

# Tracing the Impact of the Digital Virtual Ludic on Immersive Theatre: A Case of Theatre Gamification

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## ABSTRACT:

Immersive theatre, a theatrical form emerging at the beginning of the 21<sup>st</sup> century, invites spectators to become immersed in interactive theatre performances. The use of the term immersive indicates a strong influence from digital media, particularly from virtual worlds (VWs). Immersive theatre and VWs appear to share characteristics. A systematic comparative approach tracing the presence of characteristics shared by immersive theatre and VWs (i.e., virtuality, worldliness, information intensity), among others, still unique to VWs (i.e., agency, ergodicity), reveals that immersive theatre has assimilated some VWs characteristics while still being in the process of negotiating others. The paradigm of pervasive games is brought into the conversation to claim immersive theatre as a partially successful case of theatre gamification, revising theatrical and dramatic conventions, towards what could be called a digitally and ludically inspired neo-dramatic. New inter-medial forms of expression could benefit from the adoption of a game/play frame.

## KEY WORDS:

digital games, immersive theatre, pervasive games, theatre gamification, virtual worlds.

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# Introduction

Immersive theatre is a trend of performances “which use installations and expansive environments, which have mobile audiences, and which invite audience participation”.<sup>1</sup> It tends to resist any straightforward definition as a genre with fixed codes and conventions, since it refers to “pluralities of practice”.<sup>2</sup> These pluralities are manifest so that immersive theatre is often referred to as immersive ‘shows’, ‘performances’, ‘performance installations’, ‘events’ and ‘experiences’, with no special concern for accuracy in the use of terminology. Instead, what seems to matter is spontaneity and the impulse of the spectators’ urge to share their impressions, together with any effects the immersive practices have had on them. This imprinting of powerful, mesmerizing experiences upon spectators’ memories by immersive theatre performances is said to occur, using a metaphor of transportation,<sup>3</sup> as an outcome of immersion, a sense of diving into a universe, mingling with it and its inhabitants. Typical immersive theatre creators include Punchdrunk, Third Rail Projects, Speakeasy Dollhouse and many more.<sup>4</sup>

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1 WHITE, G.: On Immersive Theatre. In *Theatre Research International*, 2012, Vol. 37, No. 3, p. 222.

2 MACHON, J.: *Immersive Theatres: Intimacy and Immediacy in Contemporary Performance*. London : Palgrave Macmillan, 2013, p. 15-16.

3 RYAN, M-L.: *Narrative as Virtual Reality 2: Revisiting Immersion and Interactivity in Literature and Electronic Media*. Baltimore, MD : John Hopkins University Press, 2015, p. 66.

4 For more information, see: *Punchdrunk*. [online]. [2023-03-16]. Available at: <<https://www.punchdrunk.com/>>; *Third Rail Projects*. [online]. [2023-03-16]. Available at: <<https://thirdrailprojects.com/>>; *Speakeasy Dollhouse*. [online]. [2023-03-16]. Available at: <<http://speakeasydollhouse.com/>>.

It is difficult to demarcate a prototype for immersive theatre, especially as current scholarship and media use terminology at will, rather than by contemplating criteria about what constitutes an immersive theatre performance. This terminological fluidity becomes evident with immersive theatre productions and creators resisting classification under the category of 'immersive theatre'. Dreamthinkspeak, for example, has been established in the 'collective psyche' as immersive theatre creators, a viewpoint not always supported by them in interviews.<sup>5</sup> Rift consider their work "experiential" rather than "immersive", although media may refer to it by the latter term.<sup>6</sup> Furthermore, an artist may create an immersive theatre performance, but not be self-defined as an immersive theatre maker until the very performance takes place. Such is the case of A. Hoepfner, who is self-defined as "a touring musician before falling in love with the form of immersive theater".<sup>7</sup>

The sample of immersive theatre performances that sparked this analysis mostly comprises ones that are primarily acknowledged by their makers as such and form a mediably distinct qualified genre, such as Punchdrunk's. This immersive theatre paradigm usually builds unique dense and inviting worlds, sometimes in a site-specific logic, to be experienced as navigable environments, in physically open or closed spaces, where performers and spectators interact *within* a fictional frame. These worlds are often illustrated through the massive use of intense scenography and costumes. The scenic environment becomes a lived space and the spectators in it, ideally, accomplices. A central linear dramatic plot is abandoned for what appears to be a constellation of procedural, fragmental, ergodic<sup>8</sup> narrative strands.

The explosive expansion of the ludosphere means that practices and concepts relating to play and games become ubiquitous in all kinds of cultural spheres.<sup>9</sup> The use of the term *immersive* itself indicates an obvious influence from digital media, also verified in a theatre studies perspective.<sup>10</sup> The aforementioned traits of immersive theatre are clearly met in the intersections between the fields of *human-computer interaction* (HCI) and game studies, *virtual worlds* (VWs), especially those of digital role-playing games, but also *virtual environments* (VEs)<sup>11</sup> and *virtual reality* (VR).<sup>12</sup> The term VW signifies "a synchronous, long lasting network of people, represented as avatars, facilitated by networked computers".<sup>13</sup> VWs include an array of types from game-oriented to socially oriented worlds, such as *massively multiplayer online* (MMOs), *massively multiplayer online games* (MMOGs), and *massively multiplayer online role-playing games* (MMORPGs) "and then they include everything

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5 HANRA, H.: *We Took a Ride on the You Me Bum Bum Train*. Released on 19<sup>th</sup> June 2015. [online]. [2023-03-30]. Available at: <<https://www.vice.com/en/article/dp5pdv/you-me-bum-bum-train-378>>.

6 Rift. *Stories Without Boundaries*. [online]. [2023-03-16]. Available at: <<http://www.r-ft.co.uk/>>.

7 *Houseworld Immersive*. [online]. [2023-03-16]. Available at: <<http://houseworld.nyc>>.

8 For an introduction to the notion of the *ergodic*, see: AARSETH, E.: *Cybertext: Perspectives On Ergodic Literature*. Baltimore, MD: Johns Hopkins University Press, 1997.

9 STENROS, J., KULTIMA, A.: On the Expanding Ludosphere. In *Simulation & Gaming*, 2018, Vol. 49, No. 3, p. 345.

10 CARLSON, M.: Postdramatic Theatre and Postdramatic Performance. In *Revista Brasileira de Estudos da Presença*, 2015, Vol. 5, No. 3, p. 586.

11 Remark by the authors: VEs are computer-generated and sustained synthetic environments, to be experienced at the level of both representation and presence.; See: NAZIR, S. et al.: *Virtual Reality and Augmented-Virtual Reality as Tools to Train Industrial Operators*. In BOGLE, I. D. L., FAIRWEATHER, M. (eds.): *22nd European Symposium on Computer Aided Process Engineering*. Oxford: Elsevier, 2012, p. 1397-1401.

12 Remark by the authors: "A high-end user-computer interface that involves real-time simulation and interactions through multiple sensorial channels"; BURDEA, G., COIFFET, P.: *Virtual Reality Technology*. New York, NY: Wiley, 2003, p. 3.

13 BELL, M. W.: Toward a Definition of "Virtual Worlds". In *Journal of Virtual Worlds Research*, 2008, Vol. 1, No. 1, p. 2.

in-between”.<sup>14</sup> A VW is necessarily accessible through an avatar and aspires to incorporate the subject in the game world, whereas a VE may just imply a first-person perspective without perceivable embodiment. A VR may not have role playing capacities.<sup>15</sup>

Could immersive theatre be an instance where the theatrical metaphor, the *modus operandi* of *theatrum mundi* (“all the world’s a stage”) merges with that of *ludus mundi* (life as a [computer] game),<sup>16</sup> thus justifying the use of terms such as ‘events’ and ‘experiences’ to also describe immersive theatre performances? Is immersive theatre truly a theatrical or a hybrid intermedial form occurring at the intersections between performance, play/games and VWs, somewhat hastily being labelled ‘theatre’?

Approaching immersive theatre from a game studies/digital media perspective may have a lot of potential. First of all, some theoretical approaches framing such an impact and indicative manifestations are presented, followed by an attempt to discuss the digital virtual ludic in the example of VWs and immersive theatre, in relation to key notions, such as virtuality. A systematic examination of major key characteristics shared by both medial forms leads to the conclusion that at least some of them are found to be *imported* from the digital virtual ludic to immersive theatre. The process of negotiating, assimilating and adapting such distinct characteristics in immersive theatre is revealed to convey a more specific prototype, that of pervasive games, a digital virtual ludic medial form which draws upon a mixed notion of physicality/virtuality.

The aims of the article are to i) trace the impact of the digital virtual on immersive theatre by focusing on its assimilated characteristics as well as those posing diachronic challenges for immersive theatre ii) locate the digital virtual gaming form that possibly serves as a prototype for immersive theatre iii) explore the conceptual implications and paradoxes emerging from the use of the term ‘theatre’ to describe immersive performances and iv) propose that immersive theatre is a case of theatre gamification that revises theatrical and dramatic conventions towards what could be called a digitally and ludically inspired *neo-dramatic*.

