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THE FUTURE OF CULTURE'S POWERHOUSES: ON THE ACCESSIBILITY, VIABILITY, AND DESIGN OF HYBRID PERFORMANCE

ABSTRACT

This essay discusses some introductory but crucial observations on the potentials of hybrid live performances in terms of their accessibility, viability, and design. Its arguments emerge from the artistic work and research carried out in the project LiDiA (Live+Digital Audiences, 2021-23). The said project critically reimagines the operational dynamics of mid-size and small performance venues in Finland – frequently the powerhouses of emergent cultural innovations – and their capacity to cater for wide and diverse on-line or virtual audiences in addition to the limited audiences reaching the venues in person. Resource intensive to begin with, the hybrid operating models require constant and well-planned curation of different design and artistic methods, revenue logics as well as related technologies and media. The essay discusses the nature of some of these challenges and suggests ways to prepare for them in the context of digital innovations developed by mid-size and small performance communities.

TIIVISTELMÄ

Essee esittelee alustavia mutta tarpeellisia havaintoja elävien hybridiesitysten saavutettavuudesta, toteuttamisesta sekä suunnittelusta. Sen näkemykset ovat syntyneet LiDiA-projektissa (Live+Digital Audiences, 2021-23, lidia.fi) tehdyn taiteellisen työn ja tutkimuksen pohjalta. Projekti hahmottelee pienten ja keskisuurten suomalaisten esitystuottajien digitaalista toimintadynamiikkaa ja erityisesti niiden mahdollisuuksia palvella laajoja virtuaaliyleisöjä fyysisesti paikalle saapuvien yleisöjen lisäksi. Hybridit toimintamallit vaativat jatkuvaa ja perehtynyttä suunnittelua taiteellisten menetelmien, tuottajien ansaintalogiikan sekä erilaisten teknologioiden ja medioiden kuratoinnin suhteen. Teksti pohtii tähän suunnitteluun liittyvien haasteiden luonnetta ja ehdottaa samalla tapoja valmistautua niihin.

BACKGROUND

The global crises of mobility and togetherness induced by climate change and the COVID-19 pandemic have concretely shown that cultural and creative businesses, institutions, and entrepreneurs that rely on the presence and accessibility of live audiences need alternative or more diverse operating models. Many of these are based on digital development. It is our view that the new digital models should be put into effect not only at times of widespread distress and limited mobility, but also with a vision to holistically secure and enhance the resilience, sustainability, and diversity of the said communities and their cultural impact.

Events, venues, and festivals that wish to reach and serve large-scale audiences must seek for ways to engage people with means that produce less emissions and health risks. Therefore, the live arts may need to challenge the prevailing ideas of mega-events and to build upon the resilience and the sustainability fostered by smaller cultural initiatives based on hybrid interactions and related operating culture. To enable and reach such aims, one needs to investigate not only the most effective but also the most hard-pressed environments and policies to test and envision the hybrid dynamics, that is, the operations combining virtual and concrete workflows to enable audience participation and outreach.

One provisionally informative but still challenging option in terms of commercial and artistic resources is to examine the related potentials of small and mid-size performance venues – those with maximum audience capacity from 200 to 1000 people – in extending their operations and audience base onto virtual platforms and environments. Firstly, they hold the key to the said potentials through strong focus on the quality and the impact of their live events on-site. As upholders and often reformers of the overall dynamic of culture and the live arts (theatre, music, dance, circus, and so forth), these communities may set the course and the horizon for what can be achieved within and around artistic ambitions and the social realm in the hybrid era. The pragmatic side of the equation arises from the venues' need to keep track of emerging opportunities in audience and content development to widen the scope of their services. At the same time, their main challenge in extending the on-site operations onto virtual platforms is how to invest cost-effectively and feasibly in required changes in logistics, spatial and technological arrangements as well as energy consumption with mostly moderate revenue from individual events. For example, the transition of smaller venues in the performing arts to “super-low carbon practices,” especially through reactive rather than proactive processes, may require considerable external support at the level of policies and financing.¹

The above landscape is the operational context of the project LiDiA (2021-23), funded by the Kone Foundation. The project hosts a team of artists, artist researchers, and professionals of live arts production who, through artistic and production-related development, seek to resolve just how, why, when and with which social attributes the hybrid operating model(s) should be used and how they would cater for the needs of different live arts genres and participants.

