

Interactivity and immersion in a media-based performance

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Abstract:

The concept of immersive theater is today growing in success. For certain artists, theorists and journalists, the idea of combining the notions of immersion (in a media-based environment) and interactivity whenever they evoke immersive theater seems obvious. Yet is it really so natural to combine these two concepts? In this article we will examine the relationship between immersive theater and interactivity in three steps. Firstly, we will define the concept of interactivity, in order to clearly lay out what it is, and also what it is not. We will then propose a model of immersive theater. Finally we will look at several dramaturgical techniques which essentially aim at a *personalisation* of immersive theater, without necessarily leading to interactivity.

Keywords: immersion, interactivity, performance, media, dramaturgy

The concept of immersive theater is today growing in success, be it with artists (from international avant-garde theater for commercial success such as *Then she fell* by Third Rail Project (2012), New York) or indeed with researchers, to the extent that Mark Lawson (2012) has stated, 'On a bad day at the Edinburgh or Manchester festivals, there were times when a critic felt dizzy nostalgia at the sight of a seat or a script.'

For certain artists, theorists and journalists, the idea of combining the notions of immersion and interactivity whenever they evoke immersive theater seems obvious. In *The Huffington Post*, for example, Hallie Sekoff (2012) suggests a top ten of interactive productions, including several performances which are clearly qualified as being immersive, such as *Sleep No More* by the London-based company Punchdrunk. Yet is it really so natural to combine these two concepts?¹ Can most immersive theatrical productions, which conserve a dramatic dimension, also combine these two notions in their dramaturgy? How can we combine the development of a story, be it non-linear, with an interactive structure?

To what do such theatrical pieces actually correspond? For example, the artist Toni Dove excludes the idea of choice when she evokes interactivity: 'the metaphor of choice is not a compelling one – there is no real choice in a mapped interactive matrix. Choice is preprogrammed.' (1994: 282) Yet is choice not precisely a condition of interactivity? Toni Dove invites us to pose a recurring question whenever we talk about interactivity: can we talk about interactivity if the whole device has been prearranged? How much room to manoeuvre is the participant allowed and how can we integrate this room to manoeuvre into a model?

In this article we will examine the relationship between immersive theater and interactivity in three steps. Firstly, we will review the concept of interactivity, in order to clearly lay out what it is, and also what it is not. It will appear that it is more crucial to work with the theatrical limits of interactivity rather than promoting an idealistic but unrealistic freedom of the spectator. We will then briefly propose a definition of immersive theater. Finally we will look at several dramaturgical techniques which essentially aim at a *personalisation* of immersive theater, without necessarily leading to genuine interactivity.

Defining interactivity

Our approach to the definition of interactivity is divided in three parts: first, we highlight the fashionable and nearly mythical aspect of this concept. Second, we examine inclusive definitions of interactivity and we finish with definitions that reject such inclusive approach. Like all popular concepts, even more so those with a large audience, the notion of interactivity covers a multitude of definitions and is often linked to other concepts (sharing, participation, exchange, sense, immersion etc.), which leads to the specificity of each diminishing. With their origins in ritual, futuristic experimentation at the beginning of the twentieth century and performances in the 1960s and 70s, the participative arts have notably developed since the end of the 20th century. Political and technological context explains this in part: Neil C.M. Brown *et al.* (2011: 212-219) highlight the development of participative technology since the year 2000; meanwhile Helen Freshwater (2009: 4) has observed a political interest in participative questions ever since Tony Blair's election in 1997 in the UK. Moreover, Nicolas Bourriaud (2002: 14) underlines the influence of urbanisation: the increasing number of social exchanges, and the reduction of living space which this implies, is suited to an artistic approach based on proximity and social exchanges, beyond the motorways of communication condemned by Baudrillard.

