Ludo2018

#ludo2018

Seventh Annual Conference on Video Game Music and Sound

“Soundscapes and Interfaces”

April 13th–15th

Zentrum für Musikwissenschaft, Hochschule für Musik und Theater „Felix Mendelssohn Bartholdy“ and the University of Leipzig

Hosted by Christoph Hust (HMT Leipzig, Department of Musicology) and Martin Roth (Leipzig University, Department for Japanese Studies)

Organized by Melanie Fritsch, Michiel Kamp, Tim Summers and Mark Sweeney

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Music, Sound, and the Moving Image

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# Conference Schedule

## Day 1: 13th April 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 – 09:30</td>
<td><strong>Registration, Coffee &amp; Welcome</strong></td>
</tr>
<tr>
<td>09:30 – 11:00</td>
<td><strong>Session 1 – Interfaces and Performance</strong></td>
</tr>
<tr>
<td></td>
<td>1. Barbara Lüneburg: 'Between ‘Ludic Play’ and ‘Performative Involvement’: A Performer’s Perspective on the Audiovisual Gamified Artworks of GAPP'</td>
</tr>
<tr>
<td></td>
<td>2. Melanie Fritsch: “It's the idea of including an interface, a human interface.” Tetsuya Mizuguchi’s Concept of “Music Interactives”’</td>
</tr>
<tr>
<td></td>
<td>3. James L. Tate: 'Playing Music: Using Virtual Instruments in Minecraft to Teach Music Theory'</td>
</tr>
<tr>
<td>11:00 – 11:30</td>
<td><strong>Tea &amp; Coffee Break</strong></td>
</tr>
<tr>
<td>11:30 – 13:00</td>
<td><strong>Session 2 – Virtual Worlds</strong></td>
</tr>
<tr>
<td></td>
<td>4. Beth Carroll: 'Virtual Reality Soundscapes in Early Film Context'</td>
</tr>
<tr>
<td></td>
<td>6. Jennifer Smith: 'The Blurring of Worlds: The Soundscape(s) of NieR: Automata'</td>
</tr>
<tr>
<td>13:00 – 14:00</td>
<td><strong>Lunch</strong></td>
</tr>
<tr>
<td>14:00 – 15:30</td>
<td><strong>Session 3 – Music During and After Play</strong></td>
</tr>
<tr>
<td></td>
<td>9. Chris Tonelli: 'Game Music, Embodiment, and Imagined Mobility: Utilities of Game Music Beyond Game Space'</td>
</tr>
<tr>
<td>15:30 – 16:00</td>
<td><strong>Tea &amp; Coffee Break</strong></td>
</tr>
<tr>
<td>16:00 – 17:00</td>
<td><strong>Keynote Address: Adele Cutting</strong></td>
</tr>
<tr>
<td>Evening</td>
<td><strong>Evening out in Leipzig: Sol y Mar Kneipe</strong> Gottschedstraße 4, 04109 Leipzig. Table is reserved for Ludo2018 at 6pm.</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>09:30 – 10:30</td>
<td><strong>Keynote Address: Kristine Jørgensen</strong> 'On Emphatic and Ecological Sounds in Gameworld Interfaces'</td>
</tr>
<tr>
<td>10:30 – 11:00</td>
<td><strong>Tea &amp; Coffee Break</strong></td>
</tr>
<tr>
<td>11:00 – 12:30</td>
<td><strong>Session 4 – Information from Music</strong></td>
</tr>
<tr>
<td></td>
<td>10. Stephen Tatlow: 'Sound Knowledge: Replacing Graphical User Interfaces in Payday 2'</td>
</tr>
<tr>
<td></td>
<td>12. Reinke Schwinning: 'Sense and Meaning in Music: Music as Information Carrying Part of the Game Interface'</td>
</tr>
<tr>
<td>12:30 – 13:30</td>
<td><strong>Lunch</strong></td>
</tr>
<tr>
<td>13:30 – 15:00</td>
<td><strong>Session 5 – Music and Personal Experience</strong></td>
</tr>
<tr>
<td></td>
<td>13. George Reid: 'Chiptune: Ludomusical Shaping of Identity'</td>
</tr>
<tr>
<td></td>
<td>15. Dave Raybould: 'Does Musical Entrainment Occur Within Video Games, Or Do We Just Think it Does?'</td>
</tr>
<tr>
<td>15:00 – 15:30</td>
<td><strong>Tea &amp; Coffee Break</strong></td>
</tr>
<tr>
<td>15:30 – 17:30</td>
<td><strong>Session 6 – Aesthetics and Ethics (or, Drinking and Thinking)</strong></td>
</tr>
<tr>
<td></td>
<td>17. Andra Ivănescu: 'Beneath a Steel Sky: A Musical Characterisation of Class Structure'</td>
</tr>
<tr>
<td></td>
<td>18. Tharcísio Vaz C Moraes: 'Aleatoric Music Composition Techniques Applied in Computer Games – Audio Game Breu: A Study Case'</td>
</tr>
<tr>
<td></td>
<td>19. Peter Smucker: 'Gaming Sober, Playing Drunk: Sound Effects of Alcohol in Video Games'</td>
</tr>
<tr>
<td>Evening</td>
<td><strong>Ludo2018 Presents: Bonus Levels</strong></td>
</tr>
</tbody>
</table>
## Day 3, 15th April 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30 – 11:00</td>
<td><strong>Session 7 – Sonic Engagement</strong></td>
</tr>
<tr>
<td>11:00 – 11:30</td>
<td><strong>Tea &amp; Coffee Break</strong></td>
</tr>
<tr>
<td>11:30 – 12:30</td>
<td><strong>Keynote Address: Michael Austin</strong></td>
</tr>
<tr>
<td>12:30 – 13:30</td>
<td><strong>Lunch</strong></td>
</tr>
<tr>
<td>13:30 – 15:00</td>
<td><strong>Session 8 – Composition and Design</strong></td>
</tr>
<tr>
<td></td>
<td>24. Mathew Arnold: 'Inside the Loop: Audio Functionality in Inside'</td>
</tr>
<tr>
<td>15:00 – 15:30</td>
<td><strong>Tea &amp; Coffee Break</strong></td>
</tr>
<tr>
<td>15:30 – 17:00</td>
<td><strong>Session 9 – Soundscapes</strong></td>
</tr>
<tr>
<td></td>
<td>26. Donal Fullam: 'Spatial Music, Video Games and the Democratic Surround'</td>
</tr>
</tbody>
</table>
"GAPP: Gamified Audiovisual Performance and Performance Practice" is an arts-based research project based at the University of Music and Performing Arts Graz. It has been conceived by composer, audiovisual artist and project leader Dr. Marko Ciciliani who together with his team, the artistic researcher and performer Dr. Barbara Lüneburg and musicologist Andreas Pirchner, investigates the combination of game elements and performer interactions for their artistic potential in contemporary audiovisual artworks. This paper offers a perspective on performers’ agencies to (musical) meaning making, and to the creative and strategic shaping of audiovisual gamified audiovisual works of the artistic research project GAPP (gappp.net). Barbara Lüneburg will introduce her model of ‘performative involvement’ that describes how agencies that are afforded to the performer (through the introduction of game elements, software design and control devices for musical or visual interaction) in GAPP works may influence the player’s range of expression and artistic and emotional involvement and meaning making during a live concert performance. She investigates how agencies and affordances translate firstly into game related involvement, and can secondly be transformed into ‘performative involvement’ that ideally transfers to their audiences. In her model she bears in mind that in a performance situation the gamified interactive musical systems not only concern performer or instrument or composer, but that the spectator is part of the performance ecosystem. Following Gurevich when he speaks about a performer’s ‘skill’, Lüneburg states that ‘meaning’ – like ‘skill’ – “emerges from a performance ecosystem that includes a performer, instrument, and spectator, all as active participants that also exist within a society and draw upon cultural knowledge.” (Gurevich 2017). This investigation is based on three case studies of the artistic research project GAPP.
3. James L. Tate: 'Playing Music: Using Virtual Instruments in Minecraft to Teach Music Theory'

