Digital Dramaturgy

Interactive fiction video games as cyborg theatre of cruelty and ethical choice-making

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Cyborg theatre, a term by Jennifer Parker-Starbuck (2011), is described as "metaphorically integrating on-stage bodies with the technologized, digitized, or mediatized, to re-imagine subjectivity for a posthuman age" (Palgrave Macmillan 2011). However, Parker-Starbuck only refers to video games in passing as a type of cyborg theatre but without a specific analysis to explain this claim. This interdisciplinary doctorate therefore focuses on gaming, particularly the interactive fiction (IF) genre, which many gaming scholars link with theatre. Theorising contemporary, 3D avatar-based IF as a type of digital, body-with-technologies, hybridized performance, the research advances Parker-Starbuck's formulation of cyborg theatre: investigating (a), whether and why IF gaming is a type of performance and cyborg theatre; (b), how it can be studied as cyberg theatre; (c), the dramaturgical role of such extensive cruelty in IF; and (d), the dramaturgical role of ethical choices in the gameplay with a case study example that incorporates previous related studies. The methodology combines content and comparative analysis between drama and game studies, bibliographical research, and evaluation of a specific exemplar. Three research articles were produced and published in peer-reviewed academic journals. The key results reveal IF functioning as cyborg theatre through systematic postphenomenological analysis in article i (Kouratoras, 2020b). IF is therefore framed as part of a general posthuman cultural concept of digital technohuman dramaturgy, which mostly occurs in digital space and often involves cruelty, chance and a range of courses for action. Here theatre's avant-garde contributes to both a reading and rethinking of gaming, particularly in relation to the important dramaturgical role played by cruelty, which materialises Artaud's full system of plague-like dramaturgy in a digital gaming framework, in article ii (Kouratoras, 2011). IF therefore forms a new, post-Artaudian, digital theatre of cruelty, inside the postphenomenological theatrical apparatus of IF cyborg theatre. Finally, a case study analysis of The Walking Dead Episode 1 demonstrates the dramaturgical role of ethical choices in IF, in relation to Sartre's Existentialism, in article iii (Kouratoras, 2020a). This particular game provides an eminent paradigm because of its full and systematic connection with Existentialist ethical choice-making drama. By drawing on key thinkers from the avant-garde, the study's theoretical implications also complicate traditional concepts of liveness, presence, and rules-based versus free-play performance. The discussion supports IF as an original type of theatrical performance, even within virtual space and rules-based gaming. Practical implications of the research principally include the suggestion of a new approach to gaming performance through applied postphenomenological research, object interviews and variational cross-examination. This involves digital performance, video games, VR experiences, and direct mapping. Cyborg theatre’s technohuman relations appear to equally concern theatre, performance, escape rooms, digital arts, and video gaming, in both independent and commercial production of the creative industries.
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*In memory of my beloved father Constantine.*

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Michail Kouratoras
Contents

Acknowledgements.................................................................................................................1
Contents...................................................................................................................................3
Figures .....................................................................................................................................5
List of Publications ..................................................................................................................6
Author’s Contribution ..............................................................................................................7

1. Introduction..........................................................................................................................9
   1.1 Background .................................................................................................................... 10
   1.2 Research objectives and methods ..................................................................................12
   1.3 Dissertation structure .....................................................................................................14

2. Theoretical framework .........................................................................................................16
   2.1 Dramaturgy: from classicism to new media .................................................................16
   2.2 Digital performance and theatre in the posthuman era .............................................. 21
      2.2.1 Digital performance, intermediality and hybridity ...............................................21
      2.2.2 Posthumanism and the cyborg .............................................................................23
      2.2.3 Cyborg theatre .......................................................................................................27
   2.3 IF, cruelty, and ethical choice-making ..........................................................................29
      2.3.1 Video games and IF ..............................................................................................29
      2.3.2 Cruelty and Artaud ...............................................................................................35
      2.3.3 Ethical choice-making and Existentialism .........................................................38
   2.4 Theory synthesis ............................................................................................................41

3. Articles’ results ....................................................................................................................45
   3.1 Article i (RQ1 & RQ2): IF as cyborg theatre ...............................................................46
   3.2 Article ii (RQ3): the dramaturgical role of cruelty / Artaud .......................................48
   3.3 Article iii (RQ4): the dramaturgical role of ethical choices / Sartre ...............................50
   3.4 Combining the results ....................................................................................................53

4. Discussion ............................................................................................................................56
   4.1 Theoretical implications / advancing existing knowledge ............................................56
      4.1.1 Opposing views: on liveness and presence .........................................................60
4.1.2 Opposing views: on rules-based gaming and free-play performance
.................................................................64
4.2 Practical implications: applied postphenomenology
and the current situation in IF ..................................67
4.3 Further research perspectives: research potential for VR and
one-to-one mapping ................................................69
5. Conclusions / Summary ........................................75
References ...................................................................81
Original Publications .................................................95
Figures

**Figure 0:** A schematic description of the relationship between the research articles (a). However, this does not imply a holistic and deterministic relation for all IF cases (b), but rather the investigated, and currently widespread canon of IF as a theatrical performance.

**Figure i:** Suggested schematic for the gamer-with-technology relations in IF as cyborg theatre & the gamer’s parallel fields of attention with bifurcated intentionality. This is a reproduction of the corresponding figure in Article i (Kouratoras, 2020b, p. 206).

**Figure ii:** The dramaturgical role of cruelty in IF, through Artaud’s system of plague. This is a simplified reproduction of the corresponding figure in Article ii (Kouratoras, 2011, p. 114).

**Figure iii:** The gameplay poetics in the *Walking Dead Episode 1* are consisted by an alternating pattern between playable pauses (for ethical choice-making) and non-playable game scenes. This is a reproduction of the corresponding figure in Article iii (Kouratoras, 2020a, p. 353).
List of Publications

This is a compilation of articles doctoral thesis consisting of the present compiling article, and three research articles that are published in peer-reviewed academic journals, as follows:

**Article i:**


**Article ii:**


**Article iii:**

Author’s Contribution

The author is solely responsible for writing all the articles.
1. Introduction

Digital technologies are presently used widely for cultural creativity, including theatre and performance arts. They have also upgraded games into video games, supported by computers, consoles, and the World Wide Web. As one of the oldest gaming genres, Interactive Fiction games refer to text adventure and interactive literary narratives, which are expressed through non-linear role-playing adventures and defined by texting or point-and-click. Subsequently, some types have also developed into story-driven and plot-based video games, with emphatic use of interactive narrative and dramatic structures, in 3D navigable virtual environments via digital avatars. The digital avatar is presently defined as a manifestation of a digital body, whose movements and acting are controlled by the gamer in real-time, like a virtual marionette in the game world. This contemporary type of interactive fiction video games, which nowadays establishes a general mainstream sub-category of diverse genres (hereinafter referred to as IF), is the research object of this doctoral project. It is comprised of several different game genres like post-apocalyptic, action-adventure, survival-horror, and warfare.

Apart from the employment of plot, drama, and narrative in the gameplay, some additional, common characteristic features of contemporary IF require further investigation in order to study this genre as performance. Firstly, there is the fact that IF employ a digital three-dimensional Cartesian space, which is not only visual/graphical but functionally navigable for the gamer in run-time. Secondly, this 3D game space becomes explorable through avatars, which gamers control, gaining their perception of the virtual environment. Therefore, the gamer somehow embodies the avatar via perceptual immersion linked to a navigable view in the real-time graphical environment. This occurs either within a direct first-person’s view, through the perspective of the avatar, experienced in First-Person Shooter – FPS – and virtual reality (VR) games, or from a dislocated position within the game’s space, as if from a third-eye or in third-person view. In both cases the gamer gains spatial perception of the game environment and agency by controlling the avatar’s movements like a navigable virtual puppet, either in first or third person. The gamer’s perception in the virtual environment, through his/her avatar, seems to establish a structure of embodied presence (Klevjer, 2012), as it is studied further throughout this research, and mainly in article i (Kouratoras, 2020b). This function tends also to suggest perception as a metaphor for narrative positioning. It is a kind of gamer’s identification, with the avatar as protagonist, because the player’s perception is placed
in the position of the game character. However, no matter the establishment of embodied presence, the matter of identification is mainly a subject of the gamer’s self-determination, and suspension of disbelief. In any case, the gamer-avatar relationship, and the gamer’s embodied presence in the game environment, renders a crucial issue for the nature of gaming in 3D avatar based IF, which presents IF as a type of virtual performance. Additionally, because of the incorporation of interactive dramatic narrative, IF gaming can therefore be proposed as virtual theatrical performance.

On that account, the gamer-avatar relationship in 3D space is crucial for the study of IF as theatre, and more precisely as bodies-with-technologies cyborg theatre as introduced by multimedia performance theorist Jennifer Parker-Starbuck (2011). This research therefore focuses on a specific set of 3D, avatar based interactive video games (IF), which also appear to meet the preference of a wide game audience, forming a commercially successful, and technologically advanced category of video games. The research focuses on this specific type of IF to investigate Parker-Starbuck’s formulation, claiming that video games are also cyborg theatre (Parker-Starbuck, 2011, pp. 7, 144, 197), therefore requiring deeper examination.

Furthermore, several studies and game design practices, as will be presented, have connected video games, and IF particularly, with theatre and performance arts (Murray, 1997; Frasca, 2001; Mateas and Stern, 2003; El-Nasr, 2007; Cayres and Duran, 2016), suggesting them as theatrical interactive performance in the virtual world. The question that arises is whether IF is a kind of digitally established theatrical performance, or if this relation is only partial and less important than gaming itself. What type of theatre can IF be, without actors, director, stage, audience and, while everything appears to be only virtual and fake on a screen, even without recorded live action? In addition, how can we explain the large amount of aggression and fearfulness in the mainstream production of IF? How can we also explain the incorporation of ethical choices and concerns in the gameplay, if this is only for gaming entertainment? This research, therefore, endeavours to explore the interdisciplinary zone between games and theatre, after investigating the existing views and practices in theatre and game studies. The main aim is to understand what is theatrically at stake within IF: are they performances or only games; what are their basic performative components; and, if performance exists, how can we research and develop this perspective further to inform game design and theatrical practices, as well as game and performance studies?

1.1 Background

As early as the last decade of the 20th century, Brenda Laurel (Laurel, 1993), suggested that computers operate in a similar structural way to theatre, and Janet Murray used theatre to talk about digital storytelling (Murray, 1997). Gonzalo Frasca has followed a similar theatrical perspective in his PhD thesis (Frasca, 2001), presenting games in relation to Augusto Boal’s Theatre of the
Oppressed. Early academic practices in game design, by Michael Mateas (Mateas and Stern, 2003), incorporated Aristotelian dramatic structure in his experimental IF title, Façade, which was released in 2005, and oriented towards social behaviourism and couple’s relationships. Further academic research on IF also aligns the genre with theatre for their interactive narrative experience (El-Nasr, 2007), declaring them role-playing performances (Cayres and Duran, 2016). But what type of theatre can IF be, in such a technological and digital framework, when a gamer hardly moves from his/her couch? The answer comes from theatre theorist Jennifer Parker-Starbuck (2011), through her notion of cyborg theatre: a new type of posthuman and hybridized, bodies-with-technologies, theatrical performance. Parker-Starbuck (2011, pp. 7, 144, 197) does refer to video games, while talking about digital performance in general, but without specific analysis. This raises a major question about the nature and the form of such a theatrical model, because video games differ significantly from other types of digital performance. First of all, physical space appears less important in IF than in typical performance and theatre. The performance in IF is mostly virtual and sited within the game-world, with the gamer, seated like a cinematic viewer IRL (in real life) physically interacting in real time with screened imagery. Here, I identify the first and main theoretical gap, which requires further research, asking what makes IF cyborg theatre, and how can we study this in a more precise and analytical way?

Moreover, the widespread use of violence, aggression, fear, and bloodshed in several IF types, could not be disregarded in this study. Some of the most commercially successful mainstream IF involves post-apocalyptic, action-adventure, survival-horror, and warfare genres. Even the ones with urban, psychological and social topics can be full of violence, danger, and aggression. If IF can be established as a type of cyborg theatre, then what is the theatrical role of so much cruelty in the narrative, the storytelling, the atmospherics, the general mood, and more importantly in the performance itself? A large amount of IF, appear to follow the same canon, revealing and implying to the gamer, limitless acts of killing, experiences of hostility and danger, hiding and running for survival. Exceptions exist and are naturally anticipated, but this canon is obvious, and this is why IF have also received extensive criticism (Sherry, 2001; Slater, 2003; Anderson, 2004; Greitemeyer and Mügge, 2014; Ferguson, 2015). For a theatrical discussion on cruelty in IF, I searched for equivalent examples from theatre’s history, which I mainly found in avant-garde French surrealist Antonin Artaud’s concept for a Theatre of Cruelty (Artaud, 1994). Artaud (1994), provides a dramaturgical system around cruelty. Steve Dixon (2007, pp. 241–242) also distinguished the similarity between video games and digital performance as Artaudian cruelty, which prompts the necessity for further research.

Beyond cruelty, another important dramaturgical component which exists in several IF is the utilization of ethical dilemmas and ethical choice-making in the gameplay. This matter, which has been developed in game studies mainly by Miguel Sicart (Sicart, 2009b, 2009a, 2010, 2013a, 2013b), indicated the need for a case study in my own research, which can offer a practical analysis of the dramaturgical application of ethical choice-making in IF gameplay. Therefore,
the intention was to investigate how ethical choice-making functions within the game mechanics and not only in the storytelling, because the game mechanics, in cooperation with the narrative, drive and motivate the gamer’s performance in the game world. Consequently, the gamer-avatar relationship and existing phenomenological studies on the subject (Rehak, 2003; Klevjer, 2012; Vella, 2014; Gibson, 2015), appear highly important in such an inquiry.

1.2 Research objectives and methods

According to the concepts set out above, my research hypothesis eventually formed the following four research questions:

**RQ1:** How do mainstream, avatar-based, interactive fiction video games (IF) relate to theatrical performance and therefore cyborg theatre, as defined by Parker-Starbuck (2011)?

(Results in Article i)

**RQ2:** By investigating the dramaturgical and performative dynamics of IF as cyborg theatre, what theoretical underpinnings emerge to inform the techno-human interrelation?

(Results in Article i)

**RQ3:** In what way is Artaud’s concept of cruelty relevant to the understanding of IF?

(Results in Article ii)

**RQ4:** How can ethical choice-making in IF gameplay develop drama-like, ludic and theatrical gameplay performance?

(Results in Article iii).

To answer the first two research questions (RQ1 and RQ2), which also constitute the major part of the hypothesis, I used postphenomenology for the investigation. Postphenomenology is the later development of classical phenomenology, and provides the analytical tool for studying human-technology relations. Although it is an emergent method, it has been applied to digital techno-human relations and human computer interaction (HCI), which could also enlighten the relations between gamer and digital technologies in IF. Postphenomenology focuses on the use of tools and technologies, through case studies and ethnographic research. In this study I also incorporate a comparative analysis between the main postphenomenological concepts, as one variable, and the gamer-game performance in practice, as another. The aim is to discover the functional postphenomenological patterns in IF as cyborgian performance and
their correspondence with Parker-Starbuck’s abstracted DNA model for cyborg theatre (Parker-Starbuck, 2011, p. 38). The objectives of this research process is to discover and indicate whether IF is cyborg theatre (answering RQ1), through postphenomenology for their study (answering RQ2). This inquiry results in article i: ‘Interactive fiction video games as cyborg theatre. A postphenomenological approach’ (Kouratoras, 2020b).

I also used a comparative analysis to answer the third research question (RQ3). In this case Artaud’s plague-like dramaturgical system was one variable, and cruelty in games was the second. My aim was to depict how Artaud’s plague metaphor, as a method of dramaturgy, generates theatrical cruelty, and how this possibly functions in IF alongside other live-stage, digital performances like those of Australian performance artist, Stelarc (Smith et al., 2007). The objective is to investigate whether this type of cruelty-generating system can also describe how gaming cruelty functions in IF as theatrical performance. This inquiry results in article ii: ‘Digital dramaturgy of cruelty: Antoine Artaud: Ludology and the plague metaphor in contemporary video games and new media’ (Kouratoras, 2011).

Finally, content and comparative analysis is also used in the case study of The Walking Dead Episode 1 (Telltale, 2012), answering the fourth research question (RQ4). The title was chosen due to its extensive use of difficult ethical choice-making, as well as its similarity to Existentialist choice-making drama, such as Jean Paul Sartre’s The Wall (Sartre, 1969), Nausea (Sartre, 1975), and No Exit (Sartre, 1989). The game is indicated as a distinct case of ethical choice-making play for the IF genre. The content analysis focuses on both the narrative and ludologic elements of the game, and the comparative analysis was made between those elements and Existentialism as a whole philosophical and dramaturgical ecosystem. The aim was to distinguish the gameplay patterns of ethical choice-making, indicating how it functions as a dramaturgical (and Existentialist in this case) system of play. This inquiry results in article iii: ‘Existential dramaturgy and video games: a formalistic approach to Telltale’s The Walking Dead as Existentialist gameplay’ (Kouratoras, 2020a).

Article i (Kouratoras, 2020b) forms a primary material or a “container” for IF in this research, discussing the main category of the genre as inherently theatrical. It defines IF as a type of cyborg theatre. I consider this as the “function”, the base, or the big box, which describes the theatrical apparatus of IF. Inside this frame there is cruelty as a main “variable” and, inside cruel gaming, ethical choice-making is a second variable. This structural categorization defines the relationship between the three articles (Fig. 0a). It also indicates a hierarchical order for those three main dramaturgical characteristics of IF from this perspective. In the first place, IF are investigated as mainly and materially cyborg theatre. Secondly, because of their intensive and extensive cruelty, a large subcategory of cruel types of IF also forms a type of post-Artaudian, plague-like dramaturgy. Finally, the amount of IF with ethical choice-making constitutes a smaller subcategory, which also incorporates cruel gaming performance. This final result is not meant to be exclusive for all types of IF and, as a categorization, might not include every single case. Non-cruel IF, non-cruel ethical choice-
making IF, as much as other types of IF as cyborg theatre (or even non-cyborg theatre?) are expected (Fig. ob). My research studies the dramaturgical canon in some of the most popular IF, which includes some of the most customary cases of contemporary gaming industry production. Therefore, while this scheme (Fig. oa), cannot take into account every single case with absolute certainty, it includes an overwhelming majority of what is currently considered “common”, commercially successful, and mainstream type of IF.

![Diagram](image)

**Fig. 0**: A schematic description of the relationship between the research articles (a). However, this does not imply a holistic and deterministic relation for all IF cases (b), but rather the investigated, and currently widespread canon of IF as a theatrical performance.

### 1.3  Dissertation structure

After the introduction, the dissertation proceeds with a presentation of the theoretical framework for the hypothesis, discussing the relevant background theories, and the research gaps that shape the research questions. The term ‘dramaturgy’ is defined and its main historical transformation from classicism to postmodernism is briefly presented. New dramaturgies and new media dramaturgies are discussed with a focus on theatrical intermediality and hybridity. The discourse becomes more analytic around the concept of the cyborg, as Haraway’s feminist theorization defines it (Haraway, 1987, 1991, 2003). Posthumanism, the current cultural condition, is also discussed from this perspective. Haraway’s point of view is directly connected with Parker-Starbuck’s notion of cyborg theatre (Parker-Starbuck, 2011), which is analysed next. These two authors significantly influence this research. A presentation of video games’ basic definition follows, with a focus on their nature as rules-based systems, as fiction, and as quasi-games, or borderline cases, between game and non-game activities (Juul, 2005, p. 44). The discussion about IF and their already defined performative nature comes next. After that, there is an analysis on Artaud’s Theatre of Cruelty (Artaud, 1994). His metaphoric terminology was an important point of interest for the research. Finally in the theoretical framework section, there is a presentation of the current game studies’ approach to ethical choice-making in gameplay.

In the results section that follows, there is a brief presentation of the most important findings from each article, addressing the research questions. A schematic representation that concludes each article is also included. The section is
completed with a discussion about the way in which the three articles interrelate and combine the results. Next is an analytic discussion section for the theoretical and the practical implications of the research. The theoretical implications that are discussed concern the debates about ‘liveness’ and ‘presence’ in cyborg theatre and digital performance, and also about game-based versus free-play performances. The practical results involve the application of postphenomenological research in IF, currently and for the future. The dissertation underlines the practical importance of postphenomenology, and particularly its research methods of ‘object interviewing’ and ‘variational cross examination’. These methods appear to be quite useful for research and development in ‘direct mapping’, and VR-based game design, digital theatre performance, and escape rooms entertainment. The dissertation ends with conclusions that wrap up the research.
2. Theoretical framework

This section presents the theoretical underpinnings of the thesis. It also indicates the theoretical ‘gaps’ that form the research questions.

2.1 Dramaturgy: from classicism to new media

A significant term used in this body of text is ‘dramaturgy’, which is inherent to how theatre is composed, experienced and understood. The word is derived from the Greek Δραματουργία (Dramaturgia), which means the endeavour to create dramatic composition and to represent drama in a theatrical context. The word δράμα (drama), is delivered from the verb δράω (drao), which means “I act”. So, drama is a mode of fiction traditionally represented and enacted by actors on a stage before an audience. Beyond the ancient Greeks, dramaturgy appears in the age of modernity via the theatrical scholar Gotthold Ephraim Lessing, in his emblematic publication *Hamburg Dramaturgy*, written between 1767-69, which exhibits the same classical understanding of the term. According to Lessing (1962), dramaturgy is broadly defined as the endeavour to adapt a story to anactable form, giving it a performance work foundation and structure. Dramaturgy, as a term for dramatic composition, is independent from playwright-ing and directing, although all three may be practised by one individual (e.g., the director, the dramatist or playwright). The acting itself, the stage, and the performance of setting, costume, light, and sound etc., become the dramatic text for the dramatization (as a complete show). This way, as Lessing argues, dram-aturgical strategies manipulate the narrative to reflect the current Zeitgeist (the spirit of a specific cultural-historical era), through cultural signs, genre refer-ences, ideologies, aesthetics, representations etc. According to Lessing’s defini-tion, therefore, dramaturgy can include many types of performance narratives (storytelling by acting), no matter the medium in use and the cultural context, which signals a change following the historical and social framework. Therefore, the central idea of dramaturgy opens unlimited transforming possibilities for theatre, as its long history already reveals.

