Extending the Computers as Theatre Metaphor: From Presence in the Theatre to Telepresence

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Abstract

This paper extends the connection between computers and theatre, first explored by Brenda Laurel in her research into human-computer interface. Applying a similar approach to the study of telepresence can present new perspectives and yield an interesting insight into the causes, effects and structure of telepresence. Working within a phenomenological tradition, the author establishes some points of connection between presence in the theatre and telepresence: the role of mediation, suspension of disbelief and a theatre audience's or virtual environment user's deliberate imaginative act. A further analysis of these aspects of presence, which are foregrounded and emphasised in the theatre, will add new dimensions to an understanding of telepresence.

Keywords: **Telepresence**, **theatrical presence**, **perception**, **disbelief**, **imagination**, **phenomenology**

"[An audience] can be transported out of its ordinary reality – an audience sitting in a theatre watching actors perform – into a temporary acceptance of stage fiction as reality"

(Watson, 1988, p.309)

Presence underpins our mode of being. Yet, we are rarely aware of it in most of our everyday activities. Instead, construct becomes this foregrounded and studied when we perceive a feeling of being in an environment that differs from our surroundings and from the location of our body. This feeling of transportation into another world comes forth in different types of experiences, from watching a play at the theatre to participating in virtual environments. Digital performance makers have explored the connection between these two types of presence by assimilating telepresence-inducing technology within performance works, in which both forms of presence enhance each other. In this exploratory paper, I aim to determine the value of applying theatre theories to examine telepresence. I first consider presence within a phenomenological context. Then I identify three elements of the structure of presence that appear more prominently in the theatre but also support telepresence: the mediated quality of perception, the importance of a background awareness of the medium, willing suspension of disbelief, and an imaginative act.

An understanding of one mode of presence can enhance an appreciation of another one. This research will make a case for applying theatre theories in the study of telepresence. Brenda Laurel (1993) has previously drawn 'illuminating connections' between computers and theatre when researching humancomputer interaction. Through this approach, Laurel reveals fresh perspectives of analysing the phenomenon of human-computer interface. Similarly, the application of this approach to the study of telepresence can reveal aspects of the basic structure of presence that are more evident in the theatre. However, studies that adopt such an approach are sparse and they generally draw a parallel between only one aspect of theatre studies and telepresence research to suit their focus (Salvini, 2006; Unterman, 2006).

Theatre practitioners, researchers and audiences generally recognise that presence is an essential element of the theatrical experience. "Theatre and presence: the two terms are so connected as to seem (Power, almost synonymous" 2008, p.1). Computational technology and the theatre are both media that produce and complicate presence. Drawing from my background in theatre and performance studies, I outline an approach to enrich an understanding of telepresence. This project will be mutually beneficial to both fields, theatre studies and telepresence research. A clear definition and understanding of the word 'presence' is lacking in the theatrical context, where it is used interchangeably to refer to the feeling of being transported into the fictional world of the play, to an actor's charisma and appeal on the stage, to the mode of being present in the contemplation of an art-work or to notions of liveness. In this paper, I focus on the conception of presence as transportation (Lombard and Ditton, 1997) as it appears in the theatre. This project will also enrich the existing qualifications of telepresence by drawing on elements of presence foregrounded in the theatre but less discernable when participating in virtual environments.

1. Presence in Phenomenological Terms

Presence in the physical world pertains to our relation to the world, to the place in which a body is located (Veerapen, 2011). The relation between self and place is enacted by and through the body (Casey, 2001, p.687). By existing, we are already in the world, in a place: being-in-the-world is the ontological mode of *Dasein*, of our being (Heidegger, 1927/1962, p.84). Merleau-Ponty examines the specific and unique manner by which this relation between body and world occurs through the concept of perception, which gains a connotative field in phenomenology absent from its common usage. For Merleau-Ponty, to perceive is to have a body.

Perception is an embodied process which does not only refer to apprehending the world and its contents through our five senses. More importantly, it refers to our orientation towards the world with the possibility for action (Merleau-Ponty, 1945/2009). A person can only act on something if she is in the same place as the object; perception cannot be disengaged from the sense of presence. A phenomenological approach to telepresence supports the view that the external/perceptual view of presence needs to be considered (Jones, 2007).

However, presence is complicated when watching a performance or participating in a desktop virtual environment. In both cases, a person sees a place which she cannot directly perceive as she would with the physical world. Yet, users of virtual environments and theatre audiences describe a feeling of presence in the non-physical world in a manner similar to how they might feel present in the world. As being-in-the-world is an a priori of existing, we strive to maintain this intertwining between self and place in situations where a mediating interface has been introduced. I approach presence as an umbrella term to refer to the subjective sensation of being in a placial context. Consequently, presence in the theatre and telepresence are manifestations of presence that rely on mediation.

In this paper, I make a phenomenological move. I consider theatrical performances that do not incorporate telepresence-inducing technology and desktop virtual environments, which have a less performative format than some other telepresence systems. If, as mentioned above, they are both forms of mediated presence, they must share to some degree a common structure. By looking for the commonalities, I can identify the structure essential for mediated presence, without which mediated presence cannot exist. This paper initiates this inquiry by identifying for future study some common elements across the structures of both forms of presence.