Interactivity has become so fashionable that it has in some ways become almost mythical. The notion's very range, for example, explains why Lev Manovich (2000: 55) prefers not to get involved. However, Manovich's attitude is paradoxical as he approaches interactivity in such a wide-ranging manner that there is no choice but for it to descend into tautology. Art, for the researcher, be it classical or modern, is interactive by definition, as it depends upon the receiver's collaboration: mental collaboration in that it requires filling in for omissions or missing details; physical collaboration in that the spectator moves around in order to observe a particular painting or sculpture etc. The receiver's collaboration can

also be found in the interactivity literary model put forward by Marie-Laure Ryan in 1999. In this article, Ryan distinguishes between literary and figurative interactivity; these two sides represent a weak and strong form. Weak figurative interactivity is applied to classical narratives while the stronger is applied to postmodern texts. Ryan emphasises the active nature of reading in this model. Going back to Umberto Eco's expression, is the *open work* necessarily interactive? In this case it rather seems like interactivity is assimilated with what Nicolas Bourriaud referred to as the transitivity of art: 'Transitivity is as old as the hills. It is a tangible property of the artwork. Without it, the work is nothing other than a dead object crushed by contemplation.' (2002: 26) The objective (i.e. as an object) value of the play collides with the event's mutability, rendering interactivity impossible. Therefore transitive work is not necessarily interactive. Incidentally, this minimalistic approach to interactivity does not appear in the models put forward by Ryan in 2001 and 2002.

Many researchers suggest an inclusive definition of interactivity, which they separate into various stages and which they bestow with a 'minimal' level. Aside from Ryan's model which we have already examined, those of Saltz (1997) and McIver Lopes (2001) also contain a minimal level, which they attribute to the way in which access to different elements is controlled, for example when we consult the chapters of a DVD or a book. Aaron Smuts is amazed to find this minimal level in Saltz's model, as he himself indicates that, '[t]his type of "interactivity" is no different in kind from that afforded by a printed anthology [...] or encyclopaedia [...].' (Saltz in Smuts 2009: 59) In the manner of Smuts, we can reject this minimal level as a manifestation of interactivity; it is nothing else but a question of control - two notions which we should not mistake for one another.

Having expelled the two minimal levels of transitivity and control from our approach, let us now examine various models which put forward a progressive definition of interactivity.

Steve Dixon (2007: 563) defines interactivity using four stages: navigation, participation, conversation and collaboration. The fourth stage implies that we go further than interaction based on the pre-established limits of the work; the user distorts the piece of art and constructs 'new art' from the work, making each encounter between a participant and the work unique. This model is similar to the one which was published by Ryan in 2001 (2001: 205). Dixon's model also identifies four levels: the first consists of 'reactive' interaction: the environment reacts to the participant's presence without him carrying out any particular movement, for example using sensors. The second stage consists of a random selection between various alternatives. The hypertext illustrates this stage. The third stage sends us back to selective interaction, through which the participant strives to meet an aim. The fourth and final stage involves the participant actively producing something which has a lasting effect on the textual world, whether it is by leaving objects behind or through writing his story.

In Dixon and Ryan's models, it is only the last stage which allows the participant the opportunity to intervene in the direction of the performance by going beyond pre-established limits; in Ryan's model, we move from *selective* interaction (implying a selection

between prearranged options) to *productive* interaction, which is open to the unforeseen. The space left for indeterminacy enables the work of art to become a social interstice: 'The interstice is a space in human relations which fits more or less harmoniously and openly into the overall system, but suggests other trading possibilities [rather "possibilities of exchanges"²] than those in effect within the system.' (Bourriaud 2002: 16) It is thus possible for a real encounter to take place between the participant and the work.

In order to address the indeterminacy of this encounter at the very heart of their models, researchers naturally take the user's degree of input into account. Dixon (2007: 560) underlines the way in which authorship is transferred from the artist to the user. McIver Lopes (2001) believes that we can be said to be dealing with 'strong interactivity' whenever the participant is able to modify the 'structure' of the work of art.

Marie-Laure Ryan's model, which she put forward in 2002, takes the same approach: it is made up of four stages of interactivity, which depend on the degree of influence the user's input has on the way in which the fictional world is narrated. The four forms of interactivity result from associating the pairs 'internal/external' and 'exploratory/ontological'. The model is progressive; the variability brought about by the users' input gradually increases, until at the fourth stage it nears the myth of the Holodeck. The external/exploratory interactivity (group 1) refers to the freedom of being able to choose one's own narrative journey amongst the suggested options. The hypertext illustrates group one perfectly. Here, the narration is not affected by the user's navigation through the piece; but rather by the way in which the narrative elements are put together. The second grouping, which concerns internal/exploratory interactivity, involves the user being integrated into the fictional world. He acts as a secondary character, whose actions do not change the narrative flow. Third, external/ontological interactivity implies that the user becomes 'the omnipotent god of the system' (2002: 598), in the same way as a videogame player such as in *The Sims*. Finally, internal/ontological interactivity (group 4) brings together productions which integrate the participant in the time and space of the fictional world. His actions change the narrative; it is no longer narrated but rather enacted. The user no longer exercises the function of a spectator, rather he is completely engaged as a participant. Adventure videogames are typical of this type of interactivity.

