

Video, Internet and Metaverse: The Media Transitions of Interaction in Theatre*

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The integration of theatre art with media such as video, the Internet and metaverse embodies intermediality and shows interactivity characteristics. Video is the first to open the possibility of interaction between performers and stage space in the theatre, thus greatly expanding the relationship between people and video in the links of environment, atmosphere, narrative, action and conflict, making stage performance more flexible and changeable. The rapid rise of computer technology represented by the Internet provides two interactive modes of node structure and natural language for digital theatre performance, opening the path for the audience to participate in theatre interaction. The metaverse media environment represented by video games and virtual reality has dramatically changed the freedom of audience participation in theatre. “Digital embodiment” enables the audience to immerse themselves in virtual theatre performance and become a part of theatre composition, thus bringing unprecedented performance experience.

Keywords: intermedia theatre, intermediality, interactivity, video, Internet, metaverse

Introduction

Since the 1960s, practice across the boundary of art has gradually become an art trend, jointly promoting art’s “intermedia turn” (Wolf, 2018, pp. 38-39.). Intermediality was conceived of as “theatrical”, in which the distinction between pure art and theatre was replaced by the illusion that “the barriers between the arts are falling, that the arts themselves are at last sliding towards some final, closed, highly desirable synthesis” (Freid, 2013, p. 174). Therefore, as an art form, intermedia involves the transplantation, transformation, interaction and fusion of two or more artistic media characteristics and concepts. The integration of theatre art with film, virtual reality, the Internet, games and other media reflects a high degree of intermediality. Media researcher Chiel Kattenbelt even pointed out that “it is because of its capacity to incorporate all media that we can consider theatre as a hyper medium, that is to say, as a medium that can contain all media” (Kattenbelt, 2008, p. 23). The intervention of different media forms enables media theatre to exhibit powerful media characteristics, and interactivity, as a concept of equal importance to liveness, has drawn the attention of art practitioners and theorists. This paper divides the types of intermedia theatre into three main media types: video, Internet and metaverse, and analyses the different characteristics and evolution of interactivity among them.

* This paper is funded by the Beijing Social Science Foundation Project “Research on the Impact of Digital Media Technology on Stage Performance Creation” (Project No.: 20YTC029).

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Video Interaction

Video is an essential representative of the dematerialisation tendency of contemporary theatre and also an important factor affecting the emergence of intermedia theatre, which gave birth to various concepts such as “expanded film” and “live cinema”. When the video is involved in the theatre performance, the video is no longer a one-way broadcast medium but a two-way interactive medium. The theatre performance and the media videos are “orchestrated as harmonic opposites in an overall synaesthetic experience” (Youngblood, 1970, p. 365). The involvement of video in theatre can be traced back to the 1920s. Erwin Piscator, a German director, replaced part of the stage setting with films, slides, subtitles and other methods to enhance the authenticity of dramatic performances and the incendiary political power of live performances. He believed that “films can give a modern, technical extension to the world portrayed on stage” (Styan, 2002, p. 687). Joseph Svoboda continued to carry forward the application of video on the stage and created a form of light and shadow drama based on Polyekran (multi-screen projection) and Laterna Magika, thus establishing an organism of video and live performance and reconstructing the narrative relationship between them. Later, with the continuous intervention of television, projection, live broadcasting and other media technologies in live performances, the video gradually emerged as an independent narrative element in the theatre, which challenged the performing body and extended various interactive forms. Here, the videos involved in the stage are divided into pre-recorded, real-time and digital, and the characteristic forms of interactivity among them are analysed individually.

