash@im.ritsumei.ac.jp

Shosaku TAKEDA
Professor, College of image arts and sciences, Ritsumeikan University, Kyoto, Japan
str14032@fc.ritsumei.ac.jp

Kazutoshi IIDA
Professor, College of image arts and sciences, Ritsumeikan University, Kyoto, Japan
iida.kazutoshi@gmail.com

Seiki OKUDE
Professor, College of image arts and sciences, Ritsumeikan University, Kyoto, Japan
sokude@fc.ritsumei.ac.jp

Keywords
Visualization, Game engine, VR, Serious game

ABSTRACT

In recent years, the integration methods of geographical information system and 3D-CG/ VR / AR technologies has been generalized. By using such method, the real-life spatiotemporal information can be innovated into digital games or other entertainment contents. Based on this trend, we are developing a VR system can make a certain area “playable” as a kind of entertainment digital contents by authoring of omnidirectional image data.

Omnidirectional camera typed by “RICHO THETA” capable of shooting 360-degree panoramic images are widely spread. By using a combination of these cameras and our system, users can interactively visualize their homes, schools, buildings, historical sites and the like. Moreover, it makes it possible for players to experience content (arbitrary "place") widely. We brought out “ENGI KUKAN ver.1” (the characteristic function of “ENGI KUKAN ver.1” was VR-timeline) at Replaying Japan 2017. By upgrading that, we are developing “ENGI KUKAN ver.2 SPATIO KITCHEN”. In the presentation stage of last year, the system was implemented emphasizing the aspect of "VR timeline", but this time we proceed with implementation that reinforced the aspect of "spatio-temporal information authoring tool". And the time representation of 3D chronology using Unity more flexibly and also implemented a mechanism to annotate related still images, audio data, text data, etc. Moreover, 360-degree images can be set as nesting structure. For example, users are able to move the viewpoint from 【whole ground】to 【building】, from【building】 to 【room】 in the VR space (see Figure 1). In addition to that, timelines that include time series information also can be annotated to 360-degree image (see Figure 2). Furthermore, each time-lines are stored in a gourd on ENGI KUKAN ver.2 to add “play elements” to the system.

In actually, we made “VR-campus of Ritsumeikan University” with Engi Kukan. We will report and demonstrate it on that day of this conference. At the present stage, it is suggested that possibility to effectively utilize various experiences at university and distribution of contents about the history.

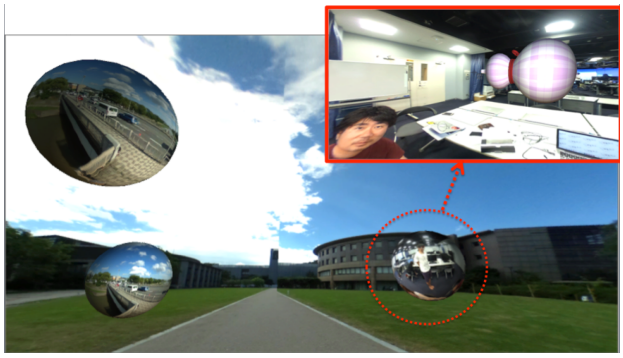


Figure 1: Nesting structure of SPATIO KITCHEN

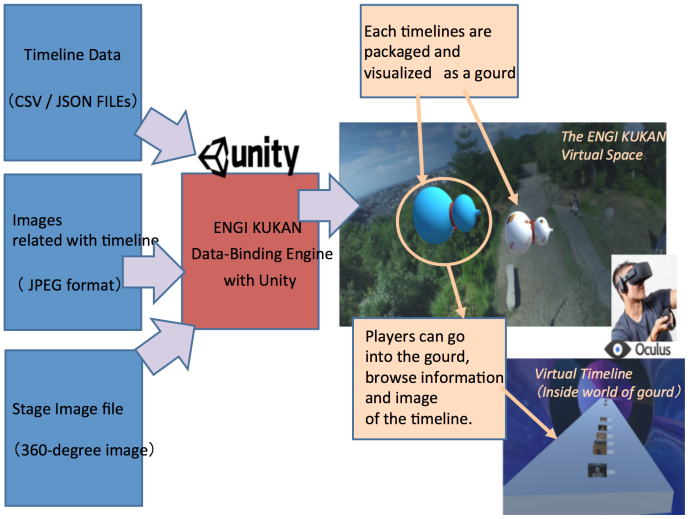


Figure 2: System configuration

Constructing Multicultural Learning Environment and Collaborative Serious Games in Metaverse

Juhyung SHIN
Graduate School of Core Ethics & Frontier Sciences, Ritsumeikan University
56-1 Tojiin-kitamachi, Kita-ku, Kyoto, Japan
gr0206xr@ed.ritsumei.ac.jp

Yehang JIANG
Graduate School of Core Ethics & Frontier Sciences, Ritsumeikan University
56-1 Tojiin-kitamachi, Kita-ku, Kyoto, Japan
gr0261ps@ed.ritsumei.ac.jp

Mitsuyuki INABA
College of Plicy Science, Ritsumeikan University
2-150 Iwakuracho, Ibaraki, Osaka, Japan
inabam@sps.ritsumei.ac.jp

Keywords
Multicultural Learning, Collaborative Learning, Situated Learning. Serious Game, Metaverse

ABSTRACT
This research aims at implementing a "Collaborative Serious Game" that enables multicultural learning among learners mediated by virtual space. First, this presentation introduces the 3D metaverse regarding “hidden Christians” heritages for multicultural values and religious where both Japanese and Western culture are mixed. Next, it outlines a hypothetical mechanism of learning process among learners as the results of qualitative analysis of learning experiment with the 3D metaverse. Finally, it discusses the advantages and limitations of the multicultural learning environment based on the “Collaborative Serious Game" framework mediated by virtual space from the perspective of social constructivism and situated learning paradigm.

Over the past decade, virtual worlds have been used to develop a platform for research and practice of multicultural learning (Diehl, & Prins, 2008; Hasler, 2011; Coffey, Kamhawi, Fishwick, & Henderson, 2017). Those studies set specific targets for achievement in the learning, and used quantitative methods to evaluate multicultural sensitivity and skills as a result of learning activities. However, as Lev Vygotsky (1962;1978) and his followers in the circle of social constructivism claimed, flexible social interactions in natural settings are important for learning. For example, learners in the settings may raise questions that were not expected by other learners. They may also expand their knowledge through dialogues about the questions with capable others. From the standpoint of social constructivism, we consider that it is important to establish a methodology of multicultural learning that makes use of flexibility and interactivity on the learning in virtual worlds.

From this viewpoint, this research aims at implementing a "Collaborative Serious Game" (Inaba et al., 2015; Shin, Jiao, Jiang, & Inaba, 2016) that enables multicultural learning among learners mediated by the virtual world, or 3D metaverse. This research also adopts qualitative approach in data collection and analysis to investigate the mechanism that learners find questions and build knowledge during their learning process. As a result of the analysis, we are expecting to build an effective framework and environment of collaborative serious games for multicultural learning in the virtual world.

In this presentation, we will first introduce the multicultural learning environment that we have been working. It is the platform for learning multicultural values and religious views where both Japanese and Western culture are mixed and converge. In particular, it is based on the culture of “hidden Christians (kakure kirishitan or senpuku kirishitan).” After the first introduction of

Christianity by Francisco Xavier in 1549, “hidden Christians” inherited their beliefs for hundreds of years. These residents in some areas struggled to maintain their faith by themselves even after its interdiction in 1614. Over the years, their version of Christianity transformed into a unique religious culture intermingled with Buddhism, Shintoism, folk religions and beliefs. Thus, the culture of “hidden Christians” becomes valuable learning tool to understand the cultural exchange and convergence of Japanese and Western culture and for developing a multicultural perspective.

We investigated the traditional heritages and ruins of the Christian culture located on the north side of Osaka Prefecture. We also built a space inside the metaverse where we can learn about the various artifacts and customs that merge Christian culture with Japanese religion and values (Figure 1). We are currently developing a serious game, not just for the hidden Christian culture, but also including a variety of religions and values (Figure 2).

As our next step, we are planning to conduct experiments involving Japanese and international students adapting this collaborative serious game environment. We analyze learner's interaction in virtual space and virtual space using visual ethnography and distributed cognition method. We will present the results of this experiments of the collaborative serious games which provides players to introduce their own cultural and religious values and cooperate to answer quizzes.

At the end of the presentation, we discuss the advantages and limitations of our multicultural learning environment based on the “Collaborative Serious Game" framework mediated by virtual space from the perspective of social constructivism and situated learning paradigm.

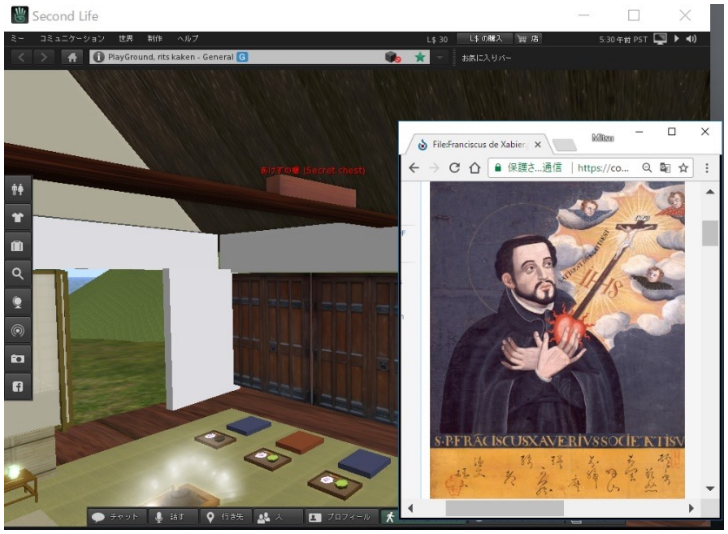


Figure 1: Hidden Christian house and related web contents

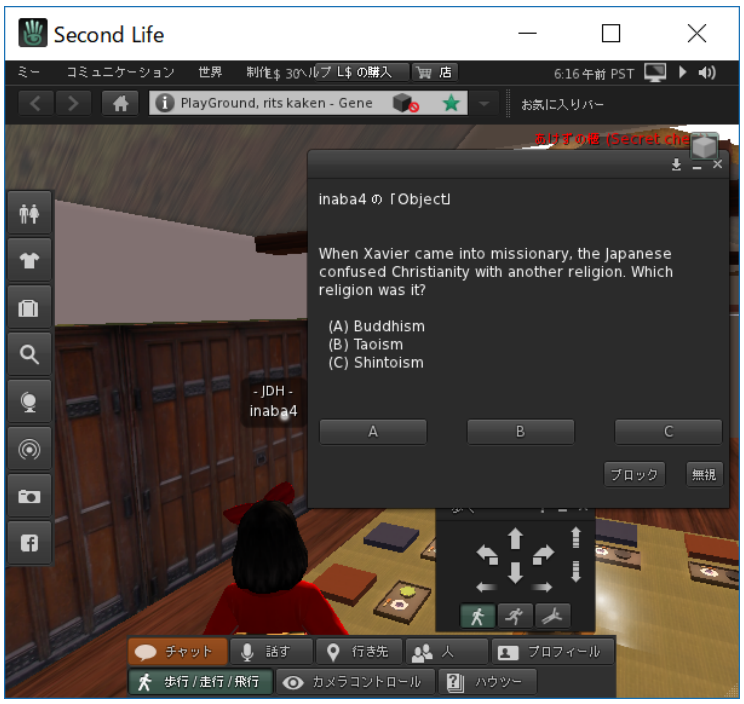


Figure 2: Quizzes on Hidden Christianity

REFERENCES

Coffey, A. J., Kamhawi, R., Fishwick, P., & Henderson, J. (2017). The efficacy of an immersive 3D virtual versus 2D web environment in intercultural sensitivity acquisition. Educational Technology Research and Development, 65(2), 455–479.

