

ously adapts in response to evolving materialities.

References

Curran, A. (1989). "Musica Elettronica Viva." Nov. 15, 1989. <http://www.alvincurran.com/writings/mev.html>. (last access October 10, 2025)

Impett, J., and J. Parra Cancino (2020). "Thought, Technology and Performance: Lessons from the Future." *Music & Practice* 6. DOI: 10.32063/0604.

Parra Cancino, J. (2014). *Multiple Paths: Towards a Performance Practice in Computer Music*. Doctoral thesis, Leiden University. <hdl.handle.net/1887/29965>.

Parra Cancino, J. (2022). "Artifacts of 'Not-Here'." In *Proceedings of the 2022 International Computer Music Conference ICMC*. Ann Arbor, MI: Michigan Publishing Services. <https://www.fulcrum.org/epubs/8910jx22c>.

Parra Cancino, J., and J. Mulder (2018). "On Stockhausen's Solo(s): Beyond Interpretation." *Leonardo Music Journal* 28: 13-18. DOI: 10.1162/lmj_a_01036.

Rzewski, F., and M. Verken (1969). "Musica Elettronica Viva." *The Drama Review* 14 (1): 92-97. DOI: 10.2307/1144509.

Media (Videos)

Stockhausen's Solo(s) performance, mixed and diffused live by Juan Parra Cancino during the 2014 Research Festival of the Orpheus Institute, Ghent, Belgium, October 2, 2014. <https://www.youtube.com/watch?v=SgYO4XutXKw> (last access October 10, 2025)

Rzewski's Second Structure telematic performance at NowNet Arts Conference (online), November 1, 2022. <https://youtu.be/5YYbEwUOcM0> (last access October 10, 2025)

Artifacts of Not-Here telematic performance at NowNet Arts Conference, November 7, 2021. <https://youtu.be/w271ddQZMd8> (last access October 10, 2025)

In-Game Concerts and Ludo-musical Performances: A Brief Historical Overview

by Karina Moritzen

The story of this research (or, dare I say, its lore) begins at an extreme moment of our collective experience in contemporary society; a point in time overflooded with confusion, uncertainty, fear, and at its ultimate stages, grief. Bruno Latour's (2005) insightful theoretical contributions through Actor-Network Theory provide us with the appropriate tools to better understand the changes in sociability taking place back then: this non-human element, the Covid-19 virus, whose origin is still to this point unknown, affected intensely the flow of a vast array of societies, forcing a large part of the global population into isolation in their own homes, which led to a reshaping of the socio-technical networks that reflected their connections to family, friends, music, video games, scenes, work, leisure, and many other aspects related to daily life.

It was also during this time that our online engagement severely increased, many of us desperate to replace the human connections and collective experiences that we were suddenly required to lack. There were various consequences to this, such as the heightening of economic trends

connected to video games, personal relationship dynamics, as well as the reaction by large social media platforms strongly personified by the rebranding of Facebook into Meta. A symbol of Mark Zuckerberg's high investment into the hype cycle of a supposed "metaverse" that was about to overtake every aspect of our lives, this rebrand failed to achieve its goals. The "metaverse" as it was advertised and parroted uncritically around mainstream media and sections of academia did not materialize. Gamers everywhere were left confused by the buzzword coming out of Silicon Valley which ignored the vast history of virtual worlds dating to the very early beginnings of the internet itself, a great part of it connected to gaming. In the words of Elder Scrolls Online creative director, Matt Firor, cited from an interview (Firor and Sinclair, 2024, GamesIndustry.biz):

"That was last year's buzzword, right? This year it's all about AI and nobody's talking about the metaverse anymore. Metaverses, or what I prefer to call virtual worlds, need to be online communities. There's no reason why Reddit couldn't be considered one; it's a text-based virtual world. My earliest games were text-based, with no graphics at all, and they were very much virtual worlds where

people got together, chatted, and had fun. (...) the critical thing is that the metaverse talk from last year was very much a tech discussion, which is very big in Silicon Valley when you're looking for investment. (...) We've been doing [connected worlds] for 20 years. It's not new, and they should stop treating it like it's new and get input from people who have been doing this a while. (emphasis added)" (Firor and Sinclair, 2024)