With the release of Connected Gaming: What Making Video Games Can Teach Us about Learning and Literacy (Kafai, Burke & Steinkuehler, 2016) and the edited collection, Exploding the Castle: Rethinking How Video Games and Game Mechanics Can Shape the Learning and Literacy (Kafai, Burke & Steinke, 2016) and the edited collection, "Playing Music: Using Virtual Instruments in Minecraft to Teach Music Theory" has been propelled into the pedagogical technology scene as tools for education has very much been propelled into the pedagogical

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2. Melanie Fritsch: "It's the idea of including an interface, a human interface."

Tetsuya Mizuguchi’s Concept of "Music Interactives"

Television’s Game Designers: "It’s the idea of including an interface, a human interface."

Tetsuya Mizuguchi’s Concept of "Music Interactives"
Session 2 – Virtual Worlds

4. Beth Carroll:

'Virtual Reality Soundscapes in Early Film Context'

The steady development of virtual reality has increased the awareness of academics of the issues associated with understanding both its derivation and originality. One of the primary questions becomes: how do we contextualise VR in such a way that pays attention to both its antecedence and its uniqueness? Answering this question is made more complex by a focus on the soundscapes of VR. Focus appears to continue to be placed on the visual novelty, rather than the sonic or the audio-visual relationship. While links between VR and gaming have been dominating the former’s discourse, in this paper I want to place VR soundscapes as part of the wider filmic audio-visual experiences of the early 1900s, such as Hale’s tours which would develop into VR experiences at Universal Studios and other such amusement parks. By returning to the early years of film we can draw parallels between the novelty of audio-visual soundscapes in film and VR, as well as understanding how VR soundscapes are being sculpted based upon audience sonic literacy, which developed over the last one hundred or so years of film experience. Rick Altman and Ian Christie have written extensively about the early soundscapes of film and how audiences negotiated them for the first time. What needs to develop now, however, is a discussion on how these early filmic experiences created a way of understanding audio-visual experiences that are today dictating VR soundscapes.
5. Michiel Kamp:

'Acoustic Ecologies in Virtual Reality Experiences, or, Why Does Google Earth VR Have a Musical Soundtrack?'

The recent boom in virtual reality is firmly rooted in video game culture and technology through its devices’ connection to gaming platforms (HTC Vive and Valve’s Steam) and consoles (PlayStation VR). Not all of the applications offered on these devices can be called ‘games,’ however, and both HTC/Valve and Oculus prefer the label ‘experiences’ on their websites. Many of these experiences are VR versions or ‘ports’ of products from older media, like Minecraft and Superhot VR, or genres in older media, such as space simulation or racing simulation games. As a consequence, there is a certain amount of remediation (Bolter and Grusin 1999) in terms of audiovisual aspects and protocols for interaction (Gitelman 2006), including soundtrack elements and their affordances (Clarke 2005; Grimshaw 2008; Kamp 2014).