In order for this problematic to be explored, a conceptual rather than a morphological approach appeals, because taking a specific example as a paradigm for the whole could lead to generalizations about the rest of the immersive practices. Some examples of immersive theatre performances are, of course, mentioned to better situate the reader within the problematic, but the focus of the article remains on the conceptual interrelations between immersive theatre and digital virtual gaming. The discussion involves mostly VWs as an example of the digital virtual ludic that appears to facilitate a comparative analysis with immersive theatre more than, for example, a digital game with no clear role-playing element, like *Pacman*<sup>17</sup>, or a disembodied training simulation with basic ludic references.

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14 Remark by the authors: The term will, from now on, be used as a generic one to convey digital virtual play/gaming, unless otherwise stated. Both VR and VEs partially overlap with VWs, as VWs may become VR through the use of technical gear.; COX, A. M. et al.: Virtual Worlds, Virtual Reality, and Augmented Reality: Differences in Purchase Intentions Based on Types, Users, and Sex. In *Journal of Virtual Worlds Research*, 2017, Vol. 10, No. 1, p. 2.

15 Remark by the authors: However, VR is elsewhere considered to include “Desktop VR” systems that display the virtual environment on a 2-D desktop computer screen and “second-person VR” systems that represent the user as an avatar (or figure) on the screen, without a first-person perspective, thus seen as a broader category than VWs.; For more information, see: SCHROEDER, R.: Networked Worlds: Social Aspects of Multi-User Virtual Reality Technology. In *Sociological Research Online*, 1997, Vol. 2, No. 4, p. 89-99.; Remark by the authors: Furthermore, while VEs may be technical simulations for operational or training reasons, the term VR may strongly refer to the use of equipment, such as headgear.; COX, A. M. et al.: Virtual Worlds, Virtual Reality, and Augmented Reality: Differences in Purchase Intentions Based on Types, Users, and Sex. In *Journal of Virtual Worlds Research*, 2017, Vol. 10, No. 1, p. 2.

16 STAMPFL, N. S.: *Gamification: Life As A (Computer) Game?*. Released on November 2013. [online]. [2023-03-30]. Available at: <<https://www.goethe.de/ins/bd/en/kul/tec/amd/20371175.html>>.

17 NAMCO: *Pac-Man*. [digital game]. Tokyo, Chicago, IL : Namco, Midway, 1980.

# Indicative Manifestations of the Impact of the Digital Virtual Ludic onto Immersive Theatre

The time period marking the rise of immersive theatre, according to M. Carlson, is the beginning of 21<sup>st</sup> century,<sup>18</sup> synchronous to the wider social and cultural impact of the digital revolution. The ways in which immersive theatre companies try to reproduce VWs' liveness and presence and bring them into physical space have not remained unnoticed..<sup>19</sup> R. Biggin provides examples where the overlap between games and immersive productions received some attention in the past.<sup>20</sup> Her reframing of the narrative vs. ludology debate<sup>21</sup> within an immersive theatre context, as well as her systematic presentation of the *Sleep No More* (2003) project by Punchdrunk and MIT Media Lab,<sup>22</sup> one of the more admired immersive theatre performances, adheres to the certainty of M. Carlson's suggestion. Interestingly enough, E. Pérez and L. S. Coterón suggest correspondences between HCI and Human-to-Human-Interaction (H2HI) within a game design context.<sup>23</sup> E. Pérez's doctoral analysis,<sup>24</sup> in fact, focuses on the impact of digital media on contemporary mixed-media performance. Empirical data in the field of interest further whet the appetite:

Since the boom of large-scale immersive performances such as those of Punchdrunk, or so-called by media such as those of You Me Bum Bum Train, Shunt, and Dreamthinkspeak, various reviewers have compared their experience of such work with their experience of playing digital games and navigating VR. T. Bosanquet states: "There's a computer game-like experience offered by immersive theatre that really appeals to a younger generation".<sup>25</sup>

Immersive theatre sometimes directly converses with the use of digital technology to generate and enhance its experiences. When it does, digital technology is usually embedded within the concept, function and/or narrative of the performance. Such a case appears to be *Somnai* (2018) by Dotdotdot, which aspires to create a layered reality using VR, augmented reality (AR) and projection mapping, while exploring lucid dreaming and the subconscious. Other cases, rather 'unclassifiable' immersive performances that are not

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18 CARLSON, M.: Postdramatic Theatre and Postdramatic Performance. In *Revista Brasileira de Estudos da Presença*, 2015, Vol. 5, No. 3, p. 586.

19 OWEN, D.: *Player and Avatar: The Affective Potential of Videogames*. Jefferson, NC : McFarland, 2017, p. 46.

20 BIGGIN, R.: *Immersive Theatre and Audience Experience: Space, Game and Story in the Work of Punchdrunk*. London : Palgrave Macmillan, 2017, p. 157.

21 Remark by the authors: This debate was 'hot' in 00's, when radical ludology was seen by 'narrativists' as wanting to dispose of the notion of story in games. See also: FRASCA, G.: Ludologists Love Stories, Too: Notes from a Debate that Never Took Place. In COPIER, M., RAESSENS, J. (eds.): *Proceedings of the 2003 DiGRA International Conference: Level Up*. Utrecht : Utrecht University, 2003, p. 92-99.

22 BIGGIN, R.: *Immersive Theatre and Audience Experience: Space, Game and Story in the Work of Punchdrunk*. London : Palgrave Macmillan, 2017, p. 157-175.

23 For example, see: PÉREZ, E., COTERÓN, L. S.: Performance Meets Games: Considering Interaction Strategies in Game Design. In *Digital Creativity*, 2013, Vol. 24, No. 2, p. 157-164.

24 For more information, see: PÉREZ, E.: *The Impact of Digital Media on Contemporary Performance: How Digital Media Challenge Theatrical Conventions in Multimedia Theatre, Telematic and Pervasive Performance*. [Dissertation Thesis]. Trondheim : Norwegian University of Science and Technology, 2016.

25 KLICH, E.: Playing a Punchdrunk Game: Immersive Theatre and Videogames. In FRIEZE, J. (ed.): *Reframing Immersive Theatre: The Politics and Pragmatics of Participatory Performance*. Basingstoke : Palgrave Macmillan, 2017, p. 221.

necessarily defined by their makers as immersive theatre, such as *Kidnap* (1998) by Blast Theory. *Best Before* (2010) by Rimini Protokoll and *Symphony of a Missing Room* (2012) by Lundahl & Seidl, flirt strongly with the use of digital technology.<sup>26</sup>

# Positioning VWs and Immersive Theatre on the Virtual Continuum

The term *virtual* has come to signify *digital* or computer generated and sustained. Despite the fact that a wide audience is nowadays acquainted with VR experienced through various systems, such as desktop or immersive ones,<sup>27</sup> the term virtual is not exhausted in the case of VWs, VEs or VR, but stretches along an axis delimited by two poles; at one end is the optical sense, the virtual as fake, with the negative connotations of illusion, and, at the other, there is the scholastic sense, with the virtual as potential, connected to productivity, openness and diversity.<sup>28</sup> This latter approach is supported by P. Lévy who explains that the virtual is a “powerful mode of being that expands the process of creation, opens up the future, injects a core of meaning beneath the platitude of immediate physical presence”.<sup>29</sup> Hence, the term virtual, signifying the experience of being in any mediated environment, may apply in quotidian contexts or ‘virtual realities’ of painting, writing or even thinking, and can be met in literature, arts, philosophy and dreaming.<sup>30</sup> Computer related virtual realities are not then the sole virtual ones.<sup>31</sup> The notion of the virtual can thus be conceived as a continuum, upon which various media, including artistic forms, may be anchored.