In traditional theater and performance, video has long been seen as pre-recorded, past-tense, and thus unable to interact with live, impromptu actors and audiences in real-time. As a result, it has been regarded as a hindrance to the completion of live performance, a foreign body on the stage. When people gradually accept the intermedia theatre, the video as a medium slowly shows its two-way interaction. It carries out a kind of on-site communication with the live performance. Its primary function is to connect the pre-recorded video content with the dramatic plot in the narrative. *Returning to Reims* is a theatre production based on the memoirs of French writer Didier Eribon. The documentary, which is prefabricated from the real life of Eribon, plays a central role in organising dramatic action and connecting the preceding and the following throughout the performance. Documentary videos honestly record the Eribon after his father died, back to the left for more than 30 years, his journey to visit his mother, and recreates the memoir many classic nostalgic scenes, and retrieve a large number of historical locations, through the video to render of the transformation of French politics for decades, which show the author in the process of a series of reflection. The videos are projected on a screen above the head of Katy, the heroine, and she follows the flowing videos in a reflective tone, delivering the original text of the memoir, and the interweaving of videos and memoir voice forms the entire dramatic performance. Video is not only the material that constitutes the world and plot of drama but also the factor that promotes the contradictions and conflicts of characters. Its interaction and coordination with the live performance isomorphize the performance of the whole live play. “It is freedom onstage to have this conversation,” Cynthia, (2018) said German actress Nina Hoss, who played Katy.

The introduction of technologies such as live television and telecommunications has opened the convergence of real-time video to the theatre. Compared with pre-recorded video, real-time video connects

multiple spaces and is more on-site. It is a real-time projection of performances in different spaces. In his work *Intolerance*, Svoboda once connected the camera room, the street, the audience, and even the stage and other spaces through five cameras. The passers-by, actors, chorus, audience and other objects are projected on the stage screen in real-time, and the roles of the crowd overlap and even interchange, forming a complex contrast relationship with strong interaction. In a series of subsequent practices, such real-time images showed more features of multiple narratives, forming an intimate, interactive relationship with everything happening on the stage. In the famous British female director Katie Mitchell's work *Shadow (Eurydice Speaks)*, the live stage and the live video on the big screen above the stage complete the whole drama performance together. On the stage, many cameramen record the stage performance from all angles, and the backstage staff will edit the images in real-time and transmit them to the big screen above the stage, forming a new form of drama called "live cinema". Compared with the pre-recorded video, the real-time video is more on-site, enabling the audience to have a double appreciation experience of the coexistence of stage and screen. The play's creator said in an interview, "We have made a movie, but what happens on stage is theatre" (Ma, 2017). This kind of multiple narratives relies on the visual advantages of images. The freedom brought by multi-position, multi-angle and multi-scene images on the screen is in sharp contrast to the traditional physical performance of people and scenes on the stage, bringing a Brecht-style distancing effect. Make the audience get more interactive choices. Kay Voges' *Die Borderline Prozession* and *Die Parallelwelt* construct a transmedia narrative of video-stage interaction in a similar way; the audience can freely choose the actions and dialogues of characters in a specific space from the "panorama" constructed by the stage and images.

The emergence of digital videos expands the possibility of the video from reality to virtual reality. Physical stage art and scenes that non-digital videos cannot realise become possible with the help of digital technology, which significantly expands the richness and flexibility of visual language in stage performance, narration and atmosphere creation. Form a digital performance form in which the virtual generated digital video interacts with the real physical performance on the stage. *The Animals and Children Took to the Streets* and *The Magic Flute*, by The British 1927 Troupe, gave all but the leading actor to digital imaging; no matter the scene switch, space display, dramatic action and plot advancement are all driven by the video completion. Actors perform fixed points and specific activities under the "program" of image choreography to realise the interaction between performers and videos and thus realise the narrative presentation of the whole play. It can be said that such a way of interaction not only gives birth to new performance forms and visual sensory experiences but also limits the actors' initiative. Actors' bodies must be subject to the substantial dominating power of images in the stage space. However, due to the linear characteristics of the media of videos (Salts, 2001, p. 108), the room for improvisation tends to be zero (Ma, 2017), and videos enrich the possibility of interaction while restricting the performing body.

