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Virtual *Dream* Reality Check: A Case of Interactive Digital Theatre from the Royal Shakespeare Company

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The proliferation of digital theatre signals a new era of theatrical experiences. As technology becomes more sophisticated, theatre companies are evolving to accommodate technological innovations. The Royal Shakespeare Company's (RSC) *Dream* is a recent example of how theatre companies are integrating cutting-edge technology to revolutionise their performances. Emerging from the Audience of the Future (AF) program, *Dream* combined gaming and theatre technology to create a virtual world for audiences to inhabit and explore digitally. Inspired by Shakespeare's *A Midsummer Night's Dream*, the production incorporated motion-capture technology and Virtual Reality (VR) headsets, allowing seven actors to perform live from a purpose-built studio while audiences simultaneously accessed the performance from a compatible device via a bespoke website (https://dream.online). The resulting experience combined live and virtual performance elements to connect global audiences.

This venture into technologically enhanced theatre, however, raises questions about the potential implications of audience engagement with digital productions. In this paper, we question how the RSC's *Dream* combined both live and virtual theatre experiences to offer a more interactive viewing experience. We argue that while *Dream* signalled an exciting step in the development of digital theatre, the interactive features revealed some discrepancies between the RSC's goals and the degree of involvement delivered. Instead of drawing audience members deeper into the storyworld of the play, the interactive elements were, for some audience members, distracting. To make this argument, we primarily draw on Gordon Calleja's Player-Involvement Model as a method of analysing *Dream*'s interactive features and how they impacted the audience's experience. We contend that for theatre organisations to incorporate digital technologies, they must tend to the nuances of technological interventions and weave them seamlessly with theatrical elements to retain the fidelity of the theatre experience. In doing so, we first define digital theatre. Next, we turn to the RSC's foray into this genre before outlining the key features of *Dream* and its development as part of the AF programme. Finally, we analyse the audience experiences of *Dream* through the lens of Calleja's Player-Involvement Model to determine the overall efficacy of the performance.

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Defining digital theatre comes with several challenges. The term encompasses an array of technologies and platforms. For example, digital theatre can consist of in-person productions that incorporate overt digital interventions, such as projections of computer-generated imagery or VR tools. Digital theatre can also consist of online components; companies can deliver full or partial performances via online platforms, such as streaming services (YouTube), video conferencing services (Zoom), or social media services (Facebook). We regard digital theatre as a varied medium that mixes in-person and online elements to deliver live performances. Moreover, we follow Nadja Masura's claim that digital theatre 'can be defined as demonstrating the synthesis of coexistence of "live" performers and audiences with digital media in a manner which contains spoken words or narrative elements' (2020: 8). In other words, digital theatre involves a significant degree of digital intervention to enhance the theatre experience. We also build on Masura's claim to affirm that digital theatre also allows for more intensive interaction and participation. The impact of digital interventions on audiences raises concerns though, key among them being spectatorship. For Ilinca Todorut (2014), spectatorship in digital theatre demands attention. Todorut proposes that theatre makers consider audience demographics and their agency within a production (Todorut 2014: 498). Considering these points can help ease the process of integrating digital technology. To reiterate our argument, these considerations help theatre companies tend to the nuances of technological interventions, weaving them seamlessly with theatrical elements to retain the fidelity of the theatre experience; they emphasise that audience experience is key in devising and delivering cohesive digital performances.

The RSC's experience with devising digital performances predates its involvement with the AF program. The company's 2016 production of *The Tempest* integrated computer-generated imagery (CGI) to enhance Ariel's ethereal qualities. Although this use of technology supplemented an in-person performance, Ariel's projection signalled the RSC's initial exploration of digital theatre. In this case, we consider *The Tempest* as indicative of the direction companies have been taking in developing digital theatre, as the use of CGI demonstrates how organisations can incorporate technology to enhance a production. For some critics though, such technology does not suggest a revolution in theatre making or watching. Upon viewing the 2016 production of *The Tempest*, Michael Billington considered 'its use of advanced technology as a one-off experiment rather than a signpost to the future' (2016). While Billington may have considered the project a one-off, his comments bordered on the prescient. In 2018, the UK government announced the AF program, which planned to invest '£39.3 million in the development of new immersive technologies such as virtual, augmented and mixed reality' (AF 2021a). The RSC's participation in the program suggests that *The Tempest* was a catalyst for further research into and experimentation with digital technology

in theatre. Furthermore, as the company worked within the Future Demonstrators funding stream, they engaged with the programme's four focal areas of research, these being e-sports and gaming, performance, moving image, and visitor experience (AF 2021a). Their engagement in these areas signals more than the RSC's commitment to producing digital theatre; it shows their commitment to developing the research frameworks underpinning the evolving theatre form.