Diehl, W. C., & Prins, E. (2008). Unintended outcomes in Second Life: Intercultural literacy and cultural identity in a virtual world. *Language and Intercultural Communication*, *8*(2), 101–118.

Hasler, B. S. (2011). Intercultural Collaborative Learning in Virtual Worlds. In R. Hinrichs & C. Wankel (Eds.), *Transforming Virtual World Learning* (pp. 265–304).

Inaba, M., Tamai, M., Kitamura, K., Thawonmas, R., Hosoi, K., Nakamura, A., & Uemura, M. (2015). Constructing Collaborative Serious Games for Cross-Cultural Learning in a 3D Metaverse. In Proceedings of Replaying Japan Again: 3rd International Japan Game Studies Conference 2015 (pp. 84–85).

Shin, J., Jiao, Y., Jiang, Y., & Inaba, M. (2016). Research on Serious-Game Design for Inter-Cultural Understanding mediated by 3D Metaverse. In Replaying Japan 2016 Conference Abstracts (pp. 81– 82).

Vygotsky, L. S. (1962). *Thought and Language*. Massachusetts Institute of Technology Press.

Vygotsky, L. S. (1978). *Mind in society: the development of higher psychological processes*. Harvard University Press.

DAY ONE: 20 AUGUST 2018
15:30-17:00 PANEL: PLATFORMS

Kieran Nolan
JAMMA Arcade Platform: Interface Constraints and Aesthetic Affordances.

This paper provides provides an overview of the JAMMA arcade hardware standard, while critically analysing the audiovisual and gameplay aesthetics of game titles designed for JAMMA compliant systems.

The JAMMA wiring interface standard for arcade cabinets was agreed by the Japanese Arcade Amusement Manufacturers association in 1985 (Clair 2011, 476). JAMMA was originally set up as an industry rights group in 1981, before expanding its role to a trade organisation in 1989 (Ashcraft 2008, 139). The association includes videogame industry heavyweights including Sega, Namco, Sammy, Bandai, and Taito.

JAMMA is a standard born out of financial necessity, and defines a common interface link among the majority of arcade videogame hardware, insofar as connectivity from the game cabinet to the game PCB is concerned. A JAMMA standard connection consists of a 56 pin edge connector with 28 double sides spaced at 0.156 inches, male on the game board (Twine 1999). The spacing of these pins is consistent across all JAMMA boards.

JAMMA standard arcade boards can be exchanged between machines conforming to the standard in a similar manner to the swapping of game cartridges on home console systems. The uniformity in game cabinet connectivity introduced by the JAMMA standard reduced running costs for arcade operators, decoupling the mandatory purchase of a new physical cabinet for each new game title, instead allowing the reuse of existing game machines with new boards.

Beyond the 56 pin interface, the platform specifications for videogame hardware using the JAMMA connection vary greatly in terms of memory, processing power, GPU type and sound playback technologies. JAMMA is not a singular computational platform, but rather a family of diverse and evolving hardware standards, all unified by a common edge connector interface. This range of platforms are unified in their aesthetic properties through the baseline JAMMA arcade cabinet specification of a 15hz 240p monitor. This low resolution and low framerate visual viewfield alongside two player joystick based controls (Tominak 1994) form the essential constraints that shape the player experience of JAMMA platform hardware as introduced in the mid-1980s to its continued use present day usage.

Mikhail Fiadotau
Digging into the Game Engine: A Selective Archaeology of Hobbyist Game Development in 1990s' Japan

This paper explores the history of hobbyist videogame development in 1990s' Japan through the prism of game creation tools. In doing so, the paper adopts a platform studies (Bogost & Montfort, 2007) approach to game creation software, investigating how the affordances, conventions, and origins of a tool affect games made with it. At the same time, the paper is driven by a media archaeological (Parikka, 2013) sensibility: it attempts to better understand the current state of hobbyist game development in Japan through an analysis of older software.

The paper discusses three tools which, to varying degrees, were influential and representative of Japan's hobbyist game creation scene in the period.

The Dezaemon (絵描衛門) series comprises six instalment, with the first one released in 1991 for the Famicom by Athena. Dezaemon allowed the player to create their own vertically scrolling shooter by customizing existing levels, visuals, enemy formations, and the soundtrack. While the gameplay remained the same, some players were able to put Dezaemon to very creative uses such as creating a racing game and a Space Invaders parody. There was, however, no possibility of copying one's creation to another cartridge, although Athena shipped selected player games with subsequent instalments of the series.

RPG Maker (RPGツクール) is a line of Japanese-style RPG development toolkits available for various platforms, with RPG Construction Tool Dante (ASCII, 1991) being the first instalment. Shipping with ready-made assets and available for a wide range of platforms, RPG Maker has enabled game creators across the globe to make their own role-playing games which, thanks to the terms of the license agreement, they have been able to distribute, including commercially. At the same time, RPG Maker retains some features of a customizable game found in Dezaemon, offering its users very little control over the technical aspects of the game.

NScripter is an engine for visual novels, a genre that emerged in Japan's PC game scene, which has historically played second fiddle to console gaming in the country. The PC scene has also been a place for content which could not pass the censorship associated with console publishers such as Nintendo (e.g. sex). Unlike the other two tools, NScripter has no interface or bundled assets, being instead an interpreter for code written in a simple language. It has been used to develop many games, including the successful dōjin (Hichibe & Tanaka, 2017) games Higurashi-no Naku Koro-ni (07th Expansion, 2002) and Tsukihime (Type-Moon, 2000).

I chose to focus on these seemingly disparate tools because they highlight the diversity of hobbyist game development of the period, covering different platforms, licensing models, degrees of creative freedom, and spanning three separate genres, each of which has enjoyed immense popularity in Japan. The three tools also form a spectrum: from a customizable game to a pure game engine with no content of its own. However, an examination of the games produced with all three tools seems to confirm Hurrel's (2016) observation that hobbyist development often starts as an extension of gaming itself.

References

Bogost, I. & Montfort, N. (2007). New media as material constraint. An introduction to platform studies. In Electronic Techtonics: Thinking at the Interface. Proceedings of the First International HASTAC Conference (pp. 176–193).

Hichibe, N. & Tanaka, E. (2016). Content Production Fields and Doujin Game Developers in Japan: Non-economic Rewards as Drivers of Variety in Games. In Pulos, A. & Lee, S.A. (eds.) Transnational Contexts of Culture, Gender, Class, and Colonialism in Play (pp. 43–80). London: Palgrave Macmillan.

Hurel, P.-Y. (2016). Playing RPG Maker? Amateur Game Design and Video Gaming. Presented at The First Joint International Conference of DiGRA and FDG, Dundee, Scotland.

Parikka, J. (2013). What is Media Archaeology? New York: Wiley.

DAY TWO: 21 AUGUST 2018
9:30-11:00 PANEL: MUSIC 2

Jason Bradshaw
The Golden Age of JRPG Music: MIDI Masterpieces

Few who have had the pleasure of playing Chrono Trigger will forget that moment when the cursed knight, Glenn, joined the party. The accompanying 16-bit track evokes a flood of emotion. Contained within those bleeps and bloops there is a sense of hope, sadness, and fantasy that (to me) stands unparalleled in any contemporary video game track. It was not only Glenn, each of the 7 party characters in Chrono Trigger had an associated musical track that was just as moving. It is this attention to detail and obvious loving care that sets apart the NES/SNES era JRPGS from any to date. This is an age where we were introduced to the iconic overworld theme of Zelda: A Link to the Past, the memorable tones of Secret of Mana, and the still standard fanfare of Final Fantasy. Creating this music was no simple feat, as simplistic as the sounds might seem. These composers needed a way to cross that barrier between the digital and the purely artistic, and they found it in Musical Interface Digital Music (MIDI). It allowed video game composers to communicate between the two instruments, the computer and the musical device (Richard, 2006). MIDI tracks were as foundational to the JRPG genre as either graphics or gameplay and most of these tracks are just as moving today as they were then. But why might this be?

Something about composing music in this manner has staying power, and it can be discovered through Critical Code Studies (CCS). In his article entitled Critical Code Studies, Mark Marino (2006) asks a question about computer code for programs that could just as easily be applied to the code of a MIDI: “People like to project humanity onto the computer, but is it possible that with regard to coding we do just the opposite and strip the code of its human significance”? Just like most programming languages, MIDI’s consist of strings of characters that are interpreted by a computer to produce those retro 8 and 16-bit tracks that we know and love. Using CCS it will be shown that there is a lot more to a MIDI than just characters arranged into header and track chunks (Richard, 2006). This musical coding standard can be compared to the compositional techniques of famous classical composers.

Using the code for the 16-bit tracks from Chrono Trigger, it will be shown that there are several comparisons that can be made between MIDI’s and classical composition. There really is no removing the human element from MIDI’s, maybe even more so than traditional program code, and it is perhaps why some of the golden age JRPG music is still played in symphonies around the world today.

Working Bibliography

Marino, Mark. “Critical Code Studies.” Electronic Book Review, 2006, http://www.electronicbookreview.com/thread/electropoetics/codology. Accessed 10 February 2018.

Montfort, Nick, et al. 10 PRINT CHR$(205.5+RND(1)); : GOTO 10. MIT Press, 2012.

Nicholson, G. Gordon. The Experience of Successful Contemporary Classical Musical Compositions for Non-computer-assisted Performance: A Qualitative Study. 1997.

Richard, Stéphane. " MIDI Programming - A Complete Study." petesqbsite, 2006, www.petesqbsite.com/sections/express/issue18/midifilespart1.html. Accessed 10 February 2018.

Early History of Epistemic Sounds in Digital Games

Hiroshi YOSHIDA
Professor, Graduate School of Core
Ethics and Frontier Sciences,
Ritsumeikan University
56-1 Toji-in Kitamachi, Kita-ku,
Kyoto, 603-8577, Japan
QYY02630@nifty.ne.jp

Keywords
Game sound, acoustic ecology, epistemic sound

ABSTRACT
Most previous studies on digital game sound have been taking their examples from FPS games played for multiplayer and rendering 3D environments.

Analyzing the player experience of *Half-Life 2* (2004), Morten Breinbjerg (2005) described how differently visual perception and auditory perception are performed when we play 3D games. In the 3D environment, sounds inform us about the actions, events and things outside of and beyond our visual perspective and thus help us to understand the environment more completely.

Also focusing on FPS games, Mark Grimshaw and Gareth Schott (2007) introduced a new term *acoustic ecology* to conceptualize the intricate relationships between players and game sounds.

Adapting and developing their terms and perspectives, Kristine Jørgensen (2017) more recently distinguished game sound into two categories: *ecological sounds* and *emphatic sounds*, with an aim to provide a medium-specific approach to sounds in digital games.

In order to develop this game-specific approach, this paper introduces the term *epistemic*, which was originally proposed in David Kirsh and Paul Maglio's (1994) study on actions of game player in order to designate those actions "performed to uncover information that is hidden or hard to compute mentally." *Epistemic sounds* are thus defined as those uncover hidden or unspecified information and thereby afford the players rich clues for perceiving, thinking and acting in the ecology of game world.