VWs/VEs/VR are based upon the same abstract notion shared by any synthetic environment created for the framing of a certain activity, situation or experience, during which information is conveyed to the human subject who actively experiences this environment.<sup>32</sup> Furthermore, the virtual and the fictional partly overlap and share the need of immersion in textual or iconic worlds.<sup>33</sup> L. Doležel builds upon U. Eco’s concept of “furnished” human constructs and describes possible fictional worlds as “ensembles of non-actualized possible

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- 26 See: *London’s New Immersive Theatre Production Somnai | First Look | Time Out*. Released on 24<sup>th</sup> January 2018. [online]. [2023-03-17]. Available at: <<https://www.youtube.com/watch?v=-yzbDKA-D4s>>; *Blast Theory*. [online]. [2023-03-16]. Available at: <<https://www.blasttheory.co.uk/>>; *Rimini Protokoll*. [online]. [2023-03-16]. Available at: <<https://www.rimini-protokoll.de/website/en/>>; *Lundahl & Seidl*. [online]. [2023-03-16]. Available at: <<http://www.lundahl-seidl.com/>>; Remark by the authors: This immersive experience was also held at the Acropolis Museum within the framework of the 2012 *MIRfestival*.; See also: *MIRfestival 2012*. 2012. [online]. [2023-03-16]. Available at: <<http://www.mirfestival.gr/12/en/programme.html#>>>.
  - 27 For more information, see: SCHROEDER, R.: Networked Worlds: Social Aspects of Multi-User Virtual Reality Technology. In *Sociological Research Online*, 1997, Vol. 2, No. 4, p. 89-99.
  - 28 RYAN, M-L.: *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media*. Baltimore, MD : Johns Hopkins University Press, 2001, p. 27.
  - 29 LÉVY, P.: *Becoming Virtual*. New York, NY : Plenum, 1998, p. 16.
  - 30 OTTO, P.: *Multiplying Worlds: Romanticism, Modernity and the Emergence of Virtual Reality*. New York, NY : Oxford University Press, 2011, p. 5-7.
  - 31 Remark by the authors: In fact, as their rich pan-sensorial representations and simulations are organized around partially actualized entities and predicted scenarios during the programming phase, they partially tend to resolve the knot of tendencies that the virtual is, rendering it contextualized, specific and eventful for the user.; LÉVY, P.: *Becoming Virtual*. New York : Plenum, 1998, p. 171.
  - 32 CHARITOS, D.: Dynitiki Pragmatikotita: Ena Proothimeno Systima Diepafis Anthropou-Ypologisti I Ena Neo Meso Epikoinonias?. In *Zitimata Epikoinonias*, 2005, Vol. 2, No. 1, p. 97.
  - 33 RYAN, M-L.: *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media*. Baltimore, MD : Johns Hopkins University Press, 2001, p. 89-91.

particulars – persons, states, events, and so on”.<sup>34</sup> Besides, VWs can be created to simulate the physical world or represent a totally fictional, imaginable or conceptual space.<sup>35</sup> From a Theatre Studies perspective, dramatic theatre offers an excellent paradigm of the virtual at work as it is based on the tension between the literal and the metaphorical, the physical and the fictional, giving rise to ever-changing and shape-shifting knots of tendencies. The core function of dramatic theatre is the layering of a concrete fictional possible world, a fragile, vulnerable but also persistently adaptive state upon the stage, by means of mutual complicity between actors and spectators.<sup>36</sup>

Immersive theatre may seem to be an extreme materialized manifestation of the virtual. Its thematic fictional cores ‘bleed into’ its expanded theatrical magic circle as they get visually, aurally and tactily incarnated, embodied, and deluge the spectators’ perceptual and performative fields. However, a closer look at immersive theatre reveals that the fictional and the physical have merged into one sole hybrid representational entity: the fictional has become partly physical, it has been *authored* as physical, it does not stand for the fictional anymore, but feels more grounded in the ‘real’. The immersive theatre fictional feels somehow more ripped off from its metaphorical dynamic. A bit like A. Artaud messing with super-naturalism, void of expressionistic cosmogonic explosivity and surrealist uncanniness; alarming, but also descriptive, of manageable human proportions.<sup>37</sup> In this process of the literal physical and fictional modal collision in one hybrid form, theatre loses part of its virtuality, a loss which further augments with its so-called ‘interactive’ dimension. The latter, through small ‘events’ occurring between spectators, the environment and the performers, renders specific the timeless and non-localized virtual.<sup>38</sup> In this respect, immersive theatre cannot claim to be more virtual than non-immersive theatre, despite its hermeticity and the promise of detachment from the quotidian,<sup>39</sup> conditions undoubtedly facilitating the virtual, as in VR, for example, but not virtual in themselves.

## Tracing the Impact of the Digital Virtual Ludic on Immersive Theatre

The following analysis evolves around two axes. On one hand, it explores the major assimilated key characteristics of the ludic digital virtual, as manifesting exemplarily in VWs, met in immersive theatre. On the other, it also traces the digital virtual ludic characteristics *being* assimilated by immersive theatre. The restricted absorbance of those elements should not be considered as an, objectively speaking, ‘failure’ of immersive theatre; on the contrary, they should be seen as reflective elements, rising from an awareness of performative utterances,<sup>40</sup> posing challenges to which immersive theatre tends to respond by the creative adoption of strategies.

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34 DOLEŽEL, L.: Possible Worlds of Fiction and History. In *New Literary History*, 1998, Vol. 29, No. 4, p. 787.

35 LEPOURAS, G. et al.: *Anaptyxi Systimaton Eikonikis Pragmatikotitas*. Athens : Kallipos, 2015, p. 3.

36 ELAM, K.: *The Semiotics of Theatre and Drama*. London, New York, NY : Routledge, 2003, p. 88-103.

37 For more information, see: ARTAUD, A.: *The Theatre and Its Double*. London : Calder and Boyars, 1970.

38 Remark by the authors: Philosophically speaking, the two terms *virtual* and *interactive* can be used together, but only under the restrictions imposed by the virtualization and actualization processes.; LÉVY, P.: *Becoming Virtual*. New York, NY : Plenum, 1998, p. 171.

39 GRAU, O.: Into the Belly of the Image: Historical Aspects of Virtual Reality. In *LEONARDO*, 1999, Vol. 32, No. 5, p. 365.

40 AUSTIN, J. L.: *How to Do Things with Words*. Oxford : University Press, 1962, p. 16.



## 1. The digital virtual ludic /VWs assimilated characteristics in immersive theatre

The following discussion refers to the major and key characteristics that VWs immersive theatre has more or less assimilated, such as immersion, worldliness and role playing, as well as sheds light on the details of their assimilation process.

### a) Worldliness: a space becoming a world

A *topos* where the virtual, the fictional and the physical meet is that of space/world. M.-L. Ryan talks about textual and iconic worlds,<sup>41</sup> U. Eco about 'furnished' ones<sup>42</sup> and L. Doležel of possible fictional worlds.<sup>43</sup> J. Huizinga's magic circle is a space where the development of temporary worlds within the ordinary is feasible.<sup>44</sup> M. Heim notes that "a world is not a collection of fragments, nor even an amalgam of pieces. It is a felt totality or whole [...] not a collection of things but an active usage that relates things together, that links them. [...] World makes a web-like totality [...] World is a total environment or surround space".<sup>45</sup>

The very term *cyberspace* implies a spatial metaphor. The notion of 'world' is crucial in ludic digital gaming examples such as VWs. This worldliness is an outcome of VWs in general, which are environments, spatial representations, inviting us to inhabit them and experience them as 'real', to have an impact on them and to receive back constant sensorial input. We come to inhabit them as virtual ecologies, as "miniature gardens",<sup>46</sup> discover their affordances and augment their representational load with a somatic, physical experience, expanding the horizon of our intentionality.<sup>47</sup> The sense of the 'worldliness' of VWs feels seductive but is also fragile. Any irrelevant stimuli in the form of sensorial input from the physical world, not designed to contribute to VWs, are in tension with them and cause a destabilization of presence and immersion in the VW. A major characteristic of the VWs worldliness that pervades immersive theatre performances is that of 'persistence'.<sup>48</sup> In VWs, the users feel that the world existed before them, awaited them to inhabit it and will exist and evolve even without them. Immersive theatre performance spaces have exactly the same feeling. The importance of space *becoming* a world to be inhabited is prominent. Everything is ready for the spectator to perceive, explore and occupy.

### b) Information Intensity

VWs achieve sustaining their worlds by means of *information intensity*. Information intensity is related not only to the richness and the density of information, but also to its variability in terms of the sensorial modality and *how* information reaches the user (visually, aurally or otherwise).<sup>49</sup> It is one of the three most important elements of VR in that only through intense information may the digital virtual world be sustained.<sup>50</sup>

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41 RYAN, M.-L.: *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media*. Baltimore, MD : Johns Hopkins University Press, 2001, p. 89-91.

42 For example, see: ECO, U.: Producing signs. In BLONSKY, M. (ed.): *On Signs*. Baltimore, MD : Johns Hopkins University Press, 1985, p. 176-183.

43 DOLEŽEL, L.: Possible Worlds of Fiction and History. In *New Literary History*, 1998, Vol. 29, No. 4, p. 787.

44 HUIZINGA, J.: *Homo Ludens: A Study of the Play-element in Culture*. London : Routledge & Kegan Paul, 1949, p. 10.

45 HEIM, M.: *Virtual Realism*. Oxford : Oxford University Press, 1998, p. 89-91.

46 GINGOLD, C.: *Miniature Gardens & Magic Crayons: Games, Spaces, & Worlds*. [Dissertation Thesis]. Atlanta, GA : Georgia Institute of Technology, 2003, p. 7-8.

47 GIBSON, J. J.: *The Ecological Approach to Visual Perception*. London : Psychology Press, 1986, p. 138-140.

48 See: ZHANG, K., KEMME, B., DENAULT, A.: Persistence in Massively Multiplayer Online Games. In CLAYPOOL, M. (ed.): *NetGames 2008. Network and Systems Support for Games*. Worcester, MA : Worcester Polytechnic Institute, 2008, p. 53-58. [online]. [2023-03-16]. Available at: <<http://www.cs.mcgill.ca/~adenau/pub/persistence.pdf>>.