This is very much in agreement what I found in my current research project entitled "Playing with In-game Concerts: Ludomusical Performances, Scenes and Hyperpop", in which I conducted semi-structured interviews and participant observation around the titles: BatMUD, Lord of the Rings Online, Minecraft, Roblox and Fortnite. I have contacted players through subreddits and Discord Servers, interviewed them on their playing and performative practices, as well as attended their in-game concerts to record them and later analyze them. In the following, I provide an excerpt of my first chapter, in which I define in-game concerts and conduct a historical overview of ludomusical performances taking place since the 1970's in MUDs (Multi-User Dungeons), a genre of online

gaming worlds which are text-based, tracking them up until the current experiences in contemporary games. I theorize ludomusical performances as they relate directly to in-game concerts; musical performances in and around video games, however, have been explored before by authors such as Dixon (2017), Cheng (2016), Fritsch (2018; 2021), Miller (2012) and Fernandez-Vara (2009).

In-game concerts are here conceptualized as social and immersive experiences that materialize inside online worlds focused on gaming, frequently including mini-games, side quests, exploration, inside jokes, connecting the aesthetics of the artists' to that of the game that hosts them and applying the game's mechanics to the live music situation, amplifying the playful possibilities of sonic engagement. Ludomusical performances, on the other end, are the results of the interaction between player and avatar inside in-game concerts, situations in which the player/artist interacts indirectly with the game developers (Miller, 2012), as the latter rule over the limitations/possibilities of the game's mechanics and affordances, and the first adapt creatively to generate ludomusical expression.

While interviewing player
Druidsfire in 2024 (she/her, US

based, 51 years-old at the time of our interview) about her involvement with the Lord of the Rings Online ludomusical scene, I began to see MUD's (Aarseth, 1997) as the early representations of ludomusical performances and in-game concerts. When answering my question about how her relationship to video games began, she told me that:

"we had to role play music in the setting that people couldn't hear, because there was no audio, there was no video for the most part, it was all strictly through text. So **you had to write and express your musicality through text form. (...) I was brand new in the game, didn't really know the rules. I was expressing my music as I was playing a song and in my head, I knew what song I was playing, and I was saying which notes I was playing, the actual notes like B minor, C flat or whatever and that's not what they were looking for. They were looking for something that's more like reading a story in a book. They don't really care what note you're playing, they're trying to say: OK, so and so plays a plaintive chord on their guitar or is playing a doleful beat on their drum or something like that. So it's**

less about the nitty gritty of the music and more about the emotion." (Druidsfire, interview)

I found it fascinating to hear that even in text-based online gaming worlds, players discovered forms to perform musically. These text-based ludomusical performances can be understood under the lenses of sonic virtuality, an idea discussed by Grimshaw and Garner (2015, p. 31), when they state that "the thinking of sounds, the imagining of sounds, and all forms of what are typically described as auditory illusions or hallucinations are in themselves sound". In order to understand how these concerts began to take form, I researched in-depth the academic writing that is placed under the moniker of "virtual worlds". I also e-mailed Richard Bartle, one of the creators of MUD1, a game so influential that it became the name of a whole genre of virtual worlds. He confirmed to me that people would type songs as if they were singing them; unfortunately, he had no records to share with me, as the memory limitations during the 1970's meant, that, to keep these records, one would need to either print them or purchase expensive recording devices. I moved on to the subreddit r/MUDs, where I asked for examples of ludomusical performances described through text

inside gaming worlds. This is how I met research participant Amarth, one of the developers of BatMUD, a game dating from 1990, still up and running in 2025. Amarth shared with me old playing records that allowed me to analyze ludomusical performances such as the following:

The play is started by Tanta at Sun Apr 03 19:24:47 2005
 Sprite as herself
 Tanta as himself
 Kratos as himself
 [Tanta]: Tanta Enters to bar.
 [Tanta]: Tanta plays loud guitar furiously!
 [Tanta]: Tanta plays loud guitar furiously!
 [Tanta]: Tanta plays loud guitar furiously!
 [Kratos]: O_o goes Kratos
 [Tanta]: Tanta shouts 'what is this noise?'
 [Tanta]: Tanta shouts 'I really don't know but i don't like this!'
 [Tanta]: Tanta shouts 'I can silence that rage.'
 [Tanta]: Tanta sings few relaxing tones.
 [Tanta]: Tanta plays guitar slowly and softly.
 [Tanta]: Tanta says 'its working.'
 [Tanta]: Tanta says 'i couldn't taken this much longer.'
 [Tanta]: Tanta finally stops playing and climbs down from stage.

The play is ended by Tanta at Sun Apr 03 19:26:55 2005

The example above portrays a ludomusical performance taking place in BatMUD. The character describes literarily their performance, expressing rage and later self-control; clearly not in music theory terms, but in the form of adjectives and adverbs. Not every ludomusical performance is meant to evolve and collect more points inside the game. However, in BatMUD, these performances are also directly connected to the game-play. The bard's guild is required to undertake a successful ludomusical performance in order to advance their characters. These moments happen inside a separate auditorium in which players can perform for an audience watching from another digital room, so that their (again, text-based) chatter will not disturb the performers.

When graphics evolved and audiovisual gaming worlds appeared, ludomusical performances advanced and achieved new peaks of audience engagement and media reporting. As someone who was a music fan and not at all a part of gaming culture, I started this research by reading headlines in specialized magazines relating to Travis Scott's Fortnite in-game concert (Brown, 2020) and the independent events happening inside

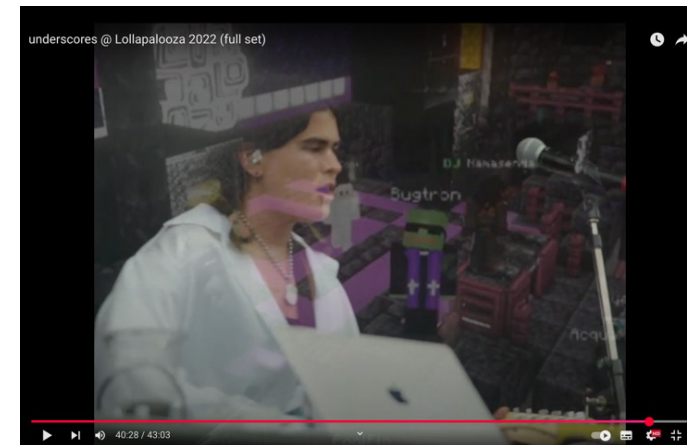


Figure 1: underscores's 2022 Lollapalooza set. Available at: www.youtube.com/watch?v=uZopR_Ai-III&t=2428s (last access Sept. 28th 2025).

Minecraft. These socio-technical networks (in Latour's terms) around in-game concerts are connected to the appearance of ludomusical scenes, in which member's engagement with music and videogames becomes the central focus of sociability, as I found in Lord of the Rings Online and Minecraft. In the Minecraft case, these ludomusical scenes served as catalysts to the development of Hyperpop, a label that has influenced the U.S. music industry through artists such as 100gecs and underscores. This statement can be exemplified in material terms by underscores' offline performance at Lollapalooza in 2022, in which she airs footage of Minecraft in-game concerts.

Tracking this history of digital sociability can be seen as a way to avoid falling into the hype cycles advertised by Silicon Valley

in search of a never ending influx of investment into at times unhelpful and uninteresting technologies. Through the collection of my research results, I conclude that players have been resorting to musical playfulness since the early records of online gaming, proving that sonic entanglements between music and games are an intrinsically part of play, refusing the idea that in-game concerts were a timely distraction to the overall limitations imposed by the Covid-19 pandemic.

References

- Aarseth, E. (1997). *Cybertext: Perspectives on Ergodic Literature*. Baltimore, Md., Johns Hopkins University Press.
- Bartle, R. (2010). "From MUDs to MMORPGs: The History of Virtual

Worlds". In: Hunsinger, J., Klas-trup, L., And M. Allen (eds.), *International Handbook of Internet Research*. Springer.