This paper also sketches the origin and development of epistemic sounds by analyzing examples from the early history of digital games. We can trace their origin in early 1980s and point out some archetypes along their development: sounds referring to off-screen events, sounds informing invisible status or change of the environment and sounds acoustically complementing the lack of visual information.

WORK CITED
Breinbjerg, Morten. "The Aesthetic Experience of Sound: Staging of Auditory Spaces in 3D Computer Games." Paper presented at the Aesthetics of Play conference in Bergen, Norway, 14-15 October 2005.

Grimshaw, Mark, and Gareth Schott. "Situating Gaming as as Sonic Experience: The Acoustic Ecology of First-Person Shooters." In *Situated Play: Proceedings of DiGRA 2007 Conference*, pp. 474-481.

Jørgensen, Kristine. "Emphatic and Ecological Sounds in Gameworld Interfaces." In *The Routledge Companion to Screen Music and Sound* edited by Miguel Mera, Ronald Sadoff, and Ben Winters, pp. 72-84. New York & London: Routledge 2017.

Kirsh, David, and Paul Maglio (1994). "On Distinguishing Epistemic from Pragmatic Action." In Cognitive Science, vol. 18, no. 4, 1994: 513-549.

Konstantin Freybe
The Singing Chat Of "OuterHeaven"

What does it take to turn broadcasting gameplay into a career? And which skills are required in order to do so? The games oriented social live-streaming service Twitch seems to be a good place to look for answers, as it offers monetization based on donations, subscriptions, micro transactions or adverstising partnerships. This promises not only to lead to insight in professional gaming on Twitch but will also confront researchers with surprising phenomena like a chat that sings. This musical co-performance of game, streamer and chat-participants was encountered observing the channel "OuterHeaven". It is conducted as a team effort by three people who frequently offer "in-depth story marathons" of (almost) exclusively Metal Gear games that were produced by Hideo Kojima – on the highest difficulties, showcasing hidden secrets, sometimes working in shifts to stream for 40 and more consecutive hours.

"OuterHeaven"'s choice of games is founded on the streamer's assessment of the significance of Hideo Kojima as an authorial game designer. Since none of the streamers and – if at all then only – a few viewers are capable of speaking Japanese, this raises questions of cultural relations: Does "OuterHeaven" relate to Japanese gaming culture? Why do they take offence in Konami releasing a "Metal Gear Solid: Snake Eater"-pachislot? And how did the separation of Hideo Kojima and Konami affect them?

The singing chat can be encountered when "OuterHeaven" broadcasts gameplay of "Metal Gear Solid 3: Snake Eater". During the final boss fight and after set amount of time, a variation of the title theme "Snake Eater" starts to play. When the vocals come in, several viewers will contribute the respective lines of text to the chat. All this is (more or less) timed to the audio/video feed. The boss fight is prolonged so that the complete title theme can play. This allows the chat to "sing" along with the full text of the piece. But it is also risky for player because the fight ends with the music. If the last hit is not registered in time the game will be over. From this perspective, conducting "OuterHeaven" is at least in part a community effort. This in turn bears the question of how the practice of streaming professionally relates to labour, considering that Twitch itself encourages monetization of streaming.

Twitch users from around the world are invited to participate in the "Affiliate Program" and get assistance in monetizing their broadcasts. On one side, streaming obviously depends on access to a lot of technology. Twitch holds the infrastructure and therefore is responsible for the online content produced. It can safely be assumed that the service profits from revenues gained by streamers, hence the embracing gesture of the "Affiliate Program". On the other side, professionalized gaming and the relations between the games played, players and their audience are to be considered as well.

DAY TWO: 21 AUGUST 2018
11:30-13:00 PANEL: WAYS OF PLAYING

Nathan Altice
Four Ways to Play in Hell: Makaimura Board Games in Translation

Makaimura (魔界村)—or Ghosts 'n' Goblins in the West—has long been notorious in videogame history for its devilish difficulty and cartoon take on Hell's denizens. Capcom first lured players to the depths of the Great Demon King's castle in the arcades, but the game's popularity spawned a host of ports to many computing platforms, from the Nintendo Famicom to the ZX Spectrum. While several of these ports live on in infamy through masochistic Twitch streamers, YouTube micro-celebrities, and speedrun aficionados, one conspicuous absence in its porting history is board games.

Capcom lent Makaimura's boxer-clad knight and cartoon devils to every imaginable merchandising opportunity: mini-figures, pencil cases, candy, dioramas, t-shirts, notebooks, and more. But board games offered more than mere brand affinity. With cardboard and plastic pawns, board game adaptations were meant to replicate not only Makaimura's visual appeal, but its notable mechanical hooks. Weapon upgrades, distinct stages, boss battles, the game's cruel looping structure, and yes, even Arthur's underwear, all made the leap from screen to board.

Drawing on new translations and archival research in the history of Japanese games, this presentation examines four distinct adaptations of Makaimura in board game form, including Bandai's tiny "Famous Scene" (カセット名場面ゲーム) game that folds into a faux Famicom "cassette," Bandai's deluxe adaptation of the game in their Joy Family (ジョイファミリー) series, Hanayama's rare adaptation that included in-game screenshots and strategy guides, and an odd Korean bootleg that cribbed elements from both Bandai and Hanayama. Each adaptation is a unique window into how board games functioned (and failed) as platforms, how resonant cultural forms—like Japanese sugoroku すごろく—informed these games' design, and how board games had to contend and compete with their ultimate usurper—videogames.

Keiji Amano and Geoffrey Rockwell
Gambling as Play: the Case of Pachinko

When is it gambling and when is it play? As Torres (2013) points out there are ludic dimensions to electronic gaming machines which make it hard to distinguish clearly what is a game and what is gambling. This issue has come to a head in Japan which is moving to allow integrated casino resorts for the first time. The government is now developing regulations for these new integrated resorts in the face of reports about the prevalence of gambling addiction in Japan. These regulations are affecting the most popular form of play in Japan, pachinko and that is what this paper is about, the shift in negotiated balance between gaming and gambling as it changes in Japan. In the presentation we will:

Briefly introduce the game of Pachinko and its extraordinary importance in Japan. We will explain the legal regimen under which Pachinko operates that keeps gaming and gambling in balance. Discuss the coming changes as gambling is legalized, albeit only in integrated resorts, and the effects that is having on the regulation of Pachinko.
Discuss a survey of Pachinko players and their attitudes towards the game and gambling. Conclude with some comments on the family resemblance of gaming and gambling.

Japan has over 50% of the electronic gaming machines in the world and most of them are Pachinko machines (Ziolkowski 2017). Pachinko and its companion game Pachislot are not considered gambling in Japan because one feeds the vertical pinball-like game with steel balls and wins steel balls in return. While you rent the balls with money, you can't redeem the balls for money. Instead you get merchandise of various sorts, some of which can be exchanged for cash in discreet shops in the neighborhood of the pachinko parlour; shops that are supposedly not connected to the parlour. Thus part of the understanding that makes pachinko legally not gambling is the playing for stuff not money, but another aspect is the relationship between the cost of balls and the maximum odds for winning balls. As long as the cost of balls is low and the odds are low, the money lost can be considered the steady cost of playing, much like the cost of feeding an arcade machine with coins to keep playing. But, when the odds change and one can either lose or win dramatically, Pachinko is perceived as shifting from being a way of "killing time" with an entertaining game of chance (and a minute amount of skill) and becomes gambling. Hence the importance of shifts in attitudes and regulation that are changing the informal contract in Japan around Pachinko as a game. This makes the current changes due to the coming of casinos in Japan an interesting case study in the differences between gaming and gambling.

So far, the government introduced many regulations to reduce gambling elements from Pachinko. In addition, they discussed the Anti-gambling Addiction Bill in accordance with the IR Promotion Law that is different from the Amusement Business Law although both of them are under the control of Ministerial Conference on Promotion of Countermeasures for Gambling Addiction. Last year, the Ministry of Health, Labor and Welfare reported that there are 3.2 million gambling addictions that is 3.6% of the Japanese population and average amount of money they spent on pachinko was 58,000 yen/month. Players still play relatively larger amounts of money on Pachinko than other leisure activities while the probability of a phone call to the addiction counselling institutions is 0.0003%. Obviously, there is a gap between self-recognition of players as addicts and what they are spending. That means players who think they are casual players are actually not casual. This is why the government wants to control the gambling element in Pachinko.

In 2017, we conducted interviews (n=103) with pachinko players in Nagoya. From these interviews, we found that there is a difference of recognition in cohort, in other words, there is a generation effect. It is obvious that younger generations are interested in chasing money from pachinko, but people over 50 years old have different tendency. They prefer to kill time or just want to have a fun with low rate Pachinko. Thus, gambling may be the more appropriate word for the habits of the younger generation and gaming is a better description for the present older generations.

As a part of the interview, we also asked interviewees about monthly income and monthly expenses on pachinko. Younger people tend to spend much more of their income than older people. For example, 18-29 years old players spend 20% of their income. Players older than 60 years old spend 14% of their income. Both are higher than the average recreational expenses of the Japanese (9.9%, 25,000 yen/month).

According to a 2015 survey of pachinko fans implemented by an industrial association Nichiyukyo, players' needs are focused on features there have never been. In this report, the most desired new feature for Pachinko is strangely dementia prevention although the age distribution of respondents is not biased. It is also interesting to see elderly people playing Pachinko outside the parlours (nursing homes, arcade game centres in shopping malls etc.) where older machines expired from parlours are installed. Younger generations (both male and female) want other features like competition in real time with other players just like online video games.

References

Chantal, Y. and Vallerand, R.J.(1996), “Skill versus luck: A motivational analysis of gambling involvement”, Journal of Gambling Studies. 12:4. 407-418.

Japan Productivity Center (2015), White Paper on Leisure 2015, Japan Productivity Center.

MHLW (2017), Basic Survey on Wage Structure 2016, MHLW.

National Police Agency (2017), Current Circumstances of Amusement Business Environment and Criminal Investigation 2016, NPA.

Nichiyukyo (2015), Nichiyukyo Fan Questionnaire Survey 2015, Nichiyukyo.

Statistical Bureau of Japan (2017), Survey on Time Use and Leisure Activities 2016, SBJ.

Torres, C. A. (2013). “Gamblingmachines and the Automation of Desire.” PLATFORM: Journal of Media and Communication. 5:1 (October): 34–51.

Ziolkowski, S. (2017). The World count of Gaming Machines 2016, Report from the Gaming Technologies Association.

Fanny Barnabe
Twitch Plays Pokémon: Reappropriation as a Fictional and Playful Matrix

This paper (based on a chapter of my PhD dissertation) will explore, with the tools of rhetoric and narratology, a specific case of video game reappropriation by players: the Twitch Plays Pokémon phenomenon.

Launched in 2014 by an anonymous Australian programmer, this experiment consisted in making Internet users play the game Pokémon Red (originally developed for the Game Boy) on the video streaming platform Twitch (with the help of a bot retrieving the messages written in Twitch's chat and converting them into commands). Concretely, while Pokémon Red was broadcast live online, any user could enter in the chat the name of one of the Game Boy's keys ("A", "B", "up", "down", "Left", "right", "select" or "start") and see this message be transposed into the corresponding action in the game. The principle was, in other words, to share the control of a single avatar (the protagonist of Pokémon Red) between tens of thousands of players whose objectives could be very different, even contradictory.