This paper looks at a non-game, Google Earth VR, that in its porting from Windows desktop and Chrome browser application to VR experience gained a soundtrack that features, in addition to environmental and interface sounds, dynamic music (Collins 2008; Käser et al. 2017). GEVR’s score resembles aspects of film and video game music, in particular games with visual perspectives such as Cities: Skylines and SimCity (2013). I will interpret this not as GEVR becoming more game-like by virtue of its score, but that, taking a cue from Eric Clarke’s ecological approach to listening, the experience’s soundtrack acquires certain affordances remediated from those older audiovisual media.

This paper explores music in and around the digital game Dota 2 (2013, Valve). I draw on a further scholarly investigation of music in similarly popular competitive games like League of Legends (2009, Riot) and Counter-Strike: Global Offensive, bringing the music into dialogue with contemporary musicology and sound design for digital games.

The paper ultimately aims to highlight Dota 2’s place within existing musical traditions, while also illuminating how music is made to affect players in and around the game. It explores three areas within this research:

1. **Affective and Functional Success of the Modularly-Constructed Soundtrack:**
   - The game’s modularly-constructed soundtrack is affective and functionally significant for players. The music facilitates gameplay and group sociality despite its use of often-criticized stylistic conventions of contemporary music, such as loud synthesized bass lines and repetitive ostinati as primary vehicles of thematic development.

2. **Music as a Tool for Managing Affective State:**
   - When a large portion (70%) of players choose to instead listen to their personally-curated playlists while playing Dota 2, I suggest they employ music as a tool for personally-curated playlists while playing Dota 2. This brings into question the relationship between music and mood and how this might have evolved over time.

3. **Music and Modern Technology in the Esports Arena:**
   - Considering Dota 2’s broader social world, music for gameplay melds into the soundscapes of spectacular, Olympic-style performance events in the professional eSports arena, while professional players also broadcast their musical tastes to a global audience through platforms like Twitch.

The paper ultimately aims to highlight Dota 2’s place within existing musical traditions, bring its music into dialogue with contemporary musicology, and set the stage for further research on music in similar popular competitive games.
Jennifer Smith: 'The Blurring of Worlds: The Soundscape(s) of NieR: Automata'

Set in a post-apocalyptic, alien-ravaged, Earth, NieR: Automata (2017, Platinum Games) is a video game that encompasses diverse environments and gameplay styles: from 3D open video game that encompasses diverse environments and gameplay styles; to 2D side-scrolling platform to shoot 'em up and bullet-hell styles. The player is set in a post-apocalyptic, alien-ravaged, Earth. NieR: Automata (2017, Platinum Games) is a

The Blurring of Worlds: The Soundscape(s) of NieR: Automata

and song within the soundscape:

Identification of the progression which influences the introduction and intensity of vocal

the soundscape, the player's progress within the game's narrative. It is the decision to incorporate quiet, medium, and dynamic variations of each area theme, building

within the soundscape of the game. It will identify the significance of the composer's

introduction of various languages within the music that incorporate an android/human

also wider aspects of soundscape such as vocal accent, Foley, and manipulation of the aural

field. This paper will discuss these wider aspects of NieR's audio world, following the

Witcher 3: Wild Hunt, identifying how the game addresses, not only the musical score but

the soundscape. James Cook speaks of the medieval soundscape in his case study The

The soundscape, James Cook speaks of the medieval soundscape in his case study The

significance of this adaptive soundscape in NieR is its intense focus upon the location and

of combat, accompanied by a soundscape that adapts to the in-game environments. The

inverses changing environmental visual spaces whilst shifting between these different styles

video game that encompasses diverse environments and gameplay styles: From 3D open

8. James Newman:

'The Music of Microswitches: Archiving Videogame Sound'

Game preservation has risen up the research agenda in recent years (e.g. Lowood 2009; Guttenbruner et al 2010; McDonough et al 2011) with much emphasis centring on emulation and the original experience (Sarbicki 2016; Swalwell 2017), and the importance of documentation (Lowood 2013; Newman 2012). However, comparatively little work has been conducted on the theory and practice of game sound archiving (though note the commentary in McDonough et al 2010 on the limitations of videogame sound emulation). This paper reports on one recently-founded project that seeks to tackle this issue. The National Videogame Foundation ‘Game Sound Archive’ (GSA) operates in partnership with The British Library and centres on the creation and curation of archival-quality recordings of the distinctive sounds of digital games and gameplay.

Importantly, the GSA is not a collection of abstracted music files or sound effects and does not focus only on capturing the raw output of hardware systems and sound chips. Rather, the scope of the project extends to actuality recordings of games being played. This decision has two immediate consequences. In the first instance, it means that the recordings account for the totality of game audio emanating from systems and games at play. As such, music and effects intermingle, sometimes complementing one another and sometimes competing for sonic space depending on the design of the audio engine. However, more than this, the interest in documenting the actuality of gameplay brings the sounds of player interactions and the operation of the physical interface within the scope of the project.

Giving examples of some of the recordings, the paper explores the rationale and development of the GSA in the context of extant formal and informal game preservation projects and (game) sound collections such as the HVSC (High Voltage SID Collection) and VGMRips. The paper continues by considering the implications of these various projects’ approaches, the (patchy) state of current game sound emulation and its role in preservation, and use-cases for archival recordings of game sound and actuality recordings such as those in the GSA. The paper concludes with an outline of the curatorial development plan for the GSA and an invitation to collaborate in the recording process.
9. Chris Tonelli: 'Game Music, Embodiment, and Imagined Mobility: Utilities of Game Music Beyond Game Space'

Travellers in Japan, whether strolling amongst skyscrapers in the large urban centers of the country or passing through train stations in remote rural areas, are sure to encounter sonic environments colored by the sounds of gaming. Handheld devices, the solitary machines ubiquitous in public spaces, and the full-fledged gaming parlors that populate the country have changed the Japanese soundscape drastically.