With an ongoing commitment to digital theatre research and development, the RSC's work within the AF program addresses the necessity for theatre companies to work with, rather than against, evolving technologies. As Todorut notes

> [t]he familiar validation of theatre as eminently live and alive, present and co-present – and thus community inducing – rings untenable when many people rely on the internet to maintain connections across great distances or even search online for liveness, presence, and community that are slipping through the cracks in quotidian life (2014: 495).

Given the ongoing COVID-19 pandemic, Todorut's statement is even more pertinent when noting the various barriers to both presenting and attending in-person performances. Contemporary theatre is no longer a solely analogue medium; technology pervades theatrical production and is now fundamental in both performance – making and consuming. COVID-19 notwithstanding, Giverny Masso (2018) quotes Toby Coffey's view that digital theatre is currently heading in two directions; one involves digital technologies enhancing traditionally staged work, as per *The Tempest*; one involves immersive technologies fostering new theatre forms, as we later explore in *Dream*. These varying directions, however, necessitate flexibility. Consequently, organisations are recognising that theatre is inextricably linked with digital phenomena, be it the online paratextual materials audiences consult or the smart devices audiences use to access performances.

The RSC, for example, has committed to incorporating such aspects of digital development into their core business. This commitment is initially reflected in The Digital Strategy of their 2018-2022 plan. With this strategy, the company aims to 'place the craft of theatre making in new, digital contexts, to create new theatrical experiences and reach audiences in new ways' (RSC 2018). The RSC's *Dream*, and by extension their participation in the AF program, therefore, signals their deliberate response to, or rather embrace of, the technological interventions expected of contemporary theatre practitioners (RSC 2021a). As a product of the AF demonstrator funding stream, the performance explored 'how audiences could experience live performance in the future' (AF 2021b). The RSC developed *Dream* as both an in-person and online live performance.

Due to COVID-19, however, the RSC reconceptualised the performance for wholly online delivery. As mentioned earlier, audiences could access the performance via a bespoke website from computers, tablets, or smartphones. Those with a paid ticket could then interact with the performers in real-time, directly influencing the live performance from any location (RSC 2021b). The RSC built on the technology initially incorporated in *The Tempest* to harness 'live performance, virtual production and gaming technology' so that performers and audiences could interact within the same digital space (RSC 2021b). Specifically, the RSC promoted *Dream* as an invitation for audiences 'to explore the forest from the canopy of the trees to the roots [...] and take an extraordinary journey into the eye of a cataclysmic storm. [...] regrow[ing] the forest before dawn' (AF 2021b). In this case, *Dream* enabled the virtual co-presence between performers and audiences. Facilitated by Vicon motion-capture cameras, the RSC transformed its performers into virtual avatars, as evident in **Figure 1**. Audiences watched as Puck, performed by EM Williams, explored the virtual forest, met other forest fairies, weathered a storm, and regrew the forest. Audience interaction then involved two occasions of launching digital fireflies into the virtual world, and one occasion of throwing a single digital seed to help restore the forest. These interactive moments were significant as they incorporated audiences into the digital diegesis.

Figure 1: *Dream* set-up shot. Photo by Stuart Martin © RSC.

Before examining the audience's experience of *Dream,* we first define their role. The RSC explains that by combining theatre and gaming technology, culminating in audience controlled fireflies, they created a shared experience between both parties (RSC 2021b). We, therefore, propose a connection between the role of audiences in interactive performances such as *Dream* with the role of players in some digital game genres. There are three distinct and essential qualities that digital games and interactive digital theatre share regarding the roles of the player and audience: player and audience member are central to the game or experience; ergodicity (meaning that the player and audience member are required to do something); and both player and audience member are part of the narrative formation. These shared qualities relate to how the player or audience member interacts and engages with the game or digital theatre experience. The combination of these qualities significantly impacts the relationship between the audience member or player and the experience. Unlike traditional audiences who are separate from the medium – as is the case for proscenium arch theatre, film, and television – *Dream* audiences formed part of the medium. Their level of involvement in the experience, therefore, was fundamental to their overall sense of engagement and immersion.

Paramount to developing cohesive and impactful digital theatre performances is the consideration and understanding of the audience experience. Calleja's Player-Involvement Model is particularly helpful in analysing this experience. His matrix offers an apt methodology with which to examine player engagement and immersion, as it demonstrates that the player's role and contribution to a game are multi-dimensional and nuanced (2011: 33-35). He proposes six distinct forms of involvement: kinesthetic, spatial, shared, narrative, affective and ludic (Calleja 2011: 43). We apply elements of this model to help analyse how the RSC wove gaming technology and elements of theatre to produce a new and meaningful audience experience. We examine the presence and impact of three forms of involvement – kinesthetic, ludic, and shared – in *Dream* before summarising the experience as a whole.