The theories which reject an inclusive approach to interactivity, and instead put forward a limited definition, exclude the first three stages from Dixon and Ryan's models (2001) and the first two groups from Ryan's 2002 model, on account of their lack of indeterminacy. The place left for indeterminacy constitutes the heart of the definition of interactivity put forward by Aaron Smuts. He suggests a limited definition based on the concept of interaction:

X and Y interact with each other if and only if (1) they are mutually responsive, and (2) neither X nor Y completely control the other, and (3) neither X nor Y responds in a completely random fashion. Based on this relation we can derive a definition of interactive: *Something is interactive* if and only if (1) it is

responsive, (2) does not completely control, (3) is not completely controlled, and (4) does not respond in a completely random fashion. Smuts 2009: 65)

Smuts's approach to interaction is based on control: interaction consists of testing the Other and trying to control him. Once the Other is under control, there is no more interaction. The researcher takes a high-spirited horse as an example: there is interaction as long as the horse does not allow itself to be controlled and the individual continues to try to control it. Once the horse has been domesticated, its actions are controlled by the individual and the interaction disappears. Along the same lines, he gives the example of a tennis match between a professional player and an amateur, in which there is no interaction, as the former controls the latter. Thus Smuts develops a *relational* approach to interactivity: Clearly, then, interactivity must be a relational, not an intrinsic property. In themselves, things are not interactive; it is only in relation to our ability to control something that it is interactive *for us.*' (2009: 65) Smuts approaches interactivity with a win-lose account of the two instances. If the player wins in a foreseeable fashion, and so controls the outcome of the match in terms of naming a winner, it does not necessarily mean that he is in control of his opponent's actions, as the amateur player's movements are still free. Even though the professional player is capable of returning every ball to the other side of the net, he cannot determine the nature of his opponent's strikes. When the level of suspense and adrenaline decreases, the unpredictability of both players' actions remains. The degree of indeterminacy which is maintained in these sporting and equestrian examples justifies the fact that they can be considered interactive. Moreover, this interactivity does not necessarily take the playful form of a competition between two parties, arising from the nomination of a victor.

The limited approach to interactivity which Smuts puts forward excludes many different, partially indeterminate, encounters from its field of application. The level of interactivity may vary, as we have seen with the amateur tennis player and the horse, but this does not mean that it disappears completely. After reviewing definitions of interactivity, our next question is to determine to what extent they can be applied to immersive performances.

Working with the limits of interactivity

Following this brief overview, it would seem that inclusive definitions of interactivity can easily be applied to immersive theater; the stages which do not take account of indeterminacy are well suited. The question of the ontological appropriation of a performance is more delicate: we will see that few productions in immersive theater really make use of indeterminacy and therefore do not achieve the higher levels of interactivity. Equally, it is difficult to link them to interactivity as an indeterminate social practice.

Having said this, interactivity in the strictest sense of the word is not the be-all and end-all. Steve Dixon (2007: 564) indirectly cautions us against the myth of interactivity when he observes that certain practices from the third level of his model (the conversational level)

appear particularly interactive due to the rich and free nature of the user's input, despite the fact that they do not really contribute to the development of the performance. The highest level of interactivity does not necessarily go hand in hand with the best quality. Similarly, we should be prudent as to the value of participatory practices. Helen Freshwater (2009: 62-76) underlines the fact that participation is not always synonymous with either the spectator's empowerment or pleasure, and that the desire to give him a certain amount of liberty is sometimes hindered by performances which may be rather manipulative or inhibiting. According to Kurt Lancaster, for example, certain practices such as participatory theater enable the participants to distance themselves from societal roles and to inject their own values into the experience. For instance, he quotes the participatory play *Tony n' Tina's Wedding*, which, due to its fictional nature, allows the participant to express himself more freely than he might at a real wedding. Lancaster quotes Goffman, for whom, 'we all have the capacity to be utterly unblushing provided only a frame can be arranged in which lying will be seen as part of a game [or performance] and proper to it' (Goffman 1974: 573 in Lancaster 1997: 78) But do such performances really offer a framework in which total liberty of expression and intervention is authorised? Although the social framework may be temporarily suspended, the spectacular framework also entails rules which the participant has to respect. Social constraints are replaced by dramaturgical constraints, and the mere fact that the participant willingly subjects to them does not mean that they do not exist. Therefore the individual's freedom is more limited than Lancaster seems to think. The conclusion of his article plays witness to the fantasies which can be accorded to such participatory practices: 'Performance-entertainments provide 'sheltered, ideal worlds' in which the values and desires of a society are expressed, revealed, and perhaps fulfilled.' (Lancaster 1997: 86)