The project's initial work processes suggest that employing hybrid operating models depends on several interlinked factors. These include the potentials of existing and emerging technologies and their compatibility with different social platforms and media environments (such as Snapchat and other social media as well as AltspaceVR, VRChat, NeosVR, and other virtual platforms) and,

¹ Jones, McLachlan and Mander 2021, 3.

consequently, with required know-how and resources in venue management, audiovisual production, the music industry, the whole spectrum of the performing arts, and extended reality (XR) production.

THE AIMS OF LIDIA

Instead of presenting here a thorough introduction to the above field or even the project LiDiA itself – its lines of study and development or its various partners (including Tullikamari cultural venue, Tampere Theatre, and culture house Telakka in Tampere, Finland) – this essay unpacks some of the initial challenges involved. As the hybrid operating models are resource-intensive to begin with, they require well-planned curation of related design and artistic methods, new approaches to how to secure income through them, as well as perceptive use of technologies and media. Below, we map out the nature of some of these challenges and suggest ways to prepare for them in the context of digital innovations developed by small and mid-size performance communities.

While in the future writings we aim for a more detailed theoretical reflection on the peculiarities and the genealogy of our notion of hybrid performance – revisiting the archaeology of relevant questions of virtuality, presence, and liveness,² for example – the paper at hand addresses the pragmatic circumstances the professionals of the live arts may currently engage in probing the potentials of hybrid activities. Hence the essay format. There is a consensual view within our team, related to the general condition of mediatization and independently of whatever requisites are set for defining live performance, that forms and modes of live production partake in a culture of “mediatized intertexts.”³ The hybrid *praxis* therefore contributes to an already interactive and dynamic field of analogue and digital media that strive to operate beyond the suggestion of simulating or mediating some specific understanding of liveness. Therein lies one central motivation for our project and the theoretical landscape that serves the aims of the present arguments. Questions and challenges related to intermedial or multi-platform practices and telepresent embodiedness prevail, as Barbara Fuchs’ account of lockdown productions and Fintan Walsh’s take on pandemic transhumanism suggest,⁴ but our current focus is on the venues’ post-pandemic readiness to adopt and modify potential hybrid policies.

Further discussions on themes such as concrete artistic methodology in creating hybrid events or the future impact of the metaverse (the globally networked and immersive environments of virtual interaction)⁵ will be, likewise, addressed in our future writings. For now, suffice it to say that the project LiDiA is oriented towards examining the potentials of what could be called the ambiverse – the interactive realm combining the physical site of performance with a parallel, virtual *mise-en-*

2 Such enquiries require addressing and updating the philosophies of the virtual (from Bryant and Pollock 2010 onwards) and the early mappings of mixed reality performance (Benford and Giannachi 2011). Presence as a question of environmental dynamics (explored in Giannachi 2012, for example) and the problematisation of liveness (Auslander 2008) remain issues that strongly affect the hybrid orientation as well. In a later deliberation Auslander (2012, 7-9) writes, in the wake of Gadamer, about our adaptation to “digital liveness” as responding to and agreeing with a “claim” of liveness that employing even the most autonomous and algorithm-driven interaction or communication technologies may generate, often with an interhuman agenda. This setting can be considered also as a default condition of hybrid performance, even when it does not constitute any central motive for a given production. It does, however, constitute a certain environmental dynamic and thus a test site for what composes presence.

3 Power 2008, 155. The emphasis here is on mediatization as a term describing the widespread cultural exposure and adaptation to interacting with and through various media, along with related questions of mutual influencing. Moreover, instead of intertexts we might also need to discuss interbodies or interembodiments in the contexts of XR and hybrid performance, as they both rely on the human sensory system’s capability to observe, navigate and grasp realms not fully compatible with the physical traits of the everyday.

4 See Fuchs 2021 and Walsh 2021.

5 A short introduction to some recent explanations of and discussions on the metaverse can be achieved through sources such as Welsh 2022, Purdy 2022, and Escudero 2022.

scène or audience space – as well as its impact on related experience economies.