The 20th century, in particular, became a revolutionary landmark for the history of theatre, with rapid development of numerous new ideas, ideologies and theatrical forms. The avant-garde movements played a significant role in experimentation and novelty for dramaturgy, taking the performance even further away from the written script, and also from mimesis: the tendency for exact,
realistic or “naturalistic”, representation or real-life issues and conflicts (Knopf and Listengarten, 2015). The Italian Futurists, particularly, were identified by their adoration of modern technologies, speed, energy and rapid development (Knopf and Listengarten, 2015, p. 4). They promoted scientific and technological advances in theatre and the arts, and even stated that humans should become like machines (hence, like cyborgs), changing human perceptions, and abandoning the sentimentalities and the weaknesses of the past (Knopf and Listengarten, 2015, p. 9). They wanted to extend their perception and re-synthesise the world. With the term Simultaneità (simultaneity) the Futurists described the extensions of perception as the ability to eliminate time and space limita-tions (Knopf and Listengarten, 2015, p. 9). By contrasting different real and im-aged places, sounds, and times, their art demonstrates these new concepts to the public (Knopf and Listengarten, 2015, p.9).

The Sintesi Teatrali (theatrical syntheses) of the Futurists abandon the typical three-act play, which is replaced by attimi (moments), which attempt to capture the atmosphere of events, as well as the emotion and the essence of the moment, without many explanations and descriptions (Knopf and Listengarten, 2015, p. 9). This dramaturgical style concentrates more on movement, gesture, vision and sound, rather than the written text, focusing on the essential actions to create immediate, direct and dynamic contact with the public. It is about a “syn-
thetic, technological, dynamic, simultaneous, a-logical, discontinuous, autonomous, anti-literary and unreal type of theatre, with the intuitive, direct and even aggressive response of the audience as the expected result” (Knopf and Listengarten, 2015, p.10).

Futurist theatre meets the art of performance with its dramaturgical principles becoming a central model for the Symbolist, Dadaist, and Surrealist movements of the avant-garde. Avant-garde drama took a big step away from classicism to show that a play could take shape entirely outside the framework of motivation for acting, acting in logical sequence of events, and logical outcome. The world that the theatre of realists and naturalists previously attempted to understand, and accurately represent, was now revealed to be a fake illusion; “a veil of fleet-
ing appearances behind which deeper truths were hidden” (Knopf and Listengarten, 2015, p. 6). Radical avant-garde theatre therefore explores what is missing, remaining hidden in emotions, through a revisionist and subversive, non-mimetic dramaturgy. Therefore, the interest moves away from outside ap-
pearances and the normality of daily life experiences, towards human con-
sciousness, taking theatre back to its non-representational, ritualistic, and primitive origins as described by Friedrich Nietzsche in the Birth of Tragedy (Knopf and Listengarten, 2015, p. 6).

Another important dramaturgical element introduced by the avant-garde in-
volves interactivity with the audience in the performance, thereby exploring Kandinsky’s initial idea to cancel the one-way communication in the artistic act, turning the viewer into an active co-producer of the work of art (Berghaus, 2005 p. 196). Futurist theatre pioneers the application of this concept of invading the auditorium, pushing the audience into live action and participatory roles, even
provoking violent reactions (Apollonio et al., 1973; Berghaus, 1998). In the emblematic Pomeriggi Futuristi (Futurist Afternoons), which were taking place in non-theatre spaces, there was no clear separation between stage and auditorium, while the performance was based on the interaction between actors and spectators (Berghaus, 2005, p. 197). This improvisational practice between performers and audience was also adopted by the Dadaists with experimental enthusiasm in bars, galleries, and cabarets (Hopkins, 2016). Tristan Tzara declared that Dadaist theatre should entrust the stage direction to inventive extremes and the scenario to the audience (Tzara, 1975). It is the interaction between the audience and the performers that shape the drama, and this double-directional relationship becomes the central interest of the avant-garde theatre.

Through interaction, the avant-gardists attempt to change art and, in this manner, to re-shape the world. Their violent artistic reaction cannot be addressed as worship of violence per se but rather as a method to deconstruct the existing oppressive, artistic and social structure of practices, values and ideas; the established aesthetic and cultural paradigm. Interacting with the audience was not an action-reaction theatrical setting to simply increase the medium’s entertainment value, and the audiences’ amusement. It was a central revolutionary method against mimesis, pushing the audience to the proscenium in the place of any pre-established narrative norm. Therefore, we can argue that avant-gardists do not use just interactivity, but social and artistic ‘symbolic interactionism’ (terminology that comes from sociology: Blumer, 1969). Symbolic interactionism attributes social processes (identity formation, conflicts, cooperation etc.) to human interaction. Rather than the leading social and cultural structures, symbolic interactionism is how individuals shape the society, and how society influences them, through the ideas and the meanings that arise with human interaction. Avant-garde theatre has severely influenced the development of the dramaturgical concept in the coming years.

After the avant-garde, theatre researcher Hans-Thies Lehmann, theorizes the new theatrical condition with the introduction of the term postdramatic theatre, in his similarly titled book, which is originally published in German in 1999 (Lehmann, 2006). His theory further detaches theatre from the text, claiming a performative aesthetic in which the material situation of the performance (as all elements on the stage) has the primary role instead of the written text. In this perspective, the action and the visual world become a ‘visual dramaturgy’ (Lehmann, 2006, p. 93). Theatre in the late 20th-century postdramatic era moves beyond the primacy of homogeneous styles, dialogues and plot. It involves the interaction of the audience and the performers, which shapes the drama, its semantics and its theme. After Lehmann’s postdramatic turn, several other definitions and dramaturgical practices appear, continuing the transformational dynamic of contemporary theatre.

New dramaturgy, a term introduced by Flemish dramaturg Marianne Van Kerkhoven (Trencsényi and Cochrane, 2014), follows Lehmann (2006) signalling a further change in theatrical practice. It indicates a radical transformation of theatre and our current relationship with the European stage, in which the theatrical scenery and the performer exist in their own right. A plethora of novel
forms and ideas like dance dramaturgy, visual dramaturgy, new media dramaturgy, and mediaturgy, emerge as theatrical forms that do not necessarily dispense with drama of the past. On the same train of thought as Lehmann (2006), *new dramaturgy* is defined as post-mimetic (Trencsényi and Cochrane, 2014, pp. xii–xv), signalling a decline of, or distancing from, representational theatre culture. *New dramaturgy* is also intercultural, taking form within the interaction of multiple value systems and cultures that are intertwined and negotiated in the theatre-making process (Trencsényi and Cochrane, 2014, pp. 145–162).

In addition, *new dramaturgy* is characterised as process-conscious, focusing on the way theatrical pieces are made (Trencsényi and Cochrane, 2014, pp. xii–xv). This promotion of the materiality and the dramaturgical production process becomes a key idea for the understanding of contemporary theatre, and for the analytical perspective of this research around IF as cyborg theatre (a neo-formalist theatrical type, which is mainly techno-formalist, I would suggest). New dramaturgy widens the understanding of contemporary theatre where significant productions are no longer based on pre-existing dramatic scripts, requiring less input from a director to stage a play. In some cases, there is also a preference for non-dramatic text emerging from prose, philosophical essays, poems, newspaper articles, historical documents and anything that can inspire a theatrical performance. Text is generally reduced to just one more theatrical element among others, including video, design, dance, live music and circus (Trencsényi and Cochrane, 2014, p. 3).

As the materiality of the performance and the theatrical production process become a determinant element nowadays, new technologies play a significant and even leading role in contemporary dramaturgy. New media has increasingly become a common part of the dramaturgy since the last quarter of the 20th century. In fact, with the definition of *new dramaturgy*, it makes sense to deploy a similar discussion about *new media dramaturgy*, focusing more specifically on the theatrical materiality of today. In *new media dramaturgy*, media itself increasingly becomes a common part of the dramaturgy. Elements such as sound, light, image, transmissions, responsive technologies, AR and VR are all considered in terms of their (im)material properties, as well as their virtual effects and appearances, where the technical characteristics of a device are relevant to its aesthetic deployment, as Eckersall *et al.* put forward (Eckersall, Grehan and Scheer, 2017, p. 2). The basic idea is to examine the ways that the use of video, data, projections, sound and light systems, and even costumes and robots perform, not as means of usurping the human performer in today’s theatre and in the arts, but as a more subtle repositioning of bodily presence (Eckersall, Grehan and Scheer, 2017, p. 2). This repositioning does not abolish the actor, but rather enables a different concept of acting that emerges from the mediated assemblages of the performance. Therefore, *new media dramaturgy* focuses on how the (im)materiality of technical elements matters, and how they function as dramaturgical assemblages. Technology’s behaviour within the dramaturgy (e.g., lighting patterns, soundscapes, robots, connectivity, atmospheres, and so on), play important roles that influence every aspect of an artwork. This also concerns how plays and art works are done; how events are performed, and how
they are engaged with, and received by, spectators (Eckersall, Grehan and Scheer, 2017, p. 3). This technological framework of performance with humans cancels previous binaries and ideas that place humans and machines in opposition. As Eckersall Eckersall, Grehan and Scheer (2017, p.4) note, it becomes a complex process of negotiation and reflection for emergent possibilities and experiences.

Alongside the theoretical and practical development of new dramaturgy and new media dramaturgy, several other terms have emerged, which attempt to name and describe other instances and novel characteristics of contemporary theatre and performance arts. These include intermedial theatre, multimedia performance, virtual theatre, technological performance, mixed media performance, immersive theatre, digital theatre, digital performance, and cyborg theatre. In addition, several artists, theatre companies and performance ensembles have experimented extensively with digital technologies, immersion, interactive and participatory performances, site-specific and site-responsive contexts, gamification, and other postdramatic strategies, offering various theatrical work examples in the last decades. Some well-known, and currently active groups include: The Wooster Group (The Wooster Group, 1975), Engarde Arts (Engarde Arts, 1985), Troika Ranch (Troika Ranch, 1990), Blast Theory (Blast Theory, 1991), The Builders Association (The Builders Association, 1994), Dream Think Speak (Dream Think Speak, 1999), Rimini Protokoll (Rimini Protokoll, 2000), We Players (We Players, 2000), Punchdrunk (Punchdrunk, 2000), Third Rail Projects (Third Rail Projects, 2000), Bricolage (Bricolage, 2001), Pearldamour (Pearldamour, 2002), Coney (Coney, 2006), Woodshed Collective (Woodshed Collective, 2006), Fruit for the Apocalypse (Fruit for the Apocalypse, 2010), Secret Cinema (Secret Cinema, 2011), Wilderness (Wilderness, 2011), Colab (Colab, 2012), Speakeasy Dollhouse (Speakeasy Dollhouse, 2015); and artists like Roger Bernat (Bernat, 1995), and Hito Steyerl (Andrew Kreps Gallery, 2019; MoMA, 2020), among others. For this doctoral research, it was necessary to concentrate the presentation of the background theory around some central ideas on theatrical intermediality, hybridity and the implementation of the cyborg in theatre. The discussion also refers to posthumanism, as a current cultural condition in humanities, that strongly influences theatre and the arts in the present historical phase.

It should also be noted that modernity as an overall cultural framework and other disciplines beyond theatre and performance studies, like sociology and cultural studies, have also guided the historical steps of theatre and dramaturgy from classicism to their new forms and broader understandings. This is because modernity has also extended the idea of performance arts into heuristic tools for wider and various other social causes and interactions, inside an expanding socio-cultural and artistic territory, as several scholars have already indicated (McKenzie, 2001; Auslander, 2005; McAuley, 2010). The concept of performance in performance studies can range from the most highly elaborate artistic activity to minimalist examples of expressive behaviour for organized social events, sporting contests, parades, or informal gatherings of young people hanging out on streets, and from ceremonial occasions to daily interactions (Nelson,
2010, p. 14; McAuley, 2010). Previously, sociologist Erving Goffman (1990) offered an extended range of theatre in everyday life, illustrating all social interactions as role-plays; and Augusto Boal (1998) demonstrated another characteristic example of the extended role of theatre through political application, investigating oppression. Dramaturgy in contemporary culture, therefore, obtains a wider meaning about dramatization attempts in a social, and artistic area that exceeds the classical idea of theatre and theatrical stage.

2.2 Digital performance and theatre in the posthuman era

2.2.1 Digital performance, intermediality and hybridity

The last two decades of the 20th century gave rise to the use of digital technology, computers and virtual reality in popular culture. Pioneer performers and artists like Stelarc (Smith et al., 2007), Eduardo Kac (Dixon, 2007, pp. 307–308), Marcel-li Antúnez Roca (Antúnez, 2015), Orlan (Donger and Shepherd, 2010), Yakov Sharir (Masura, 2020, pp. 124–125), Laurie Anderson (Goldberg, 2000), Troika Ranch (Troika Ranch, 2021), George Coates (George Coates, 2021), and more, incorporated digital technologies into their performances introducing a new era for performance art. A variety of different forms of performance based on digital technology was introduced: these included interactive with audience performances, remote and mediated performances; performances that take place in galleries and art centres or on web-based platforms and CD-ROMs; also, performances using digital avatars, robots and humanoids among living actors and dancers, as well as wearable prosthetics and exoskeletons. Digital performance (Dixon, 2007, p. x) has been used as a general term for the plethora of this differentiated cultural production, in which digital media are so closely adjacent to performers and audiences or even incorporated into the performers’ bodies themselves. From late 20th century and up to now, in line with New Dramaturgy, digital performance signifies a cultural shift in theatre also known as the intermedial turn (Bay-Cheng, 2010). It demonstrates theatrical performances that can be both physically-based and on-screen, offering both actual and virtual experiences. Both theatrical space and performing bodies can therefore be both private and public, both present and absent. For this study, intermedial theatre is understood as a theatrically specific term for the materialisation of digital performance. This is because I consider intermedial theatre as a “container” of digital performance, and digital performance as a core of intermedial theatre; meaning that intermedial theatre gradually becomes primarily associated with digital technologies in contemporary production. Although, the term intermediality can also include pre-digital media.

Lars Elleström’s model for understanding intermedial relations (Nelson, 2010, p.13; Elleström, 2010, pp. 11–48) states that live theatre is a strongly multimodal media phenomenon (Elleström, 2010, p. 38) with a distinctive capacity to be a hypermedium that incorporates – or "stages" according to Chiel Kattenbelt (Kattenbelt, 2006, p. 37) – other mediums. The relations between the
different incorporated media in the intermedial theatrical paradigm are a matter of perception and interpretation. Intermediality is an effect of performance, which is created in the perception of observers as Peter Boenisch notes (Boenisch, 2006, p. 113). I have considered these remarks as a clear suggestion for the phenomenological analysis of the theatrical experience in intermedial theatre and digital performance. This observation sets a central issue for the current research, indicating phenomenology as analytical framework for understanding video games as digital performance. Therefore, postphenomenology can also be included in such study, as a later development of phenomenology.

More importantly, the critical concern in intermedial theatre is the impact of digital technologies on theatre’s ontology, because they challenge the nature of theatre as it has been, according to Elleström (Elleström, 2010, p. 12). Through its long history, theatre is understood as a live phenomenon that is present in current space and time, here and now. However, the idea of tangible corporeal presence of performers and audience in the same natural space, thus, synchronously as a prerequisite element of performance, is now disputed (Remshardt, 2008, p. 50). Intermedial theatre presents a number of crucial issues related to the nature of performativity and corporeal relations, time and space, modes of experience, and actuality-virtuality. Digital technology re-contextualizes and reforms the overall conception of theatre by introducing digital disposition, both in time and space (with virtuality, recordings, media storage, the World Wide Web), and interactivity as a core element of play. Furthermore, the capacity of digital technologies to integrate all types of media, sonic and visual, as well as edit and mix them into new dynamic forms, extends the multi-modality of theatre. New transformation possibilities from physical to virtual space and time occur. This fact proposes research on virtual spaces of performance, including video games, and it justifies the hypotheses of the current research about IF as theatre. The main question in intermedial theatre, therefore, is about the ways in which media cooperate and interrelate, and how this interrelation challenges the established modalities of theatrical experience. The interest is how digital types of theatre become distinctive from its previous forms and what types of relations are formed between media technologies and human subjects (performers and audience).

On that matter, Robin Nelson (2010, p. 18) notes that Amy Petersen Jensen (Jensen, 2007, pp. 122–123) introduces the idea of “hybridity” of the viewer as subject for the media in the performance, and as constitutive of coherence across discreet entities. She suggests that the body and mind of the theatre spectator is one such site – a hybrid subject – in which the form and the content of two mediums, theatre and media, compete and collaborate to form unique receptive interactions with individual “texts” and their performances (Jensen, 2007, pp. 122–123). In this hybrid space, the participatory spectator prefigures a new type of performance that develops out of the interaction of two mediums (Jensen, 2007, pp. 122–123). Unpacking hybridity and its inherent nature is also the actual inquiry under the surface in my RQ1 (concerning IF as cyborg theatre). As Jürgen E. Müller remarks (Nelson, 2010, p. 18; Müller, 2010, p. 245), the terms hybrid, hybridity and hybridization became fashionable and
equal to multi- or inter-mediality, but they really note a rather blurred or un-specific way of handling this terminology, even within the framework of inter-medial research. Similarly, Becquer & Gatti (Nelson, 2010, p. 18; Becquer and Gatti, 2005, p. 447) point out that hybridity implies a hierarchical relation privileging an original term, rather than equivalent media combinations. The point of interest for intermedial and digital theatrical research, therefore, is located in the modes of perception which are formed. What are the new perspectives, the new ontologies, and the new sensations that hybridity brings to contemporary theatre and culture? Trying to specify these characteristics and to solve this puzzle, I argue that hybridity in intermedial theatre and digital performance is interconnected with posthumanism, and becomes a more concrete concept through the idea of the cyborg. Eventually, the cyborg appears as the key through which digital technologies redefine theatre. It is a notion that Parker-Starbuck analyses theatrically (Parker-Starbuck, 2011), and Haraway defines structurally and politically (Haraway, 1987, 1991, 2003).

2.2.2 Posthumanism and the cyborg

Posthumanism is the current cultural condition that sets the aesthetic and ideological basis for digital performance in the contemporary scene. The term has a number of definitions and approaches by several scholars, namely Haraway (Haraway, 1991), Hayles (Hayles, 1999), Fukuyama (Fukuyama, 2002), Pepperell (Pepperell, 2009), Wolfe (Wolfe, 2010), Braidotti (Braidotti, 2013), and others. Posthumanism rejects anthropocentrism and the ontological distance between humanity, nature, and technology. It mainly suggests the re-imagina-
tion of the human subject and its relations with their natural or technological environment. In result, the human is understood as an open-ended entity with fluid, non-fixed identity and characteristics. These are redefined by the natural and social environment, and by their correlation with other biological and technological entities. This theoretical view is attended by the emergence of cyborgs and other hybrid biological and technological entities, in the social, cultural, and theatrical (intermedial) context as it will be discussed. Posthumanism can be understood as a radical rupture with the previous humanist subjectivity, as it cancels the ontological purism of the human entity.

In this cultural framework, Katherine Hayle's (Hayles, 1999) posthumanism detaches from previous narrow definitions of what it means to be human. In her view, human ontology is defined by the implications of bodies while they are translated into information, and by the excess of bodily borders and burdens. Her view signifies an ideological and possibly biological transformation or ending within digitization. In Hayle's perspective, posthumanism identifies with a desired loss of subjectivity based on bodies losing their boundaries and narrow definitions. Her view is also visible in the biopolitics of Haraway (Haraway, 1987, 2003) who re-introduces the term and the idea of the cyborg as a catalyst for posthumanist development in the last three decades. Haraway's cyborg evolves around gender norms and is first read as a feminist idea for the reformation of identity politics. It then becomes central in posthumanist discourse,
because it promotes the notion of a post-gender condition in which being a cyborg is ultimately desired, even more than being a goddess as she characteristically states (Haraway, 1987, p. 37). Haraway and the rest of the so-called cultural posthumanists, like Hayles and Pepperell, discuss the cyborg not based on an interest in enhancing humanity, but to disrupt uniform ideas about humans as a species, and social, cultural, and political identities. Therefore, human subjectivity and embodiment are their focal points for such analyses of change, as Miah notices (Miah, 2007, pp. 90–91). This differentiates cultural posthumanists from philosophical posthumanists, although both agree that this shift in subjectivity leads humanity towards serious complexities and moral issues concerning artificial life (Miah, 2007, p. 88). At the cultural level, posthumanism appears to transform theatre possibly faster than it transforms the social reality. This transformation happens from the inside with the use of digital technology in intermedial theatre. It also happens, probably more radically, from the outside introducing new purely digitised, and not principally theatrical, forms of performance with their technologies, like video games.

The word cyborg is synthesized from the words cybernetic and organism. It describes a hybrid entity, an organism, which is created by the unification of biological and technological parts and information. This now occurs in a time when scientific and technological development in artificial intelligence, biology, and microelectronics reveal this possibility both as a notion and actuality. As such, the cyborg signifies an idea of an alternative technological model for the reformation of the self, outside essentialist/ontological views. It is a technology of the self. According to Michel Foucault (Foucault, 1988, p. 18), technologies of the self are techniques that allow individuals to effect a certain number of operations on their own bodies, minds, souls, and lifestyle, in order to transform themselves, by their own means, and attain a certain state (e.g., of happiness, and quality of life). In this line of thought, Haraway (Haraway, 1987, 1991, 2003) has used the idea of cyborg in her feminist critique against the establishment of a universally “correct” reasoning in patriarchal capitalism of the modern times. She presents the cyborg as an alternative model of gender subjectivity in order to oppose the political discourse on natural and gender determinism, showing that this discourse is historically and socially manufactured and manipulative. In the cyborg manifesto (Haraway, 1987), Haraway reflects on the natural body and discusses new ways of experiencing it, re-establishing the hierarchies, the contrasts and the power relations between subjects: humans, living entities and technologies. By merging the organic with the artificial, the cyborg in Haraway’s terms becomes a political feminist imaginary against patriarchal sovereignty, as an anti-essentialist subject per se. It demonstrates its potentiality by undermining the claim of inevitably fixed gender identities. Technology, for Haraway, and hybridity, become a means of arguing against the reproductive utilization or objectification of the female body and such pre-technological impressions and oppressions about the natural body. The cyborg emerges as a possible way of resistance for an alternative social system, informing us that current ideologies about the natural body are only cultural and historical constructions. The body is no more considered a biologically static phenomenon, but one that gradually
and dynamically evolves into a potential, virtual status. As previously argued, this is a principal condition that alters the ontology of contemporary theatre through intermediality, and also suggests investigating IF from such a perspective.