Richard Schechner highlighted the difference between the aims of certain participatory practices and their actual effect on spectators thirty years ago. These reservations are still relevant today. It is therefore more important to work with the limits of interactivity, and to explore the tension between the pre-established dramaturgy and the place left for the participant, than to get over-enthusiastic about the freedom offered to the participant and the beneficial effects of such practices. Let us now define immersive theater and examine to what extent it fits within the limits of interactivity.

Immersive theater and interactivity: a model in three steps

In this section of the paper, we present our model of immersive theater and confront it with interactivity. We then illustrate this theoretical model with performances of three major immersive companies: Blast Theory, Punchdrunk and Crew. Founded in the early nineties in Brighton (UK), Blast Theory particularly explores the social and political dimensions of technology in multimedia performances. They notably use locative media and mixed reality to propose innovative approaches to site-specific cultural spaces. Since 2000, the London-based company Punchdrunk has produced immersive theatrical experiences in which the

spectator, immersed in neatly arranged sites, is offered a more active experience, as he is free to explore the created environment in an individual journey. Eric Joris and his Belgian company Crew propose performances on the border between performance art and new technology. Mainly based on omnidirectional video, their hybrid performances question the boundaries between the real and the virtual.

We agree with Elena Gorfinkel's study on video games (in Arsenault and Picard 2007: 5) when she brings to mind the fact that immersion is not a characteristic but rather an *effect* which a work may produce on the participant. It is important to make this distinction as it explains, in part, to what extent it is impossible to establish a strict dichotomy between immersion and critical distance. According to Oliver Grau (2003: 13), it is not a question of "one or the other"; the relationship between immersion and critical distance depends on numerous parameters, including the participant's temperament. Indeed, the participant's immersion is dependent on his willingness. No matter how immersive a performance may aim to be, it will always be possible to maintain one's critical distance, thereby negating the immersion. No production can guarantee immersion; thus our model depends not on particular performances but rather on immersive strategies which are employed and which can be encountered in a variety of works.

Dramatic immersion distinguishes itself from literary immersion by the tangibility of the world into which the individual is plunged, as opposed to the world of literature into which the reader is absorbed. For Ryan (2001: 14), the latter produces an imaginary relationship with a literary world, which leads the addressee to metaphorically plunge into the tale. Richard Gerrig (in Ryan 1999: 116) links literary immersion with the concept of 'transportation', through which a reader of fiction distances himself from his immediate physical environment in order to 'lose' himself in the story.

Immersive theater places the participant at the heart of a work. All the same, it abandons the exclusive search for a physical and mental transportation in order to place the subject in a specifically theatrical *entre-deux*, between adherence and denial. Rather than a difficulty to be hidden, the medium's visibility is exploited and lodges itself at the heart of this theatrical language: at particular moments, the immersant may be absorbed to the point of substituting the environment for everyday reality; the medium appears transparent and the created world seems to be offered without any intermediary. At other times, he becomes aware of the artificial nature of the world into which he is plunged and adopts a position external to the work. It is precisely this game of coming and going which constructs and deconstructs physical and mental immersion and which constitutes the specificity of immersive theater.

Given the variations of physical and dramaturgical proximity and environmental penetration, our model of immersive theater is centered upon three steps. This can be summed up in the following manner:

- I. Physical integration vs. breaking down formality
- II. Sensory and dramaturgical immersion

- a. Placing the immersant at the centre of an environment, between simulation and representation
 - b. The immersant's dramaturgical integration, first person dramaturgy
- III. Immersion and spatiotemporal indeterminacy

Each step represents a specific anchorage of the fluctuation between the real and the imaginary. Once the first stage is reached, the boundaries between the real and the imaginary are physically disturbed; the fluctuation between the real and the imaginary is no longer structured by physical separation. At this stage, it cannot yet be called immersion.