Internet Interaction

The video opens the door of intermedia theatre, but it has limited interaction because of its own media characteristics. With the intervention of the Internet, artificial intelligence, and other technologies, the media interaction ability of theatre has been dramatically improved. *The Wheel of Fortune* is BBC Radio's first-ever interactive radio drama. It was broadcast simultaneously and interactively on BBC Radio 3 and Radio 4 in

September 2001, allowing listeners to “create” their work by choosing and switching frequencies. At the same time, the BBC’s website offers three plot options to enable the participants to interact more widely: T, a sick and tired young computer programmer; Leonard, a theoretical physicist who specialises in possible problems; and Steve, a dispassionate gambler. The characters in these scenarios can meet and enter each other’s worlds. Still, each character has feelings and is dominated by a specific theme and a unique secondary character. In *The Wheel of Fortune*, the core is how to give listeners the freedom to switch paths while maintaining consistency. To this end, listeners are invited to switch between the story nodes by the voice “bet now”. As a result, listeners can construct different, complete stories that have both a beginning and an end in the way they choose. Moreover, due to the excellent character charm of the three characters, the audience can be attracted to listen to them many times, make different choices, and construct billions of possible plots and endings to arouse the audience’s desire for participation (Greco, 2001) and maintain the continuity of the whole play in an interactive way.

Different from node selection, OZ GROUP of Carnegie Mellon University created a computer-interactive drama *Façade* in 2004, which became one of the milestones in the field of interactive digital narrative through natural language-based interaction, providing people with narrative immersion and the experience of changing the world and the direction of the story through interaction. As an artificial intelligence-based electronic narrative art and research experiment, *Façade* attempts to move beyond traditional branching or hyperlinking narratives to create an entirely realistic single-act interactive drama (Mateas & Stern, 2003, p. 4). The audience can experience the story from a first-person perspective, witness a conversation between a couple on the verge of breaking up in a real-time computer-controlled virtual world, and make a series of implicit choices that determine whether the couple will face their problems together or break up. Different to video games, online games, and hypertext, the audience in the interactive drama *Façade* interact in a natural language, rather than the traditional click or sliding; this means that people can through the keyboard input of any language rather than choose the option given, fixed, this is a kind of interactive response based on artificial intelligence, rather than the traditional path selection based on node structure. As a kind of improvisational computational drama, *Façade* can respond differently to whatever the audience says, influencing the story’s direction and the emotional outcome of the two. As participants, the audience deeply intervenes in the plot based on the story script and character characteristics, thus inheriting improvisational drama’s actual performance and creation methods. In the open world, they can feel their world form, story and experience and become the representative result of drama with distinctive characteristics on the interactive level.

Metaverse Interaction

After the Internet, the metaverse has become a new hot concept, which is also called “the next chapter for the Internet” (Zuckerberg, 2021) by industry authorities. People’s dramatic imagination in virtual space has been further opened. Based on the heated discussion on the body problem of digital avatar and the space problem of free dimension, people have carried out practice and exploration on the interaction problem under the new media environment, and games and virtual reality are regarded as the two main entrances of the interaction of the metaverse. The connotation of dramatic interaction is expanded and interpreted here.

In terms of games, pop music performances have long been deeply integrated with game platforms. Ed Sheeran’s fantasy interplay with Pokémon intellectual property in *A Pokémon GO Special Performance*, Lil Nas

X's first virtual concert in *Roblox*, KoRn in *Adventure Quest 3D*, Block by Blockwest in *Minecraft*, and more and more digital acts are using the game platform as a primary battleground for their metaverse spread. The most famous of these was pop rapper Travis Scott's virtual concert in the massive online game *Fortnite*. The virtual concert, called *Astronomical*, briefly became an industry standard event with a record number of online attendees of more than 12 million people worldwide (France & Spary, 2020). *OPERAcraft* is a typical example of instant opera in theatre. In this project, the game platform based on the online multiplayer network is the basis of performance. Actors and audiences are co-incarnated as digital characters to complete the performance in the virtual environment. "A space of memory and remembrance, critically involving co-presence, informal engagement, and communal experience" (Lavender, 2017, p. 345). "Coupling gaming, telematics, machinima, and opera to produce a hybrid performance art form" (Bukvic et al., 2014). In the second iteration of the series, multiple cameras have been added as a new element to the production. The multiple cameras allow viewers to switch between different perspectives as they watch the entire virtual show, and as the in-game audience will be served as silent witnesses, which means that they can freely shuttle through the whole virtual stage space without any interference to the theatre performance. Through this interactive way, the audience can get an unprecedented viewing experience. They can watch the plays on the stage and beside the actors in an immersive way. Compared with the fixed perspective of sitting in the audience in the past, the audience has been comprehensively liberated in terms of freedom.