49 ELLESTRÖM, L.: The Modalities of Media II: An Expanded Model for Understanding Intermedial Relations. In ELLESTRÖM, L. (ed.): *Beyond Media Borders. Volume 1*. Cham : Palgrave Macmillan, 2021, p. 49.

50 HEIM, M.: *Virtual Realism*. Oxford : Oxford University Press, 1998, p. 7.

The highly realized, materialized iconicity of immersive theatre, haptically inviting, and potentially interactive, often goes hand-in-hand with the provision of extreme detail in the scenic environment. This super-naturalistic trend of environments is not as much an aesthetic choice, but can be attributed to the need of addressing the attribute of information intensity in order for immersion to be sustained. The corpus of the information intensity category in immersive theatre performances is shaped as in thematic scenic environments, atmospheres, performers' polytopic actions – rather than actions on a monotopic stage, multisensorial invitations to visual, aural, tactile, even smell and taste stimulation. Immersive theatre rephrases information intensity as rich iconicity and abundance of pan-sensorial stimuli. An immersive theatre performance usually adopts a navigational point of view for the spectator, rephrasing, by physical means, the assimilation of VWs and digital role-playing games, in particular.

### **c) Immersion: taking the plunge into a diegesis?**

When we come face-to-face with a sensorially intense, rich in information and provocative world, our exploratory navigational instinct prompts us to enter and experience it as an environment. A prerequisite for immersion is an alternate state of things into which we take the plunge, separated by the observing subject with a material and/or conceptual membrane. Indeed, a frame separating the two worlds is needed; on one hand, there is the world where the subject is literally situated, and, on the other, another world into which the subject wishes to be metaphorically transported. In immersive theatre, the transportation is both conceptual and/or material, symbolically validating the subject's visit to the immersive universe as literal.

Immersion is a term with which the wide audience came in contact with VR applications before immersive theatre. The term describes the involvement of a user in a VW during which the user's awareness of 'real' time and the world often becomes irrelevant, because another world absorbs the user's focus. L. Freina and M. Ott define this term as a "perception of being physically present in a non-physical world by surrounding the user in the VR system created with images, sound, or other stimuli", so that a participant feels he or she is actually 'there'. The user feels somehow disconnected from reality, also gaining a sense of 'being' in the task environment instead.<sup>51</sup> The degree of immersion indicates the level to which users feel they 'really are' situated within the virtual environment and not in the physical one.<sup>52</sup>

Immersion is simultaneously the prerequisite and ideal key for breaking through towards a fictional or virtual world. From a more narratological point of view,<sup>53</sup> immersion is also said to occur in a narrative script, a text<sup>54</sup> and in role-play,<sup>55</sup> because fiction is "diegesis". M. Montola simplifies demanding concepts of narratology by explaining that "a diegesis means a fictional world or the truth about what exists in a fictional world. Something within a diegesis is called diegetic, something outside it is called non-diegetic".<sup>56</sup> Following this perspective, immersion is the 'plunge in diegesis', be it VR, a book, *live action role playing/games* (LARP) or immersive theatre. In LARP, as in dramatic theatre, immersion is embodied, in that the *larper* physically performs that plunge: the character and the individual 'share' the same skin.

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51 RADIANTI, J. et al.: A Systematic Review of Immersive Virtual Reality Applications for Higher Education: Design Elements, Lessons Learned, and Research Agenda. In *Computers & Education*, 2020, Vol. 147, No. 1, p. 2. [online]. [2023-03-30]. Available at: <<https://psycnet.apa.org/record/2020-07373-001>>.

52 LEPOURAS, G. et al.: *Anaptyxi Systimatou Eikonikis Pragmatikotitas*. Athens: Kallipos, 2015, p. 3.

53 For more information, see: HÉBERT, L.: *An Introduction to Applied Semiotics: Tools for Text and Image Analysis*. New York, NY: Routledge, 2019.

54 RYAN, M.-L.: *Narrative as Virtual Reality 2: Revisiting Immersion and Interactivity in Literature and Electronic Media*. Baltimore, MD: Johns Hopkins University Press, 2015, p. 64-66.

55 MONTOLA, M.: Role-Playing as Interactive Construction of Subjective Diegeses. In GADE, M., THORUP, L., SANDER, M. (eds): *As Larp Grows Up*. Copenhagen: Projektgruppen KP03, 2003, p. 85.

56 Ibidem, p. 82.

Immersive theatre tends to integrate the spectator, to offer embodiment in its blended universe. It invites to disconnect and inhabit its promising unique world. It brings the narrative world onstage and places spectators within it, compelling them to interact. However, it does so not through the usual narrative mode – by inviting the reader to execute the text into a ‘reality model’ – but by physically ‘realizing’ fiction *a priori* and serving it ready.<sup>57</sup>

#### **d) Role playing: frames, roles and the avatar**

VWs such as digital role-playing games are ‘laminated’ or ‘layered’,<sup>58</sup> in that many different frames interact in their experiencing process. Users shift between frames, and the VW frame can be seen as a ‘keyed’ one: “Keying means the transformation of something that is already meaningful on its own terms into something that the participants will see as something different”.<sup>59</sup> Indeed, instead of seeing a VW as a meaningful representation or a simulation of some sort, we soon perceive it as a whole environment, a total fictional universe.

Analogue<sup>60</sup> and digital role-playing games, in general, are said to be a limit case between play and games, in that they lack a quantifiable outcome and a single endpoint.<sup>61</sup> Digital role-playing games differ from digital games in that their game worlds are accessible through avatars and they require their players to play their characters in role. Role playing can be a frame of mind rather than an embedded element within the game mechanics.<sup>62</sup> In avatar-based play, the environment is perceived via the vicarious body of the avatar. The principle of the avatar offers a playful and exploratory mode of being-in-the-world; it temporarily transforms our situation at the level of perception and action, allowing us to try out and struggle with new bodily spaces.<sup>63</sup> Levels of role playing in avatar-based play involve engagement in character control which can be enhanced via voice, actions and attitudes. This playing of roles may vary from mere operational character control (over-distanced role play) to holistic, ‘immersed’ role-playing, which is manifested in even getting dressed like characters and producing text or speech in role.

Immersive theatre blends physical, scenic and fictional spaces further through the promise of physically being-in-its-world. This is achieved through the invitation to become actively embodied. The spectator is offered the role of the inhabitant of that environment, a role analogous to the avatarial entity of VWs and digital role-playing games.<sup>64</sup> The unique

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57 Remark by the authors: VR is perceptually three-dimensional, whereas immersive theatre usually literally ‘shapes’ three-dimensional environments, with the excessive use of detailed objects and labyrinth-like spatial concepts, thus attempting at remediating VR perspective.

58 GOFFMAN, E.: *Frame Analysis: An Essay on the Organization of Experience*. Boston, MA : Northeastern University Press, 1986, p. 82.

59 LINDEROTH, J.: The Effort of Being in a Fictional World: Upkeyings and Laminated Frames in MMORPGs. In *Symbolic Interaction*, 2012, Vol. 35, No. 4, p. 477.

60 Remark by the authors: Analogue role-playing games, especially tabletop but also LARP, preceded the advent of digital role-playing games. This impacted on immersive theatre; but as argued in the article, mostly through digital role-playing games and VWs, which have had a massive impact on culture altogether. Immersive theatre’s infatuation with immersion comes in a VR/VW/VE manner (detachment of spectator from the quotidian, hermeticity, multisensorial stimulation) in indication of the direct impact of VWs on immersive theatre. Besides, pervasive games andLARPs used to conceptually and morphologically overlap.; MONTOLA, M., JONSSON, S.: Prosopopeia. Playing on the Edge of Reality. In FRIZON, T., WRIGSTAD, T. (eds.): *Role, Play, Art: Collected Experiences of Role-Playing*. Stockholm : Föreningen Knutpunkt, 2006, p. 85-90.

61 SALEN, K., ZIMMERMAN, E.: *Rules of Play: Game Design Fundamentals*. Cambridge, MA: MIT Press, 2003, p. 81.

62 HELIÖ, S.: Role-Playing: A Narrative Experience and a Mindset. In MONTOLA, M., STENROS, J. (eds.): *Beyond Role and Play: Tools, Toys and Theory for Harnessing the Imagination*. Helsinki : Ropecon Ry, 2004, p. 65-72.

63 KLEVJER, R.: *What Is the Avatar? Fiction and Embodiment in Avatar-Based Single Player Computer Games*. [Dissertation Thesis]. Bergen : University of Bergen, 2006, p. 89-96.