Albeit major producers of the cultural capital and related revenue for artists, production professionals, and organisers (along with the travel and leisure industries, excluding the pandemic restrictions here), events held at stadium-size indoor venues require considerable investment in interpersonal safety and ecological compensation.⁶ It is also challenging to determine how much sustainable social outreach or interaction the large-scale events provide for the surrounding community beyond the events themselves.⁷ At the same time, the changes in production systems that better address ecological and safety issues often prove to be more feasible for these bigger organisations with more robust solvency. However, smaller venues equipped with extensive, international, and oftentimes digitised networks and interfaces may provide the cultural sphere – also and especially in co-operation with the mentioned large-scale venues – with an alternative operating regime that sustains new kinds of ecological and social principles through ongoing hybrid arts services. They often have the capacity to host and collaborate with international high-end performers, events, and festivals while providing irreplaceable cultural service at national and local levels as hubs of artistic and social activity.

These powerhouses of culture already maintain high artistic standards and often intimate understanding of the needs of different audiences, including those affected by limited mobility or means of participation (for example, people with disability diagnoses), social and linguistic challenges (marginalised groups and individuals), and restricting ecological or geographical factors (those in need of remote presence services). In times ahead, small to mid-size culture houses may also provide the live arts with opportunities to employ a wide and increasing range of artists and production staff in hybrid operating environments and to generate a positive need for new artistic professions (under titles such as hybrid designer or co-location manager). The hybrid form of live production may attract expertise provided by professionals trained in other fields of cultural and social innovation, such as game design as well as AR/VR/MR/XR⁸ operations and management. It is precisely because of this far-reaching but compact dynamic that the future means of the live arts benefit from engaging locally active arts experts and institutions that have wide co-operation potential and history, both nationally and internationally.

While this approach may enable more sustainable cultural experiences as regards climate emissions, the said aim is immediately dependent on, for example, factors such as server capacity and related energy consumption needed to produce the hybrid services. The scope and impact of these factors need to be carefully studied to establish the ecological or carbon footprint the services generate in comparison to more traditional forms of production as well as to those generated by the abovementioned large-scale venues, let alone mega-events.⁹

The project LiDiA will approach the described artistic, social, and structural change with an artistic scheme that is, by default, based on combining the corporeal and the virtual in and as live activity, and aims to bring together relevant culture houses and their partners at a potentially global

6 Moritz, Gottschick, Horn et al. 2021; Connolly, Dupras and Séguin 2016, 123-4.

7 Mair and Smith 2021.

8 By these abbreviations we refer to different forms of augmented, virtual, mixed, and extended reality.

9 Estimates and reports on the carbon footprint of different forms of media production and use are available on-line. One such source is the CarbonBrief: Clear on Climate website. George Kamiya (2020), a digital/energy analyst for the International Energy Agency in Paris, reports on the said site that although the ecological stress of media streaming services might be much more modest than often estimated, the consequences of “slowing efficiency gains, rebound effects and new demands from emerging technologies, including artificial intelligence (AI) and blockchain, raise increasing concerns about the overall environmental impacts of the [media] sector over the coming decades.”

level. Serving diverse audience bases from all around the world could, hopefully, be interlinked with intimate, manageable, and safe events that are based on high artistic demands and a variety of audience profiles. Next, we will examine related questions of accessibility, viability, and design, which not only serve as the main challenges of the described evolution but also help focus the operations that guide its actualisation.

ACCESS: ENVISIONING HYBRID AUDIENCES AND THE CLUB-365 CONCEPT

By diversifying the forms and models of events production and the audiences' experiences, a hybrid concept of performance may help the cultural industries to better maintain their relationships with different audiences and thus to enhance the resilience of the creative sector.

A central starting point for the said concept is therefore access to the cultural services it provides, as well as the import of those services. In this essay, accessibility and access serve as umbrella terms for the participatory potential of hybrid events and services in terms of how and why they should be accessed. The question of access – along with the related questions of social and functional inclusion and diversity – has not initially been one envisioning the ethical, technical, or practical details that guide the principles of hybrid production with view to, for example, vulnerable or marginalised groups or individuals. These aspects of audience outreach and service are often already acknowledged and advanced in various operations of small to mid-size event producers. They provide further guidelines for what kinds of inclusive practices the hybrid activities need to cater for. The primary aim of the project has thus far been to map out the hybrid production models to determine which forms of parallel on-site and on-line access to live events would be feasible and relevant in terms of their general appeal.