This virtual corporeal status is further explained by Haraway’s theorization, in what she calls “informatics of domination” (Haraway, 1991, pp. 161–166). Haraway notices that information systems formulate the current method of governance in the era of late post-industrial capitalism. Everything turns into information and information becomes consumer goods for trade and conflict. Organisms and machines also become information, thus, re-conceptions as “coded text” (Haraway, 1991, pp. 152, 206). In this sense the concepts of natural body and gender identity are reformed in order to fit in the new models of knowledge and power, which construct the new reality and manage subjectivity in the contemporary world. The body becomes text, as Haraway puts it (Haraway, 1991, p. 129), biology turns to inscription and biotechnology, anatomical knowledge is replaced by imaging from the new technologies, and scientific work changes to cybernetics of labour and genetic engineering (Haraway, 1991, p. 161). This way, the human subject is understood as a material set, and its reproduction is not an organic practice but rather a copy of abstract genetic codes; as it is in generating a cyborg (Haraway, 1991, p. 165). Consequently, essentialism and holistic body identities disappear in this framework. However, instead of becoming a liberating practice, the collapse of the boundaries between the organic and the synthetic may also reinforce the power of control and the use of women as reproductive utilities. This ambiguity establishes the notion of cyborg as a relevant current narrative for anti-essentialist feminism. As Haraway says (Haraway, 1991, pp. 154, 161), the political struggle is to see both possibilities at the same time, and the way to tell the differences is in the epistemology. The cyborg is not standardized by a regulatory perception of the subject but it is rather fluid, historically temporary, and conceptually reflective.

Similarly, Pepperell (Pepperell, 2009) addresses posthumanism as a struggle of power, albeit between humans and machines. She sees posthumanism as a type of anti-humanistic technological culture, enlightened by contemporary science and without humanist insights. She states that the ability to control technology and develop through it has been a defining characteristic for the human condition, and has assured humans about their uniqueness in the world and their superiority over other creatures (Pepperell, 2009, p. 2). However, this sense of uniqueness and superiority is now challenged by the very technologies that humans create, in a way that slowly changes the balance of dominance between humans and machines (Pepperell, 2009, p. 171). Like Haraway, Pepperell appears undecided whether posthumanism is the end of that long-held belief in the infallibility of human power, and the arrogance of superiority and uniqueness. For Pepperell, posthumanism can be just a temporal and progressive concept of humanity to achieve higher productivity and functionality, thus, as a type of transhumanism (Pepperell, 2009, p. 170).

Braidotti’s idea of posthumanism shares a similar optimism with Haraway’s cyborg liberating dynamics. She notes (Braidotti, 2013, p. 3) that posthumanism
is an opportunity to re-humanise and reinvent the human, and to resist the inhuman aspects of our time. Braidotti’s definition of the posthuman resembles an ethically oriented transhuman situation, which blurs the traditional distinctions between the human and the “others” by exploring the non-naturalistic structure of the human, and displacing the traditional unity of the human subject (Braidotti, 2013, pp. 55–104). In this sense, posthumanism is not a situation of loss of moral and cognitive self-mastery, according to Braidotti. It is rather enlightenment for humans in order to realize their flexible and multiple identities, by erasing also expresses such techno-progressive opinion looking at posthumanism positively as a technophile. His views are similarly transhuman. They promote an intermediary state of humanity, with enhanced by technology abilities in strength, durability, intelligence, and awareness, but always maintaining a human type of nature.

Francis Fukuyama (Fukuyama, 2002; Furger and Fukuyama, 2007), has a less optimistic view. He represents the bioconservative school of thought (technophobes), criticizing posthumanism overall as a negative case. For Fukuyama, posthumanism means the absence of humanism, and the transgression of crucial moral boundaries. This is because it compromises humanity’s conceived essence, what he calls Factor X (Fukuyama, 2002, pp. 149–151, 153), in a commercial and permissive environment, from which all the medical enhancements would necessarily emerge (Fukuyama, 2002, pp. 181–202). He warns about a dystopic future without ethical distinctions between therapy and enhancement in a commercialized posthuman environment. Hybridization is, therefore, enslavement in Fukuyama’s view. He is concerned about the dilution of human rights by the claims of chimeric, transgenic and cybernetic species, and by the disagreements over the ownership of DNA. Although, Haraway’s cyborg concerns mostly cultural signification, Fukuyama describes a potential social reality.

The difference between cultural and philosophical posthumanist schools of thought distinguishes two types of imaginations for the cyborg. Hard cyborg is about the idea of human enhancements and radical evolutionary leap, and it carries a biologic moral significance. Soft cyborg conceptualizes the idea of the cyborg into the realm of cultural significance, renegotiating relationships and identities (Zylinska, 2005, pp. 139–141, 143–150; Miah, 2007, p. 89). The advances in digital technologies and especially artificial intelligence (AI), gradually blurs the borders between soft, cultural, cyborg and the digitally enhanced bodies as hard cyborg, or as digital transhuman. In our case, the intended scope and the final cognitive content for digital performance are still for the establishment of cultural significance and the reorientation of identity politics. Posthumanism has also been connected to critical theory and cultural studies referring not to a subsequent development state of humanity, but rather to the various postmodern sub-cultural ideas and identities. Posthuman bodies are addressed as causes and effects of postmodern relations of power and pleasure, virtuality and reality, or sex and its consequences, participating in the redistribution of difference and identity (Miah, 2007, p. 75; Halberstam and Livingston, 1995). Similarly, Neil Badmington’s (Miah, 2006, p. 76; Badmington, 2000) and
Elaine Graham’s (Miah, 2007, p. 76; Graham, 2002) ideas about the posthuman condition are taking account of literature narratives to study the meaning of otherness as it is formed in culture. Graham’s theory of posthumanism is placed in-between the world of scientific and bioethical concepts, and the world of cultural imagination, considering myths, science fiction, religion and popular culture. Graham studies offer different representations of the posthuman, including monsters, aliens and the “other” as a basis for moral discussions about scientific and technological change.

### 2.2.3 Cyborg theatre

In such posthuman cultural framework, Parker-Starbuck (2011) theorises the notion of cyborg for theatre as an integration of on-stage bodies with technology and digital media, for the re-imagination of subjectivities in the posthuman age. Unlike the cinematic or televisual assumptions of the cyborg, Parker-Starbuck’s cyborg theatre is about the materialisation of possible mergings between organic and non-organic, to investigate their potentials for theatre. This way the idea of hybridization finds a more specific conceptual scheme for discussion. The interest is to see the body-and-technology apparatuses performatively on stage as agents for form and content, not merely as systems through which ideas are imparted, but as ideas and performative subjects themselves, in an unparalleled testing ground for corporeal and technological configurations. In Parker-Starbuck’s view (Parker-Starbuck, 2011), such integration promotes technology to an acting role of performative subject. For cyborg theatre practice, technology as a subject (subject-technology) emerges when technology stops being considered solely as a tool (e.g., prosthetic extension for the body) and it starts claiming concepts of agency, carrying its own value on stage. Parker-Starbuck’s ideas become, therefore, a suitable critical basis for the investigation of cyborgian body-and-technology relations in performance. Therefore, the cyborg relations define, in my opinion, the idea of hybridity in intermedial theatre and digital performance.

Parker-Starbuck (2011, p. 38), constructs an interesting analytical model to illustrate cyborg theatre’s body-and-technology types of integration, in their historical relation through time, by using the DNA mutating double helix as a metaphor. Her scheme consists of two main strands representing body and technology, with three layers or sub-strands each, representing the subject, object and abject state of both body and technology in their various types of integration through time. This diagram (Parker-Starbuck, 2011, p. 38) indicates that cyborg theatre is process oriented, through various body-and-technology integrations (Parker-Starbuck, 2011a, p. 39). It projects bodies as they shift through current trends, transforming them into potential entities about what “human” can mean in relationship with embodied technologies. What constitutes a subject is one of the most critical questions, which is also at stake, as represented in the double helix metaphor, throughout the 20th and into the 21st century. Parker-Starbuck’s use of the terms subject, object and abject to define the state of body-and-technology variability – according to their performative roles each time – is incomplete and always in process as the author herself notices (Parker-
Starbuck, 2011, p. 43). Her statement appears in absolute agreement with Haraway's non-regulatory definition of the cyborg. Parker-Starbuck’s DNA model is an abstract representation for the various modulations that the idea of the cyborg can theatrically have, matching with Haraway’s anti-essentialism. The bodies in cyborg theatre resist regulation and through their intersection with technology they necessitate a re-materialization as cyborg. They are not fixed but in motion, allowing the necessary openness to engage with cyborg subjectivities. Cyborg itself is a composite construction, in its theatrical mode as well, with a prospect to disrupt any normative notion. The terms subject, object and abject are therefore inflected differently and charged over time, seeking an understanding of the behaviours and the development of the self in the cyborgian stage and beyond. Those three terms are inflecting upon each other, occasionally overlapping and they are always in motion, without a relational hierarchy. The strands of the body and technology in Parker-Starbuck’s mutating double helix twist towards the emergence of cyborg-subjectivity, defining cyborg theatre as a fluid system of continuous renegotiation of bodily configurations with technology.

The notion of abject has probably the most important role in cyborg theatre as a transformative object-with-technology power. As Parker-Starbuck notes (Parker-Starbuck, 2011, p. 54), the term has a long historical trajectory since the 15th century and from the Latin word abjectus (deriving from the past participle abjicière), which means to cast away. According to the Oxford English Dictionary (Parker-Starbuck, 2011, p. 54), abject as an adjective means to cast off, to cast out, to be rejected; to be brought low in position or condition, or low in regard and estimation, to be degraded. Acting as a verb, the word abject can generally mean to cast off, but not always as unworthy, inferior or vile. It, therefore, means to cast down, to degrade. The abject is “not me”, “not that” and “not nothing” either (Parker-Starbuck, 2011, p. 59); it is a “something” which is not recognized as a “thing” (an object). In an abject state, the self is yet to be clearly identified and differentiated from the object-others around it. Abject bodies are placed provocatively between the tension of “becoming” (bodies in process) and “disabled”, emerging from a psychoanalytically and maternally bound condition of fear (Parker-Starbuck, 2011, p. 44). Parker-Starbuck’s use of the term abject moves towards the bodily disabilities and border crossing of corporeal longing and reaching, and of anxieties about bodies (Parker-Starbuck, 2011, p. 44). She uses the term abject as a tension of alienated subjectivity (bodies made “foreign”) in the various body-with-technology embodiments.

Object bodies are historically the “others” in simple opposition to the subject (Parker-Starbuck, 2011, p. 45). The object body is that on which ideas have been inscribed and transposed. An objectified body is tabula rasa for the meaning inscribed on it. In all cases the object body is material with which to work. The subject body, in contrast with the object body, is historically conceived with control and authority as a “whole” body; an active body (Parker-Starbuck, 2011, p. 46). In the Western theatrical canon, subject bodies (protagonists) – being perceived as the bodies of the playwrights themselves – have existed on stage with object counterparts as their foils (contrasting characters). The world is played
around these subjects (subject bodies), although this is not the consideration for the subject in cyborg theatre. Cyborg theatre proposes subject bodies (Parker-Starbuck, 2011, p. 46) which are already embodied intertwinements of cultural and somatic notions that are not solely understood through the ideas filtered through them (i.e., abject bodies, cyborgs).

As Parker-Starbuck’s theorisation is abstracted and always incomplete, according to her own statement (Parker-Starbuck, 2011, p. 43), the theoretical gap which I distinguish here concerns a method of analysis for cyborg theatre, through which body-with-technology hybridity and the various subject-abject-object roles can be studied and defined more clearly for each case. This study, therefore, specifically establishes IF as cyborg theatre (RQ1), expanding on Parker-Starbuck’s brief mention of video games in her discussion (Parker-Starbuck, 2011, pp. 7, 144, 197), which therefore requires further and deeper investigation. I particularize Parker-Starbuck’s view on the IF genre because its connection with theatre has been already suggested by game studies’ scholars, and it is also broadly demonstrated in mainstream production (as discussed next). Furthermore, as cyborg theatre is outlined by the bodies-with-technologies interrelations on stage, I have directly considered the application of postphenomenology for further analysis, in article i (Kouratoras, 2020b), to answer RQ2. This is because postphenomenology is provided as the philosophical-analytical method for the investigation of techno-human relations. In my view, this research appeared important also because the application of postphenomenology to video game analysis has been limited to date.

2.3 IF, cruelty, and ethical choice-making

2.3.1 Video games and IF

To discuss games and IF, a brief presentation of their basic definitions from the point of view of their academic discipline is also required. Game studies is a relatively new academic field, established in the last two decades of the 20th century aiming at the study of games, and video games. The study and definition of gaming had different approaches by mid- to late-20th-century scholars, who were initially cultural and social theorists (Huizinga, 1955; Caillois, 1961; Avedon and Sutton-Smith, 1971; Suits, 1978; Crawford, 1997; Tekinbaş and Zimmerman, 2003). Taking into account the most prominent previous definitions, Jesper Juul attempted a combined, comprehensive definition about the phenomenon:

A game is a rule-based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels emotionally attached to the outcome, and the consequences of the activity are negotiable” (Juul, 2005, p. 36).

All games take shape around those structural features. However, this definition of a classical game model does not indicate uniformity and it does not mean that all games are the same (Juul, 2005, p. 37). It only provides a way to describe
what distinguishes games from each other and from non-games activities. This classical game definition is therefore implemented differently in the various types, genres and styles of existing games, and there are also cases that exist on the borderline between games and non-games activities (Juul, 2005, p. 44). The open world social type of video game SimCity (Juul, 2005, p. 47), is such a case according to Juul, mainly because it has neither a clearly defined outcome, as he states, nor pre-assigned values in the outcomes (e.g., building cities or destroying creations is up to the players). The rules in SimCity do not establish specific and certain goals for the player, who is given the ability to set his/her own purposes in the gameplay. It is clear, therefore, that games are a complex cultural phenomenon, only defined by several different but interrelated characteristics and they are open to various types of alternations. Aki Järvinen’s PhD thesis Games without Frontiers (Järvinen, 2009), takes this idea further. By analysing a large number of cases and genres through a multiplicity of theoretical lenses, categories, typologies and subjects, he practically indicates the pluralism of games and game design as cultural and artistic phenomenon. Additionally, several publications, also in the form of monographs, support the discussion about games as cultural, political, and identity formation manifestations (Kennedy and Dovey, 2006; Jahn-Sudmann and Stockmann, 2008; Muriel and Crawford, 2018; Murray, 2021).

Juul’s point of view on game rules, specifically, is also retrospective, taking into account all previous theorizations, and raising a very important issue. It concludes that games are rules-based systems that also produce fictional worlds (Juul, 2005, pp. 163–196). Järvinen’s theorization (Järvinen, 2003), is also in keeping with the idea of games as rules-governed formal systems, for which he introduces a study model of five types of rules, each one related to one of five elements: components, procedures, environments, theme, and interface. The relationship between rules and fiction sets an interesting problem about the ontology of games. However, it also compromises the previous dichotomy between ludology versus narratology (games as games/rules, versus, games as narratives) that occupied the game studies community, mostly in the earlier days of the discipline. Consequently, if a game is both rules and fiction bounded interactively through the gamer’s acts, then I assume that it is also a system of performance for the gamer on a fictional and rules-based stage; inside the “magic circle” as initially described by Huizinga (Huizinga, 1955, p. 10). I would say that the stage is the fictional gameworld, either in natural space, or in virtual/digital space if it is about a video game. It is a fictional world, in either case, and a digitally materialized type of performance in the IF case. This is because computers and digital media introduce extra characteristics in IF, in addition to enforcing the rules and making statistical calculations that Juul notes in video games (Juul, 2005, pp. 48–49). They promote additional bodily transformations and bodily extensions, with avatars and digital proxies, as several scholars have already discussed through phenomenology (Rehak, 2003; Klevjer, 2012; Vella, 2014; Gibson, 2015). The video game devices allow players to exist virtually, in relation with technology, and to play roles in digital space. For this
reason, contemporary IF is the game type I focus on in this research about video games as cyborg theatre.

Nick Montfort distinguishes four main elements, which describe the idea of interactive fiction in general (Montfort, 2011; pp. 26-27): (a) It is a text accepting, and text-generating computer program, (b) it is a potential narrative, as a system that produces narrative during interaction, (c) it is a simulation of environments or worlds, and (d) it has a structure of rules within which an outcome is sought, e.g. a game. The word “text” here is used to describe not only a string of words but any set of signifiers (Montfort, 2011; pp. 29), media elements, sounds, graphics, or gamers’ commands, instructions and interactions. According to Montfort, interactive fiction tends to represent an environment or imaginary world that the gamer can explore spatially, and such a simulated world is essential to interactive fiction (Montfort, 2011; pp. 29). There is a potential narrative aspect in interactive fiction, which is produced based on the events that take place in this world, and there can also be things that are narrated during the interaction but are not simulated (Montfort, 2011; pp. 30). An interactive fiction work is necessarily a generator of narratives for Montfort (2011; pp. 30), and although it is standard to refer to such work as a “game” it is not necessarily a game (Montfort, 2011; pp. 30). It can present a world for a pleasant exploration but without a quest, intrigue, ending, or a winning purpose (Montfort, 2011; pp. 30). The interaction between the gamer/interactor and the program describes a series of continuous exchanges of “texts”, the “interaction text” as Monfort suggests (Montfort, 2011; pp. 31). This forms the gamer’s sense of continuity and unity of a certain interactive experience for each person involved (Montfort, 2011; pp. 31). Therefore, even though a work of interactive fiction is a generator of narratives, it is not a (fixed) narrative by itself. It is an interactive computer program, and not directly a narrative, thus, not a representation of real or fictional events and situations in a time sequence (Montfort, 2011; pp. 33). The gamer’s actions in the fictional world are the input and the “commands” for the program, which in narratological terms are “diegetic” (Montfort, 2011; pp. 34) creating “diegesis” (the narrative). An interactive fiction work is a framework, a virtual establishment, to act/perform and generates narratives through interactive events between the gamer and the program. This usually happens within a provided “frame story”, or a certain type of generated story, in successfully traversing the (game-) work (Montfort, 2011; pp. 33).

IF is a specific genre of storytelling and drama-based type of gaming, which was initially presented as table-top role-play, text adventures, and card-based games, long before their deployment in digital systems. In the contemporary video gaming era, the genre is mostly based on a computer or platform system like Sony PlayStation, and Microsoft Xbox, more likely with the use of avatar(s). IF games are developing along with dramatic themes and conflicts and with the active collaboration of the player(s) for story development. Interactive narrative is about creating and managing stories within video games, placing the player’s perception in a position of a character in a responsive and dynamically unfolding story, as it is defined by Riedl and Bulitko (Riedl and Bulitko, 2012). Stories within games create context, motivation for the player and advance the action.
IF gaming introduces dramatic techniques, broadly inspired by literature, film and theatre, to achieve a stronger psychological (and bodily in this case) engagement of the player, including immersion, empathy, self-reflection and anticipation within the interactive narrative experience (El-Nasr, 2007). There is a sufficient number of otherwise different video game types, which are considered to be interactive fiction or interactive drama video games. They mainly fall – although not exclusively – into the action, adventure, role-play, warfare, post-apocalyptic, and horror-survival categories or genres of video games. Principally, any video game with human, or human-like characters and avatars, and with a story-based procedure can be potentially included in the IF category. Therefore, it becomes obvious that avatar-based IF always presented the potential of videogames as theatre, using interactive storytelling and specific dramatic-tactical attributes in their gameplay.

The mainstream games’ industry is increasingly adapting and developing dramatization, plot structures, and characters’ conflict techniques in later production of blockbuster (triple-A: AAA), and independent (triple-I), titles. Some characteristic examples of such story driven games include Alan Wake (Remedy, 2010), Heavy Rain (Quantic Dream, 2010), Dear Esthel (The Chinese Room, 2012), The Walking Dead series (Telltale, 2012), BioShock Infinite (2K Games, 2013), Beyond Two Souls (Quantic Dream, 2013), The Vanishing of Ethan Carter (Astronauts, 2014), Dying Light Part I and II (Techland, 2015), Life is Strange (Square Enix, 2015), Quantum Break (Remedy, 2016), What Remains of Edith Finch (Giant Sparrow, 2017), Hellblade: Senua’s Sacrifice (Ninja Theory, 2017), Detroit: Become Human (Quantic Dream, 2018), Days Gone (Bend Studios, 2019), Control (Remedy, 2019), The Last of Us Part I and Part II (Naughty Dog, 2021), and many more. The type of stories and avatar controls vary in video games and IF titles. Video game genres’ classification appears complicated and it can follow different schemes (Clearwater, 2011; Vargas-Iglesias, 2020). For example, it can be formulated according to the gaming platform (PC games, mobile games, console games, web browser games, and so on), according to the narrative (warfare games, horror games et cetera), or according to the mode of play (single player, multiplayer games, massively multiplayer online – MMO –). Usually, IF are defined by a combination of the gameplay’s interaction type (in the ludologic approach), which is determined by the game rules and the game mechanics, with the game’s narrative and the visual features (in the narratologic approach). This approach blends the ludologists’ and narratologists’ views (Apperley, 2006). To mention some examples, first person shooter (FPS) games formulate this exact type of interaction in the gameplay (shooting from a first-person view). In survival-horror the gamer tries to survive in a terrifying game environment. Action video games, promote speed and the gamer’s fast reaction, in physical challenges within the game. Adventure games involve a lot of exploration of interesting and mysterious game environments. Warfare games concentrate in war and battling themes. Role-play games emphasize the identity elements of the gaming characters, their qualities, needs and conflicts.
In practice, these type of interactions, narratives, and game tasks, tend to develop in combination, especially in the later productions. This also generates mixed genres, like the action-adventure for example. Drama-based game narratives can also include strategic, puzzle-solving tasks, and simulations (e.g., of airplane flight or car driving). A clearly defined categorization of genres, according to a descriptive approach of certain conventions for the IF genre is an indicative, but also complex, practice. However, IF continue to grow within a creative mixture of the previous traditional styles and gameplay routines. The idea of traditional card-based, and point-and-click gaming survive in the realm of contemporary IF and they are still applied, like in the case of The Walking Dead (Telltale, 2012). In some cases, the control of the avatar in 3D space becomes limited or it locks in specific game areas (like in the case of quick-time events), in contrast to open world and sand box IF, where the gamer can freely move his/her avatar everywhere in the game world. There are cases when the game drama is also based on text messages in parallel with the interactive performance. These are all different strategies of the game design, or creative workarounds of technological limitations. However, I notice that later production of drama-based AAA IF tends towards open world gameplay and extensive control of the avatar’s moves and choices in the game.