64 LINDEROTH, J.: Animated Game Pieces. Avatars as Roles, Tools and Props. In KLEVJER, R. (ed.): *Aesthetics of Play*. Bergen : University of Bergen, 2005. [online]. [2023-03-19]. Available at: <<https://www.aestheticsofplay.org/papers/linderoth2.htm>>; JUUL, J.: The Game, the Player, the World: Looking for a Heart of Gameness. In COPIER, M., RAESSENS, J. (eds.): *Proceedings of the 2003 DiGRA International Conference: Level Up*. Utrecht : Utrecht University, 2003, p. 32-42.

performative peculiarity of immersive theatre facilitates active embodiment by means of entry into a 360° synthetic hybrid physical/fictional environment and of a promise to act, interact with it and within it with others (performers and spectators). In other words, it promises an experience in a first-person perspective analogous to the first-person digital virtual avatariar embodiment. The tendency of immersive theatre to remediate the avatar becomes evident with the adoption of a physical navigable point of view, that dislocates the spectating subject from familiar and conventional positioning, and with the provision of affordances that make sense both on a physical as well as a fictional level in the performance universe, such as touching/grasping items or opening doors.

Hence, the role-playing mode in immersive theatre indeed appears to rephrase the avatariar role playing mode within the hybrid physical/fictional world of immersive theatre. Does it succeed? It is one thing for immersive theatre to be inspired by the use of avatariar embodiment, and another to assign ergodic status and agency to the spectators that would give them access to 'mod the fiction', to author the experience. Spectators' partaking in the performance remains cognitively extra-diegetic, despite their co-presence in the same physical space as the performers, with interactivity being felt often as an illusion. Things may 'happen' to spectators, as they dance, eat, drink, are put in fridges, but their embodiment remains mostly on a somatic level. More rarely, performers genuinely co-develop fiction with the spectators. However, part of the deal of immersive theatre is actually to offer various modes of participation to the spectator, varying from full embodied participation, possibly including the co-development of fiction, to basic spectatorship in an immersive environment.

## **2. The digital virtual ludic/VWs characteristics under assimilation in immersive theatre**

The following part of the analysis highlights VWs characteristics that have remained less assimilated in immersive theatre, such as interactivity and agency. It also underlines the strategies immersive theatre invents to renegotiate these characteristics. With the aid of these strategies, the state of imperfect assimilation, rather than leading to 'failures', gives rise to idiosyncratic performative utterances.

### **a) Interactivity in VWs, interactive theatre and immersive theatre**

In HCI, the user is offered the power to control the computer in real-time by manipulating information which is displayed on the screen;<sup>65</sup> modify content and see actions instantaneously alter the mediated environment.<sup>66</sup> In a VWs context, the term refers to the capacity of the computer to shape the synthetic world, depending on the user's movements, actions and decisions.

L. Manovich calls for vigilance in any ontological attribution of interactivity solely to new media, as the category should be examined as applying to art forms and older media too, raising the issue of psychological interaction being rather neglected.<sup>67</sup> C. Wessely reminds the reader that 'interactivity' refers not only to the interaction between computer and player in determining the course of a game, but also involves the decision of *whether* and *how* the game becomes visible to the player.<sup>68</sup>

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65 MANOVICH, L.: *The Language of New Media*. Cambridge, MA : MIT Press, 2001, p. 55.

66 STEUER, J.: Defining Virtual Reality: Dimensions Determining Telepresence. In *Journal of Communication*, 1992, Vol. 42, No. 4, p. 83-84.

67 MANOVICH, L.: *The Language of New Media*. Cambridge, MA : MIT Press, 2001, p. 57.

68 WESSELY, C.: Columns of Figures as Sources of Aesthetic Illusion Browser-Based Multiplayer Online Games. In WOLF, W., WALTER, B., MAHLER, A. (eds.): *Immersion and Distance: Aesthetic Illusion in Literature and Other Media*. Amsterdam, New York, NY : Rodopi, 2013, p. 352.

Long before contemporary immersive theatre, participatory and interactive theatre invited the audience to get involved in some way in the performance,<sup>69</sup> to hold scenic items, make decisions on the plot, mingle with the actors and express themselves physically and orally. The 'breaking' of the fourth wall<sup>70</sup> was achieved through interactive theatrical and performative forms, such as *Epic Theatre*, the *Happening*, *Theatre of the Oppressed* and many more, designed to encompass the participation of the audience in the designing of the performance.

Interactive and immersive theatre partially overlap on the grounds of spectator participation, to such a degree that it feels often almost impossible to tell the difference, as there do not exist established rigid typological borders between the two. Their difference is mostly conceptual and functional. Interactive theatre invites the spectator to 'break' the fourth wall, enter the stage, or the performer to conquer the auditorium, and somehow interact. Immersive theatre intends to demolish *a priori* the fourth wall. It invites the spectator to enter, inhabit a world or the aesthetic of the work and become immersed.<sup>71</sup> In interactive theatre, which conceptually contains a considerable degree of alienation, of critical distance, the magic circle of the stage is breached by the quotidian. In immersive theatre, the magic circle expands and becomes literal and hermetic, like that of Virtual Reality.<sup>72</sup> A thematic world is usually already installed by the artists. Both theatres use spectator participation, but, interactive theatre does so in a critical or theatrical way, exploiting the distance between individual and character in order to achieve its aesthetic or political goals. Immersive theatre, on the other hand, uses spectator participation to render its world navigable, populated and experienced as 'real'. A. Alston characterizes this process as productive participation. Audience productivity in immersive theatre equals the objectification of experience as art and an entitlement "to proximate and intimate liaisons with performers or other audience members that are paid for and expected", a presumptive intimacy.<sup>73</sup>

The rise of immersive theatre might be approached as the return of techniques of audience involvement familiar to the 1960s and 1970s, but this time "shorn of political imperatives and allegiances"<sup>74</sup> The position of change, at least in political and sociological terms, in the problematic of immersive theatre remains totally peripheral, almost irrelevant. As A. Lavender puts it: "You don't change the event, here; you merely complete it. Nor do you change yourself [...] the spectator is implicated, even incorporated, rather than emancipated."<sup>75</sup>

## b) Ergodicity

The term *ergodicity* comes from the term *ergodic*, introduced by E. Aarseth in 1997 and is used in Game Studies to describe the process of performing and shaping reading paths through cybertext. The Greek words *ergon* and *hodos*, meaning 'work' and 'path' respectively, implying the mechanical organization of cybertext, reveal that, apart from the level of cognitive performance inherent in the practice of reading, "the user of cybertext also performs in an extra-noematic sense. During the cybertextual process, the user will have effectuated a semiotic sequence, and this selective movement is a work of physical

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- 69 SHANI, H.: The Theatrical Event: from Coordination to Dynamic Interactivity. In CREMONA, V. A. et al. (eds.): *Theatrical Events: Borders, Dynamics, Frames*. Amsterdam, New York, NY: Rodopi, 2004, p. 111-114.
- 70 JULLIEN, J.: *Le théâtre vivant: Essai Théorique et Pratique*. Paris: Bibliothèque Charpentier, 1892, p. 11.
- 71 BIGGIN, R.: *Immersive Theatre and Audience Experience: Space, Game and Story in the Work of Punchdrunk*. London: Palgrave Macmillan, 2017, p. 61.
- 72 GRAU, O.: Into the Belly of the Image: Historical Aspects of Virtual Reality. In LEONARDO, 1999, Vol. 32, No. 5, p. 365-366.
- 73 ALSTON, A.: *Beyond Immersive Theatre: Aesthetics, Politics and Productive Participation*. London: Palgrave Macmillan, 2016, p. 8.
- 74 WHITE, G.: On Immersive Theatre. In *Theatre Research International*, 2012, Vol. 37, No. 3, p. 222.
- 75 LAVENDER, A.: *Performance in the Twenty-First Century: Theatres of Engagement*. London: Routledge, 2016, p. 156.

construction".<sup>76</sup> In other words, ergodicity is a characteristic that signifies the transformation of extra-noematic, physical movement into diegetic action. In non-ergodic literature as we know it, the effort to traverse the text signifies no extra-noematic responsibilities placed on the reader except, for example, hints of eye movement and the periodic or arbitrary turning of pages.<sup>77</sup> E. Aarseth concludes that cybertext resembles a labyrinth, a game, or an imaginary world, in which the reader can explore at will, get lost, discover secret paths, play around, follow the rules, and so on: "The cybertext reader *is* a player, a gambler; the cybertext *is* a game-world or world-game".<sup>78</sup>

How true this appears to be in the case of immersive theatre, where spectators' navigation through space and choices shape their unique performance experience. Spectators appear to perform spatiotemporal, physical, cognitive and fictional choice and "find their way" as shaped through the unique path they choose to follow.

