

An overview of design suggestions for contemporary theatrical VR productions¹

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Introduction

Since the 1990s, various theatre labs and creators have been experimenting with the relationship of the medium of VR and theatre, although in the earlier times these VR experiences were only suitable for one experiencer. One of the most prominent early pioneers in this field is Brenda Laurel, the author of the book *Computers as Theatre*. In her 1994 site-specific VR installation *Placeholder*, Laurel puts her ideas about VR in practice by reinventing "the sacred spaces where we collaborate with reality" in order "to transform it and ourselves". (Laurel 2013, 197) In her VR performance, the experiencer arrives at a place and put on the HMD and sensors with the help of an assistant and enters a space where she embodies various characters (Crow, Snake, Spider and Fish) and inside the production she is guided by the Goddess – a live-performed character usually played by Laurel herself. This offers a highly personalized experience with a clear specification about the role of the experiencer. Another VR immersive production that provides a strong sense of embodiment (that is, where the environment is in strong interactive relationship with the experiencer's body) is *Osmose* by Char Davies. This 1994 production is a single user experience, where the breathing of the "immersants" (as Davies calls the participants) is monitored and the environment changes in response to their breathing.

If we compare these productions to those that were made in the last three years (e.g. *Welcome to Respite!* by the Ferryman Collective, *Finding Pandora X* by Double Eye Studio), mainly during the pandemic, it is clear that the latter can offer a different sense of immersion by bringing audience members together in a virtual space and offering them a sense of intimacy with the help of the improvisational skills of the actors. While the installation-based VR performances heighten the sense of embodiment, the VR productions that take place in an online space shift our attention away from the embodied experiences and they direct it towards the illusion of agency. When comparing these two types of productions, one important point to note is that performances on various social VR platforms can allow us to experience the performances from a distance, while the earlier ones required the viewer to visit a

physical setting. The performances experienced via the Internet can create a new sense of community and togetherness by providing a sense of telepresence, where the audience has a central role.

Social aspects of virtual copresence

The social aspects are dealt with to a lesser degree when defining telepresence or virtual presence. Lombard and Ditton's widely quoted study (1997) is an exceptional case where the social element of presence is discussed along with others. Two of the six elements that they define as key elements for presence in a virtual environment are related to social aspects: one is about how the user can be a social actor within the medium, and this is defined by the user's ability to control or interact with his or her environment; the second is about the medium itself being a social actor, defined as the digital environment's providing to its user the sense that it interacts with the user. However, defining these aspects still do not bring us closer to the question of how the sense of togetherness or community in a multiplayer-like VR chat platform can strengthen immersion. In a 2016 study, Samur compares stage presence to presence in VR; and he states that "Open world environments, found in *Second Life* [...] create the promise of an experience that is unique to them, reinforcing the feeling of presence as the narratives the users create are tailored to their choices. Interactivity can heighten an audience's sense of fictional presence as they realize what they are currently experiencing is the result of past choices made." This approach can shed some light on the above-mentioned question, and it is especially important as immersive theatre productions aim to offer unique and original experiences to their audience member and this is what the audience members are also hunting (Alston 2016, 134). In the same study, Samur (2016) also addresses the question of how theatrical formats could enhance the sense of presence and he briefly mentions the open world productions, even though the performances in VR that can accommodate multiple audience members surfaced mainly in the last 2 years – after Samur's study. Nevertheless, he brings up the point regarding how interaction can heighten the sense of presence (and immersion). The taxonomy of interaction in digital theatrical formats offered by Dixon (2007): (1) navigation; (2) participation; (3) conversation; and (4) collabo-

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ration; where he defines interactive collaboration as a type of collaboration that comes about when “the interactor becomes a major author or coauthor of the artwork, experience, performance or narrative.” (ibid., 595.) This type of collaboration that Dixon defines is an important innovation and characteristic of the theatrical VR productions that I will analyse here (even when the collaboration-based agency is only illusory.) Combined with new types of interaction taxonomies (that are defined specifically for VR theatrical performances), reflecting on this new type of co-presence can help us find new ways of discussing these performances.

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Jason Ferguson suggests that “virtual reality has a storytelling problem and theatre will save it”, and he takes it that this problem is due to the first-person delivery mode, making it harder for the audience to perceive the story as a story when they are themselves involved in it. (Ferguson 2016) Although this cannot be denied, here I will suggest that VR theatre performances organized in multiplayer settings can enhance the storytelling effect with the illusion of agency and interaction. I have already discussed how early VR works could be considered as theatrical, due to their installation-like characteristic and also because of the strong sense of embodiment that their users experience. But theatrical VR performances, especially since the new technological advancements, make it possible to bring audiences into the same space, often allowing them to interact with the environment, with each other, and also with the performers. Sita Popat states about VR environments that “[t]hese environments allow us to ask questions about embodiment and humanity through the experiences of our individual bodies in a way that has never been possible before.” (Popat 2016, 359) Creators of performances that rely on the Internet also have a very long history with experimenting in novel ways on how the audience members can have new self-reflective experiences via telepresence. These are “telematic” performances, to use an older term for performances that rely on telecommunication networks as their medium. The sense of telepresence allows the creators to produce a new type of telematic performance which exploits the specificities of VR that other telecommunication networks often lack. According to Sermon et al. “[t]elematic artworks emphasize facial and body language, and in certain ways can offer more than physical encounters permit. The presence and observation of their own body in the third space as well as ‘the other(s)’ provides the participant with an opportunity to make coinciding subjective and objective observations. Since on screen their self is also the other, they are able to reflect on the interactions and performances occurring in front of them while seeing themselves as being directly responsible for it.” (Sermon et al. 2021)