The Last of Us Part I and Part II (Naughty Dog, 2021) is a characteristic example of such union of IF genres and gameplay conventions, with the employment of a wide selection of gameplay styles: action-adventure, post-apocalyptic survival horror, in third-person navigation; with rich narrative and plot structures, with role-play characters; first person gun shooting, stealth (hide and seek) escaping, and also body to body melee. The story deploys around the characters’ survival and the salvation of humanity, in a cruel dystopic environment, after a deadly epidemic chaos (in Part I). It also includes social and psychologic conflicts, fighting, revenge, and socially polarized thematic with the involvement of a transgender character, and the female homosexuality of Ellie, the protagonist (in Part II). The 3D game world is spectacular and rich in photorealistic details and visual fidelity, enriching the narrative and motivating for long spatial wandering and exploration aside from the established gaming tasks. The role-play about human connections and conflicts between the game characters supports the idea of a game-based drama. Heavy Rain (Quantic Dream, 2010) is also another characteristic IF with emphasis in an interactive detective research narrative, unfolding esoteric wounds of the past and child psychological dramas, rather than typical gaming conventions. The game’s light design, its mood and its graphical environment, the cinematic type of flashbacks, and the role-play conflicts, serve the quality of the complicated plot, which takes the form of an interactive drama. From the way that IF develop in the last decade, we can notice the rapid improvement of artificial intelligence (AI), and the advances of game engines, in parallel with the increase of computational capacity of the hardware (computers, game platforms, etcetera). This continuous technological improvement, along with the commercial success of IF titles, supports their industrial endeavour, and further investment in video games’ narrative.
Academic research has been already conducted around IF in theatrical and dramatic terms and context. Looking at the past, Matea’s flag project Façade (Mateas and Stern, 2003) is a characteristic example of early experimentation in interactive drama. The story deploys around a couple in crisis and a common old friend who visits them in their apartment with the game’s objective to influence their current situation. The player in Façade interacts with the couple, who are non-playable characters (NPCs), by typing text messages. In this example, an established story engine makes selections of events according to the user’s actions, the previous history of events, and the game designer’s story goals. It executes these events dynamically at run-time, adjusting the game’s narrative with the user’s interaction while taking into account the Aristotelian principles that define the plot and dramatic progression in conventional theatre (Mateas and Stern, 2003). The story progresses according to the Aristotelian concept of the dramatic arc, from exposition, to rising action, climax, falling action, and finally denouement. This storytelling route constructs the dramatic tension, supported by a game engine that understands natural language (Mateas and Stern, 2002; 2003). The game designers have also paid attention to the five basic Aristotelian principles that define the quality of a plot (completeness, magnitude, unity, structure, and universality) in the construction of their game’s dramatic progression, in the order of events (the Mythos), and in the dramatic enactment (the Mimesis: the representation of action and behaviours). Earlier, Brenda Laurel (Laurel, 1993) also supported a theatrical model (in the Aristotelian sense) of structural components of tragedy within computers; and Murray, likewise, draws on theatre to discuss digital fiction and storytelling (Murray, 1997). Similarly emblematic in the games-as-theatre research is Gonzalo Frasca’s PhD thesis (Frasca, 2001) on Augusto Boal’s Theatre of the Oppressed application in game design. In his thesis, Frasca (Frasca, 2001) explores the potential of game design as a social simulation of oppressed situations to trigger critical thinking, driven by the behavioural performance/gaming of the spectators as actors/gamers (“spectactors”) in search of possible solutions. Frasca’s method is based on Boal’s “Forum” theatre of short non-ending improvisational plays with the participation of “spectactors”, encouraging the dynamic of social and personal change. Apparently, the relation of IF with theatre is already pronounced from the early days of IF as avatar-based video games, and it is gradually amplified with contemporary mainstream production. 

As Cayres & Duran demonstrate for the World of Warcraft (Cayres and Duran, 2016, p. 157), what we experience in virtual worlds are theatrical performances. Players are acting and performing roles interactively and simultaneously with each other and the game world: not just in fictional narrative plots for a reader, but in real events that emerge from a pre-written and pre-programmed story. This is staged drama, based on action and not just written text, in which the gamers’ actions, through their game characters and avatars, are fictional dramatic actions. The performance takes form with the — usually countable with scores and game statistics — quests and goals that the gamers are asked to fulfill, in a limited number of possible activities within the virtual world (Cayres and Duran, 2016, p. 155). In this framework, the gamers perform
drama, being also the spectators of their acting during the moment of its enactment.

2.3.2 Cruelty and Artaud

Furthermore, IF have shown high degrees of graphic content, brutality, aggression, violence, and battling types of interaction. This is especially evident in the post-apocalyptic and survival-horror genres, as much as in the warzone and fight games, which engage virtually with the highest levels of viciousness, savagery, metaphysical terror, and massacre. Cruelty – involving physical or mental harm to another – remains a main component in gameplay from its first appearance in modern society, as indicated by Dill et al in ‘Violence, Sex, Race, and Age in Popular Video Games’ (Dill et al., 2005). Because games become increasingly realistic and dynamic, as Tamborini and Skalski show (Tamborini and Skalski, 2006), and also pervasive (Boyle, Connolly and Hainey, 2011), there is a lot of concern that their violence can influence the player’s social behaviour. C.J. Ferguson (Ferguson, 2015) provides a characteristic example of such criticism blaming obsessive First Person Shooter (FPS) gaming for mass shooting attacks in American schools. Similarly, a number of scholars (Sherry, 2001; Slater, 2003; Anderson, 2004; Greitemeyer and Mügge, 2014) express serious concerns, in parallel with the wide social critique by parents, politicians, and public institutions. However, this critique can neither explain the wide popularity and commercial success of cruel video games, nor the psychological and cognitive mechanisms through which players of different ages and backgrounds conceive gaming violence. Cruelty in gaming is consumed systematically as enjoyment and entertainment, which is a fact that concerns a highly complex cognitive processing from the side of players, as Christoph Klimmt’s investigation into ‘Dimensions and Determinants of the Enjoyment of Playing Digital Games: A Three-level Model’ reveals (Klimmt, 2003). In fact, Albert Bandura’s theory of moral disengagement (Bandura, 2002) suggests detachment from real life aggression during gameplay to explain gamers’ enjoyment of cruelty in gaming, despite moral concerns. Beyond the ethical concerns, and the psychological and cognitive approaches on the matter of cruelty in video games, the interest here is mainly on its dramaturgical functioning in IF. As cruelty is reported to be a main factor of the gameplay in IF, which is here studied as a type of cyborg theatre, then a principal research question that arises is how cruelty plays a dramaturgical role in the IF genre (RQ3). Via this research perspective we may also examine the reason why gaming cruelty becomes a pleasant habit to gamers. Theatre and drama theory can inform our investigation in this case.

Looking back at theatre’s history, Antonín Artaud’s formulation of The Theatre of Cruelty, is the most extensive discussion about cruelty as a theatrical means. In his book The Theatre and its Double (Artaud, 1994), which was first published in 1938, he expresses his aesthetic and dramatic principles for an authentic type of theatre that seeks to abolish language and stimulate the senses. Artaud bases his dramaturgical axiom on a schism between culture and civilisation (Artaud, 1994, pp. 7–14). He accuses language and theatre criticism as a means of culture, which detaches the theatrical play from the real experiences
that constitutes what he calls civilisation. He promotes a theatre that is released
from reasoning and language’s necessity for meaning. As Dorita Hannah (2018,
p. 33) notes, “Artaud’s Theatre of Cruelty is not one of bloodshed or martyrdom
but a cruel apparatus built to combat cruelty”, which has potential when applied
to gaming as a creative art form capable of moving beyond commercial ent-
tertainment.

Artaud’s theatre is improvisational and participatory, focusing on tangible
and sensual explorations. He attempts to connect the human experience
with its deeper, uneven, and natural state, to realise new forms
empirically, escaping meaning. For this achievement Artaud invents the
notion of plague epidemic as a dramaturgical system, inheriting a
dramaturgical metaphor into the term (Artaud, 1994, pp. 15–32). Theatrical
performers must act things like suffering the plague, thus, in an obsessive
and exaggerated mannerism, expressing the time, the space and the
characters of the play. A safe, conditional, plague-like delirium as they are
chasing ghosts, must possess them like shamans, to step into a poetic
world with a deeper meaning of life. Like in Nietzsche’s (Nietzsche, 1954)
famous quote “what does not destroy me, makes me stronger”, Artaud
embraces suffering and insanity as a necessary method for enlightenment
(Hannah, 2018, p. 261). This method transforms theatre, according to
Artaud, into an authentic medium, through which new and unknown
experiences of pain and happiness, like those felt in wars and revolutions,
can pass into the audience, as raw and crudely as an epidemic. Therefore,
theatre becomes a metaphorical disease that massively affects the audience’s
inner world of feelings, as much as a true factual experience. This way theatre
becomes reality rather than representation, although in a world apart,
because as with spaces associated with disease, the theatrical analogy of the
plague creates a complete, separated, and intense world, which is shared as
a collective experience (Hannah, 2018, p. 261). It is an experience that
intensifies energy and allows communication between performers
and spectators.

Theatre as plague and disease, for Artaud, enacts a curative effect. It
therefore aims to “heal” the audience’s perception by activating the senses, and
guiding the experience beyond superficial, language-based critiques, and
reflections. Through intense affective immersion, viewers-as-actors are
performing in a plague-like delirium. They play through the senses,
away from critical reflections. This way they can finally reach a state of
Aristotelian Catharsis; the cleaning or cure of the soul, after
terror and pity have been aroused through tragedy (Belfiore, 1985).
As with Aristotle, Catharsis for Artaud is the ontological final cause
of theatre itself, which (unlike Aristotle’s formulation) can only be reached
via an authentic — strong, cruel, and plague-like — embodied experience.
Hannah (2018, p. 257) maintains that the paradox of Artaud lies in his
desire to (re)create that which he was escaping from: although he
was suffering from schizophrenia, he “longed to immerse himself in the
dissolution that haunted him”, so theatre could be his “fiercely
transformative place of healing”. The theatrical metaphor of the plague
appears to be at the heart of Artaud’s cruelty. It becomes therefore a
fundamental concept that needs further investigation, and
dis-mystification, for the dramaturgical role of gaming cruelty in IF. Article ii (Kouroutas, 2011) undertakes this investigation.

To support his theatrical method, Artaud suggests specific scenographic ideas and the use of metaphysical imagination (Artaud, 1994, pp. 33–47). He talks about a spatial system of play, like spatial poetry and choreography of the scenic elements that could directly affect the senses and the feelings of the audience. He promotes a play without script: an open story (therefore a kind of theatrical happening) where the plot would be formulated by the audience as actors, randomly and on-demand, in an exploitive mise-en-scène for the individual. Just like the Futurists and other avant-gardists, Artaud spurns mimesis in his formulation of theatre, to present its more immediate transformative power. According to Una Chaudhuri (1995), he required spectacle to act as force, not as reflection (Hannah, 2018, p. 256).

Artaud seeks engagement, empathy, and independent spatial agency for each theatre-goer’s active and embodied performance. Such theorisation for an individualised mise-en-scène appears impossible for the theatrical apparatus of Artaud’s times. However, it seems to be actualised in present day IF and VR frameworks. Artaud’s request for theatrical agency seems to point directly to Janet Murray’s notion of agency in contemporary video games (Mur-ray, 1997, pp. 126–153), which she defines as the player’s feeling of empowerment that comes from his/her ability to take actions in a game world, with effects that relate to the player’s intention.

Artaud’s plaque is also realized in performance by cruel mannerisms and grotesque themes. Artaudian play aims to upset the audience’s detached senses and unlock the constricted unconscious. Unforeseen and unexpected danger is a key element of the dramatization, through threatening situations with the support of relevant stage objects, grotesque creatures and mystic fear; as seen in the majority of IF titles. This type of active (participative) metaphysics are the real value and power of poetry for Artaud, revealing evil and the triumph of dark powers, and bringing the mind back to the source of existential conflicts and natural powers. All great myths are dark, and for Artaud they cannot be imagined outside a surrounding of bloodshed, torture, and massacre, as drama’s key role is to discuss this natural violence in life, which is inherent to the human condition. Artaud also makes use of the idea of alchemy as another metaphorical term (Artaud, 1994, pp. 48–52). Like alchemy and its mystical chemical symbols, theatre has symbolic function alike. Like alchemy, theatre presents a dynamic reality, which reflects a situation that can potentially occur in fact. Therefore, theatrical symbols exist like alchemy, as a realisation of a potential and other-wise inconceivable reality in between real and fantastic worlds, and this is theatre’s dynamism. Alchemy involves searching for new materials, and theatre seeks new empirical experiences. The ending is unknown, as Artaudian theatre is rather open and a non-linear system. Just like alchemy, theatre needs some organized anarchy, as Artaud states (Artaud, 1994, p. 51), hence, a creative framework without rules, which however gains balance. It requires philosophical battles and conflicts that move beyond simplicity and order.

To serve his terrifying, imaginary, and grotesque theatrical vision, Artaud draws an example from the pantomime and theatre of Bali (Artaud, 1994, pp.
53–67). He appreciates its stylistic dance-like movements, the strong visual elements and symbolism. Balinese theatre is materialised on stage as rich visual grammar, eliminating language from the heart of the play. Its movements are stylistic and rhythmic, as if accurately and mathematically calculated, with exact regularity in timing, rhythm and posing. Everything seems well programmed in detail as a geometric type of poetry, which Artaud saw as animated hieroglyphics on stage (Artaud, 1994, p. 54). The actors play like mechanised creatures, whose happiness or sadness appear foreign to them. They seem to take part in a sacred ceremony, without being themselves. Artaud describes Balinese theatrical performance with such enthusiasm, as a historical reference for his own theatrical concept.

Artaud’s theatrical manifesto presents some essential eclectic relations with digital performance and video games. Steve Dixon, who also recognizes this connection between Artaud and digital media (Dixon, 2007, p. 241), writes that Artaud’s incendiary writing creates imagery that would be previously impossible to stage without the capabilities of computers. He continues that Artaud’s idea about actors, being like those tortured at the stake signalling through the flames, has now been echoed in digital performance cases. In addition to Dixon’s re-marks, I have to add that IF gamers, specifically, act with such intensive mannerisms, pleasurably entrapped in the virtualism of the gameplay, while attempt-ing to escape from great and often metaphysical dangers, overcome outstanding difficulties and obstacles, make the right choices, and achieve prominent goals in the game. They appear immersed in a pleasurable gaming delirium, while be-ing viewers of their own actions in cruel and terrifying gameplay situations, which they actively embody. Dixon also suggests (Dixon, 2007, p. 242) that through his discussion of theatre as alchemy, Artaud, becomes the first to introduce the idea of virtual reality; and by linking the chimeric nature of theatre with alchemical symbols, he describes how theatre’s imaginary reality develops like alchemist signs are evolved. In addition, I also note that Artaud’s symbolic use of theatre as dynamic, alchemic, and mythic re-genesis, matches well with the idea of the theatrical cyborg as techno-biological chimeric ontology, in a digital, post-Artaudian stage, i.e., as corporeally abject, of imaginary diverse or double genetic constitution, open-ended, possibly realisable or unrealisable, grotesque, and potentially monstrous.

2.3.3 Ethical choice-making and Existentialism

Choice-making is another very frequent and highly important aspect of the interactive narrative in IF. In most cases it concerns logical choices as part of the quantified strategies and techniques of the gameplay, to gain higher scores or to serve the narrative and the gameplay progression. However, choice-making in IF also takes the form of moral dilemmas in the gameplay, like when the gamer is forced to choose whether (s)he will sacrifice the protagonist’s best friend to save the town in Life is Strange (Square Enix, 2015); when (s)he is asked to kill a drug dealer, and father of two little girls, in return for information about his lost son, in Heavy Rain (Quantic Dream, 2010); or when the gamer’s morality is tested in Bioshock (2K Games, 2013), with a dilemma of saving or letting
down the helpless little sisters who have assisted him/her before, to gain a double amount of ADAM (the chemical substance that empowers the gamer character's body).

This is the type of choice that interests our present discussion on IF as digital performance. Ethical choice-making as game design strategy provides a number of options for the player, with either minor or major moral consequences in the game, taking it on different storyline paths (branching narratives). Ethical choices in video games have been already introduced as a research topic in game studies by several scholars (Sicart, 2009a, 2009b, 2010, 2013a, 2013b; Zagal, 2009; Stevenson, 2010; Consalvo, Busch and Jong, 2016; Christiansen, 2017; Staines, Formosa and Ryan, 2017; Ferchaud and Oliver, 2019). It is noted that the different types of ethical dilemmas, which gamers face in such video games, can be either manichaistic (in a clear right or wrong moral system), or more ambiguous (providing ethically unclear and tricky choices), and they motivate the gamer to act as a moral agent in a performative narrative (Sicart, 2009a, pp. 195–196; Christiansen, 2017, p. 3). Sicart (Sicart, 2013a, p. 24), defines ethical gameplay as the ludic experience in which regulation, mediation, or goals, request moral reflection from the player, beyond the calculation of statistics and possibilities. This type of gameplay requires an understanding of games as artifacts with (ethical) values embedded in their design. They motivate the gamer towards moral action and experiences, out of conventional modes of interaction and decision making for the achievement of goals (Sicart, 2013a, pp. 24–25).

In result, I consider ethical gameplay, and especially these types of ambiguous moral dilemmas, as a theatrical framework. Ethical choice-making establishes a dramatic model (a structure/arc for drama and narrative) with serious moral con-flicts in the gameplay, and a dramatic role for the gamer to perform in virtual stages. The gamer does not act in a straightforward mechanical manner to gain scores, but (s)he needs to internalize and reflect on the gameplay situations eth-ically. Gamers are expected to immerse themselves in the dramatic experience of the moment, to actively influence the formation of the game’s narrative, and to experience the consequences of their choices. This definition refers to games of internalised morality, (Formosa, Ryan and Staines, 2016); in contrast to games of externalised morality, (Heron and Belford, 2014), where moral choice is re-moved from the player, preventing him/her from being actively engaged with the presented moral theme. In the case of externalised morality gameplay, the usually linear narrative prevents gamers from interacting with the story and in-fluencing the game’s outcome, although they can still engage and reflect on choices of the game characters, as happens in What Remains of Edith Finch (Tancred et al., 2018, p. 628). However, the distinction between internalised and externalised morality cannot always define a gameplay in an absolute manner. For example, internalised morality, and branching narratives, can be included in a generally linear storyline, as article iii (Kouratoras, 2020a) demonstrates.

Branching storylines are non-linear stories, where the player influences or changes the story progression or the ending of the story with his/her choices in the game. In this type of interactive narrative the player acts in order to advance the plot. Such non-linear gameplay can produce multiple (pre-programmed)
endings or can lead to the same ending through alternative story paths, as it is in the case of *The Walking Dead*. The branches of the story may also merge or split at some point, or even permit backtracking in a game. Branching narratives can also be presented with different starting points of the game, which sometimes are offered with a selection of different playable characters for the game (Adams and Rollings, 2006, pp. 194-204). We must also note that branching storylines in video games can cause several technical problems in production (increasing chances for “bugs”) and they are expensive to develop (Adams and Rollings, 2006, pp. 194-204). Therefore, although they are still in use, the contemporary game industry appears more oriented to linear narratives. It often compromises between linear and branching systems, where the plot branches within a generally linear (pre-determined) storyline, without much use of interactive narrative. In addition, a genuinely non-linear interactive narrative would be created completely by the gamer’s actions and choices. This is always a difficult technical and artistic task (Sorens, 2008). *Façade* (Mateas and Stern, 2003) is a characteristic example of non-linear, interactive narrative with several branching paths that are based on the gamer’s choices, but within a specific set of outcomes and situations. Digital technology has served the application of branching paths in video games, however, technical and programming limitations prevent the possibility of absolute non-linear narrative. This is also the case in *The Walking Dead*, where ethical choice-making can be only conditionally free as a cognitive reflection of Existential agony experienced in an artifact. The rapid advancement of artificial intelligence (AI) appears promising for the development of a truly interactive narrative, where the story and the drama could be genuinely influenced and emerge from the gamers’ actions. However, for the most part, this currently remains in the realms of scientific and artistic imagination.

An attempt at systematic classification of video games, according to ethical choice-making, sheds more light on the topic as established by Tancred *et al.* (2018), who list about twenty-six video game titles: a number indicating the extensive use of ethical choice-making in contemporary IF. Their taxonomy of moral gameplay is based on the type of endings, and the type of choices each game provides the players in the narrative (Tancred *et al.*, 2018, pp. 629–631). In this discourse (Tancred *et al.*, 2018, p. 630), *The Walking Dead Season 1*, was demonstrated as a characteristic example of linear narrative gameplay, but with scripted choices (ethical choices required from the player to influence the narrative), which therefore produce branching narratives within a generally linear storyline.

In addition, I had also noticed the Existentialist orientation of the choice-making in *The Walking Dead Season 1* (for the *Sony PlayStation 3* console), because it attempts to move away from clear ethical guidance, it does not reveal a correct choice as the dilemmas are morally dubious, and its results are always dramatic, causing enormous damage and loss. This condition indicates the game as a characteristic, and appropriate case study for the dramaturgical use of ethical choice-making in gameplay. Although, its gameplay reproduces the old-fashioned point-and-click type of interactive cinema mechanics, and card-based
questionnaires for the progression of the dramatic storytelling. These types of gameplay are not the most updated examples for a postphenomenological dis-cussion of IF as cyborg theatre. Despite that, this case study demonstrates and promotes the idea of IF as digital drama, addressing RQ4, which asks how the development of ethical choice-making in iF gameplay can create drama-like, ludic and theatrical gameplay performance?

Morally uncertain ethical choices, in difficult situations, and with unavoidable catastrophic consequences, is exactly the dramaturgical system of Sartrean Existentialist drama, which I investigate in a comparative study with The Walking Dead Episode 1 (for PlayStation 3) in article iii (Kouratoras, 2020a). Existentialism is a philosophical system which defines humans as free and fully responsible agents of their lives, in a morally undefined and uncertain world. In such ethically desperate condition of existence, humans are condemned to make choices to form their moral system freely and unguided, while serving or opposing their stereotypic feigned or imposed social roles, and thereby suffering the consequences (Sartre, 2007). Such a dramatic framework becomes an interesting setting for a key case study of ethical-free choice-making in IF. This is because it suggests an ultimate step beyond gaming scores and simplistically preformed narratives, towards more complicated and dramatically rich theatrical role-play.