Immersive theatre is marketed as being 'interactive' but not as being 'ergodic'. However, part of what is promised with the use of the term 'immersive theatre', apart from interactive, is also ergodic. Spectators' movement and navigation aspires at becoming diegetic. This form of theatre is willing to offer all that a digital virtual world can offer, only literally within arm's reach; there is the sensation of an ergodic, virtual, cybertextual potential waiting to be actualized, in its atmospheric labyrinths, similar to those of VWs, but literally tangible in the physical world. Ergodicity in immersive theatre usually remains at a phenomenal level or is greatly constrained, even if dealt with in different ways. For example, a visit to *Houseworld*, entering rooms and interacting with the performers acquires a restricted diegetic dimension echoing a LARP performance installation practice,<sup>79</sup> whereas *Sleep no more* feels like "plunging inside a living movie".<sup>80</sup> No dynamic model, such as the one at work in VWs, may massively be embedded in the fabrication of immersive theatre performance. There is no 'recipe'. Its world is realized and the performance is set up and rehearsed in physical space, it contains room for choices, responding to or neglecting affordances but more solid-like, fully shaped, not as 'fluid' as in VWs. VWs have a Morpheus-like quality, due to the nature of the representation being bits of information *acquiring* shapes, that immersive theatre fails to imitate. Besides, a player, during an MMORPG gameplay, usually authors in real time changes in the system and for the other players. Immersive theatre spectators cannot, for example, 'mod' the performance by setting fire to an actor's wig, as the actor will not be able to carry through with the same sequence and the performance may have to stop both for diegetic as well as safety reasons. Hence, authoring a new plot path by modding a gaming world causes diegetic changes,<sup>81</sup> whereas modding an immersive theatre performance in the same way causes also severe extra-diegetic ones.

Despite the tendency to simulate the ergodicity of VWs, not only do the paths taken in immersive theatre performances have to be predictable, safe and socially convenient, but also restricted in number so that actors may prepare for them. The best feasible case for an immersive theatre production to simulate an ergodic paradigm is to achieve, or, at least, offer the potential for a multi-linear narrative structure and looping strategy.

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76 AARSETH, E.: *Cybertext: Perspectives On Ergodic Literature*. Baltimore, MD : Johns Hopkins University Press, 1997, p. 1.

77 Ibidem, p. 1-2.; Remark by the authors: However, the fact that the extra-noematic effort to read a book is thought as trivial becomes problematic. A miniscule performance still is performance. Also, all cognitive performance taking place when reading a book is physical.

78 Ibidem, p. 4.

79 Brooklyn's '*Sleep No More*' is '*Houseworld*,' *New Immersive Theater | BK Stories*. Released 15<sup>th</sup> December 2015. [online]. [2023-03-17]. Available at: <<https://www.youtube.com/watch?v=OaAtOhvIbul>>.

80 Felix Barrett on "*Sleep No More*". Released 28<sup>th</sup> July 2015. [online]. [2023-03-17]. Available at: <<https://www.youtube.com/watch?v=CKxtDQI5hfQ>>.

81 For more information, see: SCACCHI, W.: Modding as an Open Source Approach to Extending Computer Game Systems. In HISSAM, S. A. et al. (eds.): *Open Source Systems: Grounding Research. 7<sup>th</sup> IFIP 2.13 International Conference, OSS 2011*. Heidelberg : Springer Berlin, 2011, p. 62-74.

Perhaps the biggest proof that ergodicity is somehow still hindered in immersive theatre comes from the negotiation of the so-called 'blind spots'. Aarseth identifies the inaccessibility of some parts of the text also as a distinctive characteristic of cybertext. The paths not taken, the voices not heard form another world, missed in the ergodic process. This inaccessibility "does not imply ambiguity but, rather, an absence of possibility--an aporia".<sup>82</sup> It could be argued that immersive theatre ergodicity attempts at becoming analogous to its digital counterpart through the step-by-step active plot-making, through navigational and interacting choices made by the spectators. However, if the concept of blind spots receives a more literal reading, this reveals them as all that the spectators choose not to do because of convention or choice. In the digital world, there are entities invested with affordances by their designers and some that on purpose are not, while in the physical world all partake in the dance of affordances "for benefit or injury".<sup>83</sup> A. Alston describes the non-diegetic experience of making a mistake in exploring space in an immersive performance.<sup>84</sup> These blind spots in space are not, physically speaking, totally inaccessible by spectators. Thus, the "aporia" in immersive theatre is a convention for plot to emerge safely, without malicious consequences. In digital worlds, non-diegetic spaces may not be visited by users, except perhaps for expert ones, whereas in immersive theatre they should not be visited for safety or diegesis sustainability reasons.

### c) Agency

Ergodicity is often discussed along with agency. J. Murray identifies agency as "the satisfying power to take meaningful action and see the results of our decisions and choices"<sup>85</sup> This pleasure is discussed in relation to interaction with digital environments, where the interacting agents "can act within the possibilities that have been established by the writing and programming".<sup>86</sup> M. Mateas and A. Stern claim that a balance between choice and constraints is said to result in the desired sense of agency.<sup>87</sup> What the 'authors' of any interactive dramatic instance embed as affordances in their universes, the users perceive as terrain for exercising freedom of choice; however, simultaneously, they feel their actions are constrained by the material and formal causes (in Aristotelian terms) of that environment.<sup>88</sup> K. Tanenbaum et al. propose a shift from the notion of agency as representing choice or freedom, to one of agency as representing commitment to meaning.<sup>89</sup>

According to J. Machon, in order to respond to the invitation for participation put forward by immersive theatres, explicit and/or implicit "contracts for participation" are shared between the spectator and the artist. These contacts are said to enable creative agency, involving processual interaction through the event. However, this form of agency should be understood as related to the aesthetic experience rather than having an impact on the whole performance.<sup>90</sup>

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82 AARSETH, E.: *Cybertext: Perspectives On Ergodic Literature*. Baltimore, MD : Johns Hopkins University Press, 1997, p. 3.

83 GIBSON, J. J.: *The Ecological Approach to Visual Perception*. London : Psychology Press, 1986, p. 132.

84 ALSTON, A.: Making Mistakes in Immersive Theatre: Spectatorship and Errant Immersion. In *Journal of Contemporary Drama in English*, 2016, Vol. 4, No. 1, p. 63-67.

85 MURRAY, J.: *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. Cambridge, MA : MIT Press, 1997, p. 123.

86 Ibidem, p.142.

87 See: MATEAS, M., STERN, A.: Interaction and Narrative. In SALEN, K., ZIMMERMAN, E. (eds.): *The Game Design Reader: A Rules of Play Anthology*. Cambridge, MA : MIT Press, 2005, p. 642-669.

88 Ibidem.

89 For example, see: TANENBAUM, K., TANENBAUM, T. J.: Commitment to Meaning: A Reframing of Agency in Games. In PENNY, S. (ed.): *DAC 09: After Media: Embodiment and Context. Proceedings of the Digital Arts and Culture Conference, 2009*. Irvine, CA : University of California, 2009, p. 1-9. [online]. [2023-03-21]. Available at: <<https://escholarship.org/uc/item/6f49r74n>>.

90 MACHON, J.: Watching, Attending, Sense-making: Spectatorship in Immersive Theatres. In *Journal of Contemporary Drama in English*, 2016, Vol. 4, No. 1, p. 35-37.

Actions taking place within the frame of an immersive theatre performance usually follow a certain etiquette. When spectators 'do' things in immersive theatre performances, they come face-to-face with a paradox. On one hand, the fictional environment and its inhabitants, like non-player characters, are explicitly realized. They exist literally, materially; on the other, the actors' actions still retain a metaphorical dimension. This results not only in a restricted fragmental sense of agency, but to an overall 'blocked agency', exactly because the spectators' choices do not usually have an effect on the structure and conduct of the whole performance. A true cybertextual narrative comprises the undeniable impact of the user/player on it, a mark that constructs the narrative, not for *the* spectator but for *any* spectator.

It soon becomes clear that agency in immersive theatre is just a simulation of it, or everything could irreversibly be put in danger, even spectators' psychological and physical security. This results in a normalization of the spectators' choices to avoid harm or self-harm. When actors on the social stage of everyday life are invited to inhabit a fictional world, they must consent to the level of the metaphor or risk acting without being protected by a framework of action.<sup>91</sup> Agency in immersive theatre is then inevitably different to VWs agency, where any choice designed to be accommodated within the virtual environment could be beyond an ethical dimension, without imminent or dangerous results. Nonetheless, even if immersive theatre cannot produce VWs agency experience, it simulates it.

## Discussion: Immersive Theatre as a Case of Theatre Gamification

Hopefully, the comparative analysis between VWs, a prominent example of the ludic digital virtual and immersive theatre has proven so far fruitful. Immersive theatre indeed appears as having received considerable impact from the digital virtual ludic as well as rephrasing some of VWs characteristics to suit its context and practices. Such characteristics, like information intensity, have been assimilated, while others, such as ergodicity, tend to be assimilated, but have not been yet; they are dealt with idiosyncratically by theatre creators on each occasion.

Dramatic expressions and performances of the past, such as the ones occurring at folk rituals, dances, carnivals, have diachronically offered the prospect of embodied immersion for highly engaged role-players. In some avant-garde interactive experimentations, there has been space for the exploration of the spectators' literally embodied immersion (in A. Artaud's or R. Schechner's performances, for example) but that was a method rather than a genre. Theatre did not systematically aspire to offer spectators embodied immersion nor was advertising this in its name, at least not before the advent of digital media.