My paper is an examination of a music genre whose primary points of sonic reference are these aspects of the Japanese sound environment. An onomatopoetic phrase used in the Japanese language to signify the sound of video games, “pico-pico” now also signifies this musical new genre. Pico-pico has reinvented its other major point of reference, the popular underground Shibuya-kei style, for a younger generation of listeners, the first generation that grew up with video games as a pastime and important source of cultural reference.

A reading of the ways in which the aesthetics of video game sound has affected pico-pico and other recently emergent musical genres will lead into questions of how sound and music can serve as the means through which the virtual travel central to the experiential aspects of gaming is written into the bodies of listeners outside of game space. Making reference to fieldwork I completed in Tokyo, I will discuss how certain forms of game sound have become codified for certain circles of listeners in manners that allow the sounds to afford kinds of imagined travel that have profound effects on how time, space, distance, and place are experienced by listeners.
Kristine Jørgensen is Professor in Media Studies at the Department of Information Science and Media Studies at University of Bergen. Her research is mainly qualitative, and focuses on understanding games from the point of view of players. She is interested in user-centered perspectives and has among other topics studied how players experience sound in games, as well as user interfaces and interaction in games. She is currently project manager of the research project Games and Transgressive Aesthetics, which focuses on player-centered experiences of transgressive game content and how they unfold in the gameplay situation. She is also the author of Gameworld Interfaces (MIT, 2013) and A Comprehensive Study of Sound in Computer Games: How Audio Affects Player Action (Edwin Mellen, 2009).
Keynote Address: Adele Cutting

BAFTA award winning Audio Director Adele Cutting leads the audio production company Soundcuts, which she founded in 2011. She trained at the National Film and Television School and worked in film post-production before moving into the games industry with Electronic Arts in the mid-nineties.

Adele’s many game credits include Dungeon Keeper 2, Theme Park World, F1, Harry Potter franchise and Sim City. She has been a regular juror at the BAFTA Games Awards and in recent times has served as a judge at the prestigious MUS (Music and Sound) Awards. She also lectures in Game Sound at the NFTS and other Universities.

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Session 4 – Information from Music

10. Stephen Tatlow:
'Sound Knowledge: Replacing Graphical User Interfaces in Payday 2'

Payday 2 seems superficially similar to many other first-person shooters and stealth games. The Graphical User Interface (GUI) contains typical shooter indicators for health and ammunition alongside typical stealth-game indicators for suspicious and alerted enemies. However, Payday 2 also omits or limits a number of elements found in GUIs common to these genres, such as player radars, objective markers and ability timers. Instead, these commonplace GUIs are replaced with auditory interfaces throughout the game.

This paper deconstructs two levels from the co-operative first-person stealth-shooter Payday 2 to demonstrate how auditory elements can be used within interactive media to replace elements of user interface that are conventionally visual. It examines music, dialogue and sound to build an understanding of how players must interact with the audio of the game.

To successfully navigate the game world and find ludic success, players must develop an understanding of the game audio in what seems similar to the knowledge described by Bourgonjon as “video game literacy”. This may help to immerse players more completely within the game following principles of Grimshaw and Ward, and allow us to establish a basis for examination of immersive audiovisual environments such as those found in virtual reality.
11. Dejan Lukovic:

'Audio Cues in Speedrunning: How Video Game Audio is Transformed Into New Auditory Information Systems'

This paper focuses on how video game audio can be transformed into new auditory information systems (Fritsch 99; Jørgensen 168; Summers 130) in the act of speedrunning. Hereby, audio is taken to subsume music, sound(effects) and dubbing (Fritsch 96) and speedrunning is conceptualized as the goal to finish a game as fast as possible under certain rules. Since perceivable visual information is tendentially reduced in speedruns, such new auditory information systems allow to compensate visual information loss (Jørgensen 164).

This paper argues that linear or reactive music can become proactive music (Liebe 47) during speedrunning. Existing video game audio can be recontextualized as audio cues for tricks and glitches what constitutes new auditory information systems that evoke actions from the players. Audio cues can be realized in two different fashions: Either, those audio cues are intended and properly designed by the developer, or they are made up by runners and communities through the aforementioned recontextualization, which cuts through the intended sound design of the game. In so far, it is plausible to say that speedruns are not just non-narrative interventions, but can also be non-auditory interventions. All those aspects are analyzed with examples from actual speedruns in contrast to the normally played games. Blindfolded speedruns will also be analyzed as extreme cases in which the newly created auditory information systems have to compensate for the complete loss of visual information.
Ludomusical gestures can influence and alter these encounters – for specific desires and senses of self – through chiptune musical encounters (Massman 2002) that are also chiptune composers in their own right. Chiptune composers allow the participation to synthesize a sense of fan identity and sub-identity. Through 2015’s ‘Let’s 1996’ in addition I propose that chiptune and non-chiptune personas exist in a nomadic interplay of fan/musical meaning. Around 2010, and in 2013 (cf. Stanyek and Piekut 2010), but a temporary and fluid dynamic play of subjectivities I concern that chiptune personas are comprised of heterogeneous and posthuman elements (Braidot 2011). My chiptune composer is through Rosi Braidot’s framework of nomadic subjectivity”.}

I contend that chiptune fan personas are temporary and dynamic amalgams of heterogeneous and posthuman elements. Not an unchanging, fixed or lone ‘unity’ (cf. Stanyek and Piekut 2010), but a temporary and fluid dynamic play of subjectivities. I concern that chiptune personas are comprised of heterogeneous and posthuman elements (Braidot 2011). My chiptune composer is through Rosi Braidot’s framework of nomadic subjectivity. This paper adopts this question by theorizing chiptune fan identity as a fannish persona as a nomadic play of subjectivities. I propose that chiptune and non-chiptune elements allow the participant to synthesize a sense of identity as subjectivity. Ludomusical gestures refer to the processes and gestures involved in musical play.
In musical aesthetics, it was widely accepted from the German romanticism until the early 20th century, that music would carry extra-musical meaning by virtue of its expressiveness. This notion seemed particularly appealing in cases where several arts met in a synthesis of visual, lyric, dramatic and audible elements, thus forming a Gesamtkunstwerk.