2.4 Theory synthesis

In this section, I create a brief synthesis of the background theory, underlining the theoretical gaps that lead to my research questions, and connecting the background theory with the research articles. In addition, I would like to explain at this point why “digital dramaturgy” is the general term that frames my study of IF as cyborg theatre, instead of the more common “digital performance”. As discussed in 2.1, dramaturgy is a general, already established and flexible term, which means the creation of dramatic composition by performance, and it does not apply a determined method to do so. It defines an open methodology for theatre creation that can be transformed in historical time, or by the creative ideas, technologies, and methods of each period and culture. Performance, on the other hand, is also an already established term, which is broadly understood as the act of presenting a play, or some other form of entertainment. This means the act, the performance, per se. Digital performance, therefore, concentrates on the act of presenting live (natural bodies’) computer and digitally aided performances, usually in actual (real-life) spaces. For example, Stelarc’s artwork engaging with exoskeletons (Stelarc, 2021) and digital prosthetic body parts, shape a cyborgian performance mostly in real ‘lived’ space (IRL), as a live digitally-aided performance. However, this study requires a term that concentrates on the composition of the digital performance rather than the act of presenting it. It needs a term that focuses specifically on the digital theatrical apparatus, what constitutes the digital performance, its function and cultural signification; on how the digital technology creates the performance as and through dramaturgy.
Moreover, in order to include IF, avatars and proxy agents’ theatre in a type of digital performance that takes place mostly virtually, instead of IRL, requires a different and broader term. There is the need for a definition that escapes the idea of the typical bodily performance with digital technology in IRL space; a definition that can easily include IF gaming as cyborg theatre and the role of video game technologies as dramaturgical means, not as a special or aside case but as a major case. Digital dramaturgy in the framework of this research means therefore the compositional dramatic endeavour, within digital (and eventually cyborgian) performance. Digital dramaturgy defines a new techno-human theatrical apparatus and context within the catalytic influence of digital technologies, including video game technologies and virtual spaces, and the ways in which they materialise the performance. Digital dramaturgy is about the determinent dramaturgical role of technology and the ways it empowers the techno-human relations, developing a posthuman, post dramatic, algorithmic and rules-based, immersive formulation of theatre, which hybridises biological with technological bodies, and real with virtual spaces. In short, digital dramaturgy provides the means of composing cyborgian theatre. This study investigates the principal compositional methods (the digital dramaturgy) in the specific case of IF as cyborg theatre, through postphenomenology.

Furthermore, another reason that demonstrated the need for a clearer term for this study, was revealed in a few discussions with computer scientists, hardware and software developers, who had no previous relation with performance arts. In our discussions, digital performance was immediately confused with the speed, the stability and the accuracy of digital hardware, computers, and network connections – referring to performance in relation to technical efficiency. Reference to the term ‘digital dramaturgy’ cleared everything up.

As discussed in 2.1, the term dramaturgy – as dramatic composition – has been an abiding term that reconfigures its meaning to adapt to new performance modes since classical theatre up until today. Postdramatic theatre and new dramaturgy detach performance from conventions of a written script, place the audience at the heart of the performance, and liberate the action from the classical notion of a theatrical stage. Dramaturgy becomes conscious of its processes, and its postmodern and post-disciplinary context. In this framework technology and new media become a central dramaturgical characteristic, which defines the aesthetics, experience and interaction of contemporary drama and performance. They appear in the foreground, cancelling any previous human-machine opposition, and negotiating new techno-human artistic relations and emergent experiences. This mixture of media – through intermediality – in new dramaturgies is not simply about their co-existence in theatrical space, but deliberately connotes hybridity, not just between different technologies but mainly between humans and technology. Hybridity influences the nature of theatre, and it can also transform the physical space and embodiment of performance by simultaneously presenting virtuality – realms and acting bodies from elsewhere: in presence or absence. The perception and the interpretation of the audience, who also participate actively in the performance, become the key to materialise and understand intermedial theatre and digital performance. Hybridity
is the phenomenon at stake. This is rediscovered in the descriptions of the cyborg, mainly by Haraway and eventually through Parker-Starbuck’s more theatrical orientation. Both approaches happen within a Posthuman framework, which appears as a leading cultural condition in contemporary society, arts and humanities: where the instrumentalized body – once augmented by glasses and prosthetics – is an integration of human and machine we now take for granted.

Posthuman thinking deconstructs the existing anthropocentrism in contemporary culture, and suggests the renegotiation of the relations between humans, biological, and technological entities. Human is understood as an open-ended entity, with non-fixed, fluid characteristics as well as with historically and culturally alterable identity. In this framework, Haraway theorizes the notion of the cyborg as a feminist renegotiation of the female identity in a dynamic, unspecified, culturally re-imagined, and post-gender bodily form. The body in Haraway’s cyborg is pictured within a desired hybridised state, between the biological and the technological, in order to escape from established capitalist, patriarchal sovereignty (e.g., as a reproduction machine). It becomes data – abstract re-programmable genetic code – through which it can constantly transform. Haraway distinguishes between a revolutionary and an enslaving perspective in such a corporeal situation that she calls “informatics of domination” (Haraway, 1991, pp. 161–166).

In such a posthuman cultural framework and theatrical hybridity, Parker-Starbuck places the cyborg further from Haraway’s feminist imaginary, on a theatrical stage as a techno-human performing hybrid; an abject body driven in play through bodies-with-technologies. Parker-Starbuck gives both active (as subject) and passive (as object) roles to bodies and technologies equally. Although she appears to have mostly live digital performances (in lived space) in mind, she includes video games in her theoretical conception about cyborg theatre, albeit without developing this discussion further. Her metaphoric DNA model for cyborgian (bodies-with-technologies) theatrical relations, clearly illustrates her theoretical construction. It also raises interesting practical questions about how we can study and analyse these relations, especially for video games and this matter suggested further research. Because this is about the relation between human and technology, postphenomenology came immediately to mind. If video games are a type of human-with-technology (cyborg) theatre (RQ1), and if postphenomenology is a practical methodology for the study of human-technology relations (RQ2), then this is the method of analysis that I have chosen to apply to study video games as cyborg theatre, in article i (Kouratoras, 2020b). This link is of particular interest because postphenomenology has not been applied as a full system of thought to such a study of video games.

It has been used only very recently, and still without the utilization of this philosophical concept as a whole. Furthermore, my focus was directly on the IF genre specifically, because it has been already discussed and explored as a type of digital, avatar-based theatre before. IF is also pictured as a rules-based fiction generator, which presents additional cultural potentiality beyond gaming in borderline cases. Moreover, IF are currently produced with an increasing emphasis on interactive storytelling and drama performance in the gameplay.
Independently from these primary questions investigating IF as cyborg theatre (RQ1 & RQ2), and because IF have been already suggested in theatrical terms, it is necessary to investigate IF main characteristics, and what type of theatre they are, according to their themes and interactions. Even beyond the theoretical account of cyborg theatre, contemporary IF are generally characterized by an extensive amount of cruelty. They also tend to incorporate moral dilemmas and ethical choice-making as a dramatization technique in the gameplay. Cruelty in video games has been largely discussed from a social influence and an ethical point of view, but not from a theatrical and artistic perspective. Artaud’s theatre of cruelty appeared as a direct eclectic relation from theatre’s history, through which IF are investigated comparatively, in article ii (Kouratoras, 2011). While Steve Dixon (2007) has already made this connection, citing Artaud’s impact on “the digital performance arena” and avatar creation, more extensive research is required into how it is practically materialized in gameplay (RQ3). Artaud proposes a sensual theatre of action and participation beyond meaning and explanations; an immersive theatre with delirium-like mannerisms such as suffering from the plague in order to eventually reach Aristotelian Catharsis. He proposed dramatic fights, monsters, dragons, terror, fascination, and independent agency, like he was describing a survival-horror, action-adventure IF of today. Artaud’s cruelty, and his plague metaphor as dramaturgical force, should be renegotiated for the game world, and this provided the second theoretical gap for my research. Finally, although ethical choice-making as another main characteristic in IF is already discussed theoretically by Sicart and several other scholars (Sicart, 2009b, 2009a, 2013a, 2013b; Zagal, 2009; Stevenson, 2010; Consalvo, Busch and Jong, 2016; Christiansen, 2017; Staines, Formosa and Ryan, 2017; Ferchaud and Oliver, 2019), this discourse seemed to need the addition of a case study, specifically for the investigation of ethical-choice making as digital dramaturgy. This appeared as a third theoretical gap to cover for my research topic (RQ4). Taking into account the relevant existing discussion on these matters, I searched for a characteristic and indicative, purposive case to function as a practical example of difficult ethical choice-making in gameplay. This case was found in the popular The Walking Dead Episode 1 title, which moves towards the ethical ambiguity of Sartrean Existentialism, as discussed in article iii (Kouratoras, 2020a). Therefore, Existentialism and existentialist drama became the analytical prism, and the second historical dramaturgical reference, for the study of IF as cyborg theatre.
3. Articles’ results

Three published articles answer the four main research questions of the present research study. The questions have been addressed separately from each other, and the articles correspond to the research questions independently. Although the research topics tend towards an interrelated, combined theorization about IF as cyborg theatre (Fig.0), my methodological view was to distinguish what I realized as the principal function (IF as techno-human performance), from what I noticed as equally major but rather variable dramaturgical components (cruelty, and ethical choices). This means that even though all the in-focus characteristics play an important role, the techno-human performative relations in IF constitute the most decisive factor of IF as theatrical performance, like the foundation and the pillars in constructive architecture. While, cruelty and ethical choices are leading the type of narrative and performance, they may also be potentially replaceable like internal architectural structure. Technically speaking we can form IF cyborg theatre, through bodies and technologies, away from cruelty or morality. However, this idea sounds actually distanced from the cultural canon in both theatre and IF. Both, theatre’s long history, and IF’s shorter past, clearly demonstrate their general orientation in highly dramatic, and cruel conflicts. Contemporary types of immersive interactive theatre, new dramaturgies, and state-of-the-art digital-aided productions, including IF, appear to follow such a creative tradition. Considering the political, ethical, aesthetic, ontological, and identity conflicts of the cyborg concept, cyborg theatre does not give any signs of departure from performative cruelty and moral dilemmas. Following this line of thought, I only set the distinction methodologically to detach cyborg theatre, cruelty, and ethical choice-making from each other and investigate them more analytically in their own individual context. Although they practically coexist and cooperate in the majority of current (and more likely, future) IF cases, my approach in this research was to principally distinguish them as isolated phenomena, in order to better understand them. Therefore, I also didn’t need to follow a chronologically defined sequence for the publication of the articles. My article on IF as cyborg theatre (article i: Kouratoras, 2020b) is presented first, because it posits an “umbrella” case, or larger box, which “contains” two equally important sub-cases: cruelty and ethical choice-making. Article i addresses RQ1, by asserting IF as a type of cyborg theatre, and RQ2, by drawing on postphenomenology to more practically and analytically understand the form. Article ii (Kouratoras, 2011) addresses RQ3 by establishing and unpacking the dramaturgical role of cruelty in IF. Finally, article iii (Kouratoras, 2020a),
addresses RQ4 with a purposive and indicative case study on ethical choice-making in IF.

3.1 Article i (RQ1 & RQ2): IF as cyborg theatre

In article i (Kouratoras, 2020b), I investigated IF as a type of cyborg theatre through postphenomenology, established by Don Ihde as signaling a world increasingly mediated by techno-science, particularly through the digital virtual. Foremost, I investigated Ihde’s basic types of techno-human postphenomenological relations, and introduced them in the framework of IF, i.e., between gamers, game devices (gamepad, screen, VR headset, headphones, computer, etcetera) and the game world. Briefly, embodiment relations refer to the mediation of those technologies that transform a user’s active and perceptual engagement with the world (e.g., eyeglasses, binoculars and so on). Hermeneutic relations concern technologies that are used through an act of perceiving and interpreting the device’s readout (e.g., graphical user interfaces in digital devices). Alterity relations refer to devices with which we relate and interact similarly to other human beings (e.g., talking devices and ATMs). Background relations are formulated by the type of technologies that make up the user’s environmental context (e.g., air-conditions and heating systems). I have specified IF as cyborg theatre through a system of parallel fields of attention (Kouratoras, 2020b, p. 206), which incorporates all types of postphenomenological relations, embodied, hermeneutic, alterity, and background relations, simultaneously, as shown in Figure i. The schematic in Figure i also presents an alternative, postphenomenological concept for Parker-Starbuck’s DNA-like mutating double helix. It is a cyborgian model that illustrates subject, abject, object performative entities, according to her theory. Postphenomenology supports a practical analysis method of study for all types of gamer’s integrated bodily/perceptual relations with the game technology, for the subject, abject, and object complexities, which shape fusion and immersive relations (Kouratoras, 2020b, p. 205). These are human-technology relations of hybrid intentionality as abject bodies, in which technologies merge with physical bodies (fusion relations), or with the environment, shaping smart environments that perceive their users as well (immersion relations). My idea of IF as cyborg theatre through postphenomenology, is also supported by Verbeek who maintains that the relation between subject and object always precedes the subject and the object by themselves (Verbeek, 2005, pp. 129–130), which actually implies that the subject and the object are mutually constituted in their interrelation, so humans and their world (or game world) are formed by artifactual mediation.

At this point, I must note that the idea of IF as cyborg theatre within fusion and immersive relations through a system of parallel fields of attention, and a split in people’s directedness at the world (bifurcated intentionality) because of it, somehow contrasts with Ihde’s gamer-game view as a mainly alterity relation instead of merely hermeneutic or embodied. Ihde (Ihde, 2002, p. 81), promotes a dominant role to the correspondence between the screen imaging and the physical world, as an alterity relation in which the machine becomes a quasi-
other or a quasi-world for the human. In my opinion, the imaging does not pre-
cede the functional combination of all postphenomenological relations in IF. It is
their assemblage within the gamer’s corporeality that shape a total
and complete techno-human relationship, which is actually a cyborg: a
hybrid and cybernetic performative entity. Although imaging may appear
as a central or perhaps single result in the current digital gaming
establishment, we would be mistaken to underestimate the functioning of the
complex techno-human relational system in its cyborgian whole. I suggest
that it is more productive, and future-proof, to look at all post-
phenomenological relations in combination for the study of IF, as either a
video game genre or theatrical performance. As Selinger also puts it (Selinger,
2006, p. 6), one must enter into embodied and hermeneutic relations
in order to play video games, and without the ability to use a controller
or interpret, a game cannot be played effectively. I must add that
background relations are also equally important.

Through gamer-with-technology relations, IF are evidenced as
cyborg theatre, which emerges as a virtual re-embodiment of the gamer
through a proxy (avatar) in the game world. The performative cyborg
presently takes shape mostly, though not exclusively, in the game world. This
gamer-avatar sense of bodily unity, which forms the cyborg, is the result of
somatic and spatial proprioception (Kouratoras, 2020b, pp. 207–210). It is the
gamer’s achievement of pre-reflective awareness of the avatar’s body in
digital space, like becoming his own, occupying it kinaesthetically in real-
time with visual access and feedback. The bodily unity consists of the
collaboration between the gamer’s body schema and body image, which are
producing dynamic performative experiences and cultural signification
(Kouratoras, 2020b, pp. 210–212). The concept of body schema refers to
the new techno-somatic cyborgian synthesis, while body image is its
perceptual and interpretative idea. These formations can be investigated in
many types of digital or digital-aided performances even beyond IF. For
example, dance researcher Susan Kozel demonstrates the discussed ideas
in the telematic installation Telematic Dreaming as early as 1994 (Popat
and Preece, 2012). In this project two beds were located in physically
remote spaces, with mutual video projections but without audio connection.
The dancer was lying on one bed while her image was video projected on the other
bed that was placed in an open to visitors gallery space. The visitors could
approach and haptically interact with the projected image. The other projection
in the dancer’s space was showing the visitors’ spontaneous acts upon her
projected image. So she could watch them in real time, and at the same time move
her body and react accordingly. The dancer reported that her
performance felt like an embodied experience via the visual
biofeedback, as she could cognitively sense the touch of the gallery
visitors on her virtual on screen body and react to the touches (Popat
and Preece, 2012; Kozel, 2007). The project demonstrates the idea of somatic
proprioception and the formation of body schema between the performing
physical body and it’s virtual reflection as an avatar.

Body schema and body image produce rather different and dynamic results,
equally to the dynamic nature of human-technology relations. This is because
technology has different types of uses and therefore techno-human relations
present differentiated established norms, called multiple stabilities in phenomenological terms (Kouratoras, 2020b, pp. 212–214). Ihde (Ihde, 1990, p. 159) states that technology does not give one single way to see the world. It creates several different ways of seeing through culture as Verbeek also notes (Verbeek, 2005, p. 144). Similarly, game technology and game devices are also expected to be multistable, thus, beyond a dominant purpose of use. To study and understand these different purposes and meanings, but also to search for new ones, postphenomenology introduces an analytical research method called variational analysis. It focuses on the application of various relational and hermeneutic strategies, forming particular stabilities. As IF are formed by human-technology (cyborgian) performative relations, they can also be researched further through this method using various ways of application. Hence, postphenomenological field theory, supported by experiential case studies, is an appropriate research and development methodology for IF as cyborg theatre. Such methodology involves the investigation of the gamer-avatar established relationships (stabilities), the type of bodily-perceptual relations that are formed, and their parallel fields of attention. These are the variables that define cyborg theatre’s dramaturgy for the gameplay and game design analysis. They could be investigated for ensuing scholarly and artistic inquiries.

3.2 Article ii (RQ3): the dramaturgical role of cruelty / Artaud

In article ii (Kouratoras, 2011), I concentrated on Artaud’s theatrical concept of the plague, as it is found at the heart of his dramaturgical cruelty, generating an empirical and embodied theatrical experience. By performing in a delirium state, like suffering the epidemic, Artaud aims to cancel critical reflections and promote the body experience of the participant, who is both actor and viewer in this case. The performing body experiencing a terrifying shock on stage, is the only theatrical way, for Artaud, to feel the real experience of a situation and to face the naked, inner truth in life as awful and frightening as it is in reality. I notice such cruelty-based acting in digital performance and in cruelty-based types of the IF genres, especially in action, adventure, combat, fighting, shooter games, and survival horror. Cruelty through plague-like adrenaline and suspense generating “delirium” is the main component in such a gamer’s virtual performance. It aims the emergence of the gameplay and the story progression.
It also becomes the central dramaturgical framework for the drama development in cruelty-based IF. Therefore, I have considered the role of the plague as a broad dramaturgical framework in such cases. It appears to be the general purpose and also the leading dramaturgical power for the gameplay as a virtual theatrical performance. It is how Artaud describes it through medical, metaphysical, and alchemic metaphors. This way, IF reveal a strong eclectic relation with the Artaudian conception, although in digital space.

The plague’s dramaturgical role in cruelty-based IF has a double function, as article ii discusses (Kouratoras, 2011, p. 110). As an all-consuming state of delirium, the plague sets cruelty as both theme, and as the method of participation for the gamer in the game play. The game usually introduces a cruel situation, or story, and also form a cruel method of interaction within this situation; a cruel way of playing through cruel performative mannerisms, like shooting and being shot, attacking and running for survival. Because Artaud saw life itself as inherently cruel, his theatre, and therefore IF as cruel sport, cannot escape from cruel interaction and cruelty-oriented game mechanics, like in a state of plague-suffering delirium that attacks the body and mind. Cruel interactive mannerisms can be an exact term for the gamer’s stressful activity while playing such games. More precisely, gaming in this type of IF is like a “delirious” performance, while the player nervously squeezes and clicks neurotically on a gamepad, when turning uncomfortably around his/her seat, or abruptly jumping up shockingly and even shouting and screaming at several fearful moments. This is a gamer’s typical behaviour, while being uninterruptedly immersed in the game’s virtual “hallucination”. In this way, the virtual situation is typically embodied and corporeally experienced in cruelty-based IF, beyond language and meaning.

In such cases of IF, this experience is practically established within a human-computer exchange as a continuous biofeedback loop that “transfers” the player to the gameplay situation. Apart from the type of situation and game-world atmospherics, the kinetics within the gamer-computer behavioural system of play have a significant role as they connect the gamer’s performing body with the digital system (Kouratoras, 2011, p. 112). This involves complex techno-human relationships, which also establish the relationship between reality and digital simulation as an action-based participation in a semi-real, semi-digital state. In such a transmedial way the gaming system moves beyond representation to an emergent playground situation. Within kinaesthetic participation, the actions of the gamer’s body connect his/her physical space with the digital stage of the game world to form an immersive and experiential performance. The gameplay sets a blurred situation between physical and virtual worlds, and between gamers and digital avatars, in which the gamer feels transferred into the game world situation by embodying the avatar (s) he controls. This gaming model seems to have been abstractly conceived within the transferring mode and the overall concept of Artaudian theatre. It is primarily concerned with action-based, participatory and mediated performance of the audience, akin to shamanic theatrical transfer. It includes cruelty, both as a theme and method of participation. It
takes place in a non-physical, and non-canonical, but rather surreal and terrifying world, of great fights and conflicts that reveal life’s inner cruelty.

Apart from its double nature as both theme and method of performance, the plague as method of performance, also has a double-direction functionality in the type of interaction that it establishes. In order to achieve the theatric transferring and the hallucination effect, it needs to both attack the performer’s perception like a disease and also get his/her immediate active response. It requires his/her direct involvement (Kouratoras, 2011, p. 113). This relationship, which in the case of IF is a human-machine relationship, shapes the cruel perceptual embodiment. Cruelty to the gamer, from an aggressive attacking enemy as an example, sets what I called the “passive” type of transfer in the embodiment relationship. Cruelty from the gamer, through a cruel corporeal response, sets the “energetic” type of transfer; the gamer’s automatic body-reflex response, by clicking on the gamepad. This signifies his/her immersion and phenomenological presence in the performing gaming situation. So, when the gamers embody virtual action in such a kinesthetic manner, they may sense the cruel tension of the gameplay situation acting on themselves, becoming digital performers through the game characters that they control. Both types of transfer in simultaneous cooperation create the state of embodied cruel interaction via biofeedback, which constitutes the plague metaphor as in Artaudian dramaturgical system of cruelly participated play (Fig. ii).

![Diagram](image)

**Fig. ii:** The dramaturgical role of cruelty in IF, through Artaud’s system of plague. This is a simplified reproduction of the corresponding figure in Article ii (Kouratoras, 2011, p. 114).

### 3.3 Article iii (RQ4): the dramaturgical role of ethical choices / Sartre

Article iii (Kouratoras, 2020a), studies a key case of video gaming, which appears as a prominent ethical choice-making paradigm in IF. The *Walking Dead Episode 1* (Telltale, 2012), is an indicative and also outstanding case, because it presents itself as an Existentialist example of interpretivistic/antipositivistic moral dilemmas gameplay (i.e., disorientated from a usual instrumental and positivistic evaluation of the relation between choice of action and outcome). Existentialism is a philosophical, and accordingly dramaturgical system of unspecified, therefore absolutely free, ethical choices in life. Sartre introduces the
human condition as an unprincipled by virtue ethics desert, in which humans are condemned to form their ethical value system unconditionally, by free and unguided choices, that they are enforced to make. An ethical choice-making gameplay that is similar to Sartrean Existentialism, hence, tries to stay away from deontology or in-game consequentialism (only conditionally of course, as it is a made artifact). It also tries to be as much as possible independent from socially and culturally implicit rules, and value guiding systems, which exist beyond the game world. However, this can be achieved only as cognitive reflection in the game world and not as actual freedom in the game. Therefore, I have considered The Walking Dead as a supreme case of ethical choices gameplay because it appeared to follow this path, and it indicates an ultimate paradigm of dubious ethical choice-making IF drama.