2. Mediated Perception

Presence in the theatre and telepresence refer to the sense of being in and interacting with either the fictional world or the virtual world, as presented through the medium of the theatrical frame and computational technology respectively. The relation between a person and these worlds is first established through the perception of that other world and its objects. Steuer's structure of mediated perception in telepresence (1992) seems to apply to the theatre audience who "is [also] forced to perceive *two* separate environments simultaneously: the physical environment in which one is actually present and the environment presented via the medium" (p.75). However, existing observations in the context of the theatre reveal a more complex structure.

The physical surroundings and the mediated environment are not two separate places. Perceived aspects of the mediated environment are in fact situated within a perceiver's physical surroundings. The graphics of a virtual environment or video conferencing stream are composed of pixels on the screen in front of a user. The set and props of a play are located on the stage a few metres away from an audience member. However, these mediated environments seem to develop a significance of their own, which distinguishes them from a person's physical surroundings. In fact, the theatrical or virtual experience seems to influence and modify the mode of perceiving such objects. Sartre (1976) observes, "in the theatre, I do not see the object, because to see it would be to connect it with my universe, in which it would be a cardboard tree, since actually seeing it would be seeing it as something painted on a flat or a designated object" (p.11). Instead, an audience perceives a tree that can provide shade from the harsh sun. Similarly in the context of telepresence, I do not see the virtual environment and its objects as pixels on a computer screen because such a perception would hinder the creation of the feeling that I can be there and interact with those objects. If a person engages in a semiological analysis of what is presented on the stage or the screen, the mediated world loses its phenomenological and affective immediacy. The structure of this mode of mediated perception by which a person feels she can affect and be affected by either painted cardboard or pixels on a screen needs to be further developed.

3. Importance of a Background Awareness of the Medium

A tension exists between the role of the medium and the contents it presents to a person in both manifestations of presence. The International Society of Presence Research (2000) identifies this aspect of telepresence in its definition: "Except in the most extreme cases, the individual can indicate correctly that s/he is using the technology, but at *some level* and to *some degree*, her/his perception overlook that knowledge". This is very similar to Power's (2008) observation about the theatre event. "One might say that a feature of much theatrical experience involves the *simultaneity* of imaginatively 'seeing' a fictional world that has been conjured up, while seeing the theatrical means of creating the fictional" (p.9). Power notes that a person can focus on either the medium or the contents it presents. This situation, which also applies to the use of virtual environments, is underpinned by a Gestalt structure: one of the two elements is the focus of attention while the other recedes to the background. As Arvidson (2006) explains in his work on the phenomenology of attention, attention is dynamic. The focus continually and frequently alternates between the medium and its contents. This constant shift in attention does not have a detrimental effect on presence unless the medium is foregrounded for a longer period of time, thereby leading to a break in presence (Slater and Steed, 2000, p.420). Even as a spectator sees a tree or ocean on stage, a background awareness of a painted cardboard or blue lit moving paper on the floor remains. Similarly, a user maintains a background

awareness of the graphical images on a screen even when she feels a sense of telepresence in the virtual environment.

This existing tension between medium and fictional or virtual world does not necessarily have a negative impact on the creation of presence. Instead, it can create a safe distance that enables a person to enjoy participation in various activities in the other world. The positive results of this distancing effect of the tension are obvious when analysing an actor onstage. During a performance, an actor is transported into the world of the play and the character she is playing. However, there is a part of the actor that knows she is acting. Morris (1992) argues that this part lies on the eleventh level of the actor's consciousness. He believes that an actor can be involved in the reality of the play on the first ten levels, resulting in "a deep enough involvement not to be interfered with by the eleventh" (p.240). This concept of the eleventh level of consciousness explains how an actor can lose herself in a play as a murderer and can even enjoy playing that character without becoming a danger to herself or others. The eleventh level of consciousness enables an actor to be aware at *some level* and to *some degree* of the theatrical medium. The development and application of this concept to telepresence can contribute to existing literature on the phenomenon of a strong sense of presence in violent games without per se transforming gamers into dangerous individuals in their everyday lives. The application of this theatrical construct will bring a better understanding of the embodied processes by which a user perceives the virtual environment as a safe context within which to take risks and perform what might be considered, in a different context, dangerous behaviour.

4. Willing Suspension of Disbelief

Coledridge's concept of the "willing suspension of disbelief" (1920, p.52) is accepted as an important element of any theatrical event and is central to the creation of theatrical presence. As a result of suspending disbelief, an audience ignores the fact that a painted cardboard is not a tree and a big bluelit sheet of paper is not the ocean. In several of his prologues, Shakespeare explicitly invites the audiences of his plays to suspend their disbelief. An example is The Chorus of Henry V: "Can this cockpit hold/ The vasty fields of France? Or may we cram/ Within this wooden O the very casques/ That did affright the air of Agincourt?" (1988, p.569). The Chorus here invites the audience to ignore the surrounding Globe theatre ("wooden O") and the fact that they are not actually in "the vasty fields of France." Audience members are invited to adopt a belief system that differs from the one operating during everyday activities.