As said before, in immersive theatre, digital game design elements are functionally and conceptually rephrased to form a theatrical *genre*. *Gamification* should then be at work,<sup>92</sup> because design elements from games are used to produce non-game experiences. The term 'gamification' signifies the use of digital game design elements in non-game

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91 WILSHIRE, B.: *Role Playing and Identity: The Limits of Theatre as Metaphor*. Bloomington, IN : Indiana University Press, 1982, p. 262.

92 WALZ, S. P., DETERDING, S.: *Gameful World: Approaches, Issues, Applications*. Cambridge, MA : MIT Press, 2015, p. 7.



contexts.<sup>93</sup> The use of digital game design elements in theatre, such as the intentional or non-intentional import of elements of VWs and digital role-playing games into immersive theatre should then be considered a case of 'theatre gamification'. In this process, of course, theatre itself becomes incorporated in the ludosphere, assimilated by VWs and digital culture.

Immersive theatre brings forth the fictional by pervading the physical world. Even when VWs are experienced by spectators via goggles in an immersive theatre performance, the overall analogue frame of the physical performance encircles diegetically the use of digital technology.<sup>94</sup> VR, VEs and VWs on the other hand, call upon the notion of telepresence so that the users may experience embodied immersion. While VR seduces us to get immersed by getting transported 'somewhere else' (although graphically generating this 'somewhere else'), the hybrid physical/fictional entities of immersive theatre summon us to experience their presence 'right here, right now'. In the first case the users 'take the trip', in the second case the agents and entities do so and become available at an arm's reach for the spectator. It is worth examining whether or not there is a phenomenon in the field of digital gaming that could have served as a prototype for immersive theatre, at least in terms of the embodied pervasiveness of its hybrid physical/fictional entities.

'Pervasive performance', a term used by E. Pérez,<sup>95</sup> is used to describe a mixed-media phenomenon whose intention is to engage participants in collaborative events through a combination of game play, media and performance.<sup>96</sup> Pervasive games,<sup>97</sup> a result of the convergence of the fields of ubiquitous computing and experimental game design,<sup>98</sup> use digital technology but also contain a physical, analogue element, as they take place in the physical world and are performed physically by the players. Games such as *Uncle Roy All Around You*<sup>99</sup> by Blast Theory and *Prosopopeia* by M. Ericsson, S. Jonsson and A. Skarped, in 2005 in collaboration with IPerG project<sup>100</sup> are more on the physical side of pervasive gaming – *Prosopopeia* is also referred to as a 'pervasive LARP'.

In an attempt at tracing the genealogy of pervasive games and immersive theatre, we need to pay attention to live action role playing. M. Montola explains that a pervasive game was primarily conceived in 2000 as an 'augmented LARP game', with computing and communication technology that brings the physical and digital space together.<sup>101</sup> However, pervasive gaming became separated from LARP as the former implies games that "utilize

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93 See also: DETERDING, S. et al.: Gamification: Toward a Definition. In DETERDING, S. et al. (eds.): *CHI 2011 Workshop*. Vancouver : Vancouver Convention Centre, 2011, p. 1-4. [online]. [2023-03-16]. Available at: <<http://gamification-research.org/wp-content/uploads/2011/04/01-Deterding-Sicart-Nacke-OHaradixon.pdf>>.

94 Remark by the authors: For example, in Dotdotdot's *Somnai* (2018) wearing goggles is part of the diegesis.

95 PÉREZ, E.: *The Impact of Digital Media on Contemporary Performance: How Digital Media Challenge Theatrical Conventions in Multimedia Theatre, Telematic and Pervasive Performance*. [Dissertation Thesis]. Trondheim : Norwegian University of Science and Technology, 2016, p. 16-19.

96 PÉREZ, E.: The Expansion of Theatrical Space and the Role of the Spectator. In *Nordic Theatre Studies*, 2015, Vol. 26, No. 2, p. 40.

97 Remark by the authors: Alternate reality, augmented, location-based games are mixed-reality games.; MONTOLA, M.: A Ludological View on the Pervasive Mixed-reality Game Research Paradigm. In *Personal & Ubiquitous Computing*, 2011, Vol. 15, No. 1, p. 4.; Remark by the authors: Their participants must agree that the activities within the magic circle are interpreted 'playfully' as a part of the game, and not as part of quotidian life.; See: JONSSON, S. et al.: *Prosopopeia: Experiences from a Pervasive Larp*. In ISHII, H. et al. (eds): *ACE '06: Proceedings of the 2006 ACM SIGCHI International Conference on Advances in Computer Entertainment Technology*. New York, NY : ACM, 2006, p. 23-es. [online]. [2023-03-16]. Available at: <<https://doi.org/10.1145/1178823.1178850>>; Remark by the authors: Pervasive games are preferred in this article as a term for discussion because they constitute an umbrella term.

98 MCGONIGAL, J. E.: *This Might be a Game: Ubiquitous Play and Performance at the Turn of the Twenty – First Century*. [Dissertation Thesis]. Berkeley, CA : University of California, 2006, p. 1.

99 BLAST THEORY: *Uncle Roy All Around You*. [digital game]. Portslade : Blast Theory, 2003.

100 For more information, see: MONTOLA, M., JONSSON, S.: *Prosopopeia. Playing on the Edge of Reality*. In FRIZON, T., WRIGSTAD, T. (eds.): *Role, Play, Art: Collected Experiences of Role-Playing*. Stockholm : Föreningen Knutpunkt, 2006, p. 85-99.

101 MONTOLA, M.: *On the Edge of the Magic Circle. Understanding Role-Playing and Pervasive Games*. [Dissertation Thesis]. Tampere : University of Tampere, 2012, p. 120.

pervasive or ubiquitous computing technologies, such as wearable computers, computationally augmented artifacts and various handheld devices". E. Nieuwdorp identified this perspective on pervasive gaming as the *computing discourse*, despite the fact that only two out of ten definitions involve digital technology.<sup>102</sup>

Pervasive games are said to expand the contractual magic circle of play spatially, temporally or socially, by bending and blurring the traditional boundaries of game, "bleeding from the domain of the game to the domain of the ordinary".<sup>103</sup> As 'domain of the game' we should understand everything diegetic, fictional, and as 'ordinary' everything in the quotidian, physical world. More specifically, spatial expansion refers to the breaking of the game spatial limits and expanding in the physical world. Temporal expansion is said to be at work when the in-game and out-of-game time merge in one temporal mode. The game may reach you, or you may reach the game anytime. Social expansion is of special interest here, since people who are not players of the game and may be unaware of their role in the game, become a resource for it. This social expansion may vary from "mere spectatorship to full participation in an aware or unaware state".<sup>104</sup> How close this is to efficiently describe the mode of audience involvement in immersive theatre, the ultimate aim of which is to take spectators into a level of full participation in an aware state, is a bit ambiguous at times.

Hence, immersive theatre may have assimilated and still be in the process of assimilating the digital virtual ludic characteristics, as they, for example, manifest in VWs, but also, in terms of its strategy of realizing the fictional world, immersive theatre appears to draw inspiration specifically from the phenomenon of pervasive gaming.

It is now time to consider whether or not the term 'immersive theatre' effectively conveys the mechanism at work integrated in its fabrication and deriving from digital virtual gaming and pervasive games specifically. The term suffices to reveal what immersive theatre intends to do rather what it actually does 'successfully'. Just like high or low engagement in role play, immersion is a matter of scale: one may or may not be immersed in an immersive theatre performance. Furthermore, it should also be clear that immersive theatre operates through pervasive mechanisms, 'bringing forth to life', actualizing its hybrid physical/fictional agents and entities. 'Immersive pervasive theatre' may sound too long but could be in fact more accurate.

However, even the use of the term 'theatre' should be questioned. Despite the fact that immersive theatre may be referred to as 'performance', 'experience' or 'event', in media categorizations, for example, or academic literature, the term 'immersive theatre' is prominent. True, immersive theatre feels more like a theatre performance than, let us say, a game. Why?

One possible reason could be that the presence of theatre professionals and 'stage' action is very frequent in immersive theatre – though it is not a pre-requisite, but the involvement of professionals denotes a more guaranteed aesthetic pleasure than that of amateurs or mere performers. So, one reason could be that theatre professionals do it, design it, organize it for us. And we go there as spectators, as we usually go to the theatre, a night out, a familiar social practice, only a bit different, alternative, experimental.

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102 See also: NIEUWDORP, E.: *The Pervasive Discourse: an Analysis*. In *Computers in Entertainment*, 2007, Vol. 5, No. 2, p. 2-17. [online]. [2023-03-30]. Available at: <<https://doi.org/10.1145/1279540.1279553>>; For a better understanding of pervasive games, see also: MONTOLA, M.: *A Ludological View on the Pervasive Mixed-reality Game Research Paradigm*. In *Personal & Ubiquitous Computing*, 2011, Vol. 15, No. 1, p. 4.; For more information, see: KASAPAKIS, V., GAVALAS, D., BUBARIS, N.: *Pervasive Games Research: A Design Aspects-based State of the Art Report*. In CHATZIGEORGIOU, A., ELEFTHERAKIS, G., STAMELOS, I. (eds.): *PCI '13: Proceedings of the 17th Panhellenic Conference on Informatics*, 2013. New York, NY : ACM, 2013, p. 152-157.; MCGONIGAL, J. E.: *This Might be a Game: Ubiquitous Play and Performance at the Turn of the Twenty – First Century*. [Dissertation Thesis]. Berkeley, CA : University of California, 2006.