Video Games resemble the concept of Gesamtkunstwerk. They are as well constituted by a combination of multiple arts. However, what is the role of music in such a composition? Ever since the linguistic turn in philosophy, not only the idea of music as well constituted by a combination of multiple arts, but also the ability to express higher truth beyond speech, beyond music itself, has been doubted. Yet music and sound in video games can be crucial carriers of information: They support the atmosphere, anticipate events or provide feedback to the player. In this way they are, either to a greater or lesser extent, an important part of the game interface.

How exactly do music and sound perform this function? What is the relationship to the further arts involved? This paper shall approach these questions from a musical aesthetic viewpoint, using methods of semiotics, semantics, musicology and music theory.
Websites like AutismGames offer online ‘serious games’ or ‘educational games’ for people (especially children) with Autism Spectrum Disorders (ASD). But all respondents in my survey indicated that they prefer to play casual games. Research on neurotypical persons has shown that casual video games also improve mood and decrease stress (Russoniello, Fish, O’Brien, Pougatchev, & Zirnov, 2011; Russoniello, O’Brien, K., & Parks, 2009a, 2009b; Ryan, Rigby, & Przybylski, 2006). Could this also be the case for people with ASD?

My own experiences as a high-functioning Aspergirl, in researching autism and in teaching the piano to autistic children, have ignited me with a wish to understand what is so soothing about casual games, especially in the variant that can be described as ‘sound toys’.

Combining anecdotal evidence with survey research, embedded in literature, this article will answer the question ‘what is so appealing about sound toys, that autistic people like to play (with) them?’ All respondents were asked to play Ariel’s Symphony, a Disney mini-game in which the player can combine various musical fragments. The little mermaid Ariel is happy with everything the player does and the game cannot end itself. That could mean that Ariel’s Symphony is not a game, for a game should have an in-game goal (Suits, 2005). But if it is not a game, then: what is it? And why would people with ASD be so happy to play (with) it?

In order to answer these questions, this paper will explore the personal goals of “playing” this “game” for people with ASD.
Musical entrainment is widely recognised as occurring in a variety of situations (Merker, 1999), ranging from music listening (Large & Kolen, 1994), ensemble performance (Huron, 2001), armies marching in step (McNeill, 1995), and mother-infant bonding (Feldman, 2007). As a result it appears to be a universal and fundamental human trait (Philips-Silver, 2009).

Entrainment has been linked to feelings of enjoyment and pleasure (McNeill, 1995), the ability to perceive time (Clayton et al, 2005), and the loss of awareness of surroundings (Woody & McPherson, 2010). The implications of this are that entrainment can be linked to experiences of flow (Csikszentmihályi, 1992), thought to be a key motivational factor for engagement in video games (Stevens & Raybould, 2014).

There is anecdotal evidence to suggest that musical entrainment occurs during video game play, but to date there has been very little work conducted in this area (Phillips-Silver, 2009). However, links can be drawn between the rhythmic interplay of the game and player, and the overall play experience (Costello, 2016). The majority of entrainment studies tend to focus on relatively simple movements, such as finger tapping (Repp, 2006), rather than more complex whole-body movements. As a result their findings are directly applicable to video games where the input movement tends to be a button press or joystick movement.

So, if entrainment does indeed occur within video games, then its successful facilitation should lead to a more enjoyable experience for the player.

This presentation will provide an overview of current research into musical entrainment and what parallels can be drawn to the field of video game music. It will also discuss a study that aims to investigate the extent to which entrainment occurs within video games, and what affect the phenomenon has on playing style, as well as provide some ideas as to what may impact on the likelihood of entrainment occurring.
17. Andra Ivănescu:
'Beneath a Steel Sky: A Musical Characterisation of Class Structure'

The authoritarian metropolis with its rampant social inequalities plays an important part in video games. From the Midgar slums of Final Fantasy VII (1997) to the elvish ghettoes in the Dragon Age series (2009–2014), visions of poverty act as confirmation of the need for a player-hero to intervene. This paper seeks to contextualise the class structures in Revolution Software’s Beneath a Steel Sky (1994) within the wider depictions of class in videogames, while also drawing on Henry Jenkins’s ideas on the political unconscious (2012) and his analysis of the class-based environments in Jameson’s Chinese Universes (1999).

Revolution Software’s 1994 cyberpunk adventure game takes place in a Ballardian literally stratified metropolis; the three levels of the city reflect the social classes of the inhabitants, with the working class occupying the industrial top layer, the middle class occupying the middle level, and the upper class occupying the ground floor, away from the pollution of the upper levels. Each of these levels has its own individual sound, from the harsh rhythm of the working-class level, which blends seamlessly with the industrial sounds of the factories, to the much more diversified soundscape of the city’s upper-class level, which also boasts a bar with a live band, as well as a jukebox.