Noteworthy in many respects, the phenomenon will be considered here as a way to apprehend the process of reappropriation (or "détournement") of video games by players. Specifically, Twitch Plays Pokémon allows us to examine the alternation between two constituent processes of game appropriation, which are always in tension: the deconstruction of codes and the codification. Indeed, not only Twitch Plays Pokémon is a transposition of Pokémon Red (in a new media space) which redefines the original game's meaning and functioning (including by sabotaging its gameplay, since the very control of the avatar becomes tedious), but the new device built in this way quickly became itself raw material for many other appropriations or détournements (creation of fanarts, fanfictions and memes by players; or even invention of a pseudo-mythology giving meaning to this chaotic gaming activity).

Twitch Plays Pokémon thus illustrates a double movement which is characteristic of video games reappropriations: by reversing, revealing or reconfiguring pre-existing games' structures, players' creations deconstruct them as much as they establish them as models (worthy of being rewritten) or as norms (codified enough to be the support of new reappropriations). The derivative work can, moreover, stabilize itself in a new code, in a shared language which is also a system of rules and constraints for future creations. Twitch Plays Pokémon is no exception to this "lexicalization" process (through which the reappropriation mechanisms gradually enter the "gaming vocabulary"): on the almost anti-playful basis provided by this device have actually emerged a viable game, a fictional universe and even almost a gaming genre. Through the analysis of several "figures of appropriation" and their evolution throughout the game, I will expose this formalization process.

Indicative Bibliography

Bonenfant Maude (2015), Le libre jeu. Réflexion sur l'appropriation de l'activité ludique [trans.: Free Play. Reflection on the Appropriation of the Playing Activity], Montréal, Liber

Bonhomme Marc (2014) [2005], Pragmatique des figures du discours [trans.: A Pragmatics of Figures of Speech], Paris, Honoré Champion

Genette Gérard (1982), Palimpsestes. La littérature au second degré [trans. : Palimpsests. Literature in the Second Degree], Paris, Seuil

Pruijt Daan (2014), The game about the game: Metagaming in Twitchplayspokémon, Master's thesis in Science, University of Amsterdam [online]. URL: http://dare.uva.nl/cgi/arno/show.cgi?fid=55 0381 (saw on 05/02/2018)

Ramirez Dennis, Saucerman Jenny and Dietmeier Jeremy (2014), "Twitch Plays Pokemon: A Case Study in Big G Games", in Proceedings of DiGRA 2014: <Verb that ends in 'ing'> the <noun> of Game <plural noun>, Snowbird [online]. URL: http://library.med.utah.edu/e-channel/wp-content/uploads/ 2016/04/digra2014_submission_127.pdf (saw on 05/02/2018)

Triclot Mathieu (2011), Philosophie des jeux vidéo [trans.: Philosophy of Video Games], Paris, Éditions La Découverte

DAY TWO: 21 AUGUST 2018
14:30-16:00 PANEL: GAME HISTORIES

Peter Mühleder, Tracy Hoffmann, Konstantin Freybe, André Lahmann, Florian Rämisch, Martin Roth and Leander Seige
Tales of doing Research with Video Game Fan Databases: A data-driven Approach

In our paper, we present a data-driven, quantitative approach to video game culture based on online resources. In recent years, the collection, categorization and publishing of metadata in community-driven online databases has become an integral part of fandom activities. This form of media consumption/production was first described by the Japanese media critic Azuma Hiroki in the field of Japanese subculture as “database consumption” . But recently, 1 such a behaviour can also be observed on a global scale (e.g. on websites such as tvtropes.org, anidb.net, mobygames.com). While Azuma primarily focuses on content-specific information (such as graphical elements), the database-creating activities of fandoms often goes beyond that, resulting in large collections of metadata about various media products. On the one hand, this offers an exciting opportunity for researchers on these topics, on the other hand, this information cannot be regarded as “raw” (meta-)data : It 2 is the result of informal fan activities, often lacks defined quality standards, unique identifiers and does not uses a standardized vocabulary for describing products, concepts and categories. They are all located in the same domain but were developed for different purposes and with different precisions.

We will present possible solutions and strategies for working with these kinds of online data resources, focusing on the following three parts:

1. Accessing data: We will discuss technical and legal aspects of of using private/commercial online databases.

2. Evaluating data: We propose ways of assessing data quality and completeness, as well as address the challenges that arise when heterogeneous datasets of the game domain shows differences in granularity (data formats and structures) and in perspective (conceptual heterogeneity) 3. Integrating data: In order to be able to combine information in different data resources, we need to identify corresponding entries (e.g. the same game) in each research. We will show how we were able to match video game entries in datasets from different institutional and lingual (English and Japanese) contexts by using a rule based linking algorithm.

Moreover, we would like to discuss how this approach can lead to a data-driven research infrastructure, offering a fresh perspective on Japanese video games based on the integration of large datasets and online resources:. The result is a (quantitative) macro-level view that allows us to investigate fields of video game production, distribution and consumption, and provides an important addition to other, well established (qualitative), forms of research on video games/video game cultures.

1 Azuma, Hiroki (2009), Otaku: Japan’s Database Animals. Minneapolis: Univ. of Minnesota Press
2 Gitelman Lisa (2013), Raw Data Is an Oxymoron. Cambridge & London: MIT Press.

Yuhsuke Koyama
The birth of JRPG and its own evolution

RPG developed in Japan is called JRPG in Western countries, it is sometimes set as a category different from RPG developed in the West. In this paper, we discuss the evolution history of JRPG by confirming its development history from the birth of JRPG.

RPG was introduced to Japan from the late 1970s to the early 1980s. Some enthusiastic fans got Wizardry and Ultima which are sold only in very few shops in Japan and played with Apple II. However, most people 's reactions to RPG were cold. An arcade game established market in Japan and most of the games being played were action games. In the home game console market, most of the games sold were also action games. For most players, RPG was hard to stick. It is because the system is complicated and players do not know what to do. In addition, for the Japanese at the time, the world of Western fantasy novels was almost unfamiliar.

Japan 's RPG acceptance is to advance in the form of 1) adding RPG - like elements to action games, 2) independently developing RPG that made the system simple and easy to understand. Examples of the first case are The Tower od Druaga (Namco, 1984) in arcade game and The Legend of Zelda (Nintendo,1986) in home game console. Example of the second case are The Black Onyx (BPS, 1984) and Mugen no Shinzou (Crystal Soft, 1984) in PC games. The Black Onyx is a 3D dungeon-crawling RPG in which there is only one job “warrior”. Mugen no Shinzou adopts 2D map from Ultima and command battle system from Wizardry, it is advanced to Dragon Quest.

The first piece of the series Dragon Quest (Enix, 1986) appeared in the middle of RPG acceptance process in Japan and decided to form "standard grammar" on RPG in Japan in terms of adventure system. Later JRPG has been formed as the differentiation from Dragon Quest early series (Dragon Quest I,II and III). The main feature of Dragon Quest was that it had been released on Family Computer with many elementary and junior high school students to the user, while RPG was released on PC. At that time, there were few people in the elementary and junior high school students who had PCs, so RPG was not popular for them. Enix tied up with the comic magazine Weekly Shonen Jump and made a corner named "Famicom Shinken(NES Fist)". Yuji Horii of the game designer wrote a game introduction / capture article with a pen name called Yu Emperor. Enix also positively hit CM on TV. The result will be fruit at the first shipment number of over 700,000.

From the current point of view, the number of 700,000 seems rather conservative, but old record by Xanadu (Nihon Falcom, 1985) was only 400,000. From the beginning, the Dragon Quest was "the best-selling RPG in Japan”.

Martin Roth
The spatiality of videogame production in Japan

Since early hits like Space Invaders (Taito, 1979), videogame production in Japan has changed significantly. Several scholars have pointed out that videogames are increasingly produced networks of companies located in different places across Japan and globally (1). A comparison, for example, between the first and the most recent title developed by FromSoftware, King‘s Field (1994) and Dark Souls III (2016), reveals this trend, from what was once a local development of approximately 15-20 colleagues mostly employed by one company in Tokyo, to a large-scale project to which more than 700 people from different companies in various places have contributed.

With the exception of the empirical study done by Hanzawa, this trend has so far been observed in large parts based on individual cases of specific companies, data provided by think tanks and commercial research organizations, or common sense. In my paper, I trace the changing spatial spread of videogame production in Japan by analyzing the companies involved in the production of a representative sample of 500 games published in Japan between 1985 and 2015. The paper discusses the methodology and several outcomes of the analysis of the sample. Firstly, I provide an overview of some of the trends discernible in the last 30 years of videogame production in Japan (see Illustration 1 & 2). Secondly, taking a closer look at the data, I identify dominant strategies of producing games, as well as existing networks of companies working in the field. Finally, the analysis will provide a perspective on the ways in which videogame production has developed within Japan, looking at the diversification of places and actors over the years. Doing so, I hope to update Hanzawa‘s important analysis and draw attention to the spatial complexity of videogame production and its connection to the development of cities and regions in postwar Japan. Finally, I aim to provide an outlook on future tasks and questions.

(1) Seiji [誠司] Hanzawa [半澤], „家庭用ビデオゲーム産業の分業形態と地理的特性“, 地理学評論 78, Nr. 10 (2005): 607–33; Mark J. P. Wolf, „Introduction“, in *Videogames around the World*, hg. von Mark Wolf (Cambridge (Mass): MIT Press, 2015), 1–16; Mia Consalvo, *Atari to Zelda: Japan’s Videogames in Global Contexts* (Cambridge (Mass): The MIT Press, 2016).



Illustration 1: Location of Headquarters of all companies involved in the development of videogames in the sample, which were published in Japan included between 1990-1994.



Illustration 2: Location of Headquarters of all companies involved in the development of videogames in the sample, which were published in Japan included between 2010-2014.

Akito Inoue

Making Local video game history index

1.Purpose

Game history of each language area is different. In order to explain this difference, I suggest and creates two indices of the following. The first index is "an important index of the history of Japanese video game", The second index is an important index of the history of English of the video game

2. Approach

In this study, I inherit the approach of Inoue,Fukuda[2016],[2017]. We picked up video game titles from video game books, awards, exhibitions about video games, and sales data. If the same video game title was found from several resources, the video game title gets a high score. Some video game gets points from only Japanese resources, some other get points from only English resources. However, this method does not guarantee the validity. The previous studies on the indicators developing for the subject with complex aspects, there is research in the field of psychology and policy evaluation.

In these papers, Comparability, Reliability, Validity, Referring Bias are presented as the criteria. The controlled quantitative approach can correspond to the criteria of Comparability and Reliability. Next is Referring Bias problem. Collected data have a bias (Inoue, Fukuda [2015]).Therefore, when we show the index, we visualize the features and bias of each data. This is not a perfect way, but this is a better way. Finally, there are a variety of techniques to examine Validity. Inoue, Fukuda [2017], studied The characteristics of the evaluation cluster formation of the English and Japanese game, using the EFA and SEM has been carried out.

In this study, we calculated according to these discussions. Then, I will present a Japanese-speaking and English-speaking countries of the index value for the important video game titles.

3. Achievements and Future studies

I have published data that was created in this study as "Ver0.1" on the web (1).
I'm asking game researchers of each language area for checking this data.

Currently, known facts are, the data of several years latest is not enough reliable, because these data are insufficient.

In future research, through the evaluation of the experts, the data is necessary to be more sophisticated.