In education, such gamification attempts gradually lead teenagers immersed in consuming digital media to pay attention to classic theatres. Theatre teacher and director Eddie Kim and his students founded EK Theater, which aims to combine traditional literature, experimental theatre and captivating performances of video games to bring together the classical past and the digital age, thus directing and resonating with the youth community in an environment that will excite their interest in learning. In *Grand Theft Ovid 2*, *Halo: Reach* and *World of Warcraft*, classic works such as Poe's *The Tell-tale Heart*, Shakespeare's *Romeo and Juliet*, and Ovid's *The Metamorphoses* were adapted and performed one by one. Students interact with text, narrative, performance, technology and other content in the project, "creatively blend the traditional and progressive, past and future, digital and analogue to produce a meaningful and persistent learning experience" (Darvasi, 2016). There is no doubt that video games have become a "natural extension of classic theatre" (Homan, 2014, p. 183).

In terms of virtual reality, The Royal Shakespeare Company (UK) with Manchester International Festival (MIF), Marshmallow Laser Feast (MLF) and the Philharmonia Orchestra collaborated on the virtual play *Dream*, which is fully virtualised. On the one hand, the Unreal Engine renders all the scenes in real-time, creating a dreamlike forest world. On the other hand, motion capture technology is used to complete the real-time conversion of the natural body of the theatre performer to the virtual body of the digital avatar, and the performance behaviour of the actor is all mapped to the body of the digital elf Punk. The digitalisation of scene and body realises the virtual migration of the traditional theatre in cyberspace. More importantly, with the powerful media link function, the audience can also participate in the drama performance in a very high way, opening an unprecedented interactive experience of drama. Puck (EM Williams) leads the audience from the real world into the digital world. Each spectator is a firefly in the forest scene, and the audience can guide Puck through the forest at critical points in the game through the touch screen, trackpad or mouse. The actors perform and respond to the audience's interaction and guidance, making each performance unique as the audience will

behave differently in each event. This Internet-based, Unreal Engine real-time rendering and virtual reality technology environment allows 2,000 viewers to simultaneously do this dynamic real-time interaction online, “was a taste of what the theatre experience could look like in the future” (Wallis, 2022).

Conclusion

Interactivity runs through the whole process of human development. As one of the essential characteristics of media, interactivity has always played a great value in information dissemination. From the earliest face-to-face interaction between people to the interaction between people and text, image, video, computer, Internet and intelligent media, it can be said that the history of human development is a history of media evolution. The same is true of interactivity in the dramatic arts. Video is the first to open the possibility of interaction between performers and stage space in the theatre, thus greatly expanding the relationship between people and video in the environment, atmosphere, narrative, action, conflict and other links, making stage performance more flexible and changeable. The rapid rise of computer technology represented by the Internet and artificial intelligence provides two interactive modes of node structure and natural language for a digital theatre performance, opening the path for the audience to participate in theatre interaction. However, Internet-based video games and virtual reality as the media of the metaverse drama have significantly changed the freedom of the audience to participate in the theatre. Digital embodiment allows the audience to immerse themselves in the virtual theatre performance and become a part of the theatre, thus bringing an unprecedented performance experience. As Steve Dixon argued: “All art is an interaction between the viewer and the artwork, and therefore all artworks are interactive in the sense that a negotiation or confrontation takes place between the beholder and the beheld” (Dixon, 2007, p. 559).

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