A central concern has been the venues' capacity to engage audiences in ways that help sustain likely participation in ongoing modes of hybrid production and performance. At the beginning of 2021, the project's working group devised a design process that employed a modified SWOT matrix to determine the participation potential of partly imagined samples of audience members. The profiles of the samples were based on actual people the working group knew, or on the group's professional experience of live arts events and related knowledge of existing audience interests. This approach helped the working group to form a list of attributes contributing to various motivational factors of spectatorship that could be creatively discussed further. Altogether twenty-three sample profiles were created based on five main components of 1) age (along with potential gender identification), 2) life situation (including place of residence, family, and hobbies), 3) needs and causes of distress, 4) relevant social affects and secrets as well as 5) status and motives as a consumer of culture.

Regrouping the profiles according to the above components led to identification of factors that could affect and inform the willingness to access and participate in live events that enable (preferably long-term) hybrid engagement with their contents. We were able to compose a qualitative framework for the so-called club-365 concept, which structures the long-term patronage of hybrid live events according to the audience members' A) potential of interest (which denotes their own involvement and visibility within or in relation to an event, including their potential role as content producers; the qualities of related experiences and whether the primary passions of the audience

members relate to the event itself or some additional activity) and B) technological orientation (the access to and the usability of related, available technologies, including portable or provided devices and their interfaces). In short, the latter factor relates to how, why and for what purpose the audience members would participate in a hybrid event or use a hybrid service.

The mentioned attributes of the club-365 patronage are then further influenced by the audience members' C) social orientation, which includes the personal significance of friends, family, or some other close circle of peers in consuming culture; the role of anonymous peers or peer-groups in experiencing events and, finally, the features of subjective spectatorship. Together, the attributes form D) the operational environments of ongoing, virtually extended patronage. They may assume the form of satellite events (with concrete sites, near or afar, where streamed live events can be experienced remotely with a possible group of peers), always-on culture (the ongoing virtual and on-line services of a venue), a live event in XR/VR/video games environments (such as *Fortnite*) and an on-site live event with integrated or synchronised XR elements.¹⁰

Versions and variations of these environments, together with a sustainable concept of ongoing service of patrons, may compose a culture of hybrid events that defines, during and after pandemic conditions, how the above aspects of access inform future consumption of the live arts. A central variable here is the degree of social interaction that depends on the perceived presence of peers in and through the hybrid environments. When the profiles of patrons produced with the SWOT matrix were set against the discovered attributes and the operational contexts of potential and partly existing hybrid services, they seemed to settle mostly in the area where social orientation – that is, the assumed presence of fellow spectators from different categories of peers (friends, family, fanbase et cetera) – determines, if not dictates, the potential of using the hybrid services of small and mid-size venues identified above. As for the impact of this observation on the viability and the operational requirements of hybrid events and services in the live arts, it remains a clear challenge that also provides the key to choosing the most feasible platforms and technologies for engaging the audiences in a sustained manner.

VIABILITY: WAYS OF PERCEIVING THE OPERATIONAL AND REVENUE PRINCIPLES OF HYBRID EVENTS

One of the earliest work processes of LiDiA consisted of mapping out the economic sustainability of hybrid event production. This process was conducted with a customisable (subcontracted) schema suitable for assessing the different methods of production and audience outreach envisioned: satellite