Kalimo, E. (2005). OECD Social Indicators for 2001: a critical appraisal. Social Indicators Research, 70(2), 185-229.)
向井信一 (2004). 「生活の質」 評価に関する一考察. 同志社政策科学研究, 6(1), 203-222.
内藤正明. (1988). " 環境指標" の歴史と今後の展開. 環境科学会誌, 1(2), 135-139.
Akito Inoue, Kazufumi Fukuda(2017) ”How was local game history made?” Replaying Japan 2017,Proceedings
Akito Inoue, Kazufumi Fukuda(2016) ”Distinctive difference game titles between Japanese context and English context”,Replaying Japan 2016 Proceedings
Akito Inoue,Kazufumi Fukuda (2015) "Game Reviewers can’t notice innovation",Replaying Japan 2015 Proceedings,pp.112～114

(1) http://www.critiqueofgames.net/local_index/

A Practice Report on Development of Game Audio Research Method at Tokyo University of Technology

Akinori Ito
School of Media Science, Tokyo University of Technology,Katakura-machi 1404-1, Hachiouji-shi, Tokyo, Japan
akinori @ edu.teu.ac.jp

Koji Mikami
School of Media Science, Tokyo University of Technology,Katakura-machi 1404-1, Hachiouji-shi, Tokyo, Japan
mikami @ stf.teu.ac.jp

Ken'ichiro Ito
School of Media Science, Tokyo University of Technology,Katakura-machi 1404-1, Hachiouji-shi, Tokyo, Japan
itoken @ stf.teu.ac.jp

At the School of Media Science at Tokyo University of Technology, the music theory, game mechanics, and sound design researchers worked together to develop production method analysis by making full use of the interdisciplinary department's strengths. As a laboratory activity, starting full-scale game audio research from 2012. Researches of Collins (2008), Jørgensen (2009) as international research base, our game sound study is ongoing to study domestic game music from the structural and pleasure aspects by using the analysis method. The main research objective is to facilitate structural design criteria for music and sound at the pre-production/game design stage of game production, keeping in mind the algorithms/data design and the management of music/sound imparting parts indispensable for digital games to contribute to clarification.

The titles that have been subjected to song and structure analysis so far are the popular titles of Japanese young people in the 2000s such as Monster Hunter Series, Atelier Series, Tales Series, Dark Souls and Saga Frontier Series.

In the Monster Hunter series, focusing only on composing technique, composition and arrangement techniques close to Western action movies are confirmed. However, when we analyze from the game structure aspect that the music is arranged in which monster, it is confirmed the arranged according to the adjacent appearance pattern that is devised in the game where various kinds of enemy monsters such as Pokémon appear. The change of the musical instruments can be heard remarkably for the state of the monster alone or the difference expression of the strength of the monster appearing next to it.

Although Atelier series and Tales of series tend to think that a lot of Japanese animation audiovisual expression is adopted, the opposite character is revealed by analyzing from the game structure. In the Atelier series, the music given to the city and alchemy stage consisted of music inspired by Western European Renaissance popular music like Terpsichore by M.Preatorius, whereas battle songs are various chord progression and arrangement of Japanese popular music with no coherency. In the case of Tales Series, there are various kinds of music according to the stage to be described, but music pieces of battle scene have clear tendency; the Deep Purple style instrumentation's rock music. As for the chord progression, special chord progression and transposition frequently occurred at the time popular music of Japan at that time. Although this chord progression can hardly be confirmed in Western game music, in Japan it gains popularity as one of the musical style of battle scene music in 00's J-RPG.

In the Dark Souls series, Motoi Sakuraba, who mainly played battle songs in the Tales Series, is in charge of composition but the special nature of Japanese game music is difficult to hear quickly. As a result of the music analysis, each chord constitutes with some dissonance by minor 2nd, major 7th, and diminished 5th, as seen in Western horror movies. Whereas on the progress of tonal center, such as J-RPG battle scene music are frequently used. It fulfills both to hold the characteristics of composition technique as Motoi Sakuraba individual and to be closer the sonority of international horror movies.

In research focusing on sound effects and game mechanics including the aspect of HCI, due to analyzing the action game titles such as The Legend of Zelda series, Dynasty Warriors series, etc., we have tried to develop

some analysis method, a collation analysis with objective data by image analysis and impressions of sound during playing them, exploring the design patterning through implementation using by game engines. In recent years, the research subjects have also been spread to sound design for gesture interaction and sound effects in smartphone games, and structural analysis research of dialogue and narration in audio dramas derived from games.

In Japan, research on game audio from the viewpoint of structural analysis and production method has been continuing on its own method development and its research results are limited to Japanese, so it was rarely introduced in international places. In this report, we will report on the improvement of knowledge obtained through the practice of Tokyo University of Technology for several years and the prospect of future research promotion.

WORK CITED

Collins, K. (2008) *Sound Design*, MIT Press.
Jørgensen, K., (2009). *A Comprehensive Study of Sound in Computer Games: How Audio Affects Player Action*, The Edwin Mellen Press.

Research on the User's Demands on Information of Video Game Resources for Subject Access

Hitomi MOHRI
Master's Degree Student, Graduate School of Letters, Ritsumeikan University
603-8577 Kitamachi, Toji-in, Kita-ku, Kyotoshi, Japan
lt0568fk@ed.ritsumei.ac.jp

Kazufumi FUKUDA
Visiting Researcher, Kinugasa Research Organiation, Ritsumeikan University
603-8577 Kitamachi, Toji-in, Kita-ku, Kyotoshi, Japan
fukudakz@gmail.com

Koichi HOSOI
Professor, College of Image and Sciences, Ritsumeikan Uniersity
603-8577 Kitamachi, Toji-in, Kita-ku, Kyotoshi, Japan
hosoik@im.ritsumei.ac.jp

Keywords
Video games, Information Demands, Qualitative Data Analysis, Library and Information Science, Subject Access

ABSTRACT

This presentation aims at analyzing queries that the user makes in order to search for new games to play, through a Q & A website, Yahoo!Chiebukuro to reveal how users understand games. We collected queries which were posted between April 1, 2017 and March 31, 2018, and conducted qualitative data analysis of 7018 queries with KHCoder. My analysis reveals that the user who plays a game of the series for the first time demands on how stories in the series are related to each other, and the demands of information vary, depending on game genres.

1 INTRODUCTION

Members of the Ritsumeikan Center for Game Studies (RCGS), Ritsumeikan University, including ourselves, have been engaged in cataloging video games and examining its conceptual models[1], a part of which resulted in the RCGS-OPAC[2], open to the public. However, at this stage of the research, we see description about the subject that indicates the game's content insufficient, as Groat (2015, p.143-146) points out that the existing subject terms need to be reconsidered since they lack both appropriate terms and policy for assigning them. Since the catalog is a tool for users to satisfy user tasks such as finding, identifying, selecting, obtaining, and exploring resources[3], the description of the subject needs to give consideration to these tasks. Therefore, in this presentation, in order to reveal the user's demanded information of video game resources, We analyze queries that the user make to search for new games to play.

2 RESEARCH METHOD

While some previous researches were done by Kanai (2015) and Lee (2015), this research takes a new method in which, through a Q & A website, the questioner describes the game and its conditions that he wishes to play in free form, and the responder proposes a possible game to meet the description. For this research, we used Yahoo!Chiebukuro[4], a Q & A website well known to the Japanese, and collected queries which were posted between April 1, 2017 and March 31, 2018. In order to analyze what kind of information users demand when they search for new games to play, first, we excluded queries which did not conform to

my analysis' purpose, and conducted qualitative data analysis of 7018 queries with KHCoder (Higuchi 2004).

3 RESULTS

3.1 Analysis of Most Frequent 150 Words

My analysis reveals that the most frequent 150 words include many names of game genres, platforms, and game titles. Besides these, we noticed that the word "初心者(beginner)" appeared frequently, which led me to examine how it is used. It seems that the user who plays a game of the series, such as Final Fantasy for the first time does not know how this story to play is related to its previous works. In the game industry, better selling titles tend to be made series, and some "beginners" make queries on how works in the series are related to each other.

3.2 Analshis of a co-occurrence network

Using KHCoder, we created a co-occurrence network which recognized adjectives and nouns up to the top 170 as nodes, and treated those with co-occurrence relationships of vocabulary up to the top 100 as edges. This treatment distinguishes RPG, FPS, and Otome games as communities of game genres, which led me to compare related terms of each of these three communities. This comparative study demonstrates that the demands vary, depending on game genres.

4 FUTURE PROSPECTS ON THE RESEARCH

We will analyse further details for some demands, such as what kind of information is requested about characters. With this research, we hope to reveal how users understand games, which surely helps solving some subject-related issues of video game resources.

END NOTES

1. Fukuda, K. and Mihara, T. (2018), pp. 88-91.

2. Ritsumeikan Center for Game Studies. "RCGS-OPAC". http://www.dh-jac.net/db/rcgs/search.php (Accessed May 05, 2018.)

3. Riva, P. et al. (2017), pp. 15-16. (Accessed May 05, 2018.)

4. Yahoo Japan. "Yahoo! Chiebukuro". https://chiebukuro.yahoo.co.jp/ (Accessed May 05, 2018.)

WORKS CITED

Fukuda, K. and Mihara, T. "A Development of the Metadata Model for Video Game Cataloging －Focusing on Bibliographic Relationships－." *Digital Games Research Association JAPAN Proceedings of 8th Conference*, (2018): 88-91.

Groat, G. D. "A History of Video Game Cataloging in U.S. Libraries." *Cataloging & Classification Quarterly* 53, no. 2 (2015): 135-56.

Higuchi, K. "Quantitative Analysis of Textual Data : Differentiaiton and Coordination of Two Approches" *Sociological Theory and Methods* 19, no. 1 (2004): 101-115.

Lee, J. H, et al. "Video Game Information Needs and Game Organization: Differences by Sex and Age." *Information Research* 20, no. 3 (2015): 1-24.

Kanai, K. "Metadata that Satisfies end Users' Search Requests for Music Material : From the Characteristics of Music Material to the Application of FRBR" *Journal of Japan Society of Library and Information Science* 62, no.2 (2016): 120-130.

Riva, P., P. L. Boeuf, and M. Žumer. "IFLA Library Reference Model : A Conceptual Model for Bibliographic Information." IFLA. August 2017. https://www.ifla.org/files/assets/cataloguing/frbr-lrm/ifla-lrm-august-2017_rev201712.pdf (Accessed May 05, 2018.)

DAY THREE: 22 AUGUST 2018

11:00-13:00
PANEL: NARRATIVE AND CHARACTER

Laura Iseut L. St-Martin
Dark Souls: Narrative, players, interpretations

Dark Souls (From Software, 2011) is a video game that has been studied from numerous perspectives. Some scholars have analyzed its gameplay as a system coordinating player behaviour (Van Nuenen, 2015) whereas others were interested in its cryptic narrative and the debates that occurred regarding its plausible significations in a community of deeply invested players (Ascher, 2015 ; Vella, 2015).

Having deliberately developed his games around the player's possibility of engaging with a narrative, Hidetaka Miyazaki, the Japanese creator of the game, explained that this creative process is inspired by his personal experience as a reader of English books that he couldn't fully comprehend: "Often he'd reach passages of text he couldn't understand, and so would allow his imagination to fill in the blanks, using the accompanying illustrations. In this way, he felt he was co-writing the fiction alongside its original author. The thrill of this process never left him" (Parkin, 2015). Transposed to a video game context, this structure revolves around players' appropriation (Bonenfant, 2015) and interpretation of narrative elements contained in the game. Of course, it could be defended, as Eco (1985) did, that any text is incomplete and that it necessitates a reader (a gamer in this particular context) to finish it, but Dark Souls pushes this idea further than the majority of other videogames by proposing to players an entire world to discover by actively decrypting it. Curious of solving the mystery that is Dark Souls, players are gathering on out-of-game platforms (such as YouTube) to talk and debate about their interpretations. Because of its particular narrative structure, Dark Souls is a perfect example of how a gaming community can engage with a narrative by actively creating its lore.