While presence in the ‘real world’ is effortless, virtual reality can offer a special sense, a more complicated one, that shows how complicated is our process of perceiving presence can be.

Recent research also discusses theatrical VR performances and offer design suggestions for this genre. Gupta et al. state that “we operate under the premise that the central pleasures that interactive drama should serve are those of playing along according to the expectations set by the sys-

tem and communicated to the player directly. This contrasts with the dominant rhetoric of interactive narrative and story-based games, which emphasize the freedom to choose as a central poetic of the form.” (Gupta et al. 2020, 10) They emphasize that many productions that are tagged as theatrical VR do not specify the role of the audience. The authors offer several design suggestions for creators such as managing the audience’s expectation by offering to them explicit roles. Interestingly, the authors do not describe how this is possible on the narrative level, but they focus on embodiment. They suggest that in the onboarding process the audience members should be faced – in the VR application – with a mirror, so they can have more awareness about their avatar’s body. They also suggest that the audience members should have the chance to get familiarized with the system so they should have “situated rehearsals” (Tanenbaum and Tanenbaum 2010) where they can try out the interactive situation in a low-risk environment – this could also be a helpful way to build up the onboarding. Another important suggestion is that the creators have to “invest time in ‘high-yield’ interactional and visual details that support the illusion of a social reality for the player within the scope of the specific desired interactions called for by the script”. (Italics in original.) (Gupta et al. 2020, 9)

Based on their own experiments, Gochfeld et al. (2019) voice some doubts about the importance of the participants’ identification with their avatar. They suggest that “for performance, embodiment is not as important as the ability of the actors to convey the characters’ behaviours and emotional states: the actors don’t need to feel that the avatar is their own body in order to be able to perform as if it is.” (Gochfeld et al. ibid.) If true, this means that creators can freely make design decision about the avatar. The authors suggest that actors’ performing in VR is similar to operating a puppet, where the performer must master the control system to be able to project their expression through the avatar. (Gochfeld et al. 2021, 4) It is also important to note that actors with more realistic avatars tend to feel more in a rigid context than the less realistic avatars, while on the audience’s side the more realistic avatar creates higher expectations towards the performers (Gochfeld et al. ibid.)

Similarly, Yan et al. (2021), offer a specific taxonomy for interactions in VR theatrical settings: (1) individual-based interaction (IBI) includes mainly linguistic interaction and physical contact; (2) scenario-based interaction (SBI) “enables audience to play directly with virtual stage props under the guidance of the performer.” (Yan et al. 2021, 3) and (3) narrative-based interaction (NBI), which occurs if there are possibilities to make meaningful choices that influence the story, which is possible when multiple storylines are allowed in the production. The authors also stress the importance of identification and roleplay for the players. Taking the affordances of the medium of VR into consideration, the authors suggest that the freedom for the audience members to move and explore the VR space is very important. They suggest that the creators should offer “rich sensual experience as far as possible to let the audience feel that they are focused by the performer all the time”. (Yan et al. 2021, 5) These three strategical advices about onboarding, the audience’s role and the specificities of their interactions can serve as an important starting point for analysing VR theatrical performances.

Conclusion

The virtual immersive theatre produced in VR is a specific type of immersive performance very similar to those performances taking place in an analogue setting. For now, the immersive performances in VR cannot be very long (partly due to the uncomfortable setting of the HMDs) and because of this there is less time to build up the storyworld; therefore, these performances need to be prescribed. In order to offer a sense of liveness in VR, what is necessary is a more complex acting style where the actor is ready for improvisational situations and for guiding the audience where it is required. While immersive theatre offers to the audience an original story, physical possibilities to manifest agency, and

unique experiences (Alston 2016, 2), in VR immersive performances these unique experiences are harder to achieve due to technological obstacles such as limited possibility for multiplayer participation and limitations regarding navigation in space and interaction with objects. These obstacles can be concealed for a while by creating spatial open-world structures and by attention guiding cues (borrowed from the science of magic), but curious audience members can find out the limitations after a while. On long term, the creators of such experiences could experiment with the possibilities of creating more unique experiences with the help of the actors, a more layered storyworld and interaction possibilities.

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