This paper will analyse these soundscapes from a semiotic perspective (e.g. Tagg, 2012), while also drawing on Jenkins’s ideas on the political unconscious. The 1994 cyberpunk adventure game takes place largely in a Ballardian literally stratified metropolis, and analyses how the class-based environments in the game reflect and express the social, political, and environmental concerns of the 1990s. Within the wider depictions of class in videogames, Beneath a Steel Sky (1994) adds to the rich tapestry of social inequality in video games, from the Midgar slums of Final Fantasy VII (1997) to the elvish ghettos in the Dragon Age series (2009–2014). The authoritarian metropolis with its rampant social inequalities plays an important part in

A Musical Characterisation of Class Structure

Beneath a Steel Sky

Andra Ivănescu
The musical affect and literacy dimensions — applying the AIL model (Isabella van Elferen, 2016) — stress music’s role in aesthetic experience in videogame worlds created by foreign designers; by that children players could experience in videogame worlds created by foreign designers, by their condition of openness to their context, whether natural or social. Thus, videogames are a more recent iteration of an aesthetic-human activity that has a normative moment, and is expressive of a particular ethical-mythical nucleus (Ricoeur, 1999). That Ernesto Dussel explains as “el complejo orgánico de posturas, concretas de un grupo ante la existencia” (1975, ix).

To that effect, I will do an aesthetic analysis of this three situations, applying a model of cultural-aesthetic human activity that, as all human activity, has a normative moment, and is expressive of a particular ethical-mythical nucleus (Ricoeur, 1999). That Ernesto Dussel explains as “el complejo orgánico de posturas, concretas de un grupo ante la existencia” (1975, ix).
This paper aims to define and bring a historical perspective of aleatoric music composition relating to terms like chance music, dice music game, open music form, mobile music form, procedural music, undetermined music, among others and to discuss some possibilities in the computer games field using audio middlewares like FMOD Studio, Wwise and Pure Data in order to create a more immersive audio experience for the player, avoiding excessive music repetitions, using less music material and computer memory. During the presentation I demonstrate the different compositional processes applied in the Audio Game Breu, a thriller computer game using only audio resources implemented in the audio middleware FMOD Studio, middleware that allows the creation of audio adaptability according to the definition of game parameters. Considering the particular way of creating music for games using non-linear materials in the form of loops, differing from linear media like movies and animation, the continuous growth of the game industry and the new audio technologies brought by vr devices, it is important to investigate new ways of creating and providing music to games in order to bring a more immersive experience to the player.
19. Peter Smucker:
'Gaming Sober, Playing Drunk: Sound Effects of Alcohol in Video Games'

This paper develops a framework for associations between sounds, video games, and alcohol. Some recent studies (Kowert and Quandt 2016; Cranwell et al. 2016) examine concerns regarding representations of drugs and alcohol in video games, while others (Montgomery 2006; Schultheis and Mourant, 2001) use Virtual Reality to simulate intoxication. These studies primarily focus on the presence and stereotypical use of alcohol, but offer little attention to related sounds and music, or the increased integration between sound design and game-play. This paper lays historical, cultural, and music-theoretical groundwork for creating an associative soundscape of alcohol in multimedia experiences, particularly video games.

I first define four primary areas of inquiry into sonic representations of alcohol in multimedia: 1) Sound Iconography, which highlights representative sounds of objects and personal behaviors; 2) Sound Environments, or unique sonic locations and settings; 3) Musical Depictions of Drunkenness, such as the use of specific orchestrations and cultural influences; and 4) Simulation of Intoxication, which looks specifically at altered sonic perceptions and experiences. I then demonstrate attributes of these four features through examples from the following video games (and other media): Bioshock; Red Dead Redemption; the Final Fantasy franchise; Warner Brothers’ cartoon High Note; World of Warcraft; a 2017 advertisement series for Busch beer; and others. I conclude the paper by considering a larger context of sound and music studies related to alcohol, drugs, and addiction.
Luiz Roveran: ‘Sound and Arousal in Casino-Theme Video Games: A Compositional Approach’

Sound and ambience have been widely considered as major factors of player engagement for casino games (Dixon et al., 2013; Griffiths & Parke, 2005; Marmurek et al., 2007). This research also intends to discuss differences between soundtracks in gambling and physical betting machines. Research also intends to discuss differences between soundtracks in gambling and physical betting machines. Arousal, according to Brown (1986), is the major reinforcer of gambling behavior. According to Brown (1986), is the major reinforcer of gambling behavior. Sound and ambience have been widely considered as major factors of engagement for

**Compositional Approach**

*Sound and Arousal in Casino-Theme Video Games: A*

Luiz Roveran
capital and visibility on online platforms.

Key aspect of design, production, and usage this material as a way of expanding their social
life, the virtual worlds presented in these two objects, placing the immersion component as a
feature in social context. Intersecting playbour, fandom, and immersion and auditory
construction of reality, in which the gamers are living, playing and negotiating meaning in
not only to the sound quality of all the aural effects, but especially regarding a plausible
construction of reality, in which the gamers are living, playing and negotiating meaning in

"Immerse sounds", many modders aim to provide a more immersive experience to other

The Nexus Mods platform for the The Elder Scrolls IV: Oblivion and The Elder Scrolls V: Skyrim
platform has demonstrated the existence of a new model of online platform such as Soundcloud, YouTube, and specifically in the forum of modification threads

Mods for The Elder Scrolls in the Nexus Mods Platform

When Audio and Immersion Collide: On Sound and

20. Joana Freitas:
Session 7 – Sonic Engagement
Day 3, 15th April 2018
22. Kenneth McAlpine and James Cook:
'The Odeon: Using Virtual Reality to Create Immersive Musical Experiences of the Past'

Our presentation focuses on sound and music as key – though often neglected – points of interface in VR experiences, and how the technology of VR gaming might be used to reconstruct historic performances and spaces, situating both audiences and performers in a shared virtual auditorium to connect and share the ephemeral elements of music performance that might otherwise be lost. In the last few years, Early Music has grown in popularity. With audiences increasingly demanding ‘authenticity’, there has also been a concerted effort to create historically-accurate performances, featuring musicians in period dress performing on period instruments, and on occasion performing in physical reconstructions of period venues. While this approach has clear benefits – it offers new experiential perspectives on Early Music and its performance – it also has its limitations; physical spaces are expensive to build, and very difficult to modify and investigate systematically, and by performing in venues that have been custom-built for these concerts, geographical limits are imposed on potential audiences. This is where VR technologies have real potential. Our project explores how they might be used as a platform for investigating historical performance spaces and the music that was performed within them. Using a mixed methods approach, combining 3D modelling, acoustic modelling, ambisonics and immersive interfaces, we are recreating two virtual auditoria – St. Cecilia’s Hall in Edinburgh and the Chapel at Linlithgow Palace – and recreating performances from historical records. In our presentation, we will discuss in detail our approach to modelling, highlighting the key psychophysical cues that encourage and inhibit presence and immersion within the virtual space, the implementation of different aspects of the virtual auditorium, and some of our preliminary findings. We will conclude by discussing emerging lines of enquiry and how these have shaped the next phase of the project.
Keynote Address: Michael Austin

Michael L. Austin is Assistant Professor of Media, Journalism, and Film at Howard University in Washington, D.C. where he teaches radio production, audio for TV and film, audio engineering, and music technology. He is a member of the Laboratoire Musique et Informatique de Marseille [MIM] (Music and Informatics Laboratory of Marseille, France) and a specialist committee member of the Ausschuss zu 'Musik, Marketing & Brands' [Working Group on Music, Marketing and Brands], Gesellschaft für Musikwirtschafts- und Musikkulturforschung e.V. (GAMM) [The Society for Music Economics and Music Cultural Research], Berlin, Germany. His research interests include sonic culture, sound and music in emerging media (especially video games and music videos). He is an editor in Chief of the journal Evental Aesthetics, and his work as a sound engineer and producer has been released on the Albany Records label. He is editor of Music Video Games: Performance, Politics, and Play (2016, Bloomsbury) and is currently working on a monograph on representations of subalterity in music videos (Oxford).
Mathew Arnold: 'Inside the Loop: Audio Functionality in Inside'.

The manner in which soundscapes evolve and change during gameplay can have many implications regarding player experience. Playdead's 2016 release INSIDE features a number of gameplay sections in which rhythmic audio cues loop continuously both during gameplay and player death. During these sections the game will wait to respawn the player at an opportune moment during the loop. This paper uses one such section as a case study, building on the ideas put forth in Bash (2014) regarding spectromorphology in games to examine the effects of transitioning from diegetic sound effects to abstract musical cues on player immersion, mastery and narrative cohesion. The "musical suture" (Kamp 2016) created by continuously looping audio during death and respawn is also examined with regard to continuously looping audio during death and respawn is also examined with regard to continuously looping audio during death and respawn.
Research has shown that peak emotional responses to music are often associated with

Session 8 – Composition and Design


Immaterial ambiguity.

point the way towards the compositional holy grail – music that is both vectorised and

motion rather than phrase based structures as products of indeterminacy and

characteristic of active game music, revealing harmonic chaos, musical ambiguity and

musically jarring transitions (Munday, 2007). This paper attempts to examine the stylistic

since the compositional clarity is likely to lead to

is highly problematic given the aesthetic preference for smoothness (Medina-Grey, 2016),

and creation of a feeling of imminence and expectation (Chion, 1994: pp. 13–14). Outside of

vectorized, „sound vectorizes or dramatizes shots, orienting them towards a future, a goal.

Research has shown that peak emotional responses to music are often associated with

Stasis, Ambiguity, and the Infinite Riser in Video Game Music
Scoring interactive experiences, such as video games and VR, is remarkably different from creating a film soundtrack. In interactive content, users can choose their own path through the story, whereas in linear content, there is only a single way of progressing. This linear/non-linear dichotomy has a major impact on music. For the music for interactive content to be effective, it has to adapt dynamically to the interactions and decisions of the users.

Video game composers have developed a number of techniques such as vertical layering and horizontal resequencing, which allow the music to respond to the non-linear nature of a game. This is generally referred to as adaptive music. Although at times particularly effective, these techniques are limited both in (musical) scope and to the extent they can match the musical content with the in-experience events on a granular basis.

In this paper, we argue that in order to create video game music that could score the events of interactive content as granularly as linear music does for films, a collaboration between composers and Artificial Intelligence (AI) is necessary. To support this thesis, we introduce the concept of Deep Adaptive Music (DAM), wherein music is generated in realtime directly in the experience. The resulting collaboration between an AI and a composer augments the possibilities of traditional adaptive music by enabling infinite variation, and complex musical adaptation. We present some examples of DAM and also discuss preliminary results of a psychological experiment, which indicate that DAM is able to significantly increase engagement of VR players.
Spatial characteristics of music have been recognised and exploited in the West since the early Christian antiphony and became clearly defined as parametric elements during the 20th century. American composers began experimenting with the use of space in composition during the early 20th century – these experiments were eventually encouraged by a national drive to create participatory, democratic forms of art, in opposition to fascist authoritarian modes of communication. Fred Turner coined the term ‘Democratic Surround’ to describe these new media models – multi-image, multi-sound source environments created by artists associated with the 1960s counterculture, and designed to model and produce a more democratic society. Contemporary mass media is directly connected to these media practices that emerged during the 1950s and ‘60s but are also expressions of something different – a ‘Commercial Surround.’ We are surrounded by media and music but not in the way that John Cage or La Monte Young envisioned. Video game music surrounds the listener too, but the impetus to design these enveloping audiovisual environments doesn’t come from the confrontation with fascism – it comes from an overarching media and consumer culture. This paper explores the spatial deployment of music in video games, its connections with the ‘Democratic Surround’ and how it can be analysed in the context of contemporary algorithmic culture. Examples from contemporary games and my own spatial music experiments in Unreal Engine will be used to illustrate.
Luís Marcelo Franca: "Ashen One, Hearest Thou My Voice, Still?": On Soundscapes, Music and Narrative Design in the Soulsborne Series

The Dark Souls and Bloodborne series is notorious for its difficulty and challenge employed by the unique mechanics and concepts behind its peculiar narrative. Through the application of a sound and silence dichotomy, the player is presented with a constant need to carefully inspect the environment through sound and, in key moments, through music. For that reason, the Soulsborne's soundscape and music are very important pieces to the puzzle of the overall gameplay and as the establishing factor of the game's atmosphere within the horror, gothic and epic Cosmism and how it affects the gamer's agency within the digital world. Secondly, the crossover between Victorian, Gothic and Medieval archetypes are conducted through music which sets the mood and into several locations and characters, mainly in boss fights, laying the foundation for the sound vs silence dichotomy as a way of absorbing the player into the character's aesthetic and creating a sense of immersion throughout the entire game's atmosphere.

The Dark Souls and Bloodborne Series' soundscapes and music are not only integral elements in the gameplay, but also in key moments, through music. For that reason, the player is presented with a constant need to carefully inspect the environment through sound. Through the application of a sound and silence dichotomy, the player is immersed into the game's narrative by the engaging mechanics and concepts behind its peculiar mechanics. The Soulsborne's music is based on specific tropes within the horror, gothic and epic musical imagrye, and yet it deconstructs the usual functions of music in videogames, defining itself as a crucial element in the overall gameplay and as the establishing factor of the Soulsborne's soundtrack.

My paper is based on two relatable hypotheses, the first being the employment of the sound and silence dichotomy as a way of absorbing the player into the character's standpoint, allied to Daniel Vella's "ludic sublime" (2015), the application of Lovecraft's "兮eerie aesthetics and general cleanness are carried out to the strategic sounds of steps, weapons and general cleanness are carried out to the strategic sounds of steps, weapons, and general cleanness are carried out to the strategic sounds of steps, weapons, and general cleanness are carried out to the strategic sounds of steps, weapons, and general cleanness are carried out to the strategic sounds of steps, weapons, and general cleanness are carried out to the strategic sounds of steps, weapons, and general cleanness are carried out to the strategic sounds of steps, weapons, and general cleanness are carried out to the strategic sounds of steps, weapons, and general cleanness are carried out to the strategic sounds of steps, weapons, and general cleanness are carried out to the strategic sounds of steps, weapons, and general cleanness are carried out to the strategic sounds of steps, weapons. Years.

The crossover between Victorian, Gothic and Medieval archetypes are conducted throughout the entire game's atmosphere, establishing the foundation for the sound vs silence dichotomy as a way of absorbing the player into the character's standpoint, allied to Daniel Vella's "ludic sublime" (2015), the application of Lovecraft's Cosmicism and how it affects the gamer's agency within that digital world. Secondly, the application of a sound and silence dichotomy as a way of absorbing the player into the character's standpoint, allied to Daniel Vella's "ludic sublime" (2015), the application of Lovecraft's Cosmicism and how it affects the gamer's agency within that digital world.

Music and Narrative Design in the Soulsborne Series: "Ashen One, Hearest Thou My Voice, Still?": On Soundscapes,
Miriam Akkermann, Christian Stein and Jens-Martin Loebel: 'Feels Almost Like in Reality? Audio in VR'

The use of "virtual reality" VR-technologies is rising in computer games, but also in research fields like psychology and cognitive science. One reason for that is the wide range of new possibilities that opens the scope of the game itself, such as: How can and/or should we interact with and explore the world? How can we use VR for training and education? How do spatial audio and VR-visual interact? How can we influence the perception of space by audio and visuals in VR? How can we use VR for training and education? How do spatial audio and VR-visual interact? How can we influence the perception of space by audio and visuals in VR?

In our project, we ask if it is possible to come as close to reality with VR technology and 360° audio that we can develop a serious game for ear/perception training on VR. The content was filmed and recorded at several indoor and outdoor locations in Berlin and Bayreuth with a 360° GoPro rig and a 360° microphone prototype developed by TU Berlin. Each level is bound to a new location, in which the player has to solve perception tasks, such as matching the direction of the audio to the visual, dismissing the filtered audio in order to find the "real" sound, etc. The game design is based on the idea of an escape-room concept. It is meant to be motivating and entertaining, but at the same time train the participants for a differentiated auditory perception.

In our project, we ask if it is possible to come as close to reality with VR technology and 360° audio that we can develop a serious game for ear/perception training on VR. The knowledge transfer from our daily life, we know that our spatial orientation is influenced by the audio-visual works. From our daily life, we know that our spatial orientation is influenced by the audio-visual works. From our daily life, we know that our spatial orientation is influenced by the audio-visual works. From our daily life, we know that our spatial orientation is influenced by the audio-visual works. From our daily life, we know that our spatial orientation is influenced by the audio-visual works. From our daily life, we know that our spatial orientation is influenced by the audio-visual works. From our daily life, we know that our spatial orientation is influenced by the audio-visual works.