Brown, F. (2020). "Travis Scott's Fortnite show had a record-breaking number of players". *PC Gamer*. Available at: <https://www.pcgamer.com/travis-scotts-fortnite-show-had-a-record-breaking-number-of-players/> (last access June 15, 2025).

Cheng, W. (2014). *Sound Play: Video Games and the Musical Imagination*. New York: Oxford University Press.

Consalvo, M. (2011). "MOOs to MMOs: The Internet and Virtual Worlds". In: Consalvo, M., and C. Ess (eds.), *The Handbook of Internet Studies*. Blackwell Publishing Ltd.

Dixon, S. (2007). *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation*. Cambridge: The MIT Press.

Downey, S. (2014). "History of the (Virtual) Worlds". *The Journal of Technology Studies* 40 (2): pp. 54–66.

Fernandez-Vara, C. (2009). "Play's the Thing: A Framework to Study Videogames as Performance." *DiGRA International Conference: Breaking New*

Ground: Innovation in Games, Play, Practice and Theory (September 2009).

Fritsch, M. (2021). "Game – Music – Performance: Introducing a Ludomusicological Theory and Framework". In: Fritsch, M., and T. Summers (eds.), *The Cambridge Companion to Video Game Music*. Cambridge University Press, pp. 238–262.

Fritsch, M. (2018). *Performing Bytes: Musikperformances der Computerspielkultur*. Würzburg: Königshausen & Neumann.

Latour, B. (2005). *Reassembling the Social: An Introduction to Actor–Network–Theory*. Cambridge: Oxford University Press.

Miller, K. (2012). *Playing Along: Digital Games, Youtube and Virtual Performance*. New York: Oxford University Press.

Games

Balanced Alternative Techniques. (1990). *BatMUD*. Online Game.

Richard Bartle and Roy Trubshaw. *MUD1*. Online Game.

Turbine. (2006). *Lord of the Rings Online*. Online Game.

Sound, Ritual, and Presence in the Age of Telematic Dialog: A Polyphonic Conversation Across Distance

by Paulo C. Chagas and Cássia Carrascoza

Introduction

In a time when digital communication often substitutes for presence, and the screen mediates both intimacy and creation, music emerges as a paradoxical force—disembodied and yet deeply embodied, ephemeral and yet enduring. *Sound Imaginations: Telematic Immersion*, our recent collaborative project (Chagas and Carrascoza 2025a; 2025b), explores this paradox by engaging with sound, image, and gesture across space and time.

What does it mean to perform together when togetherness itself is technologically reconstructed? How does electronic sound alter not only the materiality of music but also the very way we perceive, feel, and think through it? Can rituals still emerge in a digital world, and what forms of presence are possible when bodies are no longer co-located?

This account centers on three guiding terms: sound, ritual, and presence. Over four years (2020–2024), we developed a telematic project that revealed new insights into our way of making music and presenting it

to audiences. In this context, sound is the primordial matter of music, experienced in acoustic, electroacoustic, and virtual forms.

In this project, the acoustic sound is produced by Cássia Carrascoza on the flute(s); this sound is captured by microphones, transmitted over the network with JackTrip as uncompressed, low-latency audio, processed electronically by Paulo C. Chagas, and finally re-projected online for the audience. Telematic music does not have a physically present audience nor the immediate feedback typical of traditional live performance. During social isolation, we built a telematic dialogue that became a space for artistic research and intense interaction. As Brazilian musicians, we brought the socializing spirit of our culture into the virtual environment. We involved musicians, technologists, and colleagues in exchanging ideas, holding open rehearsals, performing works by friends, and experimenting with creative processes.

In 2021, we created a project involving undergraduate students from the University of California and USP, marking the start of what would become the *Ensemble Telemático LaFlauta*. Between 2021 and 2024, Carrascoza served as Visiting Scholar at the University of California, Riverside, at Chagas's invitation, par-