For this reason, I set a comparative analysis between the structural elements of the gameplay (both ludic and narrative), and the principal ideas and conflicts presented in Sartrean philosophy and drama. The goal was to discover the dramaturgical role of ethical choice-making in IF, and all the related functioning components of such an interactive and embodied dramaturgical system, focusing on its Existentialist orientation as an exemplified case. In parallel I tended to set a number of criteria for the study of the relation between Existentialism and video games, referencing previous game studies in this field. At the forefront, the narrative by itself appears to set the central conflicts and moral dilemmas for survival in a terrifying and hostile zombies’ game world. The player, via his avatar (Lee) is systematically forced to make extremely difficult moral decisions to solve what Sicart names “wicked problems (Kouratoras, 2020a, p. 347, Sicart, 2010; 2013b), with ruinous, deadly and always irreversible results. The game does not provide predefined moral paths or strategic modes of thinking and causality to assist the player’s decisions, as in other typical styles of instrumental and goals-oriented gaming. This is the heart of the gameplay and the dramatic development. It is also why this enforcing of ethical choice-making becomes a major dramaturgical force. I uncovered that the Existential idea of self-deception, or bad-faith, which means playing predefined roles, is also avoided in the game (Kouratoras, 2020a, pp. 348–349). The narrative applies a first characterisation onto the gamer’s avatar, which is straight after practically canceled in the game play by the player’s unassisted moral choice-making ludus, and the in-game social performance via his avatar. In this manner, the gamer builds his/her own gaming essence and identity, through the choices that (s)he makes and their consequences. This way the gamer becomes an ethnically un-guided and free will human, in an inconceivable and cruel game world. This absurdity of the gaming situation sets the uselessness of the in-game projected social roles and human state of existence (Kouratoras, 2020a, p. 349). It is the gamer’s individual and unassisted decision-making, which leads the avatar’s self-creation and forms his ethical code.

The analysis of the game as an embodied, and self-reflected Existentialist experience makes use of existing game studies on the phenomenological relation between the gamer and his avatar in the game (Kouratoras, 2020a, pp. 350–351). The gamer becomes a performer within the game environment through a
motorized kinesthetic link with his avatar, which eventually functions as his proxy performative body in digital space. This way the gamer feels present in the game world and capable of performing actions. He gains agency, and a sense of being interconnected with the avatar’s body as a digital extension or virtual prosthetic. The avatar becomes an instrument of mediated agency for the gamer in the game world, giving him a feeling of self-awareness in virtual space. In such a manner all game events and gamer’s actions are simultaneously both foreign to him, being the avatar’s actions that the gamer perceives, and also actions and situations of his own. The in-game performed actions and events are both interpretative and experiential effects. This complication resembles the Existentialist self-reflection state of literary protagonists, in acting while perceiving their actions as being foreign to them – generally expressed through monologues and inner thoughts. I note this function as technologically deduced of the Existentialist literature and drama mode, applied to IF as Existentialist theatrical performance.

More crucial for the interactive nature and embodied experience of Existential agony in the game is the function of its game mechanics. This is materialised by the creation of a necessary state of Existential nothingness, which is the esoteric void that the player feels in front of an ethically unassisted dilemma. In Existential terms it is the psychological gap that separates the pure existence, or the human essence, from any projected identity (Kouratoras, 2020a, pp. 351–352). A person experiences this nothingness as an entry state in the struggle for the free formation of his essence. This state of nothingness is practically a state of actual abandonment of the gamer in the gameplay, which calls off any type of principle, insight, advice, goal, guidance, or information at the moment of difficult dilemmas. As a result, the anguish and the despair of the moment increase in level, reaching dramatic climax (Kouratoras, 2020a, pp. 352–354). In Sartrean philosophy, it is like performing a role-play of balance between free essence (what is freely and purely desired by the player), the projected social roles (what is expected from the others – the NPCs –), and the in-between struggle to cancel the function of bad-faith. Practically, this is materialized by a pattern of frequent alternations between playable and non-playable scenes in the game (Fig. iii). The non-playable scenes attempt to establish a powerful connection with the difficult dilemma that is raised for the player in the game world and demands ethical choice-making. The playable scenes ask the player to gain the balance between what could be possibly chosen in the specific situation, and what the player, through Lee as his/her avatar, would actually desire. The time-limited responses requested by the game, which pause the action, force the player to make an immediate decision in a few seconds, in this way building extremely high tension. Whether the player avoids or delays making a choice, s/he also faces consequences for having chosen no intervention. Everything is an ethically charged choice.

I have also investigated the dramatic application of the Sartrean “failed dreams or completion” concept in the gameplay, manifested when Lee’s plans, expectations, and intentions fail, or get betrayed by other non-playable characters in the story’s progression (Kouratoras, 2020a, p. 355). Several times the
narrative is subverted, and the story is lead onto different paths from the ones projected. Cut-scenes (i.e., in-game cinematics, or non-interactive sequences that break up the gameplay to progress the narrative) serve this development. In conclusion, although The Walking Dead is based on a predefined storyline with fixed tragic ending, it can largely be considered as the basis for an Existential interactive drama; at least in its first run-time per player, i.e. before the fixed ending becomes obvious (no matter the storyline’s multipath progression possibilities). This game title resembles existing Existential drama, such as Jean Paul Sartre’s The Wall (Sartre, 1969), Nausea (Sartre, 1975), and No Exit (Sartre, 1989), which attempt to aestheticize the highly problematic human condition in its eternal torturing state of free will, through the dramaturgical function of doubtful, ethical choice-making, at the heart of the gameplay. Ethical choice-making in The Walking Dead in this way forms a participatory and techno-embodied dramaturgy. Ethical challenges urge the player to work with the material of the story in the game, becoming a co-author of the narrative through his/her own performance and configurative acting (Kouratoras, 2020a, p. 357). It is therefore an ergodic, in Aarseth’s (1997) term, version of Existential theatre in digital space, and an exemplified and prominent paradigm of ethical choice-making dramaturgy in IF.

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**Fig. iii:** The gameplay poetics in the Walking Dead Episode 1 are consisted by an alternating pattern between playable pauses (for ethical choice-making) and non-playable game scenes. This is a reproduction of the corresponding figure in Article iii (Kouratoras, 2020a, p. 353).

### 3.4 Combining the results

The research followed a methodological distinction, and individualization of the three research topics (cyborg theatre through postphenomenology, plague dramaturgy, and ethical choices dramaturgy). In order to study IF gaming as theatrical performance, apart from postphenomenology in article i (Kouratoras, 2020b), I also made use of classical phenomenology and existing phenomenological game studies regarding the gamer-avatar interrelation, in article ii (Kouratoras, 2011), and article iii (Kouratoras, 2020a). The gamer-avatar relationship is the basic condition that sets IF as embodied theatrical performance (and
cyborg theatre) in both cases of cruelty, and ethical dilemmas gaming, as generally in all IF. Postphenomenology leads this matter further and deeper with extensive analytic thinking and the employment of additional concepts and practices in the research toolset. Previously, classical phenomenology has already demonstrated this primary idea which connects humans with the world, and therefore also with the theatrical stage or the game world, through a body’s intentionalization. Merleau-Ponty rejects the Cartesian mind-body distinction, writing that we do not have just mental intentional about things that exist in the world, out there, but the world and our body form an “intentional arc” together (Merleau-Ponty, 2002, p. 157). As Phil Turner (2015, p. 66) notes, this intentional arc instructs us how to act in a way that coheres with the environment we are in. It is the framework that anchors us in and to the world, bringing the body and the world together and makes us present. To move one’s body, is to aim at things through it, Merleau-Ponty writes (Merleau-Ponty, 2002, p. 160); it is to allow oneself to respond to their call. The movement of the lived body produces the space. It gives existence to the space and a correlative relationship between the embodied self and the world. The world can be accessed only by the ways of the body, and this kinesthetic feedback is the way we objectify the world and orient ourselves in it. In line with Merleau-Ponty, I can add that this kinesthetic feedback is also the way we objectify the physical theatrical stage and the digital game world. It is how we orient ourselves in them, becoming performers in embodied situations. Postphenomenology assists further understanding about these phenomena.

Following this line of thought, my research indicates this primary corporeal relation with digital space, discussed as a technologized, cyborgian (body-with-technology) intentionalants, through which we exist as abject performing bodies in a materialized (as cognitive projection at least), three-dimensional, although virtual, game world. Both cruelty and ethical choice-making are two major dramaturgical sub-systems, within a broader technological dramaturgical system, which is a type of cyborg theatre. Cyborg theatre is their technological theatrical apparatus, their container, and their matrix (Fig. 0). Apparently, all concepts and conclusions of article i (Kouratoras, 2020b), apply equally to both other cases as thematic instances. Eventually, the case of ethical choice-making appears also as a sub-category of the plague-like dramurgy. It is an instance of digital dramaturgy of cruelty. In fact, most of the ethical choice-making IF cases are also based on extreme cruelty in their narrative and ludus, while ethical choices are not as broad in IF as cruelty itself. For example, The Walking Dead (Telltale, 2012) is a cruel game of survival horror in a terrifying zombies’ land, as much as an ethical choice-making gameplay, where choices may also lead into exceedingly cruel acting. In many cases the gamer faces choices of violent actions, such as flighting and killing. Additionally, difficult and unguided ethical choices that are imposed on the player in urgent ways, may also function similarly to cruel dramaturgical, plague-like, attacks on the gamer’s perception: to awaken the dead-calm senses, as Artaud (1994) would have put it. Therefore,
plague-like dramaturgy, as Fig. ii shows, remains potentially active in most ethical choice-making titles (including *The Walking Dead*) to intensify the choice-making agony and the gamer-avatar cruel intentionality.
4. Discussion

This section discusses political and cultural issues around postphenomenology and IF cyborg theatre, which also relate eclectically with the historical avant-garde theatre. It includes a discussion about the theoretical implications of this research regarding ‘liveness’ as argued by Philip Auslander, in relation to real-life presence, which problematises digital performance as well as cyborg theatre. Moreover, there is a discussion about game-based versus free-play performance approaches for IF. Practically, the research results suggest the utilization of postphenomenology in VR and one-to-one mapping inquiries for gaming and performance applications.

4.1 Theoretical implications / advancing existing knowledge

To sum up, this research advances the existing knowledge in the fields of game studies and digitally aided performance arts by extending and deepening some important theoretical concepts. Central to this is the idea of cyborg theatre, which has included video games in its ambit but without the analytical discussion achieved in article i (Kouratoras, 2020b) and explicated in this document. This endeavour also presented postphenomenology and its main concepts as a common ground between game studies and theatre studies. Game studies and performance arts are placed closer in this interdisciplinary study, which focused on the digital dramaturgy of cyborg theatre production through IF; cancelling the traditional orientations of, and strict borders between, academic disciplines. The gamer’s presence in the game world can be seen through a new analytical prism, which combines postphenomenology with cyborg theatre, to inform the game design process. Performance studies – as an expanded field encompassing theatre and gaming – is entering deeper into a discussion about performing in digital virtual space. IF are further established as theatrical performance. Video game devices and video game technology can, therefore, be addressed also as a means of cyborg theatre and performance production.

Moreover, the highly problematic idea of cruelty in gaming, which concerns a large amount of mainstream IF, was discussed in performative terms and beyond the social critique. This analysis demystifies the artistic and theatrical use of cruelty, and it can also assist future sociological and cognitive approaches on this matter. It connects IF with a historical, and the directly related theatrical concept of Artaud, which appears to meet its true potential only with today’s
digital and gaming technology. Finally, the challenging idea of ethical choice-making in video gaming and cyborg theatre, is practically demonstrated by a case study. It is a case study, which indicates that even very complicated and unguided ethical dilemmas, like in Existentialism, are dramaturgically possible and applicable, within a fixed rules-based system of a video game narrative. Beyond theory, the current research presents practical and artistic value for both video game industries and digitally oriented theatre and performance arts. Postphenomenology can be a valuable artistic research method for game design, theatre and performance design. It can also assist innovation in the design of video games and performance arts technologies. This subject is developed in later sections.

Postphenomenology provides a medium for political and social analysis, establishing a critique on the production and use of technology, especially for the complicated case of the cyborg. Such political perspective already exists for postphenomenology. For example, Ann Ferguson (Ferguson, 2009) expresses a feminist phenomenologist’s view, addressing phenomenological thinking as a political project because it actuates people to reflect on their everyday experiences. I note that this feminist account of postphenomenology coincides with Haraway’s view of the cyborg within the political, cultural and identity conflicts that give it form (Haraway, 1987, 1991, 2003). Multi-stability and the promotion of alternative interpretations can serve a critical view of the established embodiments and uses of technology. They can also assist the analysis about the formation of the cultural cyborg, according to specific ideologies, even beyond feminism. In contrast to this view, it is also said that postphenomenology treats technological mediations in an apolitical way as an individual affair, because it tends to focus on technological mediations, without interest in the wider political, economic, and industrial systems within which they take place (Scharff, 2006; Kaplan, 2009). As Jasper Aagard (2017) notes, before Ferguson, the feminist view agreed with this critique, for example in the case of Joan Scott (Scott, 1991, p. 25) who stated that the concept of experience in phenomenology reproduces rather than contests given ideological systems.

In any case, postphenomenology and the cyborg appear politically charged and contested subjects of debate, and cultural expression. This is evidently true in relation to issues of cruelty and ethical choice-making in the currently discussed types of IF. Hence, cyborg theatre and its presently in-focus types of IF, in parallel with their entertaining and artistic scope, maintain a political dimension. As presented in section 1.2, the historical avant-garde had a political agenda (to change the world through shock tactics and chance), intending to be simultaneously artistic and social ‘symbolic interactionism’ at a micro-sociological level. Its aim was to produce meaning through the interactive performance of individuals, and through the mutual adaptation of actions and reactions. IF as cyborg theatre has the potential of a similar revolutionary political attribute for the future, depending on the performative dynamics, and the creative strategies of the game creators. Cyborg theatre can function as symbolic interactionism to form meaning through digital interactive performance. In line with the avant-garde, IF are similarly anti-mimetic, creating their own game world by
the choices and actions that emerge in the game’s run-time, not merely determined by the pre-scripted and pre-programmed behavioural and narrative game-system, but also by the gamers’ influence upon it.

The game rules and mechanics do not set a mimetic interactive behavioural system of actions and reactions, according to the existing social norms of real-life. They form performative, symbolic interactionist gaming settings that exist on their own. In-game social relationships are defined by the game rules and the player’s choices, and not by any other existing social, political, religious, ethical, and cultural conception that is not pre-scripted in the narrative or in the game rules’ system. As gameplay is a rules-based performance, motives and behaviours of all digital agents – the gamers, avatars, and NPCs – make sense only if they are causal to the game’s rules and goals, rather than according to real-life situations and perceptual norms. They make sense in-game, but not in real-life conditionality because they do not necessarily follow real-life’s causality and options. The game situations can be surreal, exaggerated, inconceivable for real-life, fantasized, dreamlike, or even unbalanced and lunatic; liberated from any real-life norm. Therefore, the in-game fictional world is shaped perceptually through the interactionism between gamer and digital agents, according to the specific set of game rules and gameplay purposes, in each case. IF as cyborg theatre is a virtual performative system for experiencing imaginary identities and experimenting with life’s potentialities (even undesirable and abnormal ones), just like any theatrical system of performance. Because technology is so deeply involved in this case, postphenomenology can be employed to serve the realisation of the performance and the analysis of both the artistic and the political meaning in such a theatrical system.

Just like the performative cyborgian identities, the perceptive social imaginary in IF as cyborg theatre is shaped by the game’s logic. The game’s logic is an algorithmic logic of its own that is not set to promote mimesis by default, even if realistic (thematic and dramatic) or photo-realistic (visual and auditory) representations may singly occur incidentally or in the game designers’ methodical application. The different types or sub-genres of IF video games, as much as the idiosyncratic character of each title, are defined by their rules and mechanics; their ‘algorithmic culture’, the semantics of real life, restarted in new digital places and settings. The term ‘algorithmic culture’ here means the computational processes in an IF video game to organise the culturally and performatively meaningful human-machine relationships in the game, thus, the cultural meanings about the cyborg entity. Algorithmic culture provides the means for sorting and classifying characters, locations, objects, choices, actions, concepts and ideas in the game. My current use of the term moves close to the original one by Galloway (Galloway, 2006) and Striphas’ (Striphas, 2015) defining the human-algorithm intercommunication: the habits of thought, conduct and expression that arise from these kinds of dynamic processes, involving both machine learning to make decisions about culture, and humans learning to address the machines. In this study, therefore, algorithmic culture is the way of the cyborg, influencing the bodies-with-technologies relations, their body image and body schema. In postphenomenological terms, it is the type of interrelations and
the stabilities that shape the techno-human entity and its functions, incorporating the body with technology for the creation of cultural meaning.

Algorithmic culture is also politically charged, with the discussion pointing towards a political critique on the commercialization and paternalism of digital hyper-corporations’ and social media’s algorithmic cultures (Striphas, 2015; Hallinan and Striphas, 2016). Large corporations attempt to create a system of techno-human relations and values, to assist their control of the market. Therefore, they make efforts to manipulate the human-machine attributes within their digital systems of communication, according to their political and marketing agendas for total control and profitability. This can set a similar critique for the mainstream, multimillion-dollar, gaming industry. For example, when game companies take advantage of the gamer’s immersion and psychological involvement in the gameplay to promote in-game purchases of extra weapons, health, power, and fighting abilities, or other symbolic goods like extra avatars’ suits and physical attributes, with only virtual and imaginary value for the gamer.

Algorithmic culture is, therefore, a system of critical analysis for the in-game emerging performances, ideas, and decision-making. As with any system of culture, it establishes sets of cultural values, preferences and tastes (Striphas, 2015; Hallinan and Striphas, 2016). This way, it influences our judgment about good or bad, pleasant or unpleasant, fashionable or unfashionable, and so on. Postphenomenology can interrogate this system of values by investigating techno-human algorithmic relations of the cyborg, which gives it form. The algorithmic cultures of IF’s cyborg theatre, as hi-tech cultural and theatrical systems, carry deeper meanings, values, judgments and conflicts that are neither mimetic nor directly representative of real-life issues. Although they may eventually apply in real life as cultural catalysts, through the gamers as social acting subjects, influencing the formation of the real. This idea appears to carry on the avant-garde’s revolutionary, esoteric, ritualised, dramaturgical transformation, although in a newer technological environment. This new technological environment is posthuman, cyborgian, and capable of further revolutionizing the previous avant-gardist creative agendas; especially the agenda of the machine-loving Futurists. The digital framework appears like an exciting theatrical stage for avant-garde ideas, principles, and programs. Therefore, it can serve not only gaming and game design, but also theatre and performance arts in the new digital realm. This study has introduced such a perspective through explorations of Artaud’s cruelty and Sartre’s Existentialism in relation to IF. Unpacking the dramaturgical potential offered by these avant-gardists as a theatrical experience in the game world, reveals the creative and discursive potential of gaming. Contemporary IF production also appears ready for such artistic transformation beyond the simplicity of the typical old fashioned, kill-or-be-killed fight and shooter games, with their good or bad utilitarian choices. Gaming cruelty, and uneasy ethical dilemmas, could be explored theatrically in the digital realm with the experimentation and further development of the Artaudian and Sartrean concepts.
However, this does not mean that IF cyborg theatre should follow the avant-garde theatrical forms of modernity’s past to become a type of “high” art, but rather keep introducing new, game-based performative forms of its own that offer alternative discursive approaches. Like avant-garde theatre, IF video games are neither homogeneous nor united in form. Different types of IF set different types of gaming conventions, therefore, different kinds of interaction and interactionism through their rules and mechanics, making up a differentiated total of interrelated sub-genres (role play games, adventures, action, action-adventures, survival, survival-horror, first-person shooters, social simulations, etc.). IF as a type of cyborg theatre, though, appear to unintentionally continue and reform, the revisionist and subversive program of the overall non-mimetic and interactionist avant-garde theatre, in the new digital epoch. It is developed by a new, different kind of creative industry (the games industry), in parallel with contemporary types of intermedial and immersive, game-based theatrical attempts that are discussed further. The intention is predominantly commercial: popular entertainment, technological innovation, and profitability, rather than an avant-gardist goal for social upheaval, radicalism, and revolution. Although the game industry has not declared an artistic manifesto to change the world, it has the creative potential to bequeath such avant-gardist perspective to digital cultures and to society, following different artistic paths, because it seems to inherit two of the most crucial dramaturgical concepts of avant-garde theatre: anti-mimesis and interactionism.

4.1.1 Opposing views: on liveness and presence

Digital performance has developed the debate on the ontology of performance, which has traditionally focused on live human presence in lived space (Dixon, 2007, p. 133). In this section, I briefly present some key views around this debate. Then I introduce IF as cyborg theatre in the discussion and (re-)negotiate existing views. Opposing opinions to the concept of digital and mediated performance are mainly based on the opposing positions of Peggy Phelan (Phelan, 1993) and Philip Auslander (Auslander, 2008). According to Phelan, the ‘ontology of performance’ requires the aura of the performer’s natural body, because a technological medium lacks human presence. Performance exists in presence, for Phelan, and “cannot be saved, recorded, documented, or otherwise participate in the circulation of representations”; when it does it “becomes something other than performance” (Phelan, 1993, p. 146). On the other hand, Auslander supports the idea that there is no ontological difference between live and mediated performances, and both should be understood as historical and social creations rather than determined by ontological differences. To give an example, he mentions (Auslander, 2008, pp. 56–60) that in the early era of recording technologies, like the gramophone, the term live was used to distinguish live from mediated performance, but after the development of broadcasting systems, like radio and TV, this distinction was no longer clear. According to Auslander, this is because the audience, in the case of radio, had access only to the mediated sound without being certain if the audio was live or recorded.
However, live broadcasting, can neither be considered completely live nor completely recorded, because liveness refers to now, at this point, and not necessarily to here, as Auslander notes (Auslander, 2008, pp. 56–60). These remarks divide live performance (as real and authentic) from virtual/digital performance (as not real), establishing a substantive difference between them in performance studies, as Causey notes (Causey, 1999, p. 393). The late 20th-century view of virtual performance as non-authentic was adopted by many performers who denied the use of digital media in their work, considering it artificial, fake, false, and lacking the “vague notion” of truth, as Dixon writes (Dixon, 2007, p. 24). Furthermore, Jean Baudrillard in Simulacra and Simulation searches the ways in which reality is generally understood and supports the idea that in postmodern society there is no real (Baudrillard, 1994, p. 107). For Baudrillard, all performing arts are simulacra – virtual representations, replicas – without authentic and real reference (Dixon, 2007, p. 143). For Baudrillard, the ‘real’ is copied by the media to produce effigies and is therefore simulation itself. In simulation, digital technology has allowed instantaneous transmission of sounds and imagery for the audience, even without natural reference. This fact led to skepticism within performance studies about the collapse of the real inside the virtual, and about the lack of original identity in digital spaces (Causey, 1999, p. 387). However, performance studies scholars, such as Parker-Starbuck, have disclosed the techno-body as more and more inherent to ‘live’ theatre, which is supported by the posthuman formulations of Haraway and Braidotti as well as Ihde’s postphenomenology.