¹⁰ Live streams of performances that replace on-site events and experiences have come in all shapes and sizes throughout the pandemic. For example, Tampere Theatre, a partner venue of the project LiDiA, produced a set of live-streamed performances available through web browsers during the COVID-19 closure of cultural services in 2020 and 2021. These productions also served the on-line audience with additional, hosted content for the intermissions as well as before and after the shows. The productions included streamed versions of Dickens' *Saiturin joulu (A Christmas Carol)* and Bulgakov's *Saatana saapuu Moskovaan (The Master and Margarita)*. As for the term always-on culture, the pandemic has been quick to produce expert views and writings on the re-organisation of the events economy. The term thus relates here to the observations on the feasibility and viability of virtual and hybrid events by Denzil Rankine and Marco Giberti in their book *Reinventing Live: The Always-on Future of Events* (2021, 19, 61-64). The authors focus on meetings, conventions, and exhibitions, but many of their thoughts on production costs and participant outreach could be applied to live arts events as well. The case of *Fortnite* (a video game released in 2017) refers here to the live concert events held by the artists Marshmello (2 February 2019) and Travis Scott (from 24 to 25 April 2020) in the said game environment for the player-avatars present. Finally, the on-site live events augmented and extended by virtual platforms and technologies will be discussed in more detail in our future writings, as the development cases with our partner venues produce a more comprehensive succession of artistic, productional and economical questions.

events, models of always-on culture, live events in remote XR environments, and on-site live events with integrated XR elements.

Through examining variables related to different production formats including their costs and the audience capacities they implied, the schema helped to determine one central observation: In proportion to the potential audiences reachable through hybrid methods in Finland – while considering the audiences' technical readiness and the sustained costs of hybrid performance production – digitally extended and distributed live events pose a challenge of economic viability for small and mid-size venues. It seems that the viability and financial sustainability of hybrid services must be assessed mostly in an international context and especially in relation to a global frame of hybrid service consumption when considering the participatory potential of and the interfaces used by the audiences. This is due to the anticipated revenue models the hybrid operations require and enable.

As noted above, social orientation and related additional value are crucial aspects of the hybrid patronage and thus of the income it may produce for the venues. Within this social scheme, such factors as continuity, individualisation of the hybrid experience, and participation through audience-based content production can be considered as further incentives for attending the events, on-site or on-line. Sustenance of the above incentives, in turn, requires sustained contact with different types of audiences and audience bases in addition to the various personified needs they contain. Related activities entail a steady flow of income from patrons and secure cost efficiency to remain active and in sync with the non-hybrid activities the venues keep up.

The satellite events that are based on remote participation in a live event (potentially with peers) from locations near or afar appear not to fit this setting very well. Difficult to support in terms of 1) ongoing and meaningful customership, 2) experiential quality and pull (when streaming performances through screen-based interfaces), 3) current copyright policies, 4) communication with and between the satellite venues or locations (including questions of linguistic and cultural diversity), 5) technical set-ups, 6) allocation of staff and other resources, 7) reliable data connections, and 8) reasonable fare collection arrangements, the events are more suitable for nonrecurring or short-term activities with mostly promotional or event-centered social value. Consequently, they are not likely to produce enough income to become sustainable elements of the club-365 concept, or at least require external funding from other parties with a suitable agenda.

The main challenge with different forms of always-on culture that the venues could uphold – and thus with the customership based on revisiting hybrid events – is choosing a widely applicable ticket sales model for maintaining these activities. In terms of a more traditional approach, the project's options for feasible streams of related income have thus far been monthly licenses subscribed by the patrons, a minor extra fare for tickets to hybrid events, and a separate category of hybrid tickets. All these options, however, require a considerable number of subscribers or eventgoers to become acceptably profitable or cost-effective when compared to the revenue involved. The potential audience-base in a country the size of Finland is simply not large enough to produce income that would make the costs of related content curation, technical and artistic design as well as staff and work allocation feasible for small to mid-size venues. As for larger (global) live audiences in this regard, the complexity and compatibility of related contracts and copyright issues, the effective latency in data connections, and the compatibility of different user interfaces and virtual platforms with venue-specific technologies, for example, remain critical issues for any successful workflow

or policy.

Even if the venues themselves would become customers for hybrid services and events provided by subcontractors for a moderate and thus viable fee – based, for example, on a monthly or an event-based tariff – the equation remains similarly challenging in terms of sufficient number of eventgoers. This applies to artists, ensembles, artistic communities, and booking agencies as customers of hybrid services as well. In the current (presumably post-pandemic) situation the involvement of advertising revenues and sponsorship contracts in the hybrid production model seem to be the only options that would provide more sustainable and recurring streams of income for the venues in terms of the hybrid events produced per month or year.