103 MONTOLA, M.: *Games and Pervasive Games*. In MONTOLA, M., STENROS, J., WAERN, A. (eds.): *Pervasive Games: Theory and Design*. Burlington, MA : Morgan Kaufmann Publishers, 2009, p. 12.

104 SVAHN, M.: *Persuasive Pervasive Games: The Case of Impacting Energy Consumption*. [Dissertation Thesis]. Stockholm : Stockholm School of Economics, 2014, p. 17-21.

Another more subtle reason could be that when the term 'immersive' is combined with the term 'theatre', the latter does not undergo any ontological transformation; the coined combo term draws upon the cognitive, conceptual space dedicated to theatre and projects it upon intermedial performative forms, thus gaining *a priori* recognition and some artistic status. Neither the nature of theatre, nor the established social practice of going to the theatre – nor the transaction it also signifies – are put under stress. For example, should the term 'immersive' be combined with the term 'game', it would directly denote a game/play instance, where artists and professionals such as actors, directors and set designers are not particularly favoured. Could the use of the term 'theatre' inhibit the realization of the fact that, although spectators may feel -and think- that they are taking part in a theatrical performance, they may instead be taking part in a game/play?<sup>105</sup> Or, on the contrary, could we conceive immersive theatre as 'immersive pervasive gaming offered by theatre professionals'?

Maybe we could, but that would signify an interaction between actors and spectators on a total level, without many blind spots, contracts and etiquette. Immersive theatre could then be seen as a 'restricted immersive pervasive gaming offered by theatre professionals'. Pérez suggests that for pervasive performance "space does not only need to be able to contain or accommodate spectators, it must also be able to support and respond to actions by spectators",<sup>106</sup> a remark that could apply to immersive theatre too. E. Klich's assignment of epistemic immersion to the experience of 'adventuring' through Punchdrunk's *Masque of the Red Death* (2007) clearly does not lack passion and enthusiasm but reveals the need for a theoretical approach, backing up empirical data.<sup>107</sup> The use of the term 'theatre' is after all prudent enough to convey the retention of a certain passivity on behalf of the spectator, like that of non-immersive theatre, changing what a scene, a stage means, while also keeping some of the traditional contract between actor and spectator alive. In immersive theatre, spectators may be tempted to do more than they can actually do. This blocked agency and ergodicity would be a dissonance, if immersive theatre was called a 'game' instead of theatre, whereas by being called 'theatre' it attains a certain air of frivolity and freedom. Hence, immersive theatre is a term that succeeds in making an ergodic and agency disadvantage appear as an advantage.

## Conclusion: Towards a Neo-dramatic Theatre?

When theatre came in contact with the digital, it was affected on many levels, with the spectacular aspect easier to grasp (projections, 3D mapping). However, there have also been influences on a functional, systemic level. Immersive theatre is such a case, where the ludic digital virtual, as in VWs, affected theatre performance functionally. Such theatre constitutes a cultural paradigm of the theatre's assimilation of ludic digital virtual/VWs game design characteristics, lately also encapsulating VR technology in performance (goggles, projections, holograms).

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105 Remark by the authors: Immersion has also be discussed in relation to play and games, especially with regards to role-playing practices. For an introduction to such a discussion, see: WHITE, W. J., HARVIAINEN, T., BOSS, E. C.: *Role-Playing Communities, Cultures of Play, and the Discourse of Immersion*. In TORNER, E., WHITE, J. W. (eds.): *Immersive Gameplay: Essays on Participatory Media and Role-Playing*. Jefferson, NC: McFarland, 2012, p. 71-86.

106 PÉREZ, E.: The Expansion of Theatrical Space and the Role of the Spectator. In *Nordic Theatre Studies*, 2015, Vol. 26, No. 2, p. 42.

107 KLICH, E.: Playing a Punchdrunk Game: Immersive Theatre and Videogames. In FRIEZE, J. (ed.): *Reframing Immersive Theatre: The Politics and Pragmatics of Participatory Performance*. Basingstoke : Palgrave Macmillan, 2017, p. 224.

It appears that the notions shared both by VWs and theatre, such as worldliness, immersion and interactivity have been updated because of the use of VR technology by immersive theatre. Additionally, notions unique to VWs, such as information intensity, have been transcribed within immersive theatre with a certain success. However, virtuality, agency, ergodicity and the assignment of true player status to spectators appear as problematic notions in immersive theatrical contexts and still pose challenges for creative solutions on behalf of the theatre makers. Avatarial embodiment, in particular, serves as a source of inspiration for the designing of immersive theatre performances, so that a space allowing role playing by the spectator is provided, leading to various levels of spectator participation. Passive spectatorship simulating the experience of VR, taking part in a simulation of diegetic interaction, an aware state of spectatorship or even a state of full participation<sup>108</sup> are all on the menu.

A closer look at the manifestations of the latter notions within immersive theatre crashes upon compulsive materiality and the personal responsibility of the social actor within the fictional immersive theatre world. M. Carlson explains this when contemplating immersive theatre productions, varying from what could be called promenade or polytopic productions to productions like *Sleep No More*, which offer "a collection of decorated spaces through which the audience is free to wander as they choose [...] occasionally an actor will pull an audience member into a private space and speak to them intimately. Not all audience members have this experience, and those that do can neither initiate the experience nor change it. The actor remains in complete control".<sup>109</sup>

Hence, the presence of VWs criteria to such a degree in immersive theatre qualifies it as a case of theatre gamification, drawing inspiration specifically from pervasive gaming. However, where immersive theatre does differ from pervasive gaming, through the use of the term 'theatre' in its name, is the generic exclusion of the unaware state of participation of the spectator. Theatre overall pre-requires the aware role of the spectator. The Invisible Theatre paradigm does not suffice to subvert the established role of the aware but passive spectator. Examples of immersive theatre performances that are designed on the basis of the unaware mode of spectators' participation are definitely worth examining. Such an example of an immersive theatre practice would shed even more light on the relationship between pervasive games and immersive theatre, but would also pose a challenge for accuracy in the use of terminology, conveying what could effectively signify an 'immersive pervasive gaming performance'.

Aspirations for embedding a performative interactive, ergodic dynamic model inspired by VWs within the central performative strategy of immersive theatre draws it away from traditional theatre, not towards the post-dramatic, but towards what we could call a *neo-dramatic*.<sup>110</sup> In the middle between dramatic and ergodic, a 'dramatic-wanna-be-ergodic', gamified theatre. In other words, towards a dramatic that has had the impact of VWs imprinted on it.

In conclusion, immersive theatre has been affected by VWs and creatively reproduces this impact. It may have lost part of the power of theatre, its metaphorical capacity to transform, as, by assimilating VWs, it also inevitably assimilates part of the actualized nature

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108 SVAHN, M.: *Persuasive Pervasive Games: The Case of Impacting Energy Consumption*. [Dissertation Thesis]. Stockholm : Stockholm School of Economics, 2014, p. 21.

109 CARLSON, M.: Postdramatic Theatre and Postdramatic Performance. In *Revista Brasileira de Estudos da Presença*, 2015, Vol. 5, No. 3, p. 587-588.

110 Remark by the authors: The term neo-dramatic has been used before to signify a shift in post-late 20<sup>th</sup> century dramatic writing.; SIDIROPOULOU, A.: The Challenge of Neo-dramatic Writing in the Anglo-Saxon Theater. In *Gamma: Journal of Theory and Criticism*, 2009, Vol. 17, No. 1, p. 93-95.; Remark by the authors: It is here used in a different perspective, referring mostly on immersive theatre infatuation with VWs and its aspiration at performing immersive interactivity, ergodicity and agency.

of the digital virtual, rendering it physical and suffocatingly 'real'. What in theatre appears to be virtual, a knot of tendencies in all respects, in immersive theatre is already resolved right from the start, awaiting for the spectator to be virtualized. Issues referred to earlier, such as those occurring with agency and ergodicity, stand in the way of its full virtualization. In the theatre gamification process, theatre may be losing depth but gaining a wider spectrum for experimentation. As theatre intertwines further with digitality, a new space for dialogue between the analogue and the digital prevails. This dialogue could lead to a revision of the theatrical communicational transaction between performer and audience as well as new dramatic, theatrical, performative and gaming mixed reality phenomena, whose quality may not be proven as 'artistic' or marketed as such, but as experimental and playful. 'Playful expression' may make more sense as a frame for generating and exploring new intermedial forms, rather than the tendency to classify hybrid, performative phenomena located between theatre and gaming as 'cutting edge theatre'.

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