While Tom Boellstorff reinforces the technophobic critique, saying that in whatever definition of the real, the virtual is always connected with the imaginary and without consequences (Boellstorff, 2015, p. 741), Trevor Harvey offers an opposing opinion by referring to the popular online and avatar-based video game, Second Life, as an example (Harvey, 2015, p. 384). Harvey’s study shows that even though virtual reality suggests experiences that are separated from “real life”, “live” in-game engagement is encapsulated in virtual experiences. These in-game events consist of a social space, where interpersonal relationships materialise via avatars as persons who negotiate their online and offline identities simultaneously, in reality and virtuality (Harvey, 2015, p. 384). Additionally, live performance is not more real than virtual performance because it is also a type of mediation in natural space (Blau, 1990, p. 253). Although Phelan talks about authenticity, and aura of the natural body, as a necessary condition for performance, she also notes (Phelan, 1993, p. 50) that the performer actually disappears in the performance, mediating something else, such as art, dance, movement, sound, character. In fact, theatre itself and all performative activities, including games and rituals, are connected with the idea of virtuality because they accomplish potential existence. As Hobart & Kapferer investigate in their book on Aesthetics in Performance (Hobart and Kapferer, 2005), performances are creative procedures through which people realise their civilisation, and also reinvent ways of existence in the world. The virtual and the potential do not signify something oppositional to the real (Lévy, 1999, p. 16), but are
rather vivid and productive ways of being that set the ground for creative procedures in life: for future possibilities, and for new meanings, independently from the immediate natural presence of things (Lévy, 1999, p. 16). This way, performance unavoidably questions the social and cultural construction of reality. In this line of thought, Horst and Miller (Horst and Miller, 2012, pp. 11–15) notice that, because all people are cultural, digital technology does not make people more mediated and therefore less human. Being cultural and living in a social framework means that humans are already mediated. There is no natural human experience or interaction that is not mediated through specific cultures. This is Haraway’s assertion in her discussion about the cyborg as previously investigated. Therefore, instead of seeking authenticity and the real in pro-digital performance, it would be more productive to question why some media are considered mediative and others not, as Host & Miller indicate (Horst and Miller, 2012, p. 14). Binary opposition between virtual and real prevents us from searching the multiple ways in which both live and digital performance may be real or not. In that sense, digital technologies are helping us to realise that all types or performances are mediated, and they are only presenting or investigating potentiality, as Haraway illustrates with her notion of the cyborg. Such technologies also push us to investigate their non-standardised, non-fixed ontological status in different theoretical, empirical, historical and cultural contexts.

In defence of IF as a special case of digital performance, and cyborg theatre, I argue that they present two very specific characteristics, which differentiate them significantly from other mediated types of digital performance. These are (a) the presence of the gamer as cyborg-performer in the run-time of the game event, and (b) his/her interaction/participation with the gameworld in run-time as well. The fact that the performance takes place in the game’s run-time, and with an extremely high level of live participation, complicates any critique against liveness, as the performance in this case requires the gamer’s presence in (and interaction with) the game world in run-time as well, while the gameplay event refers to ‘now’, in the present. It is live by all means, and highly participated in by the gamer in his/her double role as both performer and viewer. The gamer is present and active in the game, actually existing in a cyborgian mode, simultaneously inside and outside the live virtual world. As mediated performance, it emerges in real time. The gamer actually performs it and not simply watches it dislocated. Obviously, a game played in run-time is different from its mode as a documented game-through video on YouTube, for example. In the latter case it is a mediated, recorded gameplay-performance, in video format without interaction. This version of recorded gameplay on YouTube lacks the hereness and the nowness of the acting body, which points to Phelan’s critique. In this case, the interaction, the presence of the gamer, and the emergence of the gameplay are prior and absent.

However, in run-time gameplay the natural body’s aura remains problematic and without clear definition as cyborg form. In fact, the natural acting body of the gamer exists in the here and now, in its natural space, sitting in front of a computer, on a couch with a gamepad in hand, or standing up and moving around wearing a VR mask. Simultaneously, the body is also extended in digital space,
experiencing the scenography and situation of a virtual game world, as article i (Kouratoras, 2020b) illustrates. In contrast to Phelan’s point of view, this phenomenon consists of what I call a ‘corporeal anti-aura paradox’, which further emphasizes the problematic about liveness. The anti-aura paradox exemplifies the idea of the cyborgian abject body. It is a double paradox because the term aura lacks a grounded definition from the beginning. In a combination of Phelan’s and Haraway’s terms, I may define the anti-aura paradox as the potential virtual or cognitive loss of one’s self as both body and identity while immersed in a liberating techno-performance, experiencing alternative digital identities via proxy lively bodies in the virtual. To become an abject techno-biological performing body in cyborg theatre, one should “lose” him or herself. This condition resembles a techno-shamanic theatrical performance, as demanded by Artaud and therefore a digital adaptation of his theatre of cruelty. In this case the shamanic transference leads into a digital world, as article ii (Kouratoras, 2011) discusses. However, this does not diminish the performance’s liveness, intensity and value. Continuing the commentary on Phelan’s abstracted notion of corporeal aura, as some metaphysical sense for the natural acting body, we could also assume that this essential presence cannot be lost, but it rather is extended from physical to virtual space. The anti-aura, or the loss of aura paradox, should create a digital-live aura of the performing, abject body, existing both in physical and virtual space.

From a postphenomenological view, I could note that the natural body’s “aura” becomes “aura” (sense) of the gamer’s digital acting body in the game world through ‘somatic proprioception’ (i.e., the sense of the body’s position and movement), as article i (Kouratoras, 2020b) discusses. Merely aura can be nothing but the natural feeling of being in a world somatically, through action, agency, and intentionality, as phenomenology describes. In my view, Phelan’s poetic notion of body aura is identical with somatic proprioception, while the gamer feels his/her acting body, both in real space and sensorially in the digital space as performer. The gameplay’s nowness is obvious as the interaction happens in real time, and the body’s hereness – located in-between natural and virtual space – has been explained through postphenomenology in article i (Kouratoras, 2020b). I suggest that this co-present spatiotemporality, establishes the presence of the gamer-viewer in the gameplay performance. As Benford and Giannachi discuss (Benford and Giannachi, 2011), presence is not defined through the natural location of natural bodies any more, but rather from the acts that bodies can perform in virtual responsive environments; and additionally from the agency and the level of immersion. Technology does not distance the body from the experience and the action. Even if the heart doesn’t pump faster or the skin doesn’t sweat, avatar-based tele-performers appear to confirm their sensual and natural engagement with the performance, as the research of Popat and Preece reveals (Popat and Preece, 2012, pp. 160–161). This finding therefore substantiates the postphenomenological discussion in article i.
4.1.2 Opposing views: on rules-based gaming and free-play performance

According to the current research, theatre appeared to be a compatible concept with IF as rules-based game systems, because both generate predefined fiction and scripted narrative. However, at this point it is interesting critically differentiate between scripted theatre and improvised/experimental theatre, or also scripted and improvised types of performance in general. Apart from the critical contrast of mediation and liveness that creates scepticism, some theatre goers could see IF as a lessened cultural medium with narrow artistic potential, especially when compared with the plethora and variety of styles and forms of performing arts through history. Haraway’s and Parker-Starbuck’s liberating dynamics of the cyborg conception could be also denied from a rules-based gaming establishment, particularly when compared to improvised immersive theatre and performance, happenings and free-plays that liberate acting from any script. As IF are based on predetermined game rules and mechanics, with supposed limited freedom for improvisation, scepticism about whether IF cyborg theatre can be an artistic theatrical framework for the formation of non-compliant identities can potentially exist.

Drawing on Allan Kaprow’s thoughts about performance as happening (Kaprow, 2003), one could possibly reject the idea of genuine spontaneity of action in games. Spontaneity in acting is found in unscripted types of performance, improvised theatre, free plays, and happenings. Games, as rules-based, have manifestly certain progression structures, plots, specified actions, and purposeful design (similar to scripted theatre). On the other hand, as Kaprow puts it (Kaprow, 2003, p. 18), happenings are materialised in an improvisatory fashion like jazz, without revealing what comes next, involving “chance” of everyday life, and allowing less “artistic” and more “lifelike” art creation. This type of free-play in happenings appears to also involve other types of theatrical and performative improvisation, opposing ruled gaming as performance. In Kaprow’s view (Kaprow, 2003, p. 161), play in happenings is at the heart of experimentation, while a game involves winning or losing a desired goal. Playing in happenings is open-ended and without losers and winners. It has no stated purpose other than itself (there are no goals), and it is not serious in content or attitude. Whereas gaming, which can involve playing to win, is competitive at heart. This type of free play and chance, as utilised in happenings, generates art for Kaprow, and games with rules and competition should not be included. The performer is expected to interact and experiment with objects and people freely, without limitations or rules that can restrict the creative imagination and the creative possibilities. The choices made by performers’, or “happeners”, should be personal as much as influence the happening, so what is presented suggests value and is worthwhile in some way (Kaprow, 2003, p. 88). If game and competition exist then they each insert their own value in the performance, and playing is not free anymore but rather a component of a game’s establishment. This is because all the acts and creative thinking become strategic, intending to progress the game, reach goals and win the competition. Additionally, the performer plays and interacts in specific ways and according to certain rules, which a game designer has set, limiting and directing the gamer as a performer, and preventing
him/her from acting freely according to personal creative decisions. In Kaprow’s view, a game is always just a game and not a happening, as a free-play performance should be.

This limitation in video games truly exists, and even open-world, sand-box, or borderline types of IF like SimCity (Electronic Arts, 2016), which appears as the closest equivalent to free-play happenings, are still inevitably circumscribed performances for the gamer. Nevertheless, they offer some new potentiality for virtual performance that is not possible in real life. This new creative and performative potentiality in virtual space is a liberating ability that video games and gaming technologies appear eager to investigate and offer, while operating in a technically restricted and rules-based digital framework. This is because the physical world is also restricting and bound with ethical, social, legal and natural rules, as much as financial limitations, which apply both to everyday life and artistic happenings, and can not be disregarded. Certain things are allowed or are physically possible in a natural environment, and many others that may exist in the performer’s creative imagination are not allowed or are physically impossible. No matter the free will and the creative vision of the performers, certain things cannot happen in happenings. Therefore, Kaprow’s ideas about happenings, cannot apply without limits either. However, these type of physical restrictions do not apply in virtual game worlds in the same way; not unless they become intentionally programmed. The game environment does not exist before programming code renders it. This digital “genesis” restricts, but may also offer, creative freedom in some cases; only virtually of course, and principally to the game creator, who can freely set the possibilities and the limitations of the gaming performance. The game rules and the game mechanics can therefore be both restricting and liberating also for the player in the gameworld, however, always according to the technological capabilities and the will of the game creator. In addition, existing IF titles like The Walking Dead Episode 1, as discussed in article iii (Kouratoras, 2020a), moves away from strategic thinking and the concept of losers and winners, presenting a different form of antipositivistic gaming as dramatic performance. This is not genuinely free-play or improvisation, but it demonstrates the foundation of game rules beyond competitive forms of gaming. This is why these forms of gaming are also considered borderline cases by scholars like Juul (Juul, 2005, p. 44). Moreover, the rapid technological development of game engines and AI may gradually broaden what is technically possible for IF in the future, and maybe offer more emergence, more spontaneity, and more branching storylines to the gameplay (perhaps also in relation to direct mapping, as discussed further). However, this task appears too difficult or even unfeasible for the time being.

The key concept that actually supports IF as cyborg theatre, and cyborg theatre as liberating performance, in contrast to Kaprow happenings’ theorisation, is exactly the idea of abject bodies. The gamer in IF becomes an abject body in his/her relationship with digital technology and the game world, not a subject body by itself. This is a major embrace of technology, at the heart of the cyborg definition, in order to form a necessary bio-technical hybrid. The hybridized abject body is the theatrical entity, which becomes the vehicle for the cyborgian
performance, and the liberating potentiality that Haraway (1987) describes, escaping pre-defined identities in virtual experiences. This condition certainly includes the opposite, enslaving dynamic, as Harraway (1991, pp. 154, 161) has also foreseen. Therefore, IF as cyborg theatre can still be regarded as a new type of hybrid performance, even at a distance from Kaprow’s theoretically genuine spontaneity in happenings. Yet, we cannot predict what type of performative possibilities that future technology can bring.

Other theoretical approaches, unlike Kaprow’s, support the concept of rules-based gaming or gamified performance. Keith Johnstone (Johnstone, 1987), for example, considers competitiveness as a driving force for actors to discover their creativity, enforce their skills and spontaneity, and to engage the audience. In his view, a competitive game form is fundamental for a kind of theatre that creates the context and the atmosphere, which in result generates free play and improvisation. This way spectators dare to participate and interact with the actors’ play in the heat of the event’s moment. It is a theatrical form that is created by the game rules and the contest that they can set, inspired by wrestling competitions and sports tactics. It has led to the creation of types of sport-theatre and racing concepts. Game studies’ scholar Gordon Calleja (2011) makes a similar observation for games, which I argue is equally true for game-based performances. For Calleja, rules are important for drawing players into the game and keeping their attention in the gameplay. Although they are not often the focus of the players’ conscious attention, they are rather manifested experientially in a form of decision-making, and pursuit of personal and game-defined goals (Calleja, 2011, p. 149). This way rules establish the player’s interaction with the game world, and the ludic immersion (Ryan, 2009, p. 54), as Marie-Laure Ryan names the deep absorption in a performance of a task, in contrast to narrative immersion that engages the imagination in the contemplation of the story.

Furthermore, in defense of game-based theatric performances, Jane McGonigal’s PhD thesis (McGonigal, 2006) shows that pervasive games make players aware of the ludic possibilities in the world, helping them to carefully interact and test objects and sites. Therefore, games in a theatrical participative context can make people aware of life’s and theatre’s possibilities. Gamified theatre shows ways of transforming everyday life into theatre, generating an active theatricalization of everyday life through different approaches. There are several examples of the use of game rules and game design elements (gamification) in non-game contexts like theatre, escape rooms, and other immersive experiences. Blast Theory (1991) is a significant UK-based theatre company that has produced many gamified performances with the use of augmented reality, the internet, mobile applications, and geolocation sensors. They specialise in the creation of location-based theatrical experiences for numerous participants. Another noteworthy example of game-based immersive performance emerged from a collaboration between the theatrical company Punchdrunk and Playstation for the promotion of the video game Resistance 3, which merged theatrical performance and gaming in the title And Darkness Descended (Punchdrunk, 2011). This immersive performance provides a prequel to the be-
gining of the video game, in which the participants in multi-player roles of “resistance” form groups and try to “survive” for as long as possible within the play. Their aim is to achieve goals working together in a performance, which is set in track with PlayStation’s survival-horror game mechanics. However, this is not within a video game but in a high-tension physical-space environment, with natural, multi-sensory and tangible scenic elements and atmosphere. Another, more recent example of such immersive theatrical experience is the War of the Worlds (Thomas, 2020), which is a virtual retelling of Jeff Wayne’s previous work, but as a virtual multisensory experience with the use of holograms, augmented and virtual reality technologies. The audience participates in a conflict, sneaking into a deserted house and trying to “escape” London avoiding Martian invaders in a 90-minute immersive theatre experience.

Felix Barrett, the artistic director of Punchdrunk notes that exploration is a crucial element in immersive theatre, to also discover separate smaller tales, as the audience peels back layers of story, almost archeologically, rather than creating their own (McMullan, 2014). The theatre participant becomes a hunter, actively assembling the performance (McMullan, 2014). He argues that although the lines between theatre and games are still there, they can peer at each other, as there are things to learn, and techniques to borrow (McMullan, 2014). The overlap between theatre and games is growing with the developing art forms. This can be seen in the UK-based performance ‘guild’, Coney, whose director Tassos Stevens (McMullan, 2014) notes that immersive theatre is like developing a live game engine, describing the play’s dramaturgical methods as game design.

4.2 Practical implications: applied postphenomenology and the current situation in IF

Postphenomenology and the notion of cyborg theatre in IF also have important practical implications. The study of human and video games’ multiple stabilities assist the creative potential in IF; a field presently indicated as inter-disciplinary between gaming and performance. To date, IF have been created with specific intentionality as gaming systems. However, postphenomenological research on their use and their relationships with the gamers, can extend the existing intentional relations between gamer and gaming technologies. Multistability and variational analysis offer an anti-essentialist view, beyond the exclusive interpretation of IF and the intended use of gaming technologies, towards artistic innovation in this field of cultural production, aimed at both the gaming industries and the performance arts. In this section I briefly present how postphenomenological methodology works in practice and I discuss how it has been applied for the study of a video game title. In the following section I examine how postphenomenology can be practically applied in contemporary IF for VR systems, directing creativity and innovation for the future.

Practically, there are two postphenomenological research paths to follow. One path leads to the exploration of the typical use of technology. This method is characteristically referred to as interviewing objects, as discussed by Adams and
Discussion

Thompson (Adams and Thompson, 2011, 2016). The other path guides us towards the comparison of multiple versions of a given artifact. This method is called variational cross-examination. It is developed by Rosenberger (Rosenberger, 2014), and further discussed in Jesper Aagaard’s article (Aagaard, 2017). Adams and Thomson (Adams and Thompson, 2011), provide a heuristic methodology that suggests the understanding of human-technology relations, the recognition of the amplification/reduction structures in these relations, and the realization of potential uses of objects. Such detailed exploration of a particular technology, artifact or object, is actually ethnographic research. It aims to analyze and describe the researched object in the greatest possible detail, as much as the variety of connections and relationships that it develops with humans, within the situated practice. Rosenberger’s variational cross-examination (Rosenberger, 2014), on the other hand, is an inventive effort to understand potentially different stabilities of objects and technologies in use, and it is based on Ihde’s variational analysis. In this case, multistability (i.e., finding the various stabilities of an artifact) is only the starting point of the analysis. The next step is to contrast (a) the features, the bodily behaviours, the comportments and the habits within the indicated stabilites, (b) the role of various stabilities within a system, and (c) their concrete/material tailoring — i.e., the establishment of one of those stabilities, in particular, as a preferred usage, which may deter other uses — (Rosenberger, 2014; Botin and Hyams, 2021, pp. 29, 86).

During the second step of variational cross-examination, therefore, we (a) try to indicate the particular bodily habits of the different stabilities, and distinguish which stabilities are transparent for the user and which are not. Then (b), the stability’s role within a system is identified, i.e. the role that it plays within a specific context, or network of actors to borrow an equivalent term from actor network theory. In this task the research aims to answer the question whether different stabilities have different roles in different contexts, and what is their intention in each case. Finally, the term concrete or material tailoring is used in part (c) of the analysis, to illustrate the modifications that happen; how the technology is appropriated in a specific stability, and how these changes affect other stabilities. This task aims to indicate why particular customizations are created and how they affect other types of use. How does the material tailoring of different artifacts, which are designed for the same use, affect interactions and their employment? Rosenberger (2014), gives a practical example of variational cross-examination, analyzing two versions of a public bench. One is a typical bench with a horizontal surface and the other is a version with vertical dividers for sleep prevention. This purposeful modification of the bench became a popular case study of variational cross-examination among postphenomenological studies.

In video games and IF, postphenomenology is still a novel practice. This is a fact which also suggests the current undertaking for a systematic methodological approach as a useful contribution for both digital performance and video games. An interesting postphenomenological application to video gaming, which I need to discuss here, is presented in the study of virtual gravity and proprioception by Seth Giddings (Giddings, 2017). My understanding is that the
author follows the first methodological path, as suggested by Adams and Thompson (Adams and Thompson, 2016). He “interviews” the gaming technology, focusing on the heuristics of the body-with-technology relations and on their amplification/reduction structures, within the situated gaming practice. The article focuses on the famous platform game Angry Birds, in which a slingshot is drawn back with the gamer’s thumb, throwing birds in the air and destroying towers via simulated physics. The author notices that proprioception is an important aspect in the game because the feeling of controlling the game is clearly something more than visuals and sound alone (Giddings, 2017, p. 16). Even with such small movements of the thumbs, proprioceptive sense is active giving feedback about the thumbs position in space, and about how the buttons or thumbstick on the controller is pushing back on them (Giddings, 2017, p. 26). In this way, controlling something in the game is a kind of amplification of the gamer’s sense of space, because of the huge amount of reactive mileage out of very little real-world motion (Giddings, 2017, p. 26). Simulated gravity has, therefore, actual world effects on the player’s sensorium and proprioception, through graphic display, interaction and feedback; and it fuses with the current and remembered gravitational pull of the actual world on the player’s body (Giddings, 2017, p. 26). The author concludes that virtual gravity cannot be separated from either the human body’s proprioceptive experience or the simulated physics, as it is sensed through both embodied memory and immediate cybernetic feedback (Giddings, 2017, p. 29). Giddings’ work demonstrates a characteristic case of postphenomenological game analysis. Furthermore, I notice that Angry Birds is an interesting example of one-to-one, or direct, mapping of the gamer’s physical haptic and gestural sensing in the game world, which opens up additional creative possibilities for video gaming as bodily performance (cyborg theatre). In this sense postphenomenology is evidenced as a suitable methodology for detailed exploration and creative thinking in game design, and game bodily performance. In addition, direct mapping is a valuable approach in game design, especially in the later VR game productions, which can benefit from postphenomenological research in practice, as it is demonstrated in the following section.