Kinesthetic

Kinesthetic involvement relates to character movements and is at the heart of ergodic media; work is required to engage with the text. Calleja explains that '[p]layers do not merely consume a pre-established piece of media, but instead are active participants in the creation of their experience through interaction with the underlying code during gameplay' (2011: 55). Accordingly, interactive performances engage audiences in the creative process. For example, *Dream* audiences engaged in some of the creative processes as they interacted via the aforementioned fireflies. The screen split to display the live video on the left and a simple mini-map of the virtual world on the right at

designated times. Audience members could click and drag a firefly icon to aim at a spot on the mini-map, and then release the icon to send the firefly into the virtual world displayed in the live video on the left. These moments of kinesthetic involvement, however, were limited. Audience members could only control the firefly while aiming at the mini-map; once audiences released the firefly, and it entered the storyworld, they lost control over its movements. Consequently, audiences never actually moved within or interacted with the actors or the storyworld. Instead, audiences were restricted to interacting with the mini-map. Some reviewers highlighted their frustration and disappointment at this lack of kinesthetic involvement, stating that their influence over the storyworld was 'minimal and [didn't] add that much' (Crompton 2021), and that 'the action [felt] repetitive and pointless' (Peschier 2021). While these reviews are rather unfavourable, we maintain that *Dream*'s game mechanic was not an inherently poor choice; the simplistic aiming mechanism potentially helped audiences with less game experience to participate in the production. Nonetheless, we recognise that this same mechanism distanced audiences from the storyworld. We wonder then whether the fireflies effectively aligned with the RSC's goal to fully immerse and engage audiences. In some ways, the fireflies felt like a token form of interaction rather than a meaningful way of enhancing the audiences' connection with the performance.

Ludic

Next, ludic involvement relates to choices and their consequences or impact. Audiences in *Dream* were given one choice: *where* to fling their firefly or seed. The issue with *Dream*, however, was not the limited number of choices available to audience members but the lack of influential options. Katie Salen and Eric Zimmerman explain that 'meaningful play occurs when the relationship between action and outcomes in a game are both *discernible* and *integrated* into the larger context of the game' (Salen & Zimmerman 2004: 34). For *Dream* audiences to feel that their choices were meaningful, they should have seen their firefly in the storyworld once they released it (discernible) and seen that releasing fireflies affected the environment or narrative in some way (integrated). Focussing on the discernable impact of the fireflies, while audiences could see fireflies enter the virtual world and land on the forest floor, they could not discern which one they threw. As one viewer commented 'I [couldn't] tell which pin prick of light on screen [was] mine' (Peschier 2021). Incorporating distinguishable features, such as audience members' own fireflies appearing as a different colour on their screen, could have helped participants locate their fireflies once launched, thereby producing a discernable result. By creating a stronger affiliation between audience members and fireflies, the RSC could have generated a greater sense of presence and agency for audiences.

Shared

Finally, shared involvement encompasses both a player's cognisance of and interaction with other players (Calleja 2011: 43). Digital games have an incredible ability to connect people around the world. As a player from the game *World of Warcraft* describes, 'I think what really strikes me is knowing that all these thousands of characters running around are actually people stuck to their PCs all over the world' (Baal qtd. in Calleja 2011: 94). Hence digital theatre has the ability to generate a sense of shared involvement even though audience members are participating from their homes. The RSC's *Dream,* for instance, sought to generate this same involvement by allowing audiences to launch fireflies and seeds. While these features enabled some interaction between actors and audiences, the nature of kinesthetic and ludic involvement limited engagement. Given the challenges with discerning one's own contribution to the performance, there were noticeable barriers to distinguishing individual fireflies and seeds in the storyworld. Consequently, there were opportunities for improving the capacity of the firefly and seed devices and enhancing the sense of shared involvement for audience members.

Conclusion

Dream experimented with the possibilities of combining gaming technology and theatre to create an interactive audience experience. While *Dream* displayed many promising elements, their attempt to involve audiences in the storyworld could have been strengthened. Having applied Calleja's Player-Involvement Model to analyse *Dream*, we found some gaps that impacted the ability for audience members to engage in a truly interactive experience. Although the firefly game mechanic enabled partial interaction, it did not provide audiences the degree of control or agency that is central to digital games. As reviewers like Hilary Lamb have noted, the production could have maximised its interactivity to enhance shared experiences among audiences (2021). We confirm that to successfully combine digital theatre and gaming technology, theatre companies should continue exploring the nuances of how games involve and engage players. Moving forward, we encourage theatre companies to draw on digital game theory to help weave the interactive and story elements together to create an enhanced and cohesive theatrical experience.

Competing Interests

The authors have no competing interests to declare.

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