It is thus no surprise that the role of additional (and often event-specific) or third-party funding is currently vital also for the live events taking place in pre- or purpose-built virtual spaces or video game environments, such as the concerts in a 3D virtual realm by the band Nightwish in March 2021 (technical production by the company Zoan)¹¹ or the *Fortnite* live events on the game platform of the same name over the past couple of years. This approach is descriptive of the present phase of developing virtual or hybrid live events, where different experiments, hypotheses and ventures guide the productions and related content curation without solid, ongoing revenue.

The hybrid live events following a more traditional production format with integrated XR elements – for example, portals and immersive links to parallel virtual sites of performance and spectating – are no significant exception to the financial setting above. Yet, they may provide the venues a platform for developing and designing processes of artistic and technical curation that allow them to study one of the central motivations of this essay – the social orientation and attachment to (and provided by) the hybrid live experience. Below, we will explain some of the aspects currently guiding the project LiDiA through questions of hybrid design with assumed impact on the said social incentives and their technological prerequisites.

DESIGN: IMPLICATIONS OF TECHNOLOGICAL AND CONTENT CURATION AND RELATED ARTISTIC POTENTIALS

The hybrid operating model of the event venues requires that related design processes address the co-existence of multiple spatial and temporal realities throughout the timespan of the events. Thus, at the core of the artistic design process of any hybrid event is understanding the curation of how, when, and for whom these realities appear to co-exist or collide. In this context, and in line with the abovementioned questions viability and accessibility, the early stages of the project's design tasks raise into focus two main elements of enquiry: 1) technology and operational platforms, as well as 2) audience participation and attachment.

When moving between the layers of the physical and the virtual, or the on-site and the on-line event locations, interface technologies and related operational platforms become crucial elements that act as connector points between these layers and realities. They exhibit the crucial role of the culture of “mediatized intertexts” described above and highlight the by now generic space of digital natives, wherein live performance occupies and employs different media without a necessary incentive to question where its qualities become simulated, mediated, or ontologically challenged.

¹¹ For a brief introduction to the show *An Evening with Nightwish in A Virtual World* (2021), please see: <https://www.nightwish.com/news/an-evening-with-nightwish-in-a-virtual-world-announced>.

Yet mostly, the technologies involved cannot be rendered fully invisible or shrouded and thus play an instrumental role in how experiences are generated, extended, or transformed between media. The hybrid setting – as a technological, artistic, and social milieu – participates in constituting a peculiar environmental dynamic (presence) through claims of liveness affected by the functions and protocols of the deployed technologies.

In practice, the interface technologies act as portals between the physical and the virtual; they can be VR headsets, screen-based devices, or technologies that allow one to transfer different parameters across the parallel realities. They facilitate the access to and the modification of social on-line platforms and virtual environments, which, in turn, serve as the virtual sites for the events. This interrelatedness of interface technologies and on-line platforms with the design objectives creates one of the main challenges in creating viable concepts for hybrid events, especially due to the rapid evolution cycles of the said technologies and platforms. The constant shifts in the technological landscape call for design/curating teams who have a deep understanding of its affordances, limitations, and potentials. They must find solutions and concepts that work with the current *status quo* but can be adapted further: The suggested solutions and concepts cannot be based on any specific device or gadget, but instead they must be able to evolve along with the technologies.

The design teams also need to understand how interface technologies transform the audiences' experiences and to consciously choose whether to try and dissolve a chosen technology to acquire maximum immediacy, or to stage and display the technology as part of the experience. At the same time, they must aim to keep the technological threshold low enough to prompt the audiences to participate in the hybrid event in a way that is meaningful to them. Hybrid designers must always seek for a comprehensive vision of what kind of experiences relevant technologies can unlock in the future. Most importantly, they should actively take initiative in developing new technological solutions and participate in envisioning which technologies and methods are needed to realise unforeseen concepts of virtual or hybrid performance. Using existing technologies for the needs of creative and artistic design is not the same as developing new ones with the intention to stretch and transgress the present boundaries.¹²

In addition to the interface technologies, the core design teams for hybrid events need to reflect on the on-line platforms and applications that allow remote audiences to experience the events. This is directly related to the viability of the hybrid production models that go beyond the traditional video streams and include, for example, sites for virtual events. The development of the operational core functionalities of any virtual platform – such as synced networked operations – is often resource-intensive and creating a specific application for a single event is far from being sustainable. To be able to make informed design decisions that lead to viable hybrid models, the design team must constantly explore the ever-evolving landscape of the different media platforms: all this in addition to the need to understand the numerous phenomena of the emerging metaverse in a wider socio-political context.