Although several researchers have identified the role of the willing suspension of disbelief in the creation of telepresence (Sheridan, 1999, 2000; Slater and Usoh, 1993), a sustained attention to when and/or how users suspend their disbelief is lacking. In the theatre, the suspension of disbelief is part of the

contract established between an audience and a theatre company. Performers and technicians will supply the audience with the necessary suggestions and the latter will overlook the objects' existence as prop or set. No one is likely to protest because there are no real fields of France, trees or ocean on a stage. This contract is likely first established when payment is made to purchase the tickets and reinforced when an audience enters the theatre. Applying theatre theories in this instance will reveal when and how an equivalent contract is formed when using virtual environments. Further development of this line of inquiry will offer an new insight into the involvement of a user in the formation of a sense of telepresence.

5. Imagining: A Wilful Act

Intricately linked and connected to Coleridge's description of the willing suspension of disbelief is the concept of imagination. In fact, he dedicates a chapter of his book (1920) to this topic. In the case of a production of Henry V at the Globe theatre, an audience member's suspension of disbelief will enable her to ignore that she is in a theatre in London. As a result, she becomes more receptive to imagining "the vasty fields of France" and to being transported into the fictional world. During the performance, the playwright, actors and designers will only provide her with suggestions. Through "a wilful act of imagination" (Power, 2008, p.24), an audience will imbue the vasty fields of France with the richness and complexities associated with places encountered in life. In fact, Shakespeare (1988) directly and openly appeals to the audience's imagination in the prologue: "And let us, ciphers to this great account,/ On your imagination forces work" (p.569).

Jones (2007) surveys telepresence researchers who have considered imagination within the creation of telepresence. Sheridan (2000) also identifies the role of an "active imagination linked to the act of suppressing disbelief" (p.3) in the creation of telepresence. As a result of a wilful act of imagination, a user will perceive what are really 2D graphics on a screen as a rich place with which she can relate and interact. It is only then that she can experience telepresence. This is opposed to someone who only sees the 2D graphics and cannot understand the appeal of what appears to that person as a fake and unreal world. A detailed examination of this embodied process of imagining is lacking. This differs from the faculty to imagine worlds and scenarios when day dreaming, for example. Imagining in the context of telepresence refers to the act of investing a rich life-like quality to mediated environments to enable a person to be-in-it similar to how she is in the world.

Power (2008) observes that the need for imagination in the theatre does not arise in the naturalistic movement, which advocated the construction of highly realist sets. This is in line with the widely accepted belief in telepresence literature that users do not rely on photo-realism to experience telepresence. Mantovani and Riva (1999) note, "the quality of presence and telepresence does not depend ... on the faithfulness of the reproduction of physical aspects of external reality" (p.542). In fact, several virtual environment users mention in their blogs that they struggle to experience telepresence when engaging with photo-realist virtual environments and avatars. This observation suggests that the imaginative act plays a significant role in the creation of telepresence.

"An extraordinary thing about theatre is that the imagination of the audience is so ready to any suggestion" (Brook, 1999, p.90). An appropriate suggestion, which is neither completely removed from the physical world nor too realist and literal, on a theatre stage invites an audience to fill the dots through a process of imagining. This establishes a form of investment in the world of the play. It in turn facilitates the development of an affective relation with that place and can lead to a sense of transportation away from the surroundings into the other world. A similar thing happens in the context of virtual environments. Some researchers such as Coman and Rauh (2003) identify the role of "a certain degree of imaginative engagement" with the virtual environment in the creation of telepresence. However, the specificities of this imaginative engagement need to be further developed to better understand the relation between imagining and telepresence.

It is important to note that the act of imagining creates an active theatre audience or virtual environment user. Instead of presenting a fully developed world, the non-realist stage set or nonphoto-realist virtual environment places a demand on audiences and users respectively. They are less likely to be passive observers because they have a duty to undertake as part of the contract they entered in when attending a performance or participating in a virtual environment. Examinations of imagination have often slipped into an abstract and/or metaphysical realm or have inflated the value of imagination beyond what they could prove (Casey, 2000, p.1-3). Phenomenology, with its focus on living and embodied experience, can analyse the process of imagining in more concrete terms. Casey's phenomenology of imagining (2000) offers a starting point to tease out the structure of imagining that operates in the creation of presence in the theatre and telepresence.

6. Future Research

This paper has identified certain points of connection between presence in the theatre and telepresence. The common elements of the structure of embodiment need to be further developed and shaped into a framework of analysis to better understand both forms of presence. Furthermore, this paper has focused mainly on the parallel between virtual environment user and theatre audience. However, a user adopts the equivalent positions of both spectator and actor. Further development of this approach will have to accommodate theatre theories which encompass both perspectives. Acting training techniques by which an actor feels present within the world of the play can also reveal features of the basic structure of mediated presence applicable to telepresence.

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