Following these observations, we propose that the narrative of Dark Souls is essentially created by its community. We argue that the creative work done by players should be considered more importantly than the original intention of the author (Barthes, 1984). Even if Miyazaki has responded to players who were proposing interpretations and sometimes made them change their mind, we maintain that the construction of Dark Souls' narrative is largely in the hands of the players.

The same observations stand for other video games created by Hidetaka Miyazaki (Demon's Souls, Bloodborne) but our presentation will focus solely on Dark Souls' first entry. It will be oriented on three major debates that occurred in the community: 1) The identity of Gwyn's first born 2) The value of both endings 3) the state of Humanity. Following every step of these debates, we will show how players have been able to create meaning by "filling in the blanks" left open in the narrative and how the players canonized one particular version to be the main one. By focusing on players and their role in the community, we assert that Dark Souls' narrative is a result of a collective and interpretative work done by the players.

Bibliography

Arsenault, D. (2006). Jeux et enjeux du récit vidéoludique: la narration dans le jeu vidéo (Thesis, Université de Montréal).

Ascher, F. (2015). « Narration of Things », dans First Person Scholar, (Online) :
http://www.firstpersonscholar.com/narration-of-things/ (Recover on January 20th 2018).

Roland, B. (1984). « La mort de l'auteur » dans Le bruissement de la langue. Essais critiques IV, Éditions du Seuil, 63-

69.

Bonenfant, M. (2015). Le libre jeu. Réflexions sur l'appropriation de l'activité ludique, Éditions Liber.

Boellstorff, T., Nardi, B., Pearce, C., et Taylor, T. L. (2012). Ethnography and Virtual Worlds: a Handbook of Method,

Princeton University Press.

Clément, F. (2013). « Demon's Souls: L'esthétique de la répétition au cœur de la pratique hardcore du jeu vidéo » dans Kinephanos : Média, fans et sacré: un sentiment néoreligieux à la recherche d'une institution, (Online) : http://www.kinephanos.ca/2013/demon-s-souls/ (Recover on January 20th 2018).

Eco, U. (1985). Lector in fabula, trad. Myriem Bouzaher, Éditions Le livre de poche, coll. Biblio essais.

Jenkins, H. (2006). Fans, bloggers, and gamers: Exploring participatory culture, New York University Press.

Jérôme, D. (2015). « Dark Souls, journal d'un joueur » dans Métafiction, (Online) : http:// metafictions.fr/dark-souls-

journal-dun-joueur/ (Recover on January 20th 2018).

Juul, J. (2005). Half-real: Video Games Between Real Rules and Fictional Worlds, MIT Press.

Parkin, S. (March 2015). « Bloodborne creator Hidetaka Miyazaki: 'I didn't have a dream. I wasn't ambitious » dans The Guardian, International edition, (Online) : https://www.theguardian.com/ technology/2015/mar/31/bloodborne-dark- souls-creator-hidetaka-miyazaki-interview. (Recover on January 20th 2018).

Ryan, Marie-Laure. (2011). Narrative across Media: The Languages of Storytelling, University of Nebraska Press.

Stamatov, D. (2015). Murder & masochism: exploring violence as a mode of engaging with fiction in From Software's

Dark souls, Master Macquarie University, Department of Media, Music, Communication and Cultural Studies.

Van Nuenen, T. (2016). « Playing the panopticon: Procedural surveillance in dark souls » dans Games and Culture, 11(5),

510-527.

Vella, D. (2015). « No mastery without mystery: Dark souls and the ludic sublime » dans Game Studies, 15(1).

Wardrip-Fruin, N. et Harrigan, P. (2009). Third Person: Authoring and Exploring Vast Narratives. MIT Press.

Philipp Klueglein
The Design and Reception of Characters in Japanese Free-to-Play Games

Free-to-play games, played primarily on mobile devices, offer a unique perspective on the design and reception of character content in Japan. In economic terms, the Japanese mobile market has grown to three times the size of the domestic console game market, positioning it as the primary space for the gamic interaction with characters. Further, the economic backbone of these games is to be found in a largely shared approach to meta game design: a set of characters is obtained via randomizing mechanics (gacha) and deployed according to a combinatorial logic. Through manifold synergies with the core gameplay, which may range from puzzle mechanics to music/ rhythm-based skill tests to turn-based RPGs, player motivation is structured along mostly single player progress through level content that is in turn linked to the consumption of character content.

This paper aims to first lay a foundation for understanding the character-based game design framework of Japanese F2P games, and then to extend this structural analysis theoretically through the identification of three patterns in which character content is processed and played with.

1. Abstracting into collectable pieces of mechanics

Game example: Disney Tsum Tsum.
This puzzle game makes use of the stuffed toy versions of Disney characters called Tsum Tsum as both puzzle pieces and collectable characters. A character from a wealth of entertainment contexts is visually abstracted and commodified as a collectable artifact, which is in turn utilized as the directly acted upon game asset (puzzle pieces, core gameplay) and a collectable, upgradeable in-game character (meta game), taking on the role of signifier and mechanical prop.

2. Anthropomorphizing into vessels for imagination

Game examples: Kantai Collection, Pashamon.
Browser game Kantai Collection is a popular example of the enduring trend to source characters from gijinka: the practice of anthropomorphizing things, in this case warships as girl characters. The player builds these characters using a mix of materials and randomizing mechanics, and forming a long-term bond to them is encouraged by the mechanics. A perma- death feature places responsibility on the player to take care of his characters, and a wedding feature exists to further tighten the bond. The game's loosely defined characters ensure an openness to interpretation, moving reception into the creative realm of user-generated content (UGC). Pashamon by Sega shows a new intersection of technology, gijinka and UGC, using the smartphone's camera to create characters based on photographs, further tying the player's imagination into the process of character generation. 3. Absorbing into the media mix

Game examples: Shironeko Project, Puzzle & Dragons
Through collaborations, characters from other franchises and even other media enter the game world and become obtainable for the player. The game world is designed to absorb characters from diverse backgrounds through low emphasis on story and sekaikan, while the character may be transformed to match the game's art style. In the reverse direction, a few examples of free-to-play titles entering the media mix via their characters have surfaced in recent years as well.

Rachael Hutchinson

From Karate Champ to Tekken: Nation and Narration in Fighting Games

This paper examines Japanese national identity as constructed and expressed in the fighting game genre, beginning with Data East's *Karate Champ* (1984) and ending with Namco Bandai's *Tekken 5* (2004). Primary evidence is used to show that *Karate Champ* established a template for the normative Japanese 'self' expressed through character design, cut-scenes and background settings. This 'self' is constructed on both the level of the national identity of Japan, including culture, architecture and history, as well as the individual identity of the normative Japanese male. While much scholarship exists on the *Street Fighter* series (Surman 2007; Hendershot 2017), little attention has been paid to *Karate Champ* in the literature to date. I argue that *Karate Champ* established a template for using the P1 position to represent Japanese male identity, built upon by *Street Fighter* and *Street Fighter II,* which separated the named identity of P1 from the player and created a distinct Japanese male identity for the 'main character' of the series.

Including *Virtua Fighter* and *Tekken* in the discussion, we can see that the normative Japanese male characters Ryu, Akira and Kazuya are privileged as occupying the P1 position, often in opposition to an American opponent, reflecting the Japan-US binary of the 'long postwar'. Moving from the interface to peripherals, we see these Japanese male characters featuring strongly in cabinet art, home console cover art, game manuals and adaptations, which also reinforce the Japan-US binary even in the context a wide range of national stereotypes and representations. Opening cinematics and character placement in the game manuals further emphasize the Japan-US rivalry, also seen in narrative arcs delivered through character backstories and gallery rewards.

Of all these games, *Tekken* uses the character select screen in new and interesting ways, not only to construct normative ideas of Japanese identity, but also to convey narrative. As the P1 position moves from Kazuya Mishima to other members of his family, the sweeping saga of the Mishima Zaibatsu unfolds in surprising twists and turns. *Tekken* made innovative use of series progression, character select, multiple endings and canon, to develop a rich storytelling structure with high narrative tension. Although the fighting game genre is largely regarded as lacking both story and character development (Atkins 2003; Murray 1997), it has been demonstrated that narrative and characterization merely take place at different points in the gameplay sequence when compared to linear structures of action-adventure or roleplaying games (Hutchinson 2007). The contribution of this paper to scholarship on the fighting game genre is thus to bring our attention to the character select screen itself as an instrument of narrative.

REFERENCES

Atkins, Barry (2003) *More than a game: The Computer Game as Fictional Form*, Manchester, UK: Manchester University Press.

Hendershot, Steve (2017) *Undisputed Street Fighter: The Art and Innovation Behind the Game-Changing Series*, Mt. Laurel, NJ: Dynamite.

Hutchinson, Rachael (2007) 'Performing the Self: Subverting the Binary in Combat Games', *Games and Culture* 2:4 (Fall), pp.283-299.

Murray, Janet (1997) *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*, New York: Free Press.

Surman, David (2007) 'Pleasure, Spectacle and Reward in Capcom's *Street Fighter* series,' in *Videogame, Player, Text*, ed. Tanya Krzywinska and Barry Atkins, Manchester: Manchester University Press, pp.204 - 221.

The Design technique to misunderstand as self-creation and self-growth for questions
- Asobit-ize -

ShujiWatanabe
Ritsumeikan Univ. College of
Image Arts and Sciences
56-1 Toji-in Kitamachi, Kita-
ku, Kyoto Japan 603-8577
wash@im.ritsumei.ac.jp

Keywords
Game Design, Signifier, Intrinsic Difficulty, Play

ABSTRACT
As per Albert Einstein, "The only source of knowledge is experience."
The present paper provides several lines of evidence how to make the player's experience (discovery and growth) misunderstand as though it is voluntary on the design.
In 2016, Our team tried after quantitative survey for intrinsic difficulty that was conducted using Reflection Pac-man. This study was to explore the mechanisms involved in the intrinsic difficulty level (Fig 1). In this research, the intrinsic difficulty level is reconsidered as "asobitai" that is the Creation and growing for Question for the player,.

CHAPTER
In Japanese Tea ceremony, learning stage is 3 level that called “SHU-HA-LI” (Fig 2), In this study, to elucidate mechanisms by Game design, our team focus on “Creation and Growing for Question” that was be spontaneous, and be moved from “SHU” to “HA” and “LI” in a phased manner. We named this phenomenon “Asobitai” (Japanese “ASOBI” = “playing” + Japanese “TAI” = “to hope”)

When we walk on a pedestrian crossing, we will create the question "If we can cross the cliff?"(Fig 3) This phenomenon is as intervenient “Signifier”. And In the point of view “the Creation and growing for Question” it can be seen as assisted 1st “SHU” level“Asobitai”by Difficulty between our stride and Zebra Line.

This design is apparently simple, however in Digital Games It's difficult to assist players to create a similar question. Even if a story helped the player's mind to "goal", it is not necessarily that the difficulty structure can assist the player's mind "goal".

Case A: Difficulty is Too hard (or Too easy)

Player has a feature as “Asobitai” (Creation and growing for Question）. So Digital games misdirect out of digital games such as Real world “Play”

e.g.) Is this Playing funny? friends are smiling?
e.g.) Is Over there much nicer than over here?

By Asobitai, Player direct the real word from Digital game.

Case B: difficulty is appropriate within a certain range

Player has a feature as “Asobitai” (Creation and Growing for Question）. So Digital games keep to direct player into digital games more long time. The possibility of inducing new 2nd level questions as “HA” increases.
.But If there is no chain of growth that can assist the player's Asobitai, the learning curve will eventually is too simple. We named this design technics by the difficulty that can assist Asobitai for player is “Asobita-

ize” ("asobitai" + suffix "ize").

e.g.) PAC-man
Asobitai: “How to get away?”
-> Asobita-ize : By getting away, the dots are got naturally
-> New Asobitai :“What happens if I keep getting dots?”

Asobitai: “How to get away?”
-> Asobita-ize: By getting away, the Power Pellets are got naturally
-> New Asobitai: “What happens if I catch up with the escaping enemy?”

Asobitai: “What happens if I keep getting dots?”
+ “What happens if I catch up with the escaping enemy?”
-> Asobita-ize : increase score naturally
-> New Asobitai : “What happens if I keep getting score?”

As described above, "Asobita-ize" is a assistable design that the player himself finds naturally new "Asobitai”(Creation and Growing for Question).

In the real world, the experience in the digital game is almost worthless, however a lot of players tend to think there are worth in the digital game. Because Asobita-ize gives continuity to a little "Asobitai”(e.g. “If we can cross the cliff?”, ”How to get away?”) , And It is Enable to expand player’s “Asobitai” step by step.
And “Asobit-ize” is also a technique for making players misunderstand that they made the Question themselves.

Then, Basic question like “How to get away?” are never lost even after the player’s question grew.

In This time, the optimum solutions for player’s question dynamically change like SHU-JA-Li in learning stage by Japanese Tea ceremony.

the optimum solutions for “How to get away?” in Pac-man

SHU(Lv1): A simple solution such as taking a distance from the enemy

HA (Lv2): In order to take a dot, sometimes Pac-man approaches the enemy

Li (Lv3): After pricking the enemy, make a battle with the Power Pellets.

Despite a simple nested difficulty structure, player himself creates intrinsic difficulty levels. And There are mechanics that can generate more complex optimal solutions.

At the end of the abstract, organize the bibliography alphabetically by last name of the first author. Please refer to the bibliography at the end of the template for the further references.

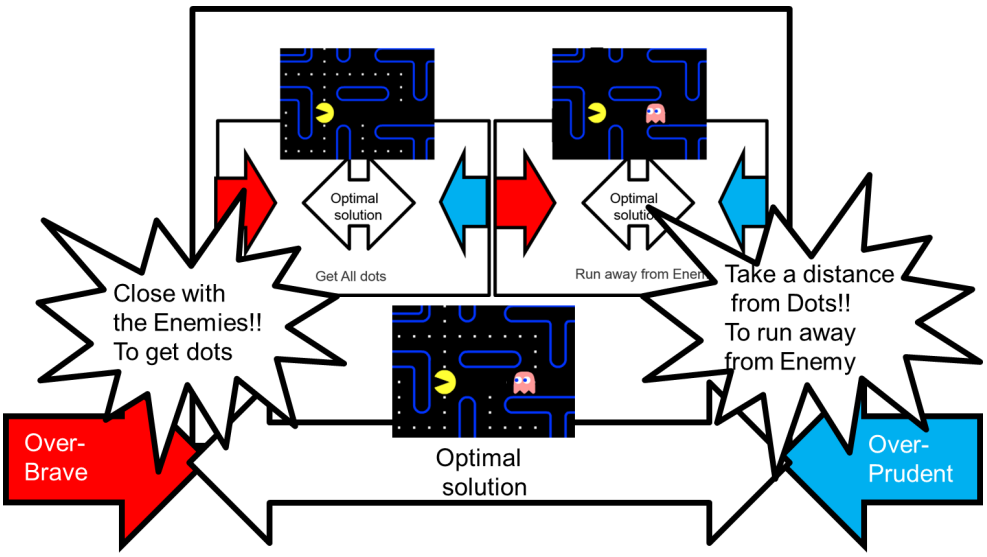


Figure 1: The difficulties structure and the intrinsic difficulty in Pac-Man

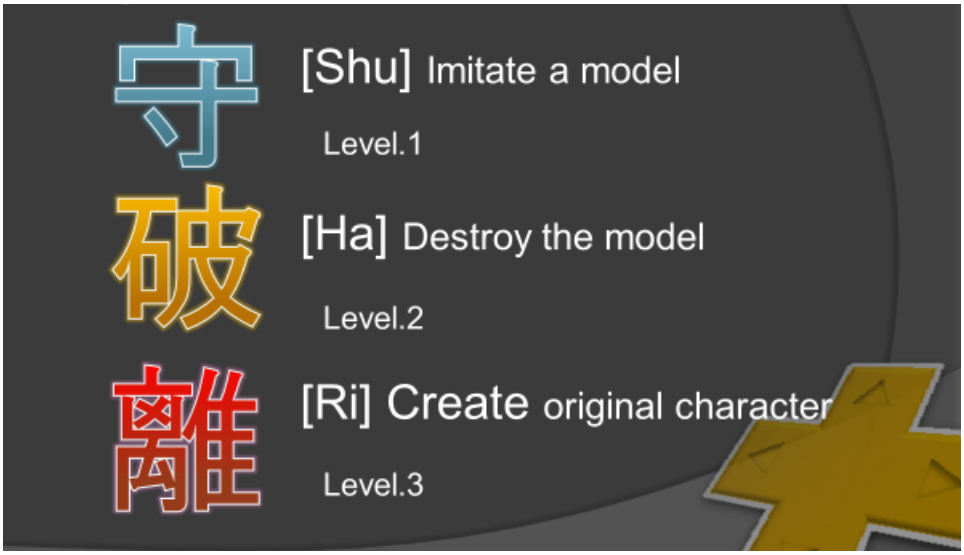


Figure 2: Shu-Ha-Li



Figure 3: Cliff-nize on Zebra Line.

WORK CITED

Kousuke KAWAMOTO, Shuji WATANABE "Demonstration experiment of layering and structuring intrinsic difficulty in Reflection Pac-Man" , Digra Japan Proceedings of summer Conference 2016

Shuji WATANABE,Akinori NAKAMURA "Why Do People Play Games? Game Essence from a Developer's Perspective", Soft bank publishing,2014

Shuji WATANABE The Difficulty Engineering for Digital Game studies", Digra Japan Proceedings of summer Conference 2016

OKAMOTO Akira, YASUMURA Michiaki, IGA Soichiro, "From Affordance to Signifier-Don Norman's New Proposition" ,Journal of Human Interface Society : human interface, 2012

GAME CITED

Namco, PAC-man,Namco, 1980.

Proposal of gamification to make tidy up happily

Sayaka Yoshida
Ritsumeikan University graduate school of image art,
56-1,Kyoto-shi,Kita-ku,Tojiinkita-machi,
Kyoto,Japan
gr0319kr@ed.ritsumei.ac.jp

Shuji Watanabe
Ritsumeikan University, 56-1,Kyoto-shi,Kita-ku,Tojiinkita-machi, Kyoto,Japan
wash@im.ritsumei.ac.jp

Keywords
Gamification, tidy up, Affordance,

ABSTRACT
Many people have negative images about housework and cleaning. Recently, The game is enjoyed by many people. In Japan, 44.46 million people are playing games.
Recently,Efforts to apply games to social activities are drawing attention. In my daily life, I thought that I wanted to make a game that I think it was a burden, I made a work. This work uses elements of the game. This work is a fun thing to clean up. By playing with this work, I think that They can be enjoying tidying up.

1.INTRODUCTION
Many people have negative images about housework and cleaning. Recently, The game is enjoyed by many people. In Japan, 44.46 million people are playing games.
Recently,Efforts to apply games to social activities are drawing attention. As an example, there is # *denkimeter* and *Fitbit.* # *denkimeter* is a game that encourages energy saving. *Fitbit* is an application that records sleep and exercise and sets goal. I wanted to make daily life a game, and produced contents. It is a work that you want to tidy up intrinsic. Gouko(2017) created a robot that urges people to clean up. However, this research is based on extrinsic motivation.The objective is to propose content that makes it fun to clean up.

2. ABOUT THE WORK
I created what used affordance. I made two applications using smartphones.
First, I made contents that I wanted to match with the line. By urging the line to fit, I made content that appears to be lined up. I was able to make them feel like I wanted to line them. However, I did not think it was fun.
Second, when things and things collided, created content that displays onomatopoeic word. By arranging the objects side by side, I created contents that I wanted to clean up.
I made them feel that onomatopoeic word are funny. However, they did not want to clean up.
Next, I made analog contents.
I made a stationery puzzle game. This is a content that combines writing instruments and puts it in the specified form. In contents, the method of tidying up is decided. I could not make me want to make it endogenous.
Exhibited works exhibits works that let the experiencing person play, making it think that they have cleaned up.

3. CONCLUSIONS

In this work, I made content that makes tidy up fun. However, I think that these works have room for improvement.The results obtained will contribute to the field of Re-Playing Japan and Gamification. It will also be useful in the future game industry.

Bibliography

Akito, I., Hideki, T.,*#denkimeter*[Web/iOS]. http://www.denkimeter.com/ (Accessed May 6, 2018)
Fitbit [iOS/Android] Fitbit https://www.fitbit.com/jp/app (Accessed May 6, 2018)

"*In the growing Asian market, the global game content market size in 2016 is 8 trillion 997.7 billion yen "Famitu Game white book 2017*" published on June 8",https://www.famitsu.com/news/201706/06134624.html (Accessed May 6, 2018)
Manabu, G., Chyon hae, K.,"*Study of Robot Behavior That Encourages Human to Tidy UP Disordered Things on Table Top*" v32, no5, 2017:pp.1–8

Level design learning by the story

Shosaku TAKEDA
Postion, Professor

College of Image arts and Sciences
Ritsumeikan University
56-1 Toji-in Kitamachi , Kita-ku, Kyoto,
Japan
str14032@fc.ritsumei.ac.jp

Keywords
Picture-story show , **Difficulty** , **Narrative** , **Level design.**

ABSTRACT
It is important to think about two factors, difficulty and narrative, and their relation to the very vague problem of what is a game. In this research, we aim at learning about the game nature of the story derived from practicing approaches from especially stories in a game teaching.

1. ABOUT THE RESEARCH OF "STORY AND DIFFICULTY"

The relationship between games and narratives is now explained in terms of their interactions based on the context of narratology among the few books and papers. [1] However, there is little controversy on how the story is involved in the difficulty structure in the game, and there is little discussion as a learning model for game production.

This research aims at proposing a level design learning model that allows you to set the difficulty level using the story's components by advancing the "learning model of game design" by "the awakening of game elements lurking in stories" until the previous year.

2. LEVEL DESIGHN PRACTICE THROUGH PICTURE-STORY SHOW.

In this research, we consider the relationship between pictures and stories through the creation of picture-story show, digitize the completed picture-story show, set choices for each scene, add gimmicks etc. and make it a game, for the purpose for learners to get some sort of "awakening" against game elements lurking in stories We have continued the game production class for three years, and we have been examining the usefulness of the learning model focusing on knowledge derivation through a kind of action and research. In the deliverables of the lesson a certain degree of completion as an interactive story was seen, but there were few things that reached the stage where you can enjoy it as a game. (see Figure 1)

3. RELATIONSHIP BETWEEN GAMES AND STORIES.

Based on this result, once again, we guide learners to consider attraction of the story and its narration, expectations for hidden scenes aware of the structure of the story from the stage of making picture-story show. Furthermore, in digitization, the level design for gaming is imaged, and additional elements such as gimmicks and scenes including the above considerations are listed up. We should pay attention to saying the necessity of a game-like element in the story development rather than saying whether or not a specific game element such as an option is included in the story telling as a picture story show at this point. It is not an interactive element such as simply choosing a choice or clicking on the screen, but implementing a mechanism and directing that allows a player to act in a given game world to advance a story by himself as a narrator. Especially for directing, use simple animation and SE, and try to back up story creation by player from the viewing side.

It can be said that these methods lead to the ability to understand what "game enjoys the story" is and to build the difficulty structure by the story. In this presentation I would like to report the deliverable in a playable manner

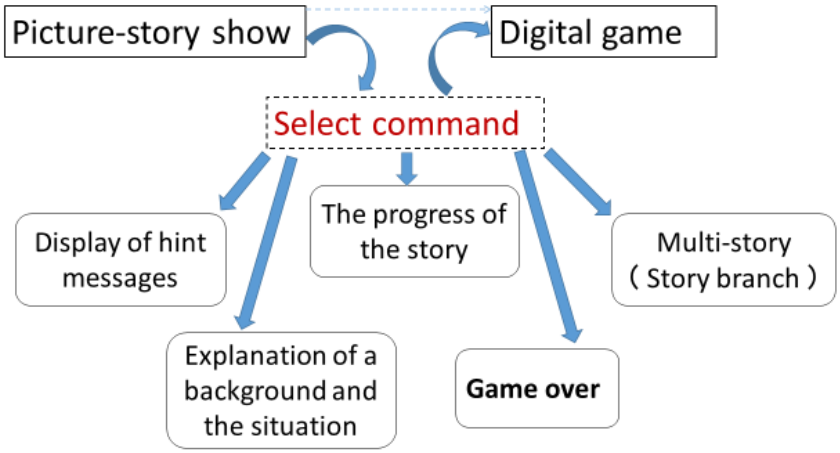


Figure.1 To digital game from picture-story show

[1] Shuji WATANABE, Akinori NAKAMURA "Why Do People Play Games? Game Essence from a Developer's Perspective", Soft bank publishing,2014

Game Play Middleware “Park Computer” for create a new experience of playing digital games integrating inputs

Takahiro TSUDA
Ritsumeikan University Graduate School of Image Arts, 56-1 Tojin-kita-machi, Kita-ku, Kyoto-shi, JAPAN
im0074hr@ed.ritsumei.ac.jp

Shuji WATANABE
Ritsumeikan University Graduate School of Image Arts, 56-1 Tojin-kita-machi, Kita-ku, Kyoto-shi, JAPAN
wash@im.ritsumei.ac.jp

This researcher has published "Million" (Ritsumeikan Visual Exhibition, 2017) and "Colonized organism Pito" (EIZO Junction, 2017) as digital game works using many wired controllers (see Figure 1, Figure 2). This work gives new value to the "play" of past consumer game works by applying the methodology such as many of these controllers.

The way of enjoying content has changed its form by advancement of technology. The digital game which had been played at the game center has changed to a home game machine, and now it is being played with smartphone, it turns out that the space is changing from the public place to the individual place. In terms of play, "park" can be said to be a representative example of public spaces. There is no example of trying to create play space like a park in a digital game.

"Park Computer" is a system that changes the manner of playing games, enabling multiple players to play games in public places by enabling playing existing games in a number of people beyond the prescribed number of players. Each player has a controller one by one, and operation characters assigned one to each player are displayed in the screen. A space like a park spreads in the screen, and the play screen (hereinafter referred to as the game screen) of the existing game is displayed on the television screen placed there. By letting the operating character touch the controller connected to the game screen, you can play that game within "Park Computer". The game screen allows display and play using commercially available game hard and game software. If more than one character touches the same controller, you can operate that controller with multiple players.

"Park Computer" contains several different types of virtual controllers, and how you play games changes depending on which controller you choose. For example, in "anarchy controller", a plurality of operation characters can touch the controller, and all inputs made by each player are reflected on the game screen, but after accepting each input for 10 seconds in the "majority decision controller", Only the most frequent input is reflected.

As described above, "Park Computer" allows multiple players to play games in public places by integrating player inputs into one, thereby creating new play while using existing games with the goal.



Figure 1: "Million" Exhibition scenery



Figure 2: “Colonized organism Pito” Exhibition scenery

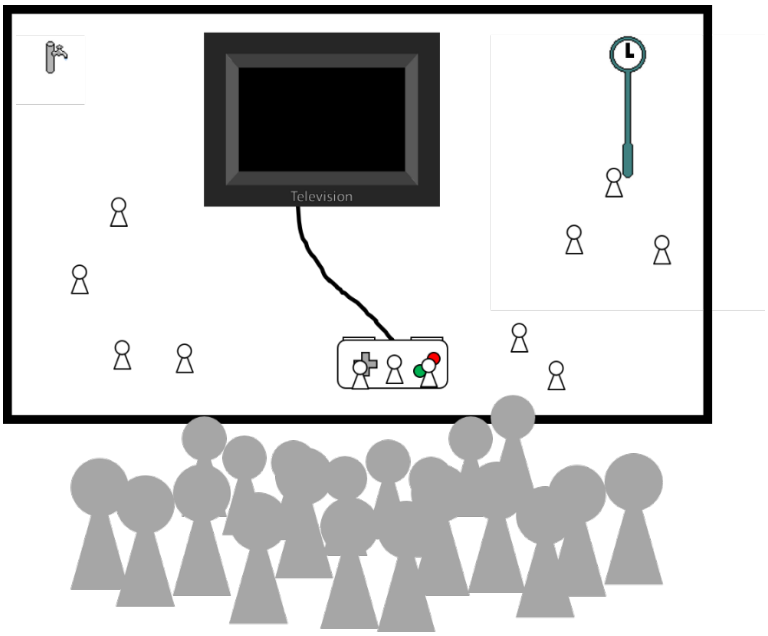


Figure 3: "Park Computer" play landscape image

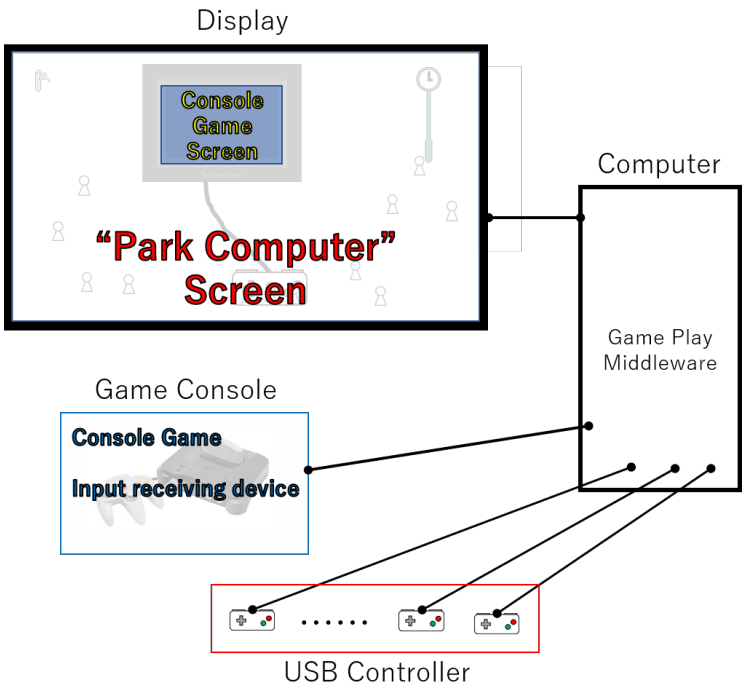


Figure 4: "Park Computer" system configuration

A Practice of Creative Music Making Education Using Synthesizer Software on Handheld Game Console

Yutaka MAKABE
Associate Professor, Tohoku Bunkyo College, Yamagata, Yamagata, Japan
makabe@t-bunkyo.ac.jp

Keywords
Synthesizer, Music Making, Handheld Game Console, Elementary School.

ABSTRACT
This paper reports on the contents of the procedure for practicing music making education using "DS-10" and the findings obtained there. This practice is to create "one-bar loop music" in a short time (about 1 hour) in each environment.

National curriculum "Music" guidelines of Elementary School in Japan, it consists of four sectors: singing, playing instruments, creative music making, and appraising music. In particular, "creative music making" is a field that has been avoided in Japanese school classes. This is cited as 'The application method of ICT in elementary school music classes shifts to learning activity using 'learning content' software which supports learning of expression and appreciation area, instead of learning by melody and rhythm creation by sequencer software' and 'the time required for music making activities' (Hatsuyama, 2014).

Since 2014, I have been practicing music making education using synthesizer software "KORG DS-10" (hereinafter, this is called "DS-10") at elementary school. (Makabe, 2015)
In practice, the range to be composed song of one bar length by each student is "rhythm phrase (4 track)", "phrase change" of 1 track monophonic synthesizer, and "change of sound tone".

The teacher prepares the following in advance: bring the game machines and software for the number of students, activate the software ("DS-10"), and load the model song data. Then, the teacher hands the worksheet and game machine to the students.

In the beginning 15 minutes, the teacher presents that the change of three elements (rhythm phrase, melody phrase, melody tone) is this time's goal, and teaches the minimum operation method necessary for these changes. Then, students do creative activities freely for about 20 minutes. At this time, the teacher doesn't use the headphones for the children, but sounds from the built-in speaker of each game machines. By doing this, the space of the classroom can be filled with the sound of synths coming from many game machines, and it is easier to announce the songs created by the children in the next step.

And in the second half of the lesson, the teacher carries the portable speaker (better than the one of the handheld game console) and sounds each music created by the student.

As a result of the questionnaire, there seems to be a slight difficulty depending on the student, but it was generally a good impression. Also, as the result of checking the collected song data, it seems that each student can change rhythm, melody and melody tone from roughly the state of the model rhythm song, and it was able to create wonderful songs.

However, there are some problems remaining in this practice. First of all, "DS-10" has not been marketed already. Most of current music composition software for elementary school students is either multi-functional or whether the functions are excessively limited. Therefore, based on the findings from past practice, I would like to make prototype of music making software that elementary school students can handle. In addition, we would like to advance the application of music composition software for game consoles like "KORG DSN-12" or "KORG Gadget for Nintendo Switch" to elementary school.

WORK CITED

Masahiro, H. “小学校音楽科教育におけるICTの関わりと活用法” *Japanese journal of music education practice Vol.11* no.2. The Japan Music Education Society, 2014: pp. 27-33
Yutaka, M. “A practical report of “Creative Music Making” educationusing synthesizer software for handheld game console” *Bulletin of Tohoku Bunkyo College Vol.5*. Tohoku Bunkyo College, 2015: pp.1-23

KORG DS-10
Cavia. *KORG DS-10* [Nintendo DS]. AQ Interactive 2008.
KORG DSN-12
DETUNE. *KORG DSN-12* [Nintendo 3DS]. DETUNE 2014.
KORG Gadget for Nintendo Switch
DETUNE. *KORG Gadget for Nintendo Switch* [Nintendo Switch]. DETUNE 2018.

Replaying Japan 2018



20-22 August 2018
The National Videogame Arcade
www.thenva.com