



Fig. 1 – “Night Parade of 100 Demons” intro screen. Game trailer: <https://youtu.be/BGS9O1KyITk>

“Night Parade of 100 Demons”: designing digital games for musical improvisation

Costantino Oliva
Institute of Digital Games
University of Malta
costantino.oliva@um.edu.mt

Abstract

This paper presents “Night Parade of 100 Demons” (Oliva, forthcoming), a research-oriented mobile game designed to foster musical improvisation. Starring Japanese *yokai* creatures, it consists of four minigames, affording different forms of extemporaneous musicality. While improvisation within music-oriented digital games remain underexplored, NP encourages players to experiment musical possibilities, without being constrained by traditional game-like structures (such as winning conditions).

NP was developed with the “research through design” (RtD) methodology, starting with “open-ended research aims” (Colton and Hook, 2017) to “materialize the design questions or aesthetic issues that are being addressed” (Khaled, et al., 2018). NP identifies improvisational musicking as an understudied area of ludomusicology. The game has a Japanese setting, using four popular *yokai* (an umbrella term for Japanese spirits and supernatural entities), culturally identified as connected with playfulness and creativity (Foster 2015). In recent years, yokai have been featured in different media (anime, games). NP is situated within this cultural context, presenting musical twists to myths and tales related to yokai.

Early tests show positive engagement with musicking, with players actively pursuing novel musical sequences found to be aesthetically pleasing. The game takes a self-reflexive stance on improvisation within digital games, celebrating it as an underexplored musicking modality.



Fig. 2 – Assorted screenshots from “Night Parade of 100 Demons”

Bibliography

- Aarseth, Espen, and Gordon Calleja. 2015. “The word game: The ontology of an undefinable object.” *Foundations of Digital Games Conference*. Pacific Grove, CA.
- Aarseth, Espen. 1997. *Cybertext*. JHU Press.
- Altice, Nathan. 2015. *I Am Error: The Nintendo Family Computer / Entertainment System Platform*. MIT Press.
- Bailey, Derek. 1993. *Improvisation: Its Nature and Practice in Music*. Da Capo Press.
- Beer, David. 2010. “Mobile Music, Coded Objects and Everyday Spaces .” *Mobilities* 469–484.
- Borgo, David. 2007. “Musicking on the Shores of Multiplicity and Complexity.” *Parallax* 13 (4): 92-107.
- Borgo, David. 2013. “Beyond Performance: Transmusicking in Cyberspace .” In *Taking It to the Bridge: Music as Performance*, edited by Nicholas Cook and Richard Pettengil, 319-348. University of Michigan Press.
- Borgo, David. 2022. *Sync or Swarm: Improvising Music in a Complex Age (Revised Edition)*. New York: Bloomsbury Academic.
- Chion, Michel. 1994. *Audio-Visual: Sound on Screen*. Columbia University Press.
- Collins, Karen. 2007. “An Introduction to The Participatory and Non-Linear Aspects of Video Games Audio.” In *Essays on Sound and Vision*, by John Richardson and Stan Hawkins,