If many theatrical practices described as immersive theater obey step one, they cannot really be aligned with immersive theater *stricto sensu*. Indeed, it is not enough just to break the frontal division between the stage and the audience in order to achieve immersion. Gareth White appears to support this idea when he states:

“Immersive theater”, then, is an inviting but faulty term to use to describe the phenomena it currently designates. Immersive theater often surrounds audience members, makes use of cleverly structured interiors and ingenious invitations for them to explore, addresses their bodily presence in the environment and its effect on sense making, and teases them with the suggestion of further depths just possibly within reach. But it has no strong claim to creating either fictional or imaginative interiors in any way that is different in kind than in more conventionally structured audience arrangements. (White 2012: 233)

Breaking down frontality is only the first step to immersive, physical integration.

At this stage, it is not yet a question of immersion. The work of the company Punchdrunk illustrates the reservations expressed by White: while they are often described as immersive, some of their plays maintain an explicit distinction between the performers and the spectators. The use of a mask is emblematic of this separation:

The mask is the most crucial part in a way. A clear division is established between audience and performers yet you're allowed to get as close as you want. [...] The mask allows you to function as a voyeur, as a camera because you're more aware of where you're looking, what you choose to see and your peripheral vision is slightly affected. Other audience members don't necessarily inform your experience; don't affect it because they become part of the space. They're ghosts, you can forget about them. They can melt into the aesthetic or they can form walls (Barrett, 2007: 9-10).

This quotation from Felix Barrett, the founder of Punchdrunk, demonstrates how the dividing line between the actors and the audience is maintained, in spite of their unique

physical proximity: the metaphor of the camera, the voyeur and the ghost underlines the way in which the spectator is kept at a distance from the dramatic action. He is integrated into the physical space but not into the fictional. As a result of this, similarly to White, we shall not consider this type of dramatic practice as specifically immersive theater. Nevertheless, the boundary is not completely impenetrable. The moments in which a silent one-to-one encounter occurs between the spectator and an actor give us cause to question the separation of the roles. In such moments, the spectator is no longer an external observer; his presence is incorporated into the action. However, Josephine Machon (Barrett in Machon 2007) notes that time hangs upon these exceptional moments. They appear as an aside and do not constitute the heart of the aesthetic; the aesthetic fusion mentioned by Barrett seems insignificant, despite the fact that it plays a central role in immersive theater.

Another level of fluctuation is achieved once the second stage is reached: the immersant is sensorial and physically plunged into an imaginary world to which he belongs; interactivity can then appear. The essence of immersive theater can be found in this assimilation: '[I]mmersive theater...marks a piece of theater *experienced from within* rather than as an outside observer... You are part of it, rather than looking on fundamentally distinct.' (Trueman, 2011: Npag., emphasis added in Machon 2013: 72)

Navigation (stage 1 of Dixon's model) is a common form of interactivity in immersive productions. In this case, navigation gives bodily perception its rightful place. Work on immersion generally underlines the central role of corporal appeal in creating an acute sense of being. For example, Josephine Machon (2013) concentrates on the visceral dimensions of immersive performance; Sarah Rubidge (2011: 113) evokes the fact that certain installations appeal to what Paul Rodway calls the 'intimate senses (the haptic, the kinaesthetic, the visceral, the proprioceptive)'; Frances Dyson (2009) demonstrates how the work of Char Davies (particularly her famous installation *Osmose*, 1995) frees itself from a western, dualistic view of the world, in that she offers the experience of being dominated through breathing and balance rather than through sight; the British company Punchdrunk aims for participants to 'become most aware of *being* in the moment.' (Machon 2007)

As Ryan underlined, in Virtual Reality, placing the body at the centre of a performance allows for a combination of immersion and interactivity (which are incompatible in literature), as immersion depends on bodily perception rather than language:

In VR, the sense of immersion is given by image, sound and tactile sensations. Interactivity is added to the experience by coordinating the display with the movements of the user's body. The physical presence of the body in the virtual environment reinforces the sense of the physical presence of the virtual world. [...] It is therefore through the mediation of the body that VR developers envision the reconciliation of immersion and interactivity. (Ryan 1999: 133)