4.3 Further research perspectives: research potential for VR and one-to-one mapping

Object interviewing is a potential practical implication of postphenomenological study of video games and bodily performance in IF, as indicated before. Moreover, variational cross-examination presents a great potentiality both for the analysis of existing artifacts, as much as for future creative and technological research in the field. Such an approach points towards new directions in body-with-technology engagements and relations. It concerns embodied actions and gaming habits, new roles for the players and the gaming devices, and also new concrete tailoring for gaming and digital performance stabilities. This way, the concept of cyborg theatre through postphenomenology presents innovative potential for digital dramaturgy in both video gaming, and intermedial immersive
In this section I discuss the potential practical application of variational cross-examination in VR game production, which appears to be at stake in recent scientific research and in the commercial industries. I also take into account the development of one-to-one or direct mapping, which remains at the front line of research interests at the moment, instantly influencing VR gaming production. Characteristic examples of such types of research include the investigation of hand gesture visual tracking systems, and hand to machine mapping (Razijigaev et al., 2017); research about first-person full-body tracking, and novel animal-centred game mechanics (Krekhov, Cmentowski and Krüger, 2018); research on mapping systems between physical and virtual worlds, for visual fidelity and immersive VR navigation (Sun, Wei and Kaufman, 2016); research for the design of spatial movement, mid-air gestures, and tight to whole arm 3D gestures for video games (Payne et al., 2006; Groenewald et al., 2016); research for body movement and gesture recognition for natural interfaces, and hand-machine interfaces in video games (Kang, Lee and Jung, 2004), and more. The main objective appears to be matching natural space and the physical body’s locomotive activity with corresponding virtual space and bodies. This tendency to escape, if possible, from the technical mediators, or to design more transparent controllers for the human-technology relations, is a tendency towards physical-digital interfaces. The idea implies highly interesting cases for multistability investigations, and variational cross-examination. It also leads to the concept of remediations.

Remediations are digital artifacts built as digital versions of existing analogue tools to mediate the same activity. A recent study for the digital remediation of sticky notes (Jensen et al., 2018), demonstrated the function of direct mapping, in which users apply their pre-existing practices to the new digital artifact, without the need to learn its use like another system. This sounds ideal for the ease of use, the transparency and the sedimentation of future physical game controllers, or human-gaming interfaces. However, technology itself appeared also to play additional roles: the way that people used digital sticky notes in the experiment, revealed both advances and difficulties in the use of technology. So, it seems less possible to form a perfect one-to-one mapping between analogue and digital media. In conclusion, the digital technology, even in the case of remediations, is still expected to influence the embodied action and the habits of users. This phenomenon demonstrates the idea of technology in the role of an active subject, and the human-technology interrelation as formation of the abject body and the cyborg. It is obvious that postphenomenological methodology has its use in this field of research, serving the artistic, cognitive, and technological exploration.

To promote this discussion further, let’s first introduce some examples that illustrate the formation of new stabilities in cutting-edge VR IF gaming, in comparison with typical IF video gaming. Let’s then see how direct mapping can serve the formation of multistabilities in VR IF gaming. The later production of VR games already includes several IF titles, like Budget Cuts (Donlan, 2016a), Edge of Nowhere (Donlan, 2016c), Chronos VR (Donlan, 2016b), Skyrim VR (Higton, 2017), Firewall Zero Hour (Higton, 2018), Boneworks (Higton,
2019a), 
*Red Matter* (Higton, 2019b), *Sairento* (Higton, 2019c), *Half-Life: Alyx* (Donlan, 2020), *Vader Immortal* (Oloman, 2020), *The Walking Dead: Saints and Sinners* (Lane, 2020), *The Climb* (Stockdale, 2021), and many more. In all VR game cases we can notice that the replacement of the screen with the VR headset intensifies the gaming embodiment relations, the force of habit (sedimentation), and the effect of immersion. More analytically, the gamer’s field composition is altered more intensively than in gaming mode in front of a screen, because the gamer’s perception of the game world is further amplified, occupying the gamers’ view completely. Through the VR headset the gamer sees only the 3D game world, and every side view of the physical environment is blocked out. Therefore, the reduction of the gamer’s view of the physical surroundings is also complete, as the gamer has no more optical sense of his/her physical environment. In VR games, there is also a tendency for direct mapping, with the use of physics, new types of controllers, and physical movement sensing. This opens possibilities for different stabilites in the gamers’ relations with the game technology. It also improves the physicality and transparency of the game devices in use. Particular bodily habits of different stabilities can be introduced or modified, and the level of each one’s transparency can be investigated. This can be a task for the gamer, who can invent his tactics and search for different ways of bodily gaming performance. It can also serve the artistic and UX research in the game design process, or even the technological research for the creation of innovative game controllers and devices. Techno-human and embodiment relations always remain open to postphenomenological research, with an inquiry for improvements. For example, VR also has its issues: causing dizziness, nausea, and motion sickness to some gamers (Gordon, 2021), which is a problem that is looking for solutions.

To continue with some examples, several VR gameplay sessions, which have been documented on *YouTube*, appear like quick, spontaneous and possibly unaware, multistability investigations by players themselves: indicating the need for postphenomenological research application. For example, studying some gameplay manners of *Boneworks* and *The Walking Dead: Saints and Sinners* on *YouTube* (Node, 2019b, 2019d, 2019a, 2020; IGN, 2020), one can realize that VR gaming settings and tools allow, or even promote, the investigation of different uses of the game elements and the game controllers while playing. In this fashion gamers are forming multistabilites, and also bodily performances beyond just gaming for high scores. They experiment with the game physics and with the use of virtual objects, with their virtual bodies, and their physical movements and tactics, exactly because the game elements are more freely available for multiple types of uses in VR gaming nowadays. Game objects can be touched and lifted, with a feeling of their supposed weight based on animation speed settings; they can also be used for different purposes; weapons can be exploited one-handed or with two hands for extra strength and stability; climbing ladders, elevation, and swinging are achieved by actually raising arms and physical movements of hands and fingers; hammers can be grabbed differently for attacking, and from different points on their handle, giving different feelings and different results in some cases; movements of arms and fingers are scanned to
control virtual hands accordingly or to form game control gestures; VR games can be played in sitting mode, standing mode or at a physical room-scale, with finger tracking or trigger-based controls (Valve, 2021). In a YouTube documented case (Node, 2020), I noted that the gamer tried to attack an enemy zombie with a spoon that he found in the game world, which unexpectedly resulted in the elimination of the enemy in the fight. In another case the gamer experimented with throwing his virtual machine gun into the air to get the magazine to reload with one hand in slow motion, utilizing the gravity and the physics of the game world successfully with little effort (Node, 2019c). VR game elements – both the virtual and physical controllers – are turning into remediations. VR games are gradually presenting their capability to become directly mapped sandbox games, extending their performative and cyborg theatrical potentiality towards emergent play. Variational cross-examination is an appropriate method of study and experimentation for such techno-human artistry.

Another interesting, independent example of work that needs to be mentioned concerns the one-to-one recreation of an entire actual apartment with its furniture in VR, by Greg Madison (Macgregor, 2020; Madison, 2020). Several surfaces of physical objects in real space have also been recreated as haptic interactive touch screens for online applications that play in virtual space. This project of direct mapping and remediation opens creative opportunities for variational analysis on the relations between physical objects, the user, and their digital mediations, and for the implementation of cyborg theatre in VR. Madison’s example therefore reveals an artistic attempt of VR performance, using gaming technology (VR headset, and the Unity game engine), and also an architectural application through SketchUp. However, it neither creates game rules, nor targets the creation of a game. Following the previous discussion, this case opens the opportunity for VR performances as cyborg happenings in Kaprow’s terms. The physical space with all its objects is recreated virtually so the performer can interact with both the physical objects and with their digital remediations instantly; without additional rules-based limitations, other than physical laws and virtual physics. Furthermore, as demonstrated in Madison’s work, the remediations offer extra possibilities for the performance, as they can be digital controllers and interfaces for additional virtual actions. VR performances can be created independently as digital technology becomes less expensive and easily purchased by individual creators, while commercial companies can offer rich immersive experiences already, in larger, directly mapped spaces. Some known examples of such VR and mixed reality, theatrical, gaming, and escape room experiences include the void (NBC Bay Area, 2019), vrCAVE (vrCAVE, 2021), Zero Latency (Good Game, 2015; Zero Latency VR, 2015; Zero Latency, 2021) by Meet Space VR (MeetSpaceVR, 2021), Punchdrunk’s Believe your Eyes (Ophelia, 2016), and more. Postphenomenology and variational cross-examination can be the basis for digital dramaturgy and cyborg theatre research, in the related fields of gaming, immersive theatre, and entertainment. Postphenomenology and direct mapping, can also serve the idea of more free artistic expression in these fields with fewer technical limits, which could possibly move a little closer to the 20th century’s happenings. However the achievement of such a
goal remains an open case for future technological development and artistic practice.

As a methodological framework, postphenomenology focuses on empirical case studies but without a strict or standardized methodology to analyse the different networks of human with technology relations. Therefore, introducing specific and exact ways of postphenomenological investigations in IF and VR remains open for each case, and beyond the scope of the present research. The aim here is to present postphenomenology as a general theoretical, and an open research framework, for IF as cyborg theatre. What postphenomenology mainly offers is its analytical set of concepts and ideas to explain the different phenomena around techno-human relations that can also apply to IF according to the present discourse. In addition, postphenomenology presents two central research methods (interviewing objects, and variational cross-examination), which offer an inter-relational set of concepts and a general/philosophical way of thinking instead of a strict research protocol.

Postphenomenological concepts and practices can also inform other research methods in HCI, which can be used in combination to investigate IF, VR, and cyborg theatre applications. How to achieve this and what exact methods of investigation can be produced is the open question to be answered next, in future research with case studies that can extend the current discussion further. HCI has also a growing interest in cultural and artistic applications of digital technology and in collaborations with artists and performers, in settings like galleries, theatres, theme parks, and city streets. This is an HCI form of research away from the laboratory, “in the wild” (Benford et al., 2013, p. 14:1), engaging users with emerging technologies within their actual settings and types of use. Such projects are artist-led and performance-led, rather than user-led or researcher-led, meaning that they can be heavily based on the creative vision of the artists, with researchers supporting the realisation of the vision and studying the produced result (Benford et al., 2013, p. 14:2). Artists’ creativity can reveal highly innovative, imaginative, provocative and unusual uses of emerging technologies, suggesting new ways of use or development, new design values and approaches, which can also be contrary to existing ideas opening up new areas of application (Benford et al., 2013, p. 14:2). Postphenomenological concepts and methods can be applied in combination, especially in the fields of virtual or remote technological (cyborg theatre) performances, like in IF and VR as currently suggested. According to Steve Benford (Benford et al., 2013, p. 14:4), theory can take a variety of forms involving new concepts to explain phenomena, and more recently extends to broader frameworks of concepts that also point towards new designs. Research “in the wild” is not only about studying technologies in situ, but also involves designing, prototyping, and implementing them with an understanding of the ways that people react to them, change them, and integrate them into their lives (Benford et al., 2013, p. 14:5). Therefore, HCI methodologies reveal a valuable chance for collaboration with postphenomenology, especially for cyborg theatre, as a next step in the currently presented research direction.
Such a mix of practices, theories and studies, suggest interdisciplinary academic approaches in techno-human (cyborg) artistic investigations, including cognitive sciences. Cognitive info-communications (CogInfoCom) is a relatively new and evolving discipline, with the goal to provide insights about how human and digital devices’ cognitive capabilities can be merged and extended, to enable more seamless interactions between humans and artificially cognitive agents (Katona, 2021, p. 2646:1). This is a science that studies the interaction between information technology and people, and examines the possibility of creating new cognitive communication channels between them, and conventional human-machine relationships (Katona, 2021, p. 2646:1). The approach has mainly educational goals through digital technology. One of the most important research areas in CogInfoCom is the development of complex HCI-based systems and the study of their efficiency (Katona, 2021, p. 2646:10). A main intention of the discipline for the future is the fusion of HCI-based systems and 3D VR environments, complementing each other to raise the level of utilization, development and support of human cognitive abilities, leading to more creative and innovative ways of thinking and knowledge acquisition (Katona, 2021, p. 2646:11). Although this framework appears anthropocentric, focusing on the development of human cognitive capacities, it is highly cyborgean, involving deep techno-human integrations. It is certainly a framework which may involve postphenomenology and HCI, in future case studies for the development of IF, video gaming, VR performances, and cyborg theatre as a general frame.

This path of interdisciplinary research brings new perspectives for further scientific analysis and artistic development. Several other research questions can follow after the current theoretical combination of theatre with IF video games, postphenomenology, posthumanism, the cyborg, cruelty, doubtful ethical choice-making, cognitive sciences and HCI. In the present thesis, the investigation of these concepts is introduced as a necessary theoretical underpinning, to consolidate the notion of digital dramaturgy in game worlds as a specific research direction. Further works can study what exact research methods or protocols can be practically deployed, and more importantly, what types of digital dramaturgy will be developed in this new, highly technologised, cultural era of performance arts. Hence, a number of questions present themselves. How exactly to interpret and create new types of performances in digital space? Which new stabilities and body schemas between gamers and game devices support the performative dramatic narrative in virtual worlds? What types of theatre can emerge? What kinds of artistic and performance-led bodily expressions, and cultural identities, can IF and VR cyborg theatre generate? What scenographies and situations can be created and identified in game worlds? What new types of dramatic composition, and theatrical norms and conventions (or multistabilities), can gamers and creators invent for IF and VR gaming; for game design, for game devices, and for game engines (e.g., Unity, Unreal engine, CryEngine, etcetera)? The artistic transformation of gaming technology into digital dramaturgy frameworks also meets a specific interest of this writer, within and beyond the current research, towards the development of virtual worlds’ scenography and digital theatric performance.
5. Conclusions / Summary

This research investigated IF as a type of theatre in a digital framework, responding to four main research questions: (RQ1) how do IF relate to cyborg theatre?; (RQ2) what theoretical foundations emerge to inform the techno-human interrelation?; (RQ3) in what way is Artaud’s cruelty relevant to the understanding of IF; and (RQ4) how can ethical choice-making develop drama-like theatrical gameplay? The research was conducted through the writing of three articles, which have been published in peer-reviewed academic journals. Article i (Kouratoras, 2020b) asserted IF as a type of cyborg theatre, in line with Parker Starbuck’s formulation (Parker-Starbuck, 2011). Article i answers to RQ1 by analysing hybridized forms of body-with-technologies performances via postphenomenology. Additionally, previous notions of the cyborg in culture and feminist discourse are discussed in the present compiling article. The answer to RQ1 is, therefore, that IF are a type of cyborg theatre because they constitute hybridised forms of body-with-technologies performances as cyborg theatre, in the way that Parker-Starbuck defines it. While studying digital performances in general, Parker-Starbuck briefly identifies video games as cyborg theatre, but without any further analysis, which opened a theoretical gap to be filled. This article specified IF as cyborg theatre, building on previous theoretical and practical investigations by game studies scholars of the video game genre as a theatrical endeavour. The gamer-avatar kinesthetic relation, specifically, has also been investigated through phenomenology. However, as a later development of classical phenomenology, postphenomenology can further inform the field of human-with-technology philosophical research. For this reason, it became my method of choice in analysing the principal theatrical apparatus of IF through what I name “digital dramaturgy”: the principal methodology of dramatic composition for digital, immersive, and hybridized bodies-with-technologies performance, in virtual space. In article i, I discussed fundamental postphenomenological ideas to inform the techno-human interrelation in IF, and to establish the case of IF as cyborg theatre. To answer RQ2: the postphenomenological concepts and methodological frameworks are the theoretical foundations that emerge to inform the techno-human interrelation in IF as cyborg theatre. Specific postphenomenological research methods for multistability, like variational analysis and relational strategies, were introduced as analytical methodology. Additionally, two types of applied postphenomenological research (objects interviewing and variational cross examination) were presented in this compiling article, in relation to IF, one-to-one mapping, and VR gaming and performance,
for future research and development. Postphenomenology becomes an important analytical method for studying the dramatic composition of IF as cyborg theatre, through in-depth investigations of their techno-human interrelations. Postphenomenology can also be applied to the latest forms of immersive and intermedial theatre, and VR entertainment such as escape rooms, considering that they draw extensively on gaming methodologies, and digital technology, blurring the boundaries between virtual and real space. Therefore, the main contribution of this research study is the investigation of the interdisciplinary artistic fusion between theatre and IF gaming as cyborg theatre, and the clarification of the term cyborg theatre, its dramaturgical function, and its main characteristics in IF.

Beyond the technological basis and cyborg condition, which set the main dramaturgical environment or framework for IF, the research investigated two more crucial dramaturgical subframes in the following two articles. Foremost of these is the extensive use of cruelty, brutality and violence in IF types with cruelty-based themes and gameplay, which indicated an important dramaturgical role played by cruelty in these genres. Theatre’s history reveals such cases of cruelty-based performance in Antonin Artaud’s theorization for a theatre of cruelty (Artaud, 1994). The similarity appeared suitable for content and comparative analysis between IF gaming and Artaudian performance. Steve Dixon (Dixon, 2007, pp. 241–242) has previously indicated this connection, pointing the way towards more extensive investigation. Article ii (Kouratoras, 2011) answers to RQ3 by revealing that the Artaudian plague metaphor, as a cruel dramaturgical system of scenographic elements and method of performance, also applies to cruelty-based IF. We can talk about digital dramaturgy of cruelty to describe this conceptual, functional, and aesthetic similarity of IF gaming performance with Artaud’s theatre of cruelty, within the general framework of cyborg theatre. After the extensive and contradictory social critique on cruelty in video gaming, this discussion about its performative function can assist future artistic practice in digital performance. Cruelty was Artaud’s theatrical method of anti-mimetic interactionism to reveal the ruthless deeper function of life, and therefore enlighten people and society. This major dramaturgical characteristic re-appears in cruelty-based types of IF, similarly to Artaud’s staged “epidemic”, which like the plague occupies the perception of gamers as performers while facing life’s cruelty and inner fears. Cruelty and fear are materialised in the digital world through surreal scenery, mythic difficulties, and unspeakable drama. The gamers as performers cannot escape from such dramatic framework without effort. They play the situation out and interact within a cruel kinaesthetic loop of action-reaction. Such gamified dramaturgical scheme partially appears in contemporary immersive theatre, like Punchdrunk’s And Darkness Descended (Punchdrunk, 2011). Therefore, the study of Artaud in IF can also apply to other types of immersive theatre.

Article iii (Kouratoras, 2020a), discusses one more major dramaturgical subframe of cyborg theatre, which is also a subframe of cruel dramaturgy in IF. It concerns the incorporation of ethical dilemmas in gameplay, which gradually
seems to become a widespread game design technique of active and participatory dramatization in the genre. The concept of difficult moral choice-making has been discussed already in the context of game studies, mainly by Sicart (Sicart, 2009b, 2009a, 2013a, 2013b), and others. An indicative, descriptive case, in the form of a purposive study, would be an important contribution, to demonstrate the dramaturgical function of ethical choice-making in a theatre-like gameplay, within the framework of this research. The Walking Dead Episode 1 (Telltale, 2012), appeared to be a suitable candidate because dubious ethical choice-making is the main issue in the gameplay, which also resembles Sartre’s Existentialist drama. The fact that the game revealed a tight connection with Existentialist choice-making drama, as analysed in article iii, sets it as a prominent paradigm in this type of IF. Ethical choice-making as dramatic technique forms a subcategory of gaming in IF cyborg theatre. It also appears as a prominent dramaturgical technique for the future of IF as cyborg theatre, as much as for the contemporary immersive theatre genre. To answer RQ4, therefore, ethical choice-making develops drama-like theatrical gameplay by incorporating the ethical problematic in the gameplay as performance, and not just as later interpretation, in an antipositivistic, uncertain and (conditionally) un-guided theatrical setting. Dramaturgically this is usually achieved in a branching storytelling system of play, in which the gamer has a cognitive reflection, a convincing, although fake, impression that (s)he creates the drama and is responsible for the (pre-programmed) consequences.

As cyborg theatre, IF takes shape in the contemporary, cultural, and social context of posthumanism, which criticizes and deconstructs the existing model of anthropocentricism and binary opposition. It promotes the idea of open-ended entities, both culturally and scientifically, through hybridity and the techno-human as cyborg. Post-structural feminism also promotes the cyborg as a means of constant voluntary alienation from existing culturally implied identities and corporeal roles. Contemporary theatre and performance are equally influenced by new technologies and post-modern ideas, resulting in intermediality and hybridity within new types of dramaturgies. New dramaturgies incorporate the idea of hybrid, abject bodies, in constant re-creation and re-imagination with the machine, forming the cyborg theatre. Hence, it cannot reject video gaming as performance; a type of live, although virtual, and rules-based performance. As the performative entity is a hybrid with the machine abject body, neither full control nor total freedom is attributed to only one component. For Haraway (1987; 1991; 2003) this comes with a liberating dynamic from established roles and identities. However, it is also a struggle for freedom, control, and existence as Haraway (Haraway, 1991, pp. 154, 161), Fukuyama (2002), and others declare. In theatre and IF this is mainly about cultural signification, identity experimentation, and aesthetics, while every performative or interpretative conflict happens conditionally and enjoyably. It also possibly ends with psychological relief, rejoicing or soul cleansing (as a type of catharsis).

Because virtual performance co-exists with the real, then digital dramaturgy and cyborg theatre have important political roles to play in gaming as a potential art form. This complex discursivity is inherent to the nature of art and theatre.
throughout history, which keeps the political debate open within the artistic realm. The algorithmic cultures of the cyborg, alongside the cultural signification of techno-human interrelations, can influence reality and, although this does not appear as an intended cause of the game industry, it remains an artistic potential of IF and cyborg theatre. IF as cyborg theatre comes closer to the latest theatrical forms that also embrace rules-based gaming, intermediality, and interactionism as means of performance. This way the borders between the disciplines of games and theatre, theatre and technology, art and entertainment, are gradually blurred. Therefore, theatre’s work with gaming and digital technology becomes important for a reciprocal development in gaming design itself, which indicates the contribution of this study. Further interdisciplinary collaboration, especially in relation to avant-garde theory, will continue to develop video games as a creative, critical and performative art form, operating beyond their established role as private and commercial entertainment.
References


Node (2019b) *Boneworks - VR Physics & Combat Realized.* Available at: https://www.youtube.com/watch?v=w8a1BAoFIk (Accessed: 11 April 2021).

Node (2019c) *Boneworks - VR Physics & Combat Realized.* Available at: https://www.youtube.com/watch?v=w8a1BAoFIk (Accessed: 11 April 2021).


This compilation of articles doctoral thesis investigates contemporary, 3D and avatar-based, interactive fiction video games (IF) as cyborg theatre (a term introduced by Jennifer Parker-Starbuck) and thus, as bodies-with-technologies theatrical performance.

The study applies postphenomenology to cognitively explain the technosomatic interrelations in IF. Important theatrical characteristics of specific IF genres, like interactionism, anti-mimesis, cruelty, and dubious moral choices, are analyzed through comparative studies with the avant-garde theatre of the Futurists, Artaud, and Sartre. The ideas of liveness, and rules-based, gamified performance are also discussed.

The aim of the research is to draw a theoretical framework for IF and VR gaming as cyborg theatre and therefore, to support further creative experimentation for digital dramaturgy (innovative dramatic compositions for cyborg theatre).