The core design teams need to be flexible and possess the ability to compose networks and temporary working groups according to the specific needs of each project. They must be simultaneously aware and free of the traditional hierarchies and operating models to be able to merge the working processes of varying disciplines, such as theatre, live performance, game design, and so forth. Fortunately, with emerging technologies such as VR, experimenting with hybrid formats that

¹² Weijdom 2017, 18.

break free from the traditional workflows is becoming more and more common, and there is a lot to learn from these hybrid working processes.

In addition to streamlining and merging different disciplines in the design process itself, the ability to create concepts that do not rely on large specialist crews or unstable technical solutions to run the event is crucial for creating viable and sustainable hybrid operating models. This remains a challenge, as many of the technologies currently available are not plug-and-play solutions. Nevertheless, the questions of access and viability above suggest that it is important to create operating models which can be run by the venues themselves. In addition to initial concept design and artistic curation, this entails curating relevant technological investments and educating the staff of each venue to transfer knowledge and technical operational responsibility to the venues themselves after initial models have been tested and established.

The shifting roles of the artists and audiences are another central consideration in hybrid design processes. Designing concepts that go beyond the initial wow effect provide spectators with experiences that encourage social sustainability by motivating them to revisit these experiences. The agency of different audiences and individual eventgoers should therefore be carefully rethought and developed when curating and designing the operating models. Emerging technologies such as VR and AR provide opportunities to disrupt the traditional artist-spectator relationship and to bring in new, interactive aspects. Especially relevant phenomena in this regard are multiplayer gaming platforms (such as *Roblox* and *Fortnite*), which have partially transformed into social and do-it-yourself playgrounds, already hosting a strong peer-to-peer developer culture. The potential new audience base that exists on these platforms might already have different expectations about the role of an audience, one that differs radically from that of the traditional artist-spectator relationship, or even from the traditional designer-spectator relationship.

Designing for hybrid performance then calls for the ability to inspect the virtual/physical event structures and ideas from multiple viewpoints, and to experiment boldly with mixing the pre-existing roles of the designers, performers, audiences, and venues. In addition to the on-line social platforms, the design teams can learn from event formats such as immersive theatre experiences, which already are innovative in the assumed artist-spectator dichotomy.¹³ By designing concepts that allow the spectators *qua* participants to visit both on-line and on-site events in different (hybrid) roles can help to reach completely new audiences and offer existing audience bases new ways to attend and engage with the events.

Yet another design concern – aside the questions related to the spectators' agency and actions (who, what, and why) – is the question of where; what should be the format of the virtual event that the audience can access via relevant interface technologies, and what sort of spatial and temporal reaches does it entertain in relation to the physical event location? When an event involves online sites that the spectators can visit, it immediately leads to design considerations concerning the aesthetics, interactivity, and rules of the virtual sites. As virtual worlds allow for experiences that can differ from the ones in the physical reality, designers should consider how to use these affordances as an asset while still maintaining the core functions and effects of both the physical and the virtual event. Designing event sites that create a sense of community can glue together the different layers of realities. In the words of David J. Chalmers, “[v]irtual worlds typically lack a long past and a long future. Many virtual worlds are in effect created at the moment one enters them and disappear

¹³ Warren 2017, ix.

when one leaves them.”¹⁴ Ontologically, we might not be too far from the function of traditional live venues as *ad hoc* sites for temporary events that still uphold and depend on sustained social expectations.

The nature of the virtual event location or site thus becomes a key question also for the aspects of accessibility and viability in hybrid performance and production: Is it a temporary site, created just for the one event, or a persistent place in which layers of history can accumulate to create communal and participatory experiences? In the long run, these two things, executed wisely – that is, by linking together the different role(s) of the audience and the spatial design of an event – can create a motivational pull that prompts the audiences to return to hybrid or virtual events in the future. The motivation to visit and revisit both on-line and on-site events and venues plays a central role in securing the accessibility, viability, and sustainability of the hybrid operating models engaged by live performance.