Productions of immersive theater include a more developed narrative dimension than most virtual reality installations. Just as in VR productions, the assimilation of the immersant's body acts as a more significant lever for immersion and interactivity than the narrative dimension. For Nathaniel Stern, the body is the key element in interactive art: 'interactive art, qua inter-active, must be examined with the moving body-in-relation ; body and world must be understood as implicit in one another.' (Stern 2011: 233)

Far from being a side effect whose purpose could be resumed as breaking the spectator's classical appeal, the immersant's sensory appeal constitutes an experience which places his body at the heart of the dramaturgy. The immersant's body experiences first-hand the fluctuation between what is real and what is imaginary.

In numerous immersive performances, the perceptive confusion caused by the illness acts as a starting point to explore our perceptive processes and identity construction. In Crew's performances, the participant is plunged into a modified perception of character via a head-mounted display. The feeling of immersion essentially comes from the 360 degree vision which the display allows; the image which is projected in front of the participant's eyes follows every movement of his head. These images mix pre-recorded sequences with scenes produced with performers in real time, around the participant. One such example is in *Eux* (Crew, 2008), where the spectator takes on the role of a patient suffering from agnosia (a loss of recognition.)

The immersant is plunged into a 'transitional space' (Vanhoutte *et. al* 2008: 159-162) in which it becomes difficult to discern the barrier between the immediate universe and the mediatized universe. The immersant questions his own perceptions and in this way becomes in accordance with his character's perceptive questioning.

This transitional space can be explored in more playful ways. The tension between the social world and the world of performance is at the heart of the dramaturgy of productions by the famous British company Blast Theory. *Uncle Roy All Around You* (2003) puts forward the idea of participating in a game around the city, combining the properties of a videogame with those of performance. The city becomes a hybrid space, at the crossroads between the real and the imaginary. According to Matt Adams, a member of Blast Theory, the game explores the differences between 'the city as a place of quotidian banality [...]' and 'the city as a fantastic place for otherness and endless possibilities [...]' (Adams in Giannachi *et al.* 2011: 39) Gabriella Giannachi *et al.* (2011: 39) emphasise the way in which the performance thus creates an ambiguous relationship with the city's materiality. From this 'inbetweenness' emanates a feeling of uncertainty, for example the participants have difficulty telling whether passers-by are part of the performance.

The third step takes the form of absolute immersion, whereby the immersant experiences confusion between the real and the imaginary universe, even at the level of his approach to the existence of his body in the space: the body scheme can be manipulated; the ability to situate one's body in a space can be impeded. The immersion achieved in this third stage is such that even when the immersant stops cooperating, he is unable to distinguish between the real and imaginary worlds, his approach to his own body being

hampered. It is hardly worth stating that such moments of immersion are temporary and very difficult to attain; the majority of immersive productions fall under the second grouping. Furthermore, access to the third stage is encouraged by the use of 'perceptive' equipment (Heim 1995: 65-77), such as HMD displays, which prevent the immersant from seeing his own body and make us think of a falcon which has been blinded by a mask.

Three strategies for personalisation

As the previous section shows, interactivity is a rather rare mechanism among immersive performances. Personalisation is a more common dramaturgical strategy. In this section, we identify three dramaturgical strategies which *personalize* the performance rather than propose a truly interactive experience.

As with VR, immersive theater seems to enable us to combine immersion with interactivity, in particular due to the central role given to the participant's body. In many cases, however, this interactivity does not extend further than the first levels, namely navigation, selective interactivity and internal/exploratory interactivity. In immersive theater, the work is personalised for each participant yet he is still not able to achieve a truly productive role in the experience. The uniqueness of performances which are created for one person at a time comes from the fact that they give the impression that the participant has a central role and thus that they achieve the internal/ontological level identified by Ryan, even though *in fine* it would appear that his actual collaboration is much more limited.

Let us now look at three ways in which the immersive experience can be personalised, without going so far as to give the immersant the role of a collaborator. While these techniques are not systematically used in immersive theater, their popularity in immersive productions nevertheless makes them typical of the genre.