- 263-298. Helsinki University Press.
- Collins, Karen. 2009. "An Introduction to Procedural Generated Music in Games." *Contemporary Music Review* (Taylor & Francis) 28 (1): 5–15.
- Collins, Karen. 2013. *Playing With Sound: A Theory of Interacting with Sound and Music in Video Games*. MIT Press.
- Colton, Paul and Alan Hook. 2017. "Game Design Research through Game Design Practice," in *Game Design Research: An Introduction to Theory & Practice*, ed. Petri Lankoski and Jussi Holopainen (Pittsburgh, PA: ETC, 2017), 171–72.
- Eco, Umberto. 1989. *The Open Work*. Harvard University Press.
- Encyclopaedia Britannica. 2007. *Musical expression*. 12 5. Accessed 10 27, 2022. <https://www.britannica.com/art/musical-expression>.
- Herber, Norbert. 2008. "The composition-instrument: Emergence, improvisation and interaction in games and new media." In *From Pac-Man to pop music: Interactive audio in games and new media*, by Karen Collins, 103–125. Aldershot: Ashgate.
- Juul, Jesper. 2019. *Handmade Pixels: Independent Video Games and the Quest for Authenticity*. MIT Press.
- Kassabian, Anahid, and Freya Jarman. 2016. "Game and Play in Music Video Games." In *Ludomusicology: Approaches to Video Game Music*, by Michiel Kamp, Tim Summers and Mark Sweeney. Sheffield: Equinox Publishing.
- Khaled, Rilla, Jonathan Lessard, and Pippin Barr. 2018. "Documenting Trajectories in Design Space: A Methodology for Applied Game Design Research." In *Proceedings of FDG18: Foundations of Digital Games 2018*, August 2018, Malmö, Sweden. Accessed April 25, 2024. <https://doi.org/10.1145/3235765.3235767>.
- Klevjer, Rune. 2002. "In Defense of Cutscenes." *Proceedings of Computer Games and Digital Cultures Conference*. Tampere: DiGRA. 191-202.
- Landy, Leigh. 2007. *Understanding the Art of Sound Organization*. MIT Press.
- Lewis, Eric. 2019. *Intents and Purposes: Philosophy and the Aesthetics of Improvisation*. Ann Arbor: University of Michigan Press.
- Magnus, Cristyn. 2007. "Aesthetics, score generation, and sonification in a game piece." *Proceedings of the International Computer Music Conference*. San Francisco: International Computer Music Association. 262-265.
- Moseley, Roger, and Aya Saiki. 2014. "Nintendo's Art of Musical Play." In *Music in Video Games*, edited by K.J. Donnelly, William Gibbons and Neil Lerner, 51-76. Routledge.
- Moseley, Roger. 2016. *Keys to Play: Music as a Ludic Medium from Apollo to Nintendo*. University of California Press .
- Nguyen, C. Thi. 2022. "Creativity and Improvisation in Games." In *The Routledge Handbook of Creativity and Improvisation in the Arts*, by Alessandro Bertinetto and Marcello Ruta, 685-698. New York, NY: Routledge.
- Nintendo. 2005. "Electroplankton." Nintendo.
- NTT InterCommunication Center [ICC]. 2011. *IWAI Toshio profile*. Accessed 8 27, 2022. <http://www.ntticc.or.jp/en/archive/participants/iwai-toshio/>.
- Oliva, Costantino. 2023. "Otocky: Adventures in Improvisational Musicking." *Journal of Replaying Japan* (Ritsumeikan University) 5: 135-146.
- Oliva, Costantino, and Ari Poutiainen. 2022. "Otogarden: Exploring Musical Improvisation in Video Games." *Journal of Sound and Music in Games* (University of California) 3 (2-3): 28-58.
- Oliva, Costantino. 2021. "The Musical Ludo Mix of Taiko no Tatsujin." *Transactions of the Digital Games Research Association* (DiGRA) 5 (2): 131-160
- Oliva, Costantino. 2019. *Musicking with Digital Games [PhD dissertation]*. Msida, Malta: University of Malta.

- Oliva, Costantino. 2017. "On the ontological status of musical actions in digital games." *The Philosophy of Computer Games Conference*. Kraków.
- Pichlmair, Martin, and Fares Kayali. 2007. "Levels of Sound: On the Principles of Interactivity in Music Video Games." *Situated Play, Proceedings of DiGRA 2007 Conference*. Tokyo: DiGRA. 424-430.
- Pressing, Jeff. 1998. "Psychological Constraints on Improvisational Expertise and Communication." In *In the Course of Performance*, by Bruno Nettl, 47-69. Chicago: University of Chicago Press.
- Rautiainen-Keskustalo, Tarja. 2021. "Embodiment through digital intangibility: Infrastructures of musicking." *Journal of New Music Research* 1-8.
- Small, Christopher. 1998. *Musicking: the Meaning of Performing and Listening*. Wesleyan University Press.
- StrategyWiki. 2009. *Otocky/Music Maker Mode*. 6 12. Accessed 10 27, 2022. https://strategywiki.org/wiki/Otocky/Music_Maker_Mode.
- Studley, Thomas, Jon Drummond, Nathan Scott, and Keith Nesbitt. 2022. "Can Competitive Digital Games Support Real-Time Music Creation?" *Journal of Sound and Music in Games* 1-35.
- Summers, Tim. 2020. *The legend of Zelda: Ocarina of Time - A Game Music Companion*. Bristol: Intellect.