REFERENCES

- 2021. “An Evening with Nightwish in A Virtual World”. The Nightwish website. <https://www.nightwish.com/news/an-evening-with-nightwish-in-a-virtual-world-announced> (7.4.2022).
- Auslander, Philip. 2012. “Digital Liveness: A Historico-Philosophical Perspective.” *PAJ: A Journal of Performance and Art* 34:3, 3-11.
- Auslander, Philip. 2008. *Liveness: Performance in a Mediatized Culture*. Second edition. London and New York: Routledge.
- Bryant, Antony and Pollock, Griselda (eds). 2010. *Digital and Other Virtualities: Renegotiating the Image*. London and New York: I.B.Tauris.
- Chalmers, David J. 2017. “The Virtual and the Real”. *Disputatio* 9:46, 309–352.
- Connolly, Marie, Dupras, Jérôme and Séguin, Charles. 2016. “An economic perspective on rock concerts and climate change: Should carbon offsets compensating emissions be included in the ticket price?” *Journal of Cultural Economics* 40, 101–126.
- Escudero, Iñaki. 2022. “Inclusive by design. The Metaverse that could be.” The Medium website. <https://medium.com/the-edge-of/creating-a-metaverse-inclusive-by-design-6ae907bf6fc3> (12.4.2022).
- Fuchs, Barbara. 2022. *Theater of Lockdown: Digital and Distanced Performance in a Time of Pandemic*. London, New York and Dublin: Bloomsbury.
- Giannachi, Gabriella. 2012. “Environmental presence.” In Gabriella Giannachi, Nick Kaye and Michael Shanks (eds). *Archaeologies of Presence: Art, performance and the persistence of being*. London and New York: Routledge, 50-63.
- Jones, Chris, McLachlan, Carly and Mander, Sarah. 2021. *Super-Low Carbon Live Music: a roadmap for the UK live music sector to play its part in tackling the climate crisis*. Version 5.1. Manchester: Tyndall Centre for Climate Change Research, The University of Manchester. <https://documents.manchester.ac.uk/display.aspx?DocID=56701> (25.11.2021).

¹⁴ Chalmers 2017, 342.

- Kamiya, George. 2020. "Factcheck: What is the carbon footprint of streaming video on Netflix?" The CarbonBrief: Clear on Climate website. <https://www.carbonbrief.org/factcheck-what-is-the-carbon-footprint-of-streaming-video-on-netflix> (26.11.2021).
- Mair, Judith and Smith, Andrew. 2021. "Events and sustainability: why making events more sustainable is not enough." *Journal of Sustainable Tourism* 29:11-12, 1739-1755.
- Moritz, Stefan, Gottschick, Cornelia, Horn, Johannes et al. 2021. "The risk of indoor sports and culture events for the transmission of COVID-19." *Nature Communications* 12, 5096.
- Power, Cormac. 2008. *Presence in Play: A Critique of Theories of Presence in the Theatre*. E-book edition. Amsterdam and New York: Brill.
- Purdy, Mark. 2022. "How the Metaverse Could Change Work." The Harvard Business Review website. <https://hbr.org/2022/04/how-the-metaverse-could-change-work> (12.4.2022).
- Rankine, Denzil and Giberti, Marco. 2021. *Reinventing Live: The Always-on Future of Events*. Kindle e-book edition. London and New York: Anthem Press.
- Walsh, Fintan. 2021. "Grief Machines: Transhumanist Theatre, Digital Performance, Pandemic Time." *Theatre Journal* 73:3, 391-407.
- Warren, Jason. 2017. *Creating Worlds: How to Make Immersive Theatre*. London: Nick Hern Books.
- Weijdom, Joris. 2017. *Mixed Reality and the Theatre of the Future: Fresh Perspectives on Arts and New Technologies*. Brussels: IETM. https://www.ietm.org/en/system/files/publications/ietm_fp_mixed-reality_march2017_1.pdf (7.4.2022).
- Welsh, Oli. 2022. "The metaverse, explained." The Polygon website. <https://www.polygon.com/22959860/metaverse-explained-video-games> (12.4.2022).