Introspective dramaturgy

The act of incorporating the participant into the representation obviously implies a fragmented, more porous story than in neatly tied-up dramatic action. It is of course impossible to expect a user to improvise for the whole duration of a play or to take on one of the main roles in a story. In order to create a certain sort of interactivity, immersive theater often develops a 'polychronic narrative' (Stern 2011: 214). This can be linked in particular to the navigation model: in Stern's opinion, this type of narration enables the immersant to effectively move around through a series of pre-written events. The freedom comes from the fact that he can move forward at his own pace, and even take a step backwards if he so wishes. This freedom of navigation is made possible due to the nature of polychronic narrative: '[Polychronic narration] is not a complete absence of sequence or the lack of definite sequence but instead a kind of narration that exploits indefiniteness to pluralize and delinearize itself, to multiply the ways in which the events being recounted can

be chained together to produce “the” narrative itself.’ (Herman (1998: 75) in Stern 2011: 215)

However, the participant can only set his own pace to a certain extent; these polychronic moments are separated by *key primitives*, in other words by prearranged actions. Thus the producers of the performance take back the control of the experience. These moments are necessary for the story to advance. We have previously seen that immersive theater often leads to the development of introspective dramaturgy, based on sensory issues or problems with memory. This type of dramaturgy is conducive to interactive immersion for many reasons: 1) the meandering themes are well-suited to polychronic narrative; 2) the theme of irrationality compensates for any problems in transitioning between scenes. Michael Mateas and Andrew Stern have suggested that in interactive drama, changes to the story should not in fact be presented at precise, obvious, turning points: ‘Rather, the plot should be smoothly mutable, varying in response to some global state which is itself a function of the many small actions performed by the player throughout the experience’ (2000: 1). As actions which modify the story are basically non-existent in immersive plays, it is almost impossible to make such a smooth transition. Abrupt changes, allowing for an irrational dramaturgy, make up for this issue. 3) Introspective (sensorial) dramaturgy allows the feelings experienced by the immersant to be made to coincide with those experienced by his character. The character embodies auto-reflexive actions; he observes the world and tries to understand how his perceptions have been modified by the illness.

The act of favouring introspective dramaturgy does not encourage the immersant to carry out unexpected actions. Unlike immersion in adventure games, which encourages personal initiative, here the emphasis is on an auto-reflexive attitude by which the immersant *himself* limits his room for manoeuvre. The emphasis placed on thinking about ‘being’ in the play limits interactivity. The interactivity is limited to the internal/exploratory stage.

Conversely, the *missions* by Blast Theory have been thought out in such a way as to encourage the participant's potential for appropriation and emancipation: ‘Although participants were often required to engage in missions [...] the majority of game time was spent simply surviving, [...] “being” in the game. The slow pace, and the fact that nothing much happened to its participants [...] prompted groups of players to “gang up” with each other to produce more substantially “dramatic” action or even generate bespoke missions and happenings.’ (Giannachi 2011: 79) To a certain extent, in this case, a difference between the imagined trajectory and the one actually taken by the participants is possible. The way in which the performance is orchestrated is key, but rather than restricting the participant, it is conceived in a creative manner, as ‘a playful exchange between the unpredictability of the public, the natural entropy of the city, and our intentions as artists.’ (Nick Tandavanitj in Giannachi 2011: 203)

First-person dramaturgy: identity ambiguity

Immersive theater often leads to the participant being assigned a double identity: the immersant is incorporated into the fictional world as the character he embodies but his social identity is also mentioned in the play. It is easy to personalise the work in this way, for example by referring to the immersant by his name. The character he plays is often anonymous, or of no specific gender, which helps the immersant to identify with him, as the differences between his own identity and that of his character are minimised.

In immersive theater, the pronoun 'you' is frequently employed when addressing the immersant. Jeremy Douglass (in Benford and Giannachi 2011: 207) has shown how games use the second person to encourage an effect of identification or immersion in the first person. As in the digital fictions analysed by Alice Bell and Astrid Ensslin (2011: 318), immersive theater 'employ[s] the textual "you", mostly by combining actualized and fictionalized address with doubly deictic "you", in order to blur the boundaries between game and fiction while simultaneously subverting the subjective, uncritical behavior and attitudes exhibited by readers/players [immersants].' (2011: 318) So, who is this 'you'? Is it a reference to the character or the immersant? The theme of identity ambiguity is frequently explored in immersive theater.

Blast Theory take particular advantage of this confusion. Gabriella Giannachi *et al.* highlight this identity-related tension in the performance *Ulrike and Eamon Compliant*, in which the participants can choose to perform as an individual or to take on the role of either Ulrike Meinhof or Eamon Collins: 'to what extent is the performer asked to play a specific character, rather one that they have been given or one that they have created, versus to what extent are they performing themselves?' (Giannachi 2011: 200) Thus, first-person dramaturgy places the participant at the heart of the experience, from both the individual's point of view and indeed from that of the character he is playing.

The aesthetics of fear

Let us now turn to the third and final technique, which aids the process of individualisation while at the same time limiting the immersant's freedom. This technique can be referred to as the aesthetics of fear. In Helen Freshwater's eyes, 'anxiety and apprehension are central to many of the effects and affects evoked by participatory performance.' (2009: 65)

Whether incorporated into the imaginary world, as in immersive theater, or kept at a distance, as in Punchdrunk's productions, the individual is often subjected to a fear-inducing aesthetic which inhibits his actions.

The immersant can be led into a dark area: he takes careful steps for fear of falling, deafening sounds echo the character's uneasiness etc. The immersant's nerves are subjected to a harsh ordeal. This frightening, sensory experience does not encourage one to act on one's own initiative and rather tends to inhibit the participant. Sensory disturbance is particularly suited to this technique.

In addition to the anguish this sensorial atmosphere can provoke, another form of anxiety can be caused by coming face-to-face with a performer. Sean Bartley reminds us of Nicholas Ridout's comments (2006: 79), which highlight the pressure felt by participants in such moments, as the rules are unclear and they therefore do not know how to act. Their identity-related confusion can add to this fear: are they expecting me to react like a performer playing a character or as an individual? And if it is the former, how would my vague character react?

Baz Kershaw underlines the paradox of the participant's freedom sought after by the Living Theater, which he calls 'theatrical pathology' and which is produced when an attempt to increase the spectator's freedom results in 'brute oppression'. While this paradox can be applied to certain radical practices in immersive theater, it is also worth mentioning the practices which inspire confidence in spectators and give them a certain amount of responsibility. One illustration of this would be the way in which the tension between the prearranged experience and that experienced by the participant is explored in *Ulrike* by Blast Theory.

Immersion, interactivity and personalisation

Combining the notions of immersion and interactivity seems obvious for many artists, researchers and journalists. Yet is it really so natural to combine these two concepts? To answer this question, we highlighted the almost mythical aspect of the notion of interactivity; then we reviewed the definitions of interactivity (inclusive and non-inclusive ones) and concluded that most common interactive forms actually explore minimal levels of collaboration with the individual. We showed that playing with the limits of theatrical interactivity seemed more fruitful than trying to reach some level of spectator's freedom. We then proposed a model of immersion, which we confronted to interactivity, and we applied it to performances created by three major multimedia companies, Blast Theory, Punchdrunk and Crew. We highlighted dramaturgical strategies for *personalisation* rather than truly interactive techniques.

Immersive theater puts the immersant at the very heart of the action. From a sensory point of view, this can be conveyed by stimulating environmental sensations. They are linked to the story and become an essential part of the imaginary world. The central role which is given to the immersant in the work, combined with plays aimed at one participant at a time, does not necessarily mean that he benefits from a lot of room to manoeuvre. Depending on the model, the level of interactivity can be named navigation, selective interactivity or internal/exploratory interactivity. Even when immersive theater allows the participant to experience auto-reflexive dramaturgy, his personal actions do not define how the action plays out. The wavering dramaturgy of dreams and sensorial disturbance effectively alternates with the *key primitives* which ensure that the action progresses as it should. Moreover, the dramaturgy of anxiety is better suited to inhibiting the participant than to encouraging proactive behaviour. The participant himself limits the different forms of interactivity. While these practices invite the participant to take part in an experience rich

in immersive techniques which barely take account of his identity, he is nevertheless a puppet whose strings are pulled by the artists.

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Notes:

¹ According to Marie-Laure Ryan, for example, immersion and interactivity are incompatible because they imply different approaches to signs: immersion uses signs in reference to the world they represent whereas interactivity is based on the materiality of the medium: 'you cannot see the worlds and the signs at the same time.' (Ryan 1999: 132) For the researcher, virtual reality allows us to combine the two concepts. In this particular case, 'the interactive nature of digital worlds is the true foundation of their immersivity.' (2002: 595)

² "possibilité d'